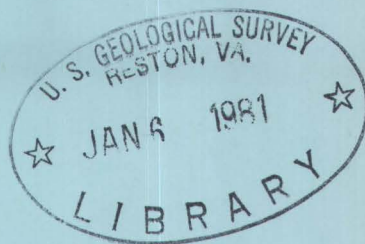


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Water Resources Data for New Jersey

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 1974

1973

OCTOBER

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1974

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United States Department of the Interior

GEOLOGICAL SURVEY

Water Resources Division
420 Federal Building
P.O. Box 1238
Trenton, N.J. 08607

I am pleased to announce the release of our annual reports, "Water Resources Data for New Jersey, 1974, Part 1. Surface Water Records" and "Water Resources Data for New Jersey, 1974, Part 2. Water Quality Records." Both reports were prepared by the U.S. Geological Survey in cooperation with the State of New Jersey and several local and federal government agencies.

Part 1 contains records of stream discharge, contents and elevations of lakes and reservoirs, major water-supply diversions, tidal elevations, and other related data for gaging stations maintained in New Jersey. Attention is directed to other data available (p. 13), hydrologic conditions during the water year (p. 16), low-flow and crest-stage data and discharge measurements at sites other than gaging stations (pp. 135-153), and a summary of tidal elevations at special study areas in the New Jersey estuaries and intercoastal waterways (pp. 154-168).

Part 2 contains records of water-quality measurements at regular network surveillance stations collected as part of our cooperative program with the New Jersey Department of Environmental Protection, stations operated as part of the National Stream Quality Accounting Network (NASQAN), one Benchmark station, two paired network stations for the U.S. Environmental Protection Agency, as well as special project stations. Records of sediment concentrations and particle sizes are collected for the New Jersey Department of Agriculture and the Corps of Engineers. Continuous recording automatic water-quality monitors are operated at selected sites throughout the State for the Delaware River Basin Commission and the New Jersey Division of Fish, Game, and Shellfisheries.

Extra copies of the full reports or individual station data pages are available in a limited quantity and will be furnished as requested.

If your address or title are listed incorrectly or if you no longer wish to receive these annual reports, please notify me at the above address or telephone 609-599-3511, ext. 212.

Sincerely yours,

Harold Meisler
District Chief

1974

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, 1974 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

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INDEX OF GAGING STATIONS SHOWN ON MAP ON OPPOSITE PAGE

Map No.	Station No.	Station Name	Map No.	Station No.	Station Name
1	3680	WALLKILL RIVER NEAR UNIONVILLE, N.Y.	75	4070	*MATAWAN CREEK AT MATAWAN
2	3687.2	†AUX OUTLET OF UPPER GREENWOOD LAKE AT MOE	76	4075	SWIMMING RIVER NEAR RED BANK
3	3770	HACKENSACK RIVER AT RIVERVALE	77	4077.05	SHARK RIVER NEAR NEPTUNE CITY
4	3775	PASCACK BROOK AT WESTWOOD	78	4077.6	JUMPING BROOK NEAR NEPTUNE CITY
5	3785	HACKENSACK RIVER AT NEW MILFORD	79	4080	MANASQUAN RIVER AT SQUANKUM
6	3786.9	PASSAIC RIVER NEAR BERNARDSVILLE	80	4081.2	NORTH BRANCH METEDECONK RIVER NEAR LAKEWOOD
7	3790	PASSAIC RIVER NEAR MILLINGTON	81	4081.4	SOUTH BRANCH METEDECONK RIVER AT LAKEWOOD
8	3795	PASSAIC RIVER NEAR CHATHAM	82	4085	TOMS RIVER NEAR TOMS RIVER
9	3795.3	†CANOE BROOK NEAR SUMMIT	83	4090	*CEDAR CREEK AT LANOKA HARBOR
10	3796.3	*RUSSIA BROOK TRIBUTARY AT MILTON	84	4090.95	OYSTER CREEK NEAR BROOKVILLE
11	3800	*†BEAVER BROOK AT OUTLET OF SPLITROCK RESERVOIR	85	4094	MULLICA RIVER NEAR BATSTO
12	3805	ROCKAWAY RIVER ABOVE RESERVOIR, AT BOONTON	86	4095	BATSTO RIVER AT BATSTO
13	3810	ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON	87	4100	OSWEGO RIVER AT HARRISVILLE
14	3815	WHIPPANY RIVER AT MORRISTOWN	88	4105	ABSECON CREEK AT ABSECON
15	3825	PEQUANNOCK RIVER AT MACOPIN INTAKE DAM	89	4107.87	GREAT EGG HARBOR RIVER TRIBUTARY AT SICKLerville
16	3830	†GREENWOOD LAKE AT AWOSTING	90	4108.1	FOURMILE BRANCH AT NEW BROOKLYN
17	3835	WANAQUE RIVER AT AWOSTING	91	4108.20	GREAT EGG HARBOR RIVER NEAR BLUE ANCHOR
18	3840	WANAQUE RIVER AT MONKS	92	4110	GREAT EGG HARBOR RIVER AT FOLSOM
19	3845	RINGWOOD CREEK NEAR WANAQUE	93	4113	TUCKAHOE RIVER AT HEAD OF RIVER
20	3850	*CUPSAB BROOK NEAR WANAQUE	94	4115	MAURICE RIVER AT NORMA
21	3855	*EHSKINE BROOK NEAR WANAQUE	95	4120	*MANANTICO CREEK NEAR MILLVILLE
22	3860	WEST BROOK NEAR WANAQUE	96	4125	*WEST BRANCH COHANSEY RIVER AT SEELEY
23	3865	*BLUE MINE BROOK NEAR WANAQUE	97	4130	*LOPER RUN NEAR BRIDGETON
24	3870	WANAQUE RIVER AT WANAQUE	98	4340	DELAWARE RIVER AT PORT JERVIS, N.Y.
25	3875	RAMAPO RIVER NEAR MAHWAH	99	4385	DELAWARE RIVER AT MONTAGUE
26	3880	RAMAPO RIVER AT POMPTON LAKES	100	4390	*DELAWARE RIVER AT DINGMANS FERRY, PA.
27	3885	POMPTON RIVER AT POMPTON PLAINS	101	4400	FLAT BROOK NEAR FLATBROOKVILLE
28	3895	PASSAIC RIVER AT LITTLE FALLS	102	4402	DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA.
29	3898	*PASSAIC RIVER AT PATERSON	103	4430	*DELAWARE RIVER AT PORTLAND, PA.
30	3905	SADDLE RIVER AT RIDGEWOOD	104	4435	PAULINS KILL AT BLAIRSTOWN
31	3910	*HOHOKUS BROOK AT HOHOKUS	105	4439	YARDS CREEK NEAR BLAIRSTOWN
32	3915	SADDLE RIVER AT LODI	106	4445	*DELAWARE RIVER AT DELAWARE
33	3920	*WEASEL BROOK AT CLIFTON	107	4450	*PEQUEST RIVER AT HUNTSVILLE
34	3925	*SECOND RIVER AT BELLEVILLE	108	4455	PEQUEST RIVER AT PEQUEST
35	3930	*ELIZABETH RIVER AT IRVINGTON	109	4460	*BEAVER BROOK NEAR BELVIDERE
36	3934.5	ELIZABETH RIVER AT URSINO LAKE, ELIZABETH	110	4465	DELAWARE RIVER AT BELVIDERE
37	3938	EAST BRANCH RAHWAY RIVER AT WEST ORANGE	111	4467	DELAWARE RIVER AT EASTON, PA.
38	3940	*WEST BRANCH RAHWAY RIVER AT MILLBURN	112	4552	*POHATCONG CREEK AT NEW VILLAGE
39	3945	RAHWAY RIVER NEAR SPRINGFIELD	113	4553.55	*BEAVER BROOK NEAR WELDON
40	3950	RAHWAY RIVER AT RAHWAY	114	4554	LAKE HOPATCONG AT LANDING
41	3955	*ROBINSONS BRANCH RAHWAY RIVER AT GOODMANS	115	4555	MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG
42	3960	ROBINSONS BRANCH RAHWAY RIVER AT RAHWAY	116	4560	*MUSCONETCONG RIVER NEAR HACKETTSTOWN
43	3965	SOUTH BRANCH RARITAN RIVER NEAR HIGH BRIDGE	117	4570	MUSCONETCONG RIVER NEAR BLOOMSBURY
44	3968	SPRUCE RUN AT CLINTON	118	4575	*DELAWARE RIVER AT RIEGELSVILLE
45	3970	SOUTH BRANCH RARITAN RIVER AT STANTON	119	4580	DELAWARE RIVER AT MILFORD
46	3975	*WALNUT BROOK NEAR FLEMINGTON	120	4585	DELAWARE RIVER AT FRENCHTOWN
47	3980	NESHANIC RIVER AT REAVILLE	121	4590	*DELAWARE RIVER AT POINT PLEASANT, PA.
48	3985	NORTH BRANCH RARITAN RIVER NEAR FAR HILLS	122	4605	DELAWARE & RARITAN CANAL AT KINGSTON
49	3995	LAMINGTON (BLACK) RIVER NEAR POTTERSVILLE	123	4610	*DELAWARE RIVER AT LUMBERVILLE, PA.
50	3995.1	UPPER COLD BROOK NEAR POTTERSVILLE	124	4615	DELAWARE RIVER AT STOCKTON
51	4000	NORTH BRANCH RARITAN RIVER NEAR RARITAN	125	4620	DELAWARE RIVER AT LAMBERTVILLE
52	4005	RARITAN RIVER AT MANVILLE	126	4625	DELAWARE RIVER AT WASHINGTON CROSSING
53	4007.3	MILLSTONE RIVER AT PLAINSBORO	127	4630	*DELAWARE RIVER AT YARDELY, PA.
54	4009.32	*BALDWIN CREEK AT BALDWIN LAKE NEAR PENNINGTON	128	4635	DELAWARE RIVER AT TRENTON
55	4009.53	HONEY BRANCH NEAR PENNINGTON	129	4636.2	ASSUNPINK CREEK NEAR CLARKSVILLE
56	4010	STONY BROOK AT PRINCETON	130	4640	ASSUNPINK CREEK AT TRENTON
57	4013	LAKE CARNEGIE AT PRINCETON	131	4640.4	†DELAWARE RIVER AT MARINE TERMINAL, TRENTON
58	4013.01	MILLSTONE RIVER AT LAKE CARNEGIE	132	4645	CROSSWICKS CREEK AT EXTONTVILLE
59	4015	*MILLSTONE RIVER NEAR KINGSTON	133	4645.6	*†DELAWARE RIVER AT FLORENCE
60	4020	MILLSTONE RIVER AT BLACKWELLS MILLS	134	4645.98	†DELAWARE RIVER AT BURLINGTON
61	4025.9	ROYCE BROOK TRIBUTARY AT FRANKFORT	135	4658.5	SOUTH BRANCH RANOCAS CREEK AT VINCENTOWN
62	4026	ROYCE BROOK TRIBUTARY NEAR BELLE MEAD	136	4660	*MIDDLE BRANCH MOUNT MISERY BROOK IN LEBANON STATE FOREST
63	4030.6	RARITAN RIVER BELOW CALCO DAM AT BOUND BROOK	137	4665	MCDONALDS BRANCH IN LEBANON STATE FOREST
64	4035	GREEN BROOK AT PLAINFIELD	138	4670	NORTH BRANCH RANOCAS CREEK AT PEMBERTON
65	4039	GREEN BROOK AT MIDDLESEX	139	4670.6	†DELAWARE RIVER AT PALMYRA
66	4040	*GREEN BROOK AT ROUND BROOK	140	4670.81	SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL
67	4045	*LAWRENCE BROOK AT PATRICKS CORNER	141	4671.5	COOPER RIVER AT HADDONFIELD
68	4050	LAWRENCE BROOK AT FARRINGTON DAM	142	4750	MANTUA CREEK AT PITMAN
69	4053	*MATCHAPONIX BROOK AT SPOTSWOOD	143	4766	*STILL RUN NEAR MICKLETON
70	4054	MANALAPAN BROOK AT SPOTSWOOD	144	4771.2	RACCOON CREEK NEAR SWEDSBORO
71	4055	SOUTH RIVER AT OLD BRIDGE	145	4775	*OLDMANS CREEK NEAR WOODSTOWN
72	4060	*DEEP RUN NEAR BROWNTOWN	146	4821	†DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, WILMINGTON, DEL.
73	4065	*TENNETS BROOK NEAR BROWNTOWN	147	4825	SALEM RIVER AT WOODSTOWN
74	4066.8	††RARITAN RIVER AT METUCHEN	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.

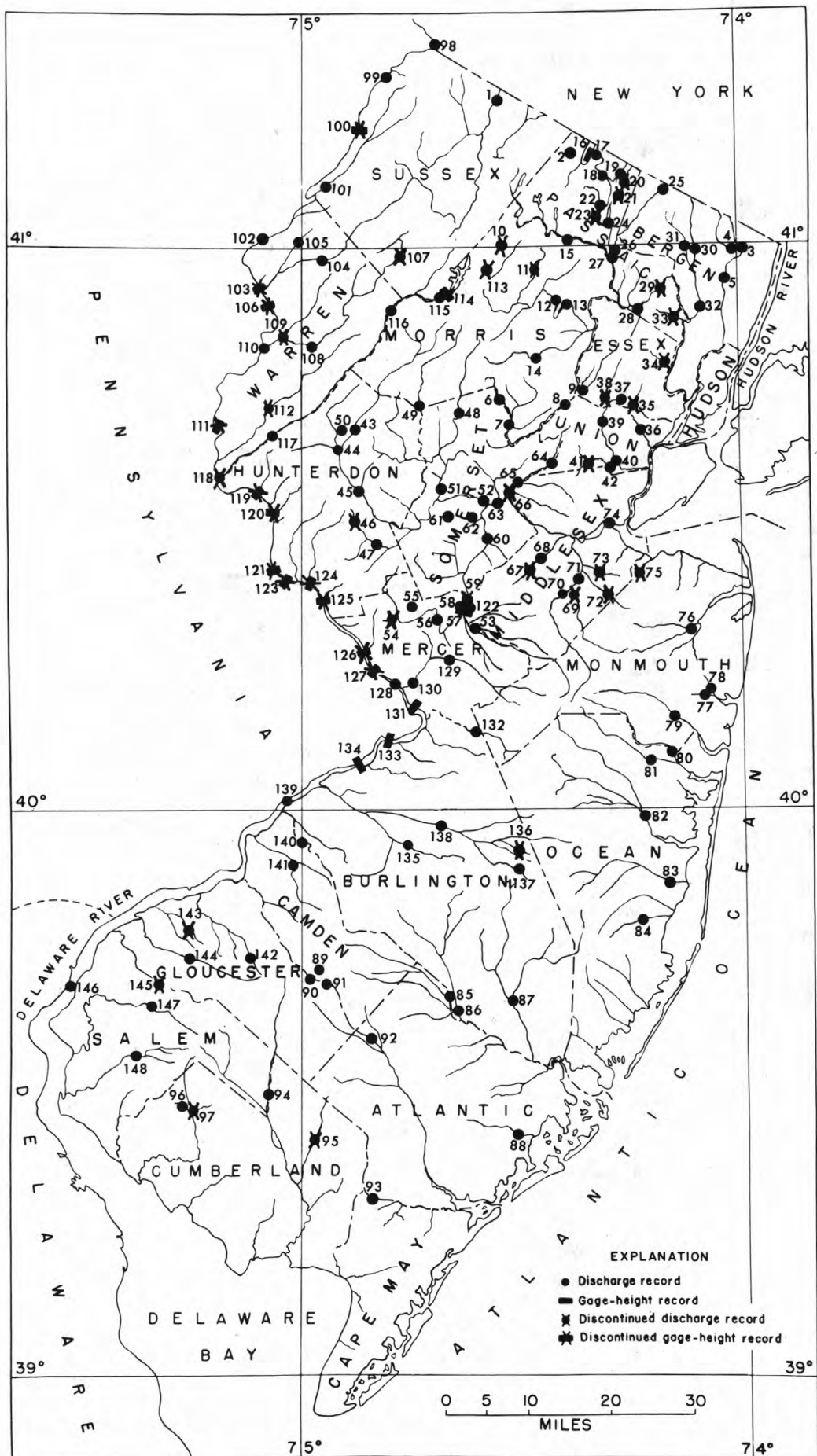


Figure 1.--LOCATION OF GAGING STATIONS

INDEX OF PARTIAL-RECORD STATIONS SHOWN ON MAP ON OPPOSITE PAGE, 1974

Map No.	Station No.	Station Name	Map No.	Station No.	Station Name
1	3774.75	(M)MUSQUAPSINK BROOK NEAR WESTWOOD	72	4081.60	(T)METEDECONK RIVER NEAR LAURELTON
2	3774.90	(M)MUSQUAPSINK BROOK AT WESTWOOD	73	4082.00	(T)BARNEGAT BAY AT BAY SHORE
3	3783.50	(M)TENAKILL BROOK AT CRESSKILL	74	4088.00	(L)WEBBS MILL BRANCH NEAR WHITING
4	3783.85	(M)TENAKILL BROOK AT CLOSTER	75	4088.10	(L)WEBBS MILL BRANCH TRIBUTARY NEAR WHITING
5	3784.10	(L)DWARS KILL AT NORWOOD	76	4090.80	(L)SOUTH BRANCH FORKED RIVER NEAR FORKED RIVER
6	3784.30	(L)TENAKILL BROOK TRIBUTARY AT NORWOOD	77	4091.25	(T)BARNEGAT BAY AT BARNEGAT LIGHT
7	3785.90	(M)METZLER BROOK AT ENGLEWOOD	78	4091.45	(T)MANAHAWKIN BAY NEAR MANAHAWKIN
8	3786.15	(M)WOLF CREEK AT RIDGEFIELD	79	4092.80	(L)WESTECUNK CREEK AT STAFFORD FORGE
9	3819.00	(C)PASSAIC RIVER AT PINE BROOK	80	4092.90	(T)TUCKERTON COVE NEAR TUCKERTON
10	3828.70	(L)BELCHER CREEK AT STOWAWAY ROAD AT WEST MILFORD	81	4093.40	(M)MULLICA RIVER NEAR ATCO
11	3828.80	(L)BELCHER CREEK TRIBUTARY AT WEST MILFORD	82	4094.03	(C)HAYS MILL CREEK NEAR CHESILHURST
12	3828.90	(L)BELCHER CREEK AT WEST MILFORD	83	4094.05	(C)WILDCAT BR AT CHESILHURST
13	3829.10	(L)MORSETOWN BROOK AT WEST MILFORD	84	4094.07	(C)PUMP BRANCH NEAR BLUE ANCHOR
14	3829.60	(L)GREEN BROOK NEAR WEST MILFORD	85	4094.09	(M)BLUE ANCHOR BK NEAR BLUE ANCHOR
15	3829.90	(L)COOLEY BROOK NEAR WEST MILFORD	86	4095.10	(T)BATSTO RIVER AT PLEASANT MILLS
16	3878.80	(M)POND BROOK AT OAKLAND	87	4101.00	(T)MULLICA RIVER NEAR PORT REPUBLIC
17	3879.80	(L)HAYCOCK BROOK AT POMPTON LAKES	88	4101.50	(L)EAST BRANCH BASS RIVER NEAR NEW GRENA
18	3899.00	(M)FLEISCHER BROOK AT MARKET STREET, AT ELMWOOD PARK	89	4102.00	(L)WEST BRANCH BASS RIVER NEAR NEW GRENA
19	3904.50	(M)SADDLE RIVER AT UPPER SADDLE RIVER	90	4105.00	(T)ABSECON CREEK AT ABSECON
20	3908.10	(M)HOMOKUS BROOK AT ALLENDALE	91	4107.75	(L)GREAT EGG HARBOR RIVER AT BERLIN
21	3909.00	(M)RAMSEY BROOK AT ALLENDALE	92	4107.84	(L)GREAT EGG HARBOR RIVER NEAR SICKLERVILLE
22	3911.10	(L)SADDLE RIVER AT PARAMUS	93	4108.03	(L)FOURMILE BRANCH AT WINSLOW CROSSING
23	3914.85	(L)SPROUT BROOK AT ROCHELLE PARK	94	4113.15	(T)GREAT EGG HARBOR BAY AT BEESLEYS POINT
24	3920.00	(M)WEASEL BROOK AT CLIFTON	95	4113.20	(T)GREAT EGG HARBOR BAY AT OCEAN CITY
25	3925.00	(M)SECOND RIVER AT BELLEVILLE	96	4113.60	(T)GREAT CHANNEL AT STONE HARBOR
26	3938.10	(M)E. FORK E. BR. RAHWAY R. NR. W. ORANGE	97	4113.80	(T)GRASSY SOUND AT WEST WILDWOOD
27	3960.70	(L)SOUTH BRANCH RARITAN RIVER TRIBUTARY NO.6 AT BUDD LAKE	98	4113.90	(T)CAPE MAY HARBOR AT CAPE MAY
28	3960.80	(L)SOUTH BRANCH RARITAN RIVER TRIBUTARY NO.7 AT BUDD LAKE	99	4113.95	(T)CAPE MAY CANAL AT NORTH CAPE MAY
29	3960.90	(L)SOUTH BRANCH RARITAN RIVER AT OUTLET OF BUDD LAKE	100	4118.50	(L)MILL CREEK NEAR MILLVILLE
30	3965.90	(L)SPRUCE RUN NEAR HIGH BRIDGE	101	4118.80	(L)MAURICE RIVER AT SHARP STREET AT MILLVILLE
31	3966.60	(L)MULHOCKAWAY CREEK AT VAN SYCKEL	102	4121.50	(T)MAURICE RIVER AT BIVALVE
32	3966.70	(L)MULHOCKAWAY CREEK TRIBUTARY AT VAN SYCKEL	103	4125.00	(M)WEST BRANCH COHANSEY RIVER AT SEELEY
33	3975.00	(M)WALNUT BROOK NEAR FLEMINGTON	104	4130.50	(L)STOW CREEK AT JERICHO
34	4005.80	(L)MILLSTONE RIVER AT HIGHTSTOWN	105	4434.50	(L)PAULINS KILL NEAR NEWTON
35	4008.50	(C)WOODSVILLE BROOK AT WOODSVILLE	106	4434.60	(L)PAULINS KILL AT PAULINS KILL
36	4009.00	(M)STONY BROOK AT GLENMOORE	107	4450.00	(C)PEQUEST RIVER AT HUNTSVILLE
37	4009.30	(M)HALDWIN CREEK AT PENNINGTON	108	4454.90	(M)FURNACE BROOK AT OXFORD
38	4009.47	(M)STONY BROOK AT PENNINGTON	109	4460.00	(C)BEAVER BROOK NEAR BELVIDERE
39	4009.50	(M)HART BROOK NEAR PENNINGTON	110	4552.00	(M)POHATCONG CREEK AT NEW VILLAGE
40	4009.60	(M)HONEY BRANCH NEAR MOUNT ROSE	111	4553.70	(L)WELDON BROOK AT HURDTOWN
41	4009.70	(M)HONEY BRANCH NEAR ROSEDALE	112	4555.50	(L)MUSCONETCONG RIVER AT STANHOPE
42	4012.00	(M)DUCK POND RUN AT CLARKSVILLE	113	4575.00	(M)DELAWARE RIVER AT RIEGELSVILLE
43	4015.20	(M)HEDEN BROOK NEAR HOPEWELL	114	4643.00	(L)CROSSWICKS CREEK NEAR COOKSTOWN
44	4015.95	(M)ROCK BROOK NEAR BLAWENBURG	115	4643.80	(L)NORTH RUN AT COOKSTOWN
45	4016.00	(M)BEDEN BROOK NEAR ROCKY HILL	116	4644.00	(M)CROSSWICKS CREEK AT NEW EGYPT
46	4018.70	(M)SIX MILE RUN NEAR MIDDLEBUSH	117	4644.60	(L)LAHAWAY CREEK NEAR HORNERSTOWN
47	4034.00	(M)GREEN BROOK AT SEELY MILLS	118	4644.80	(L)MIRY RUN AT HOLMES MILLS
48	4034.70	(M)GREEN BROOK AT N. PLAINFIELD	119	4645.05	(M)CROSSWICKS CREEK AT GROVEVILLE
49	4035.70	(M)STONY BROOK AT N. PLAINFIELD	120	4645.15	(C)DOCTORS CREEK AT ALLENTOWN
50	4036.00	(M)GREEN BRK AT ROCK AVE AT PLAINFIELD	121	4645.20	(M)DOCTORS CREEK AT GROVEVILLE
51	4037.00	(M)GREEN BROOK AT DUNELLEN	122	4645.90	(L)ASSISCUNK CREEK NEAR BURLINGTON
52	4038.00	(M)GREEN BROOK AT GREEN BROOK	123	4658.82	(M)SW BR RANCOCAS CK AT RT 70 MEDFORD
53	4040.80	(M)GREEN BROOK AT S. BOUND BROOK	124	4660.00	(M)MIDDLE BRANCH MOUNT MISERY BROOK IN LEBANON STATE FOREST
54	4043.00	(L)LAWRENCE BROOK AT OUTLET OF DAVIDSON'S MILL POND	125	4670.10	(M)PARKERS CREEK NEAR MT. LAUREL
55	4044.00	(L)OAKES BROOK NEAR PATRICKS CORNER	126	4670.57	(M)POMPESTON CK AT CINNAMINSON
56	4044.70	(L)IRELAND BROOK AT PATRICKS CORNER	127	4670.69	(M)N BR PENNSAUKEN CK NR MOORESTOWN
57	4047.00	(L)BEAVERDAM BROOK NEAR PATRICKS CORNER	128	4671.30	(M)COOPER RIVER AT KIRKWOOD
58	4054.40	(L)MANALAPAN BROOK AT BRIDGE STREET AT SPOTSWOOD	129	4671.60	(M)NORTH BRANCH COOPER RIVER NEAR MARLTON
59	4054.70	(L)IRESICK BROOK AT EAST SPOTSWOOD	130	4671.80	(M)NORTH BRANCH COOPER RIVER AT ELLISBURG
60	4072.00	(L)HOP BROOK AT HOLMDEL	131	4671.90	(M)COOPER RIVER AT CAMDEN
61	4072.50	(L)WILLOW BROOK AT HOLMDEL	132	4673.05	(M)NEWTON CREEK AT COLLINGSWOOD
62	4073.00	(L)BIG BROOK AT VANDERBURG	133	4673.15	(L)SOUTH BRANCH NEWTON CREEK AT GLOVER AVENUE AT HADDON HEIGHTS
63	4074.00	(L)YELLOW BROOK AT COLTS NECK	134	4673.17	(M)SOUTH BRANCH NEWTON CREEK AT HADDON HEIGHTS
64	4074.50	(L)MINE BROOK AT COLTS NECK	135	4673.30	(M)SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD
65	4075.20	(L)PINE BROOK AT TINTON FALLS	136	4749.50	(L)MANTUA CREEK AT GLASSBORO
66	4078.30	(C)MANASQUAN RIVER NEAR GEORGIA	137	4673.51	(M)NORTH BRANCH BIG TIMBER CREEK AT LAUREL SPRINGS
67	4078.60	(L)DEBOIS CREEK AT ADELPHIA	138	4749.70	(L)MANTUA CREEK AT GREENTREE ROAD AT GLASSBORO
68	4078.90	(L)MANASQUAN RIVER TRIBUTARY NO.7 AT WEST FARMS	139	4750.19	(M)MANTUA CK AT SALINA
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70	4080.20	(L)MINGAMAHONE BROOK AT SQUANKUM	141	4827.05	(T)DELAWARE RIVER AT OAKWOOD BEACH
71	4080.30	(M)MANASQUAN RIVER AT ALLENWOOD			

(L) Low-flow partial-record station.
(M) Crest-stage partial-record station.
(C) Combined low-flow crest-stage partial-record station.
(T) Tidal crest-stage partial-record station.

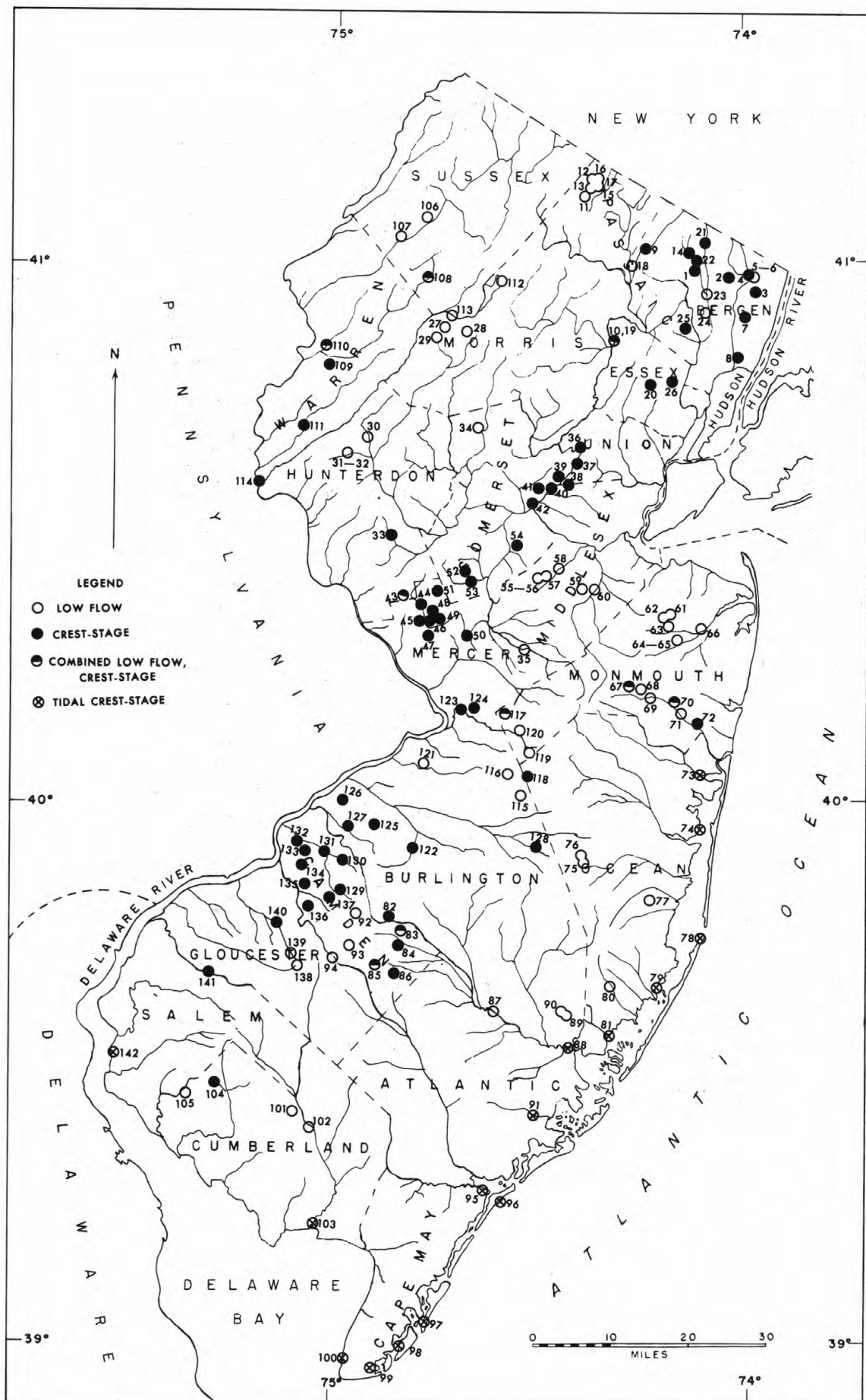


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WATER RESOURCES DATA FOR NEW JERSEY, 1974

PART 1. SURFACE-WATER RECORDS

INTRODUCTION

Surface-water records for the 1974 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 Harold Meisler, 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 year all of the tide data are included in a special section of this report (see pp 154-168). A table of annual maximum stages at the tidal crest-stage stations along the Atlantic Coast and in the Delaware Bay and the annual summaries of tidal stages in the Delaware Estuary at Trenton, Burlington, Palmyra, Chester, Pa., and Wilmington, Del. are presented in this section along with short-term summaries on the Atlantic Intracoastal Waterway. A Map showing the location of the various stations is shown on page 154.

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, Rocco D. Ricci, 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, V. J. Nunno, 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 34 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 indentation, each indentation 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-recod station indicates downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such

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

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 5-, 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. (See also SELECTED REFERENCES.) Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

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

because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

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

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

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

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

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1974 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 for 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 stations 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 discharge 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; it is the total cubic feet per second per day for the month. 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 discharge 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 are 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 is 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 entitle "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 three tables at the end of the gaging-station records in this report. The first is a table of discharge measurements at low-flow partial-records 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. Tide data as described on Page 2 are included in a special section of this report (pp 154-168).

More detailed information than that published for most of the gaging stations, such as discharges 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 1974 Water Year averaged about 140 percent of normal over New Jersey or about 85 percent of the runoff for the preceding water year when new yearly maximums were recorded. Investigation shows that the last three consecutive Water Years (1972-74) averaged from 30 to 50 percent more runoff than the long term average at the various stations over the State. These are the wettest three consecutive years since systematic gaging of river flows began in New Jersey some 75 years ago, with 6 to 12 inches (152-305 mm) more runoff each year than usual. Flooding for the current year was limited to local areas and no major floods were reported.

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 at South Branch Raritan River near High Bridge for the year averaged $172 \text{ ft}^3/\text{s}$ ($3.99 \text{ m}^3/\text{s}$), 146 percent of normal. The average flow for Great Egg Harbor River at Folsom was $87.5 \text{ ft}^3/\text{s}$ ($2.48 \text{ m}^3/\text{s}$) 102 percent of normal. The observed yearly mean discharge on the Delaware River at Trenton was $14,020 \text{ ft}^3/\text{s}$ ($397 \text{ m}^3/\text{s}$) 121 percent of normal. The natural flow at Trenton (adjusted for diversion and storage upstream) was about 135 percent of normal for the water year.

The combined storage in the 13 major water-supply reservoirs in New Jersey was 82 percent of normal on September 30, 1974, which was about 1.7 billion gallons (6.434 million cubic meters) or approximately 2 percent over the end of last year. Pumped storage at the end of the year in Round Valley Reservoir was 53.9 billion gallons (204.012 million cubic metres) which is 98 percent of the total usable capacity or approximately the same as at the beginning of the year on October 1, 1973. Low-flow augmentation and quality-control releass were made from Round Valley to small outlet streams during the year.

WATER RESOURCES DATA FOR NEW JERSEY, 1974
UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)
SEMI-LOG PLOT OF DAILY VALUES

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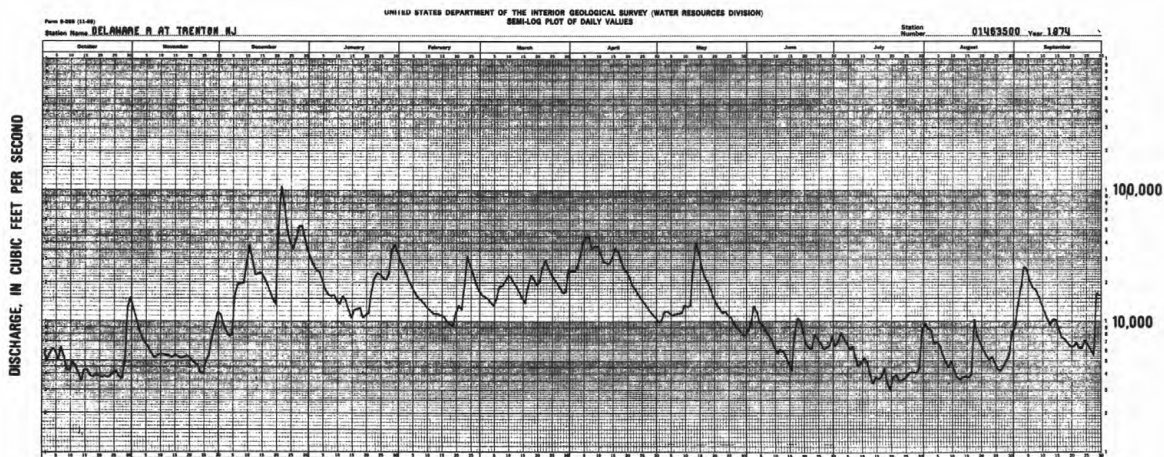
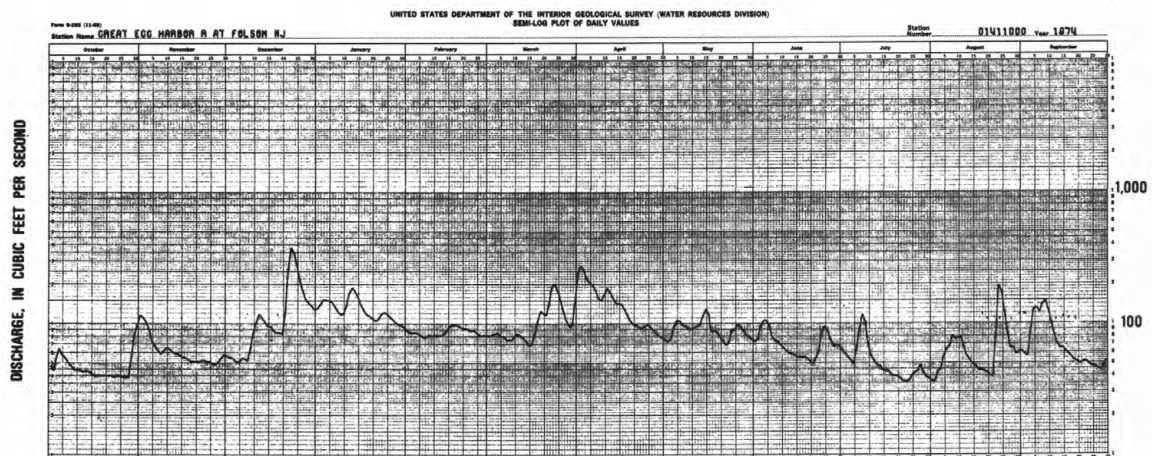
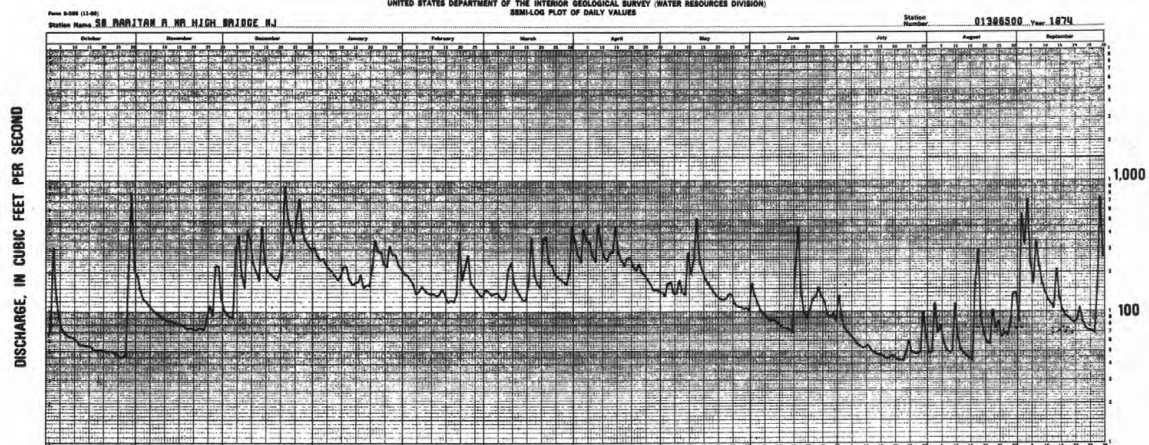
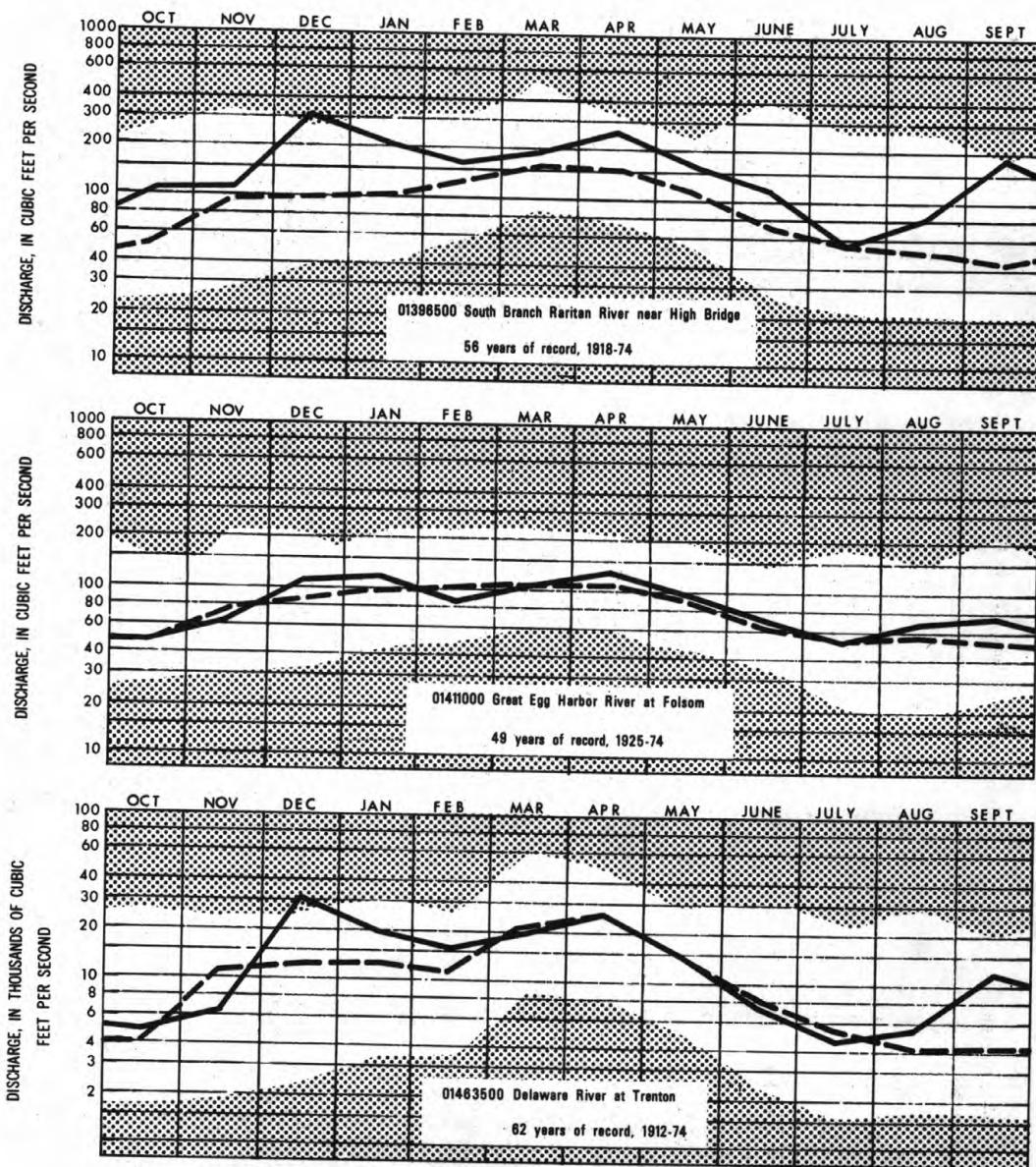


FIGURE 3.--DAILY STREAMFLOW AT KEY GAGING STATIONS



Unshaded area.--Indicates range between highest and lowest mean recorded for the month prior to 1974 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 1974 water year.

FIGURE 4.--MONTHLY STREAMFLOW AT KEY GAGING STATIONS

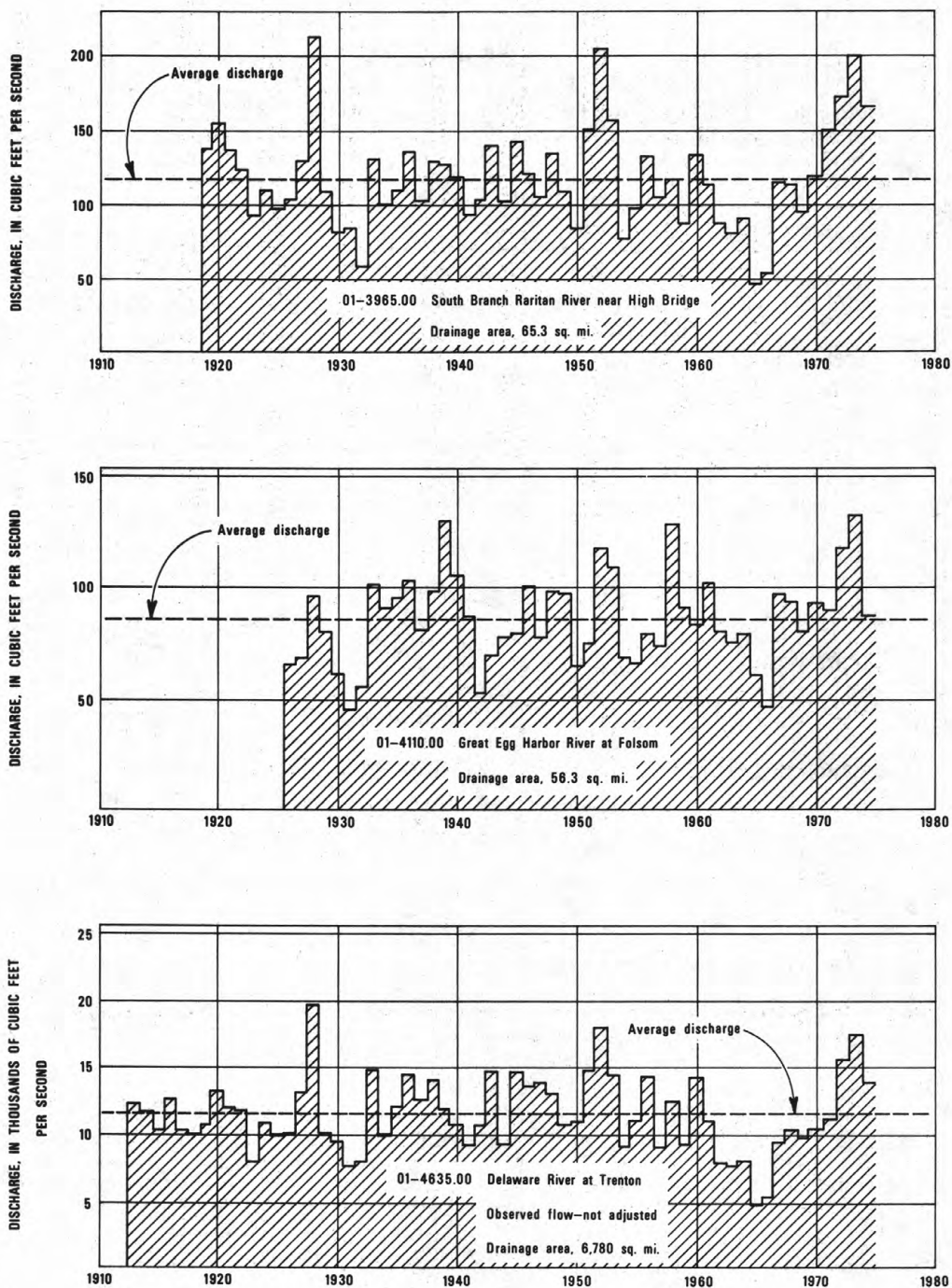


FIGURE 5.—ANNUAL MEAN DISCHARGE AT KEY GAGING STATIONS

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

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
<i>Length</i>		
inches (in)	25.4	millimetres (mm)
	.0254	metres (m)
feet (ft)	.3048	metres (m)
yards (yd)	.9144	metres (m)
rods	5.0292	metres (m)
miles (mi)	1.609	kilometres (km)
<i>Area</i>		
acres	4047	square metres (m ²)
	.4047	*hectares (ha)
	.4047	square hectometres (hm ²)
	.004047	square kilometres (km ²)
square miles (mi ²)	2.590	square kilometres (km ²)
<i>Volume</i>		
gallons (gal)	3.785	**litres (l)
	3.785	cubic decimetres (dm ³)
	3.785x10 ⁻³	cubic metres (m ³)
million gallons (10 ⁶ gal)	3785	cubic metres (m ³)
	3.785x10 ⁻³	cubic hectometres (hm ³)
cubic feet (ft ³)	28.32	cubic decimetres (dm ³)
	.02832	cubic metres (m ³)
cfs-days [(ft ³ /s) · d]	2447	cubic metres (m ³)
	2.447x10 ⁻³	cubic hectometres (hm ³)
acre-feet (acre-ft)	1233	cubic metres (m ³)
	1.233x10 ⁻³	cubic hectometres (hm ³)
	1.233x10 ⁻⁶	cubic kilometres (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	28.32	litres per second (l/s)
	28.32	cubic decimetres per second (dm ³ /s)
	.02832	cubic metres per second (m ³ /s)
gallons per minute (gpm)	.06309	litres per second (l/s)
	.06309	cubic decimetres per second (dm ³ /s)
	6.309x10 ⁻⁵	cubic metres per second (m ³ /s)
million gallons per day (mgd)	43.81	cubic decimetres per second (dm ³ /s)
	.04381	cubic metres per second (m ³ /s)
<i>Mass</i>		
tons (short)	.9072	tonnes (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 litre is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

HUDSON RIVER BASIN

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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 mi² (20,953 km²), 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.--28 years, 13,170 ft³/s (373.0 m³/s).

EXTREMES.--Current year: Maximum discharge, 98,400 ft³/s (2,790 m³/s) Dec. 27 (gage height, 22.39 ft or 6.824 m); minimum daily, 1,490 ft³/s (42.2 m³/s) Oct. 1; minimum gage height, 15.08 ft (4.596 m) Oct. 8.

Period of record: Maximum discharge, 181,000 ft³/s (5,130 m³/s) Dec. 31, 1948 (gage height, 27.05 ft or 8.245 m, from high-water mark in gage well); maximum daily, 141,000 ft³/s (3,990 m³/s) Dec. 31, 1948, Jan. 1, 1949; minimum daily, 882 ft³/s (25.0 m³/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 ft³/s or 6,090 m³/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 Oct. 1 to Dec. 6, which are poor. Records include flow over spillway, estimates of flow through lock, and flow through power plant. Power plant, 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 WRD-NY 1974.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,490	8,620	10,500	32,000	32,300	18,600	14,100	17,400	11,600	8,120	8,790	6,730
2	5,790	10,500	10,400	29,000	26,800	19,500	16,600	22,300	10,700	8,470	7,040	6,830
3	6,070	10,000	7,400	24,300	22,900	20,300	21,400	18,800	10,100	30,600	7,140	7,920
4	6,430	9,540	8,400	22,100	20,000	19,700	30,200	19,000	9,780	51,400	6,470	20,800
5	7,000	9,500	9,000	21,000	18,500	30,700	45,100	18,400	10,100	29,400	8,150	15,700
6	6,540	8,920	17,200	19,500	15,400	40,700	52,000	16,100	9,940	30,300	7,630	11,700
7	5,750	8,150	21,300	17,700	15,900	37,000	44,000	18,200	8,260	20,500	7,990	9,390
8	5,600	6,180	17,000	17,600	15,700	37,100	35,800	20,700	8,860	14,400	6,770	7,370
9	6,350	6,620	15,200	15,200	15,200	35,300	33,800	19,400	6,580	13,100	5,780	7,600
10	5,820	6,640	23,200	14,700	15,000	27,800	29,200	21,300	6,280	9,320	5,720	7,800
11	5,500	6,370	27,100	14,900	14,500	22,000	25,500	26,100	6,860	7,920	5,300	7,610
12	5,420	5,970	25,200	15,600	13,500	18,900	33,100	27,200	7,480	6,780	5,050	7,750
13	5,180	7,640	20,800	14,700	14,200	18,200	34,900	47,800	7,680	7,620	5,560	8,210
14	4,970	5,310	20,900	14,000	14,800	14,600	33,400	50,600	7,520	7,410	5,720	13,400
15	6,260	7,210	17,900	15,300	14,400	13,400	46,300	42,900	6,790	5,820	4,930	12,600
16	4,920	8,680	16,500	15,200	14,000	13,600	55,700	34,400	6,510	7,550	4,750	10,400
17	4,800	12,200	13,400	19,000	13,100	25,900	39,700	30,400	7,320	7,880	4,960	8,750
18	5,880	9,570	11,100	15,400	12,800	25,100	32,300	33,200	10,300	7,240	5,380	9,450
19	5,590	7,810	8,790	12,800	12,600	20,500	30,200	27,700	12,300	6,440	6,220	10,100
20	5,940	6,190	12,400	13,000	13,900	17,800	28,000	23,600	8,600	5,900	5,700	8,810
21	5,480	6,750	18,600	13,500	13,300	16,600	23,800	20,500	8,340	6,570	6,160	9,110
22	5,760	6,610	60,900	15,300	15,600	19,300	22,700	19,800	10,200	6,740	6,140	14,900
23	5,760	6,470	43,200	20,200	33,200	18,600	24,500	17,600	10,200	5,450	5,230	13,100
24	5,770	7,440	31,800	25,900	34,400	19,600	29,300	17,200	6,990	6,060	5,370	12,500
25	5,900	7,660	25,000	26,500	25,900	19,600	28,900	17,900	9,120	6,060	5,490	10,500
26	5,280	8,030	21,200	22,800	22,500	16,000	23,400	17,100	9,530	5,730	3,800	9,610
27	5,260	9,450	58,300	24,300	21,700	13,900	20,000	13,800	10,100	6,250	6,330	8,700
28	5,070	9,700	86,400	50,700	19,800	11,300	18,600	13,700	9,940	4,900	6,200	8,890
29	5,770	12,100	69,300	47,800	-----	8,010	16,500	13,400	8,020	6,380	7,570	10,200
30	6,470	12,600	51,400	39,200	-----	11,000	16,000	13,000	7,720	13,200	10,000	15,200
31	7,340	-----	39,200	33,100	-----	12,100	-----	12,400	-----	11,800	9,790	-----
TOTAL	175,160	248,390	818,990	682,300	521,900	642,710	905,000	711,900	263,720	365,310	197,130	311,630
MEAN	5,650	8,280	26,010	22,010	18,640	20,730	30,170	22,960	8,791	11,780	6,359	10,390
MAX	7,340	12,600	86,400	50,700	34,400	40,700	55,700	50,600	12,300	51,400	10,000	20,800
MIN	1,490	5,310	7,400	12,800	12,600	8,010	14,100	12,400	6,280	4,900	3,800	6,730

CAL YR 1973 TOTAL 6,355,060 MEAN 17,410 MAX 86,400 MIN 1,490
WTR YR 1974 TOTAL 5,844,140 MEAN 16,010 MAX 86,400 MIN 1,490

HUDSON RIVER BASIN

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 mi² (363 km²).

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.--37 years, 213 ft³/s (6.032 m³/s), 20.66 in/yr (524.8 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 1,600 ft³/s (45.3 m³/s) Dec. 22; maximum gage height, 10.2 ft (3.11 m) Dec. 22 (from highwater mark, ice jam); minimum, 25 ft³/s (0.71 m³/s) July 23-24 (gage height, 3.02 ft or 0.920 m).

Period of record: Maximum discharge, 6,880 ft³/s (195 m³/s) Aug. 19, 1955 (gage height, 13.35 ft or 4.069 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Aug. 8-10, 1966.

REMARKS.--Records fair except those above 600 ft³/s (17 m³/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 Paulins Kill (Delaware River basin), records furnished by the Delaware River Basin Commission (see p. 134). Records of water quality for the current year are published in Part 2 of this report.

REVISIONS.--WRD-NY 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	397	151	647	542	263	711	220	218	118	56	125
2	39	252	121	553	425	265	804	212	287	125	39	274
3	99	171	106	453	300	258	793	190	184	89	60	357
4	116	139	102	399	290	258	775	222	147	75	102	478
5	75	119	152	349	300	263	811	186	127	67	247	491
6	57	111	408	340	270	241	852	169	109	104	139	388
7	50	104	383	317	260	216	833	222	94	82	72	313
8	47	97	271	282	256	206	716	200	91	60	55	308
9	46	96	313	202	214	280	676	167	89	50	50	245
10	44	89	566	241	202	375	760	216	84	45	46	192
11	42	82	617	293	210	368	764	256	76	40	41	158
12	39	81	489	349	192	304	661	226	69	34	33	134
13	38	79	353	280	196	256	553	504	67	32	31	118
14	39	79	397	230	224	226	548	591	64	30	27	178
15	40	76	473	220	204	218	625	453	61	29	25	178
16	41	75	403	210	169	252	665	320	75	28	24	132
17	39	73	310	190	169	511	557	262	284	26	29	107
18	37	66	330	180	161	568	438	241	274	25	123	102
19	37	64	310	210	184	442	399	210	178	28	87	99
20	37	63	297	250	419	372	432	182	112	30	53	89
21	35	60	707	252	353	403	388	167	99	24	44	96
22	34	61	1,400	445	397	636	338	156	125	21	38	125
23	34	64	1,600	566	604	685	313	145	107	20	42	111
24	34	64	1,500	628	520	591	291	156	132	22	55	87
25	34	84	1,250	582	370	489	265	176	132	37	66	76
26	34	114	1,010	493	302	394	241	161	145	33	56	73
27	32	104	968	524	265	349	220	136	123	30	46	69
28	31	130	1,050	678	256	313	206	130	102	33	44	79
29	55	245	1,040	771	-----	282	196	130	97	87	86	372
30	434	204	927	784	-----	262	188	136	94	139	161	453
31	511	-----	782	694	-----	482	-----	119	-----	109	194	-----
TOTAL	2,269	3,443	18,786	12,612	8,254	11,028	16,019	6,861	3,846	1,672	2,171	6,007
MEAN	73.2	115	606	407	295	356	534	221	128	53.9	70.0	200
MAX	511	397	1,600	784	604	685	852	591	287	139	247	491
MIN	31	60	102	180	161	206	188	119	61	20	24	69
CFSM	.52	.82	4.33	2.91	2.11	2.54	3.81	1.58	.91	.38	.50	1.43
IN	.60	.91	4.99	3.35	2.19	2.93	4.25	1.82	1.02	.44	.58	1.60

CAL YR 1973 TOTAL 107,292 MEAN 294 MAX 1,600 MIN 31 CFSM 2.10 IN 28.49
WTR YR 1974 TOTAL 92,968 MEAN 255 MAX 1,600 MIN 20 CFSM 1.82 IN 24.68

PEAK DISCHARGE (BASE, 1,200 CFS)

NOTE.--No gage-height record Dec. 22-24.

DATE TIME G.H. DISCHARGE

12-22 a0400 b10.2 a1,600
12-25 0015 8.70 1,380

a About.

b Ice jam (high-water mark on outside gage).

HACKENSACK RIVER BASIN

23

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 mi² (76.1 km²).

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 324 ft³/s (9.18 m³/s) Dec. 21 (gage height, 5.16 ft, or 1.573 m); maximum gage height, 5.73 ft (1.747 m) Dec. 21 (backwater from ice); minimum, 15 ft³/s (0.43 m³/s) June 29 (gage height, 2.66 ft or 0.811 m).

Period of record: Maximum discharge, 1,550 ft³/s (43.9 m³/s) Feb. 3, 1973 (gage height, 9.38 ft or 2.859 m, from floodmarks), from rating curve extended above 840 ft³/s (23.8 m³/s); minimum daily, 2.6 ft³/s (0.074 m³/s) June 12, 1965, Sept. 25, 26, 30, 1966; minimum gage height, 1.70 ft (0.518 m) Oct. 22, 1960.

REMARKS.--Records good. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	35	19	25	85	52	212	42	48	23	24	19
2	19	34	19	32	76	49	169	32	54	21	24	72
3	20	33	19	33	73	48	117	38	41	23	28	46
4	19	32	19	40	64	47	141	47	33	23	31	66
5	19	28	25	47	54	46	183	34	29	25	24	22
6	19	19	25	46	47	41	218	32	23	25	24	21
7	20	19	21	42	43	38	152	38	23	23	22	35
8	21	19	20	38	41	39	122	32	25	23	22	22
9	21	19	56	42	40	51	276	29	23	23	23	20
10	21	19	25	47	39	73	299	73	25	25	24	20
11	21	22	20	58	38	54	198	62	23	25	23	20
12	23	23	21	64	37	50	142	83	22	23	22	20
13	28	21	21	54	36	46	132	215	21	23	21	19
14	28	20	42	45	39	35	139	144	21	23	21	21
15	28	20	23	40	37	27	158	98	21	23	23	20
16	28	20	22	38	34	35	124	72	34	23	25	21
17	30	20	21	41	35	84	95	57	21	24	34	21
18	33	21	19	36	35	74	80	50	21	23	25	22
19	35	20	20	41	48	56	99	41	21	22	21	21
20	34	20	22	46	122	49	110	32	20	26	19	22
21	34	20	200	69	100	125	82	23	31	25	21	23
22	33	21	35	175	102	212	73	21	30	25	20	23
23	32	21	21	181	130	147	72	21	29	25	21	22
24	39	21	22	167	101	112	69	25	31	26	20	22
25	62	23	25	143	84	84	64	33	31	21	21	22
26	79	21	36	121	71	63	46	27	23	21	21	21
27	158	21	31	162	59	58	39	24	21	21	20	21
28	96	27	25	165	54	53	36	21	21	20	21	23
29	81	21	21	176	-----	51	37	25	19	23	24	62
30	72	20	20	133	-----	80	36	27	23	21	38	23
31	34	-----	21	102	-----	212	-----	23	-----	22	21	-----
TOTAL	1,206	680	936	2,449	1,724	2,191	3,720	1,521	808	719	728	812
MEAN	38.9	22.7	30.2	79.0	61.6	70.7	124	49.1	26.9	23.2	23.5	27.1
MAX	158	35	200	181	130	212	299	215	54	26	38	72
MIN	19	19	19	25	34	27	36	21	19	20	19	19

CAL YR 1973 TOTAL 21,163 MEAN 58.0 MAX 1,320 MIN 17
WTR YR 1974 TOTAL 17,494 MEAN 47.9 MAX 299 MIN 19

HACKENSACK RIVER BASIN

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 mi² (150.2 km²).

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.--33 years, 89.6 ft³/s (2.537 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 609 ft³/s (17.2 m³/s) Mar. 21 (gage height, 3.49 ft or 1.064 m); minimum, 12 ft³/s (0.34 m³/s) Sept. 6, 11, 12.

Period of record: Maximum discharge, 1,500 ft³/s (42.5 m³/s) May 29, 1968 (gage height, 6.23 ft or 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	26	20	27	106	82	281	59	88	35	54	43
2	113	20	19	21	111	74	215	52	115	34	84	115
3	108	19	20	21	96	76	160	56	98	24	102	47
4	82	18	19	21	84	68	218	80	76	38	104	90
5	82	18	30	20	76	70	233	68	57	108	96	16
6	80	18	35	20	64	64	311	62	41	115	68	15
7	80	17	21	20	72	61	195	66	34	115	64	49
8	80	20	20	19	68	62	168	61	30	100	43	18
9	78	18	78	20	72	115	292	52	26	66	43	14
10	92	19	35	21	66	133	361	117	25	62	43	14
11	133	18	22	26	56	82	251	140	24	62	41	12
12	133	18	21	24	56	78	188	113	20	84	47	13
13	115	18	20	21	54	70	170	274	20	106	90	14
14	113	18	50	20	64	61	183	230	19	106	92	19
15	111	18	22	20	57	54	206	133	18	113	98	15
16	108	18	20	21	50	82	173	108	54	124	106	15
17	106	37	21	21	50	163	131	94	115	126	126	14
18	102	84	19	20	49	111	115	86	64	140	131	15
19	94	82	18	24	100	88	131	64	44	140	80	18
20	82	82	57	21	198	74	155	50	34	136	40	18
21	74	80	281	59	138	233	117	35	38	124	43	19
22	66	80	34	43	155	307	104	34	84	122	43	19
23	59	54	27	38	175	190	111	38	54	122	44	18
24	59	20	24	34	133	153	100	62	59	119	43	20
25	59	26	22	30	113	113	96	88	52	92	43	19
26	59	26	62	30	100	90	76	62	49	50	43	18
27	57	22	40	227	80	88	62	49	41	49	43	18
28	59	40	31	198	78	76	54	43	35	49	43	22
29	70	25	26	203	-----	88	54	38	31	57	43	86
30	115	20	24	165	-----	136	57	44	25	50	52	26
31	25	-----	26	128	-----	348	-----	44	-----	49	44	-----
TOTAL	2,707	979	1,164	1,583	2,521	3,490	4,968	2,502	1,470	2,717	2,036	839
MEAN	87.3	32.6	37.5	51.1	90.0	113	166	80.7	49.0	87.6	65.7	28.0
MAX	133	84	281	227	198	348	361	274	115	140	131	115
MIN	25	17	18	19	49	54	54	34	18	24	40	12

CAL YR 1973 TOTAL 35,162 MEAN 96.3 MAX 662 MIN 17
WTR YR 1974 TOTAL 26,976 MEAN 73.9 MAX 361 MIN 12

HACKENSACK RIVER BASIN

25

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 mi² (76.7 km²).

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.--40 years, 53.9 ft³/s (1.526 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,590 ft³/s (45.0 m³/s) Dec. 21 (gage height, 6.08 ft or 1.853 m); minimum, 21 ft³/s (0.59 m³/s) Oct. 23 (gage height, 1.58 ft or 0.482 m).

Period of record: Maximum discharge, 2,440 ft³/s (69.1 m³/s) Sept. 12, 1971 (gage height, 7.57 ft or 2.307 m); minimum, 5.6 ft³/s (0.16 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	43	39	62	56	44	158	52	74	56	43	41
2	34	34	34	55	55	44	87	48	58	52	44	275
3	39	34	36	51	53	43	71	54	56	46	59	173
4	33	30	36	52	52	43	146	50	55	48	67	212
5	31	31	51	48	50	43	155	48	54	48	62	82
6	27	30	51	44	48	42	152	50	48	46	50	76
7	27	30	44	43	50	42	82	50	51	45	46	128
8	27	29	43	44	48	46	71	48	51	45	46	81
9	27	30	95	45	46	60	286	56	50	44	44	78
10	26	30	60	68	46	58	155	92	54	44	48	90
11	25	30	52	92	46	46	85	78	60	43	45	88
12	26	31	45	67	45	44	75	128	45	43	42	87
13	27	31	48	45	48	43	84	254	45	43	41	84
14	27	31	74	43	46	42	88	81	46	43	38	87
15	25	30	51	43	45	42	112	58	46	42	34	82
16	24	29	50	44	44	55	79	51	90	43	34	81
17	26	29	51	43	44	59	65	51	67	39	121	79
18	26	28	46	42	43	51	62	48	54	35	81	76
19	25	31	45	46	63	45	81	51	51	44	43	72
20	25	32	48	43	76	43	81	55	51	42	42	64
21	27	32	1,000	76	62	176	63	58	65	41	40	63
22	25	32	321	82	76	164	58	56	60	40	39	59
23	23	31	88	100	87	74	62	55	60	35	43	59
24	24	35	64	92	58	60	60	63	58	42	41	60
25	23	51	55	71	52	52	54	55	56	55	42	52
26	24	43	87	64	50	48	51	54	54	46	38	42
27	23	42	155	126	45	46	51	56	53	44	39	40
28	23	60	85	95	44	45	50	55	53	44	38	54
29	62	45	67	92	-----	46	50	62	53	59	40	126
30	123	41	58	69	-----	69	51	58	53	52	56	55
31	52	-----	55	62	-----	307	-----	56	-----	48	46	-----
TOTAL	988	1,035	3,034	1,949	1,478	2,022	2,725	2,031	1,671	1,397	1,492	2,646
MEAN	31.9	34.5	97.9	62.9	52.8	65.2	90.8	65.5	55.7	45.1	48.1	88.2
MAX	123	60	1,000	126	87	307	286	254	90	59	121	275
MIN	23	28	34	42	43	42	50	48	45	35	34	40

CAL YR 1973 TOTAL 24,631 MEAN 67.5 MAX 1,100 MIN 23
WTR YR 1974 TOTAL 22,468 MEAN 61.6 MAX 1,000 MIN 23

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0030	3.22	423	5-13	0015	3.20	415
12-21	1745	6.08	1,590	8-17	1530	3.33	467
4-09	1330	3.19	411	9-02	0145	3.98	703

HACKENSACK RIVER BASIN

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 mi² (293 km²).

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.--53 years, 108 ft³/s (3.059 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,870 ft³/s (81.3 m³/s) Dec. 21 (gage height, 5.16 ft or 1.573 m); no flow during part or all of summer months.

Period of record: Maximum discharge, 4,040 ft³/s (114 m³/s) May 30, 1968 (gage height, 6.60 ft or 2.012 m); no flow on many days during most years.

REMARKS.--Records good except those for the period Oct. 5 to Dec. 20, which are poor. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	1.0	1.0	58	75	54	547	18	18			0
2	24	1.0	1.0	32	148	45	334	20	21			0
3	17	1.0	1.0	28	82	49	194	18	20			0
4	1.5	1.0	1.0	30	61	64	579	18	17			332
5	1.0	1.0	1.0	20	52	62	520	17	20			70
6	1.0	1.0	1.0	16	39	38	596	16	19			17
7	1.0	1.0	1.0	17	38	33	253	17	19			299
8	1.0	1.0	1.0	16	42	34	223	19	19			41
9	1.0	1.0	1.0	14	43	176	1,060	19	21			19
10	1.0	1.0	1.0	21	34	202	430	19	18			20
11	1.0	1.0	1.0	184	17	52	359	19	20			20
12	1.0	1.0	1.0	73	16	40	245	20	18			18
13	1.0	1.0	1.0	17	15	52	263	418	17			17
14	1.0	1.0	1.0	16	39	54	279	222	18			17
15	1.0	1.0	1.0	16	39	33	404	97	18			16
16	1.0	1.0	1.0	17	31	117	200	43	20			17
17	1.0	1.0	1.0	16	15	229	125	26	19			17
18	1.0	1.0	1.0	16	17	81	100	18	19			18
19	1.0	1.0	1.0	15	88	85	471	18	19			19
20	1.0	1.0	1.0	15	418	69	565	18	19			17
21	1.0	1.0	1,400	181	147	494	300	17	13			18
22	1.0	1.0	1,010	218	250	524	12	18	0			18
23	1.0	1.0	144	167	294	279	14	18	0			18
24	1.0	1.0	60	145	147	181	11	19	0			19
25	1.0	1.0	14	56	114	121	10	16	0			19
26	1.0	1.0	269	57	116	87	12	19	0			18
27	1.0	1.0	391	486	80	85	16	18	0			17
28	1.0	1.0	88	288	71	62	16	19	0			20
29	1.0	1.0	59	401	-----	44	17	18	0			19
30	1.0	1.0	55	224	-----	257	18	16	0			20
31	1.0	-----	41	158	-----	933	-----	17	-----			-----
TOTAL	94.5	30.0	3,551.0	3,018	2,528	4,636	8,173	1,275	392	0	0	1,160
MEAN	3.05	1.00	115	97.4	90.3	150	272	41.1	13.1	0	0	38.7
MAX	25	1.0	1,400	486	418	933	1,060	418	21	0	0	332
MIN	1.0	1.0	1.0	14	15	33	10	16	0	0	0	0

CAL YR 1973 TOTAL 36,904.5 MEAN 101 MAX 2,390 MIN 1.0
WTR YR 1974 TOTAL 24,857.5 MEAN 68.1 MAX 1,400 MIN 0

HACKENSACK RIVER BASIN

27

Reservoirs in Hackensack River basin

01376700 DE FOREST LAKE.--Lat 41°06', long 74°57', Rockland County, N.Y., at dam on Hackensack River, 0.85 mi (1.37 km) north of West Nyack, N.Y. Drainage area, 26.6 mi² (68.9 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 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. Record of elevation and contents 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. Record of elevation and contents 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.

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. Record of elevation and contents furnished by Hackensack Water Co.

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 (2 km) downstream from dam for municipal supply. Record of elevation and contents furnished by Hackensack Water Co.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)
<hr/>						
01376700 De Forest Lake†						
Sept. 30.....	82.35	4,806	-	47.19	1,286	-
Oct. 31.....	80.10	4,099	-35.3	43.09	484	-40.1
Nov. 30.....	79.20	3,842	-13.3	43.40	530	+2.3
Dec. 31.....	85.01	5,642	+89.9	51.00	2,267	+86.6
CAL YR 1973.....	-	-	-0.6	-	-	+5.9
Jan 31.....	85.40	5,779	+6.8	55.13	3,528	+63.0
Feb. 28.....	85.28	5,737	-2.3	55.10	3,518	-0.6
Mar. 31.....	85.60	5,850	+5.7	55.18	3,544	+1.2
Apr. 30.....	85.17	5,698	-7.9	55.09	3,515	-1.5
May 31.....	85.21	5,712	+0.8	55.08	3,511	-0.2
June 30.....	85.03	5,649	-3.2	55.10	3,518	+0.3
July 31.....	83.25	5,089	-28.0	50.36	2,090	-71.3
Aug. 31.....	82.13	4,737	-17.6	48.02	1,485	-30.2
Sept. 30.....	84.07	5,346	+31.4	52.85	2,803	+67.9
WTR YR 1974.....	-	-	+2.3	-	-	+6.5
<hr/>						
01377450 Woodcliff Lake†						
Sept. 30.....	89.33	575	-	18.10	1,947	-
Oct. 31.....	89.93	606	+1.5	19.72	2,245	+14.9
Nov. 30.....	88.83	550	-2.9	18.03	1,934	-16.1
Dec. 31.....	95.43	894	+17.2	23.05	2,940	+50.3
CAL YR 1973.....	-	-	+0.1	-	-	0
Jan. 31.....	95.23	883	-0.5	22.28	2,768	-8.5
Feb. 28.....	95.13	878	-0.3	22.25	2,762	-0.3
Mar. 31.....	95.73	910	+1.5	22.94	2,914	+7.6
Apr. 30.....	95.03	873	-1.9	21.05	2,513	-20.7
May 31.....	94.33	835	-1.9	21.97	2,702	+9.4
June 30.....	94.23	830	-0.3	19.15	2,135	-29.2
July 31.....	89.63	590	-11.9	18.10	1,947	-9.4
Aug. 31.....	88.93	555	-1.7	18.40	2,000	+2.6
Sept. 30.....	91.03	662	+5.6	19.43	2,189	+9.7
WTR YR 1974.....	-	-	+0.4	-	-	+1.0

† Elevation at 0800 on first day of following month.

HACKENSACK RIVER BASIN

Diversions from Hackensack River basin

01376699 Spring Valley Water Co., diverts water at De Forest Lake 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. (sta 01376800) for municipal supply. Records furnished by Board of Water Commissioners of Nyack, N.Y.

01378490 Hackensack Water Co., diverts water for municipal supply from Oradell Reservoir at Haworth pumping station 2.0 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. (sta 01378500). 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 1973 TO SEPTEMBER 1974

Month	Spring Valley Water Co.	West Nyack, N.Y.	Hackensack Water Co.	(*)
October.....	6.82	2.65	141	(142)
November.....	4.44	2.38	107	(140)
December.....	0.53	2.32	103	(137)
CAL YR 1973.....	5.69	2.54	139	1972... (145)
January.....	0	2.33	112	(135)
February.....	0	2.31	112	(134)
March.....	0	2.27	109	(134)
April.....	0	2.56	132	(138)
May.....	4.84	2.48	150	(140)
June.....	8.39	2.62	158	(158)
July.....	13.2	2.86	176	(154)
August.....	9.95	2.79	150	(164)
September.....	6.93	2.47	147	(157)
WTR YR 1974.....	4.62	2.50	133	1973... (141)

* The figures of diversion from Hackensack Water Co. (sta 01378490) as published in WRD-NJ 1973 are incorrect. Use revised figures, noted in parentheses (), as diversion for those months in water year 1973.

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 1973 TO SEPTEMBER 1974

Month	Sparkill Creek (Hudson River Basin)	Hirshfeld Brook (Hackensack River Basin)	Saddle River (Passaic River Basin)	Wells to Surface Supply
October.....	0.08	1.03	4.75	1.16
November.....	0.05	2.03	7.92	1.62
December.....	0.18	1.63	8.32	1.09
CAL YR 1973....	0.03	0.39	3.01	0.32
January.....	0	0	0	0
February.....	0	0	0	0
March.....	0	0	0	0
April.....	0	0	0	0
May.....	0	0	6.26	0
June.....	0	1.79	12.5	0
July.....	0	2.34	10.8	0.09
August.....	0	2.03	10.3	1.54
September.....	0	0.14	9.03	0.12
WTR YR 1974....	0.03	0.92	5.86	0.47

PASSAIC RIVER BASIN

29

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 mi² (22.87 km²).

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.--7 years, 18.2 ft³/s (0.515 m³/s), 27.99 in/yr (711 mm/yr).

EXTREMES.--Current year: Maximum discharge, 509 ft³/s (14.4 m³/s) Dec. 21 (gage height, 13.14 ft or 4.005 m); minimum, 3.4 ft³/s (0.096 m³/s) Aug. 16, 17 (gage height, 9.66 ft or 2.944 m).
Period of record: Maximum discharge, 3,850 ft³/s (109 m³/s) Aug. 28, 1971 (gage height, 18.56 ft or 5.657 m, present datum) from rating curve extended above 600 ft³/s (17 m³/s) on the basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 1.1 ft³/s (0.031 m³/s) Dec. 7, 1970 (gage height, 11.10 ft or 3.383 m), present datum.

REMARKS.--Records good except those for period of no gage-height record, which are fair. The stage-discharge relationship may be affected at high stages by backwater from Osborne Pond, approximately 0.8 mi (1.3 km) downstream.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	16	8.2	33	21	15	40	19	24	10	4.3	4.8
2	7.2	10	7.5	27	21	15	35	17	16	8.2	5.3	21
3	15	9.0	7.5	28	20	14	30	23	15	8.2	8.5	24
4	8.2	8.2	7.5	31	19	14	58	20	13	8.0	6.5	49
5	7.5	7.7	36	25	17	13	45	17	12	7.7	8.2	8.7
6	6.7	7.7	33	24	17	13	38	18	11	7.7	4.8	7.2
7	6.2	7.5	13	23	19	13	32	20	10	7.0	4.5	27
8	6.2	7.2	11	21	18	14	30	17	10	6.7	4.3	9.6
9	6.0	7.5	59	21	17	22	81	20	10	6.5	8.2	7.5
10	6.0	7.2	28	22	17	28	40	47	10	6.5	7.5	6.7
11	5.7	7.0	17	30	17	18	35	21	9.2	6.5	4.8	6.0
12	6.0	7.0	15	25	18	15	33	55	9.0	5.7	4.3	5.7
13	6.0	7.0	14	19	19	14	42	50	9.0	5.5	3.8	5.5
14	6.0	7.0	48	23	18	13	36	24	8.7	5.3	3.8	8.0
15	6.0	7.0	19	19	17	18	78	22	8.2	5.3	3.6	5.5
16	6.0	7.2	16	20	16	24	36	20	24	5.0	3.6	5.0
17	5.7	6.7	20	20	15	31	33	19	16	4.8	27	4.8
18	6.2	6.7	18	17	14	23	31	18	9.0	4.5	10	4.5
19	6.0	7.0	18	19	13	18	37	16	8.2	4.5	5.3	4.5
20	6.2	6.7	16	17	25	30	31	15	8.2	4.5	4.3	4.3
21	6.0	6.7	297	34	64	29	28	15	27	4.1	4.1	7.0
22	5.5	7.7	53	42	85	19	27	15	14	3.8	4.3	7.2
23	5.7	6.7	40	35	30	18	29	16	17	3.8	7.7	5.0
24	5.7	7.2	34	33	21	17	25	22	14	8.5	5.3	4.3
25	6.5	9.0	29	26	18	16	23	20	12	6.7	4.3	4.3
26	6.2	12	69	24	17	16	22	15	13	4.8	4.3	4.3
27	6.2	8.7	71	42	16	15	22	14	9.2	4.5	4.1	4.1
28	6.5	22	38	30	15	15	21	14	9.0	4.8	6.7	12
29	113	19	35	30	-----	18	20	13	11	4.5	6.2	87
30	90	9.2	32	24	-----	29	20	13	8.7	8.7	6.2	11
31	14	-----	31	23	-----	42	-----	13	-----	4.8	5.3	-----
TOTAL	401.1	265.5	1,140.7	807	624	599	1,058	648	375.4	187.1	191.1	365.5
MEAN	12.9	8.85	36.8	26.0	22.3	19.3	35.3	20.9	12.5	6.04	6.16	12.2
MAX	113	22	297	42	85	42	81	55	27	10	27	87
MIN	5.5	6.7	7.5	17	13	13	20	13	8.2	3.8	3.6	4.1
CFSM	1.46	1.00	4.17	2.94	2.53	2.19	4.00	2.37	1.42	.68	.70	1.38
IN.	1.69	1.12	4.81	3.40	2.63	2.52	4.46	2.73	1.58	.79	.81	1.54

CAL YR 1973 TOTAL 8,357.3 MEAN 22.9 MAX 297 MIN 4.6 CFSM 2.59 IN 35.21
WTR YR 1974 TOTAL 6,662.4 MEAN 18.3 MAX 297 MIN 3.6 CFSM 2.07 IN 28.07

PEAK DISCHARGE (BASE, 200 CPS)

NOTE.--No gage-height record Feb. 16 to Apr. 3.

DATE	TIME	G.H.	DISCHARGE
10-29	2345	12.63	370
12-21	0715	13.14	509
9-29	0300	12.50	340

PASSAIC RIVER BASIN

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 mi² (143.5 km²).

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 (65.715 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 (60 m) downstream at present datum. Oct. 31, 1923, to July 3, 1925, nonrecording gage and concrete control at present site and datum.

AVERAGE DISCHARGE.--54 years (1904-5, 1921-74), 87.3 ft³/s (2.472 m³/s), 21.39 in/yr (543 mm/yr) adjusted for diversion since 1970.

EXTREMES.--Current year: Maximum discharge, 990 ft³/s (28.0 m³/s) Dec. 21 (gage height, 7.91 ft or 2.411 m); minimum, 3.6 ft³/s (0.10 m³/s) July 17 (gage height, 4.05 ft or 1.234 m).

Period of record: Maximum discharge, 2,000 ft³/s (56.6 m³/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 ft³/s (39.6 m³/s) on basis of velocity-area study; maximum gage height, 9.73 ft (2.966 m) Aug. 29, 1971; minimum discharge, 0.2 ft³/s (0.006 m³/s) Sept. 12, 13, 1966 (gage height, 3.76 ft or 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	470	102	185	163	97	466	55	57	36	11	44
2	37	375	77	166	135	94	394	48	76	31	11	107
3	49	265	59	145	102	89	306	54	81	24	37	163
4	48	191	53	162	88	83	278	68	64	20	22	358
5	32	131	79	161	76	79	307	55	44	15	32	408
6	25	85	189	149	50	66	330	53	33	15	21	363
7	21	63	191	132	57	52	295	60	28	12	16	346
8	20	51	166	110	58	58	235	52	27	11	16	315
9	18	44	194	80	53	115	307	49	26	9.6	16	240
10	18	37	341	74	48	159	399	143	24	9.6	45	185
11	17	30	321	92	52	153	327	179	21	12	26	135
12	15	28	268	122	47	126	251	169	18	9.4	37	83
13	15	28	209	126	51	101	208	295	18	8.0	26	50
14	15	27	221	100	66	83	218	272	17	7.5	18	50
15	15	26	238	87	71	73	315	210	15	6.7	15	41
16	15	26	200	89	57	85	326	163	23	6.5	13	36
17	15	25	166	104	55	221	276	114	48	5.4	21	33
18	17	23	156	88	54	214	218	82	33	5.0	90	29
19	19	23	126	74	62	172	178	64	25	5.8	74	25
20	23	22	100	77	169	137	168	53	23	5.7	66	23
21	29	21	578	100	180	173	146	46	17	4.8	52	28
22	25	22	925	204	178	397	135	40	42	4.1	31	35
23	21	23	817	243	222	344	126	40	32	4.1	29	28
24	20	21	598	275	195	276	118	51	60	9.3	27	23
25	21	25	378	254	165	207	103	100	56	21	20	22
26	26	41	299	217	134	155	88	82	58	12	18	21
27	23	41	497	228	112	125	76	66	48	11	17	23
28	19	96	460	257	100	105	66	55	40	11	17	80
29	126	144	364	253	-----	90	61	44	45	9.6	65	210
30	460	131	270	230	-----	111	58	42	39	20	54	120
31	503	-----	212	193	-----	356	-----	35	-----	16	53	-----
TOTAL	1,750	2,535	8,854	4,777	2,800	4,596	6,779	2,839	1,138	378.1	996	3,624
MEAN	56.5	84.5	286	154	100	148	226	91.6	37.9	12.2	32.1	121
MAX	503	470	925	275	222	397	466	295	81	36	90	408
MIN	15	21	53	74	47	52	58	35	15	4.1	11	2.0
(†)	2.5	2.3	2.4	2.1	2.2	2.3	2.4	2.4	2.5	2.8	2.3	2.0
MEAN‡	59.0	86.8	288	156	102	150	228	94.0	40.4	15.0	34.4	123
CFSM‡	1.06	1.57	5.20	2.82	1.84	2.71	4.12	1.70	.73	.27	.62	2.22
IN‡	1.23	1.75	5.99	3.25	1.92	3.12	4.59	1.96	.81	.31	.72	2.48

CAL YR 1973 TOTAL 50,558.3 MEAN 139 MAX 1,000 MIN 6.5 MEAN‡ 142 CFSM‡ 2.56 IN‡ 34.62
WTR YR 1974 TOTAL 41,066.1 MEAN 113 MAX 925 MIN 4.1 MEAN‡ 115 CFSM‡ 2.08 IN‡ 28.13

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.H.	DISCHARGE
10-30	1615	6.81	548
12-21	2345	7.91	990

† 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.

PASSAIC RIVER BASIN

31

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 mi² (259 km²).

PERIOD OF RECORD.--February 1903 to December 1911, October 1937 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.--45 years (1903-11, 1937-74), 166 ft³/s (4.701 m³/s), 22.54 in/yr (573 mm/yr), adjusted for diversion since 1970.

EXTREMES.--Current year: Maximum discharge, 1,400 ft³/s (39.6 m³/s) Dec. 21 (gage height, 6.36 ft or 1.939 m); minimum, 13 ft³/s (0.37 m³/s) July 21-23 (gage height, 3.10 ft or 0.945 m).
Period of record: Maximum discharge, 3,380 ft³/s (95.7 m³/s) Aug. 2, 1973 (gage height, 9.36 ft or 2.853 m, from floodmark); minimum, 2.0 ft³/s (0.057 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	842	151	387	257	154	830	80	91	63	26	76
2	56	693	118	306	210	148	830	73	113	56	46	217
3	65	559	95	250	165	135	700	80	128	47	130	345
4	78	426	83	327	130	128	630	95	107	39	60	693
5	60	269	181	301	130	123	700	87	85	43	40	673
6	45	148	437	246	194	111	700	80	65	33	41	602
7	37	103	363	217	93	95	630	87	53	28	34	633
8	34	83	273	184	95	99	570	83	48	26	31	571
9	33	73	452	116	93	181	950	85	47	25	47	484
10	31	66	595	138	133	301	770	273	46	26	116	382
11	30	55	589	181	81	265	770	331	43	24	66	302
12	29	50	506	269	83	207	570	336	41	24	41	273
13	28	48	411	289	80	165	406	506	38	21	45	235
14	26	48	484	228	99	133	457	495	35	20	36	184
15	23	47	437	181	105	116	570	407	32	21	31	140
16	25	47	363	145	91	154	630	293	60	19	26	90
17	24	46	297	171	87	402	570	194	87	18	246	74
18	23	41	318	239	81	416	457	135	69	16	416	68
19	23	39	231	231	100	321	358	103	51	16	162	62
20	23	40	177	145	289	228	314	87	43	14	91	54
21	24	38	1,090	210	296	382	273	76	39	14	78	47
22	26	38	1,260	442	294	576	235	68	40	14	60	42
23	26	38	1,260	495	387	580	200	71	83	15	60	36
24	26	41	1,140	501	331	529	168	107	85	32	52	35
25	23	50	966	468	263	420	168	140	89	38	41	33
26	23	60	867	407	221	289	140	125	83	34	33	33
27	23	68	925	416	174	204	109	97	76	26	31	32
28	23	165	899	421	151	162	97	87	66	21	41	68
29	354	231	757	421	-----	135	89	74	73	23	80	402
30	880	197	621	382	-----	210	83	65	66	38	207	349
31	949	-----	479	323	-----	582	-----	62	-----	35	120	-----
TOTAL	3,135	4,649	16,825	9,037	4,713	7,951	13,974	4,882	1,982	869	2,534	7,235
MEAN†	101	155	543	292	168	256	466	157	66.1	28.0	81.7	241
MAX	949	842	1,260	501	387	582	950	506	128	63	416	693
MIN	23	38	83	116	80	95	83	62	32	14	26	32
(†)	2.5	2.3	2.4	2.1	2.2	2.3	2.4	2.4	2.5	2.8	2.3	2.0
MEAN‡	104	157	545	294	170	258	468	159	68.6	30.8	84.0	243
CFSM‡	1.04	1.57	5.45	2.94	1.70	2.58	4.68	1.59	.69	.31	.84	2.43
IN‡	1.20	1.75	6.28	3.39	1.77	2.97	5.22	1.83	.76	.36	.97	2.71

CAL YR 1973 TOTAL 93,733 MEAN 257 MAX 1,460 MIN 17 MEAN‡ 260 CFSM‡ 2.60 IN‡ 34.68
WTR YR 1974 TOTAL 77,786 MEAN 213 MAX 1,260 MIN 14 MEAN‡ 215 CFSM‡ 2.15 IN‡ 29.21

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-29	2300	6.25	1,330	8-17	1830	5.57	932
12-21	1130	6.36	1,400	9-04	0015	5.47	872

† 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.

PASSAIC RIVER BASIN

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 mi² (300 km²).

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

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

AVERAGE DISCHARGE.--37 years, 216 ft³/s (6.117 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 3,480 ft³/s (98.6 m³/s) Dec. 21 (gage height, 6.59 ft or 2.009 m) from rating curve extended above 2,400 ft³/s (68 m³/s); minimum, 32 ft³/s (0.91 m³/s) Oct. 28 (gage height, 1.88 ft or 0.573 m).

Period of record: Maximum discharge, 3,510 ft³/s (99.4 m³/s) June 2, 1952 (gage height, 6.62 ft or 2.018 m) from rating curve extended above 2,400 ft³/s (68 m³/s); minimum daily, 10 ft³/s (0.28 m³/s) Aug. 10, 1966.

REVISIONS.--The minimum discharge for period of record as previously published was found to be ice affected and is not hydrologically significant and should not be used.

REMARKS.--Records fair. 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 m³) and by pumping from wells in vicinity of Boonton. The mean diversion during the water year from Taylortown Reservoir was 0.6 ft³/s (0.017 m³/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, Bureau of Water.

REVISIONS (WATER YEARS).--WRD-NJ 1973: 1952 (M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	416	142	632	438	308	1,040	215	301	178	78	87
2	61	289	137	586	402	270	812	192	276	141	66	469
3	143	202	122	528	375	258	708	225	220	116	132	484
4	127	150	118	514	349	258	835	252	196	100	96	1,120
5	89	130	216	476	247	264	850	215	166	91	126	781
6	70	139	419	431	282	247	843	201	139	91	80	476
7	59	129	318	402	295	230	694	247	131	86	66	579
8	54	129	256	375	264	225	586	210	125	78	58	549
9	53	125	484	328	247	382	923	206	114	71	58	409
10	50	118	835	382	230	424	976	594	100	69	104	295
11	46	115	535	424	230	349	752	469	89	73	62	220
12	41	111	424	446	215	295	640	514	82	62	51	183
13	41	108	368	362	215	252	616	1,150	85	59	48	158
14	44	94	843	295	235	220	656	827	76	58	47	192
15	40	95	708	314	220	196	812	624	76	54	42	158
16	39	95	500	301	196	295	680	500	215	53	40	136
17	36	88	461	321	187	715	542	409	744	50	158	108
18	72	84	375	252	179	484	469	349	409	47	235	104
19	66	84	328	295	230	375	492	295	247	48	95	97
20	57	81	362	282	601	321	542	258	170	45	68	91
21	55	80	2,070	368	446	514	453	225	258	41	54	114
22	53	96	2,660	609	461	866	396	210	355	41	50	145
23	55	82	1,650	579	609	556	417	206	220	40	102	112
24	45	87	1,210	571	461	484	368	210	241	69	84	95
25	40	116	969	514	382	431	328	235	210	75	69	87
26	37	134	916	476	335	382	295	210	201	58	51	85
27	38	140	1,220	594	295	349	270	187	166	53	53	82
28	35	282	1,020	648	282	314	252	174	155	50	51	131
29	103	273	835	640	-----	295	230	158	187	61	56	866
30	1,010	208	723	556	-----	368	215	155	145	135	166	528
31	777	-----	632	500	-----	989	-----	145	-----	91	135	-----
TOTAL	3,505	4,280	21,896	14,001	8,908	11,916	17,692	10,067	6,099	2,284	2,581	8,941
MEAN	113	143	706	452	318	384	590	325	203	73.7	83.3	298
MAX	1,010	416	2,660	648	609	989	1,040	1,150	744	178	235	1,120
MIN	35	80	118	252	179	196	215	145	76	40	40	82

CAL YR 1973 TOTAL 121,593 MEAN 333 MAX 2,680 MIN 32
WTR YR 1974 TOTAL 112,170 MEAN 307 MAX 2,660 MIN 35

PEAK DISCHARGE (BASE, 950 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	1315	4.89	1,740	4-01	0015	4.00	1,160
12-10	0445	3.67	953	4-09	1715	3.93	1,120
12-21	2145	6.59	3,480	5-13	0645	4.21	1,280
3-22	0015	3.78	1,030	9-04	0815	4.10	1,220

PASSAIC RIVER BASIN

33

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 mi² (308 km²).

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, non-recording 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.--68 years (1906-74), 134 ft³/s (3.795 m³/s) adjusted for sewage effluent since October 1930.

EXTREMES.--Current year: Maximum discharge, 2,710 ft³/s (76.7 m³/s) Dec. 22 (gage height, 7.26 ft or 2.213 m); minimum, 9.1 ft³/s (0.26 m³/s), Nov. 21 (gage height, 1.54 ft or 0.470 m); minimum daily, 9.7 ft³/s (0.28 m³/s) Sept. 27.

Period of record: Maximum daily discharge, 7,560 ft³/s (214 m³/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. 51).

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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	10	416	273	133	665	11	92	42	10	10
2	11	11	10	393	241	123	470	11	150	38	11	13
3	12	11	10	362	224	113	389	12	110	23	10	14
4	11	11	10	348	196	108	416	12	82	15	10	13
5	11	11	13	318	138	113	461	12	56	13	10	11
6	11	10	11	287	113	102	452	12	32	11	10	10
7	11	11	10	234	140	92	384	13	21	11	10	13
8	11	10	10	196	125	84	357	22	17	11	10	11
9	11	10	16	187	108	169	438	50	16	11	10	10
10	11	10	11	193	98	238	582	302	17	11	10	11
11	11	10	11	234	94	205	407	283	18	11	10	11
12	11	11	96	252	78	150	362	310	12	11	11	11
13	11	11	214	211	70	115	357	770	12	11	11	12
14	11	11	398	163	80	84	362	488	12	10	11	11
15	11	11	528	155	76	60	380	393	11	11	11	13
16	11	11	406	140	62	90	371	280	12	11	11	12
17	11	10	362	148	56	380	344	241	86	10	12	15
18	11	10	287	125	48	348	302	211	280	11	10	11
19	11	10	238	120	56	248	290	163	128	11	10	11
20	11	10	231	130	287	187	335	128	53	10	11	11
21	11	10	1,310	150	287	255	306	94	52	10	11	11
22	11	11	2,410	330	241	501	259	72	248	11	11	10
23	11	11	1,580	362	362	398	255	67	78	10	11	10
24	11	11	975	357	302	339	220	82	108	10	10	10
25	12	11	675	326	231	283	184	94	96	10	10	10
26	13	11	578	290	184	234	158	84	82	10	11	10
27	13	11	865	339	145	199	135	67	54	10	10	9.7
28	12	13	775	389	123	169	135	59	38	10	11	13
29	20	12	573	389	-----	158	70	47	49	10	11	196
30	15	10	479	362	-----	202	11	38	47	10	11	310
31	12	-----	420	322	-----	479	-----	32	-----	10	10	-----
TOTAL	362	323	13,522	8,228	4,438	6,359	9,857	4,460	2,069	404	326	823.7
MEAN	11.7	10.8	4.36	265	159	205	329	144	69.0	13.0	10.5	27.5
MAX	20	13	2,410	416	362	501	665	770	280	42	12	310
MIN	11	10	10	120	48	60	11	11	11	10	10	9.7

CAL YR 1973 TOTAL 77,014.9 MEAN 211 MAX 2,410 MIN 9.1
WTR YR 1974 TOTAL 51,171.7 MEAN 140 MAX 2,410 MIN 9.7

PASSAIC RIVER BASIN

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 mi² (76.1 km²).

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.--53 years, 50.2 ft³/s (1.422 m³/s) 23.19 in/yr (589 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,450 ft³/s (41.1 m³/s) probably occurred Dec. 21 (gage height, 6.20 ft or 1.890 m, from peak-stage indicator); minimum, 12 ft³/s (0.34 m³/s) Aug. 16 (gage height, 1.83 ft or 0.558 m).
Period of record: Maximum discharge, 2,280 ft³/s (64.6 m³/s) Aug. 28, 1971 (gage height, 7.60 ft or 2.316 m); minimum, 2.8 ft³/s (0.079 m³/s) Aug. 27, 1932 (gage height, 0.73 ft or 0.223 m).

REMARKS.--Records excellent except those from Dec. 1 to July 23, which are fair. 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.

CORRECTION.--Figures of daily discharges for the period Sept. 22-30, 1965 as published in WSP 1902 were found to be incorrect and should not be used. Correct figures for this period can be found in WRD-NJ 1965.

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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	69	36	105	76	57	214	59	99	51	17	19
2	30	50	33	100	75	53	134	54	63	51	28	99
3	67	42	32	90	71	52	117	72	54	47	50	106
4	36	38	33	85	67	53	198	64	42	40	44	206
5	28	37	112	80	65	51	164	53	39	36	43	48
6	24	36	148	75	59	47	147	58	35	35	21	30
7	23	34	58	70	65	45	109	62	34	34	19	123
8	24	33	48	65	61	57	104	52	37	33	18	53
9	24	32	190	60	59	93	291	77	37	32	33	32
10	23	31	187	68	55	94	184	191	31	34	32	29
11	22	29	78	78	55	59	121	81	29	41	17	26
12	22	30	65	78	53	53	111	166	29	34	16	24
13	21	31	65	66	57	49	132	250	34	29	16	23
14	21	30	204	62	62	46	150	97	27	27	16	32
15	20	30	100	64	56	45	224	80	26	24	14	21
16	20	31	74	65	49	116	125	71	66	22	14	18
17	20	27	81	69	50	220	102	66	86	20	101	20
18	20	27	67	58	47	81	96	61	36	18	135	21
19	19	28	60	66	79	68	121	57	30	18	26	18
20	20	26	72	61	148	62	109	54	28	17	19	18
21	19	27	400	105	69	218	89	53	73	16	18	32
22	20	30	500	150	109	243	85	50	110	18	17	28
23	20	28	260	119	117	102	93	57	53	19	49	18
24	20	32	200	118	63	96	80	73	69	51	25	17
25	20	47	170	90	62	84	74	71	66	30	19	17
26	20	47	160	85	58	79	70	50	64	20	19	17
27	19	41	220	145	54	76	67	48	60	19	20	17
28	19	101	170	119	54	72	64	49	55	18	25	78
29	247	74	140	114	-----	71	63	46	52	28	21	300
30	575	42	120	88	-----	110	61	44	52	59	50	70
31	93	-----	110	83	-----	371	-----	42	-----	21	25	-----
TOTAL	1,587	1,160	4,193	2,681	1,895	2,923	3,699	2,308	1,516	942	967	1,560
MEAN	51.2	38.7	135	86.5	67.7	94.3	123	74.5	50.5	30.4	31.2	52.0
MAX	575	101	500	150	148	371	291	250	110	59	135	300
MIN	19	26	32	58	47	45	61	42	26	16	14	17
CFSM	1.74	1.32	4.59	2.94	2.30	3.21	4.18	2.53	1.72	1.03	1.06	1.77
IN.	2.01	1.47	5.31	3.39	2.40	3.70	4.68	2.92	1.92	1.19	1.22	1.97
CAL YR 1973 TOTAL	29,555		MEAN 81.0	MAX 770	MIN 18	CFSM 2.76	IN 37.40					
WTR YR 1974 TOTAL	25,431		MEAN 69.7	MAX 575	MIN 14	CFSM 2.37	IN 32.18					

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0915	4.69	806	4-14	2315	4.05	550
12-21		6.20	1,450	9-28	2400	4.15	590

PASSAIC RIVER BASIN

35

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 water-works, 0.4 mi (0.6 km) downstream from Macopin River, and 3.0 mi (4.8 km) northwest of Butler.

DRAINAGE AREA.--63.7 mi² (165.0 km²).

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.--76 years, 52.3 ft³/s (1.481 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 875 ft³/s (24.8 m³/s) May 14 (gage height, 14.65 ft or 4.465 m), from rating curve extended above 320 ft³/s (9.06 m³/s) on basis of computation of peak flow through culvert and flow over dam; no flow over dam part of Nov. 16.
Period of record: Maximum discharge, about 6,100 ft³/s (173 m³/s) Oct. 10, 1903 (gage height, 17.4 ft or 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. 48). Water diverted above intake dam for municipal supply of city of Newark (see p. 51). Records of water quality for the current year are published in Part 2 of this report.

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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	10	9.0	28	111	36	372	10	16	9.0	3.8	9.0
2	2.3	7.6	6.2	25	83	40	334	9.0	12	7.6	3.8	45
3	3.5	7.6	6.2	25	69	36	289	10	10	6.2	6.2	32
4	2.6	6.2	6.2	76	45	32	325	10	9.0	5.0	6.2	62
5	1.6	5.0	16	62	32	32	363	9.0	7.6	5.0	5.0	25
6	1.9	5.0	25	56	25	36	354	7.6	6.2	6.2	3.8	16
7	1.9	5.0	16	45	25	25	253	9.0	6.2	5.0	3.8	22
8	2.2	5.0	14	32	22	22	205	7.6	6.2	3.8	3.8	16
9	2.2	3.8	56	28	25	76	401	9.0	6.2	3.8	3.8	10
10	1.7	5.0	50	56	25	132	401	22	5.0	3.8	3.8	9.0
11	1.9	5.0	32	125	22	83	271	14	3.8	3.8	3.8	9.0
12	1.8	3.8	25	104	16	45	228	45	5.0	3.8	3.8	7.6
13	2.1	3.8	22	76	16	36	212	298	3.8	2.7	3.8	6.2
14	1.1	3.8	76	69	14	25	205	363	3.8	2.7	3.8	9.0
15	1.2	3.8	36	69	14	19	212	235	3.8	3.8	3.8	6.2
16	1.1	3.8	28	69	12	28	168	168	25	2.7	3.8	5.0
17	1.2	3.8	28	69	12	205	118	111	69	2.7	5.0	3.8
18	1.4	5.0	19	69	10	175	83	76	28	2.7	5.0	5.0
19	1.4	2.7	16	56	16	111	104	40	16	3.8	3.8	3.8
20	1.4	2.7	16	69	25	83	139	22	10	2.7	3.8	3.8
21	1.4	2.7	325	69	16	190	104	14	12	2.7	3.8	3.8
22	1.6	3.8	175	69	28	298	69	10	10	2.7	5.0	5.0
23	1.8	3.8	90	69	32	212	56	10	10	2.7	6.2	3.8
24	2.2	3.8	50	125	32	182	45	12	10	5.0	6.2	2.7
25	2.2	5.0	36	139	69	139	28	12	10	3.8	6.2	2.7
26	2.1	5.0	45	125	62	97	16	9.0	9.0	3.8	5.0	2.7
27	1.1	5.0	76	132	40	69	14	9.0	9.0	3.8	5.0	2.7
28	1.7	10	76	182	28	45	12	7.6	7.6	3.8	5.0	6.2
29	19	10	45	198	-----	40	10	7.6	12	5.0	6.2	36
30	40	7.6	32	205	-----	90	10	7.6	9.0	9.0	9.0	16
31	12	-----	28	153	-----	382	-----	7.6	-----	5.0	7.6	-----
TOTAL	121.5	155.1	1,480.6	2,674	926	3,021	5,401	1,581.6	351.2	134.1	149.6	387.0
MEAN	3.92	5.17	47.8	86.3	33.1	97.5	180	51.0	11.7	4.33	4.83	12.9
MAX	40	10	325	205	111	382	401	363	69	9.0	9.0	62
MIN	1.1	2.7	6.2	25	10	19	10	7.6	3.8	2.7	3.8	2.7

CAL YR 1973 TOTAL 24,801.80 MEAN 65.0 MAX 1,190 MIN 0
WTR YR 1974 TOTAL 16,382.70 MEAN 44.9 MAX 401 MIN 1.1

PASSAIC RIVER BASIN

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 mi² (70.2 km²).

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.--55 years, 52.1 ft³/s (1.475 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,140 ft³/s (32.3 m³/s) Dec. 22 (gage height, 4.73 ft or 1.442 m); minimum, 3.6 ft³/s (0.10 m³/s) Oct. 27-30 (gage height, 1.54 ft or 0.469 m).
Period of record: Maximum discharge, 1,300 ft³/s (36.8 m³/s) Oct. 16, 1955 (gage height, 5.85 ft or 1.783 m) from rating curve extended above 300 ft³/s (8.50 m³/s) on basis of laboratory rating; no low at times when gates at Greenwood Lake were closed and no water passed over spillway.

REMARKS.--Records excellent except those above 300 ft³/s (8.5 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	7.9	30	129	110	67	144	37	35	30	5.4	25
2	5.4	10	24	112	97	65	151	29	42	28	5.4	60
3	5.4	16	22	99	91	62	149	29	38	25	6.2	100
4	5.4	14	21	97	78	59	161	32	34	24	7.6	140
5	5.4	14	31	82	67	58	182	26	29	24	8.6	100
6	4.9	13	68	71	56	56	191	24	27	27	7.3	82
7	4.9	11	73	62	52	52	161	26	24	24	6.2	94
8	4.9	9.7	67	56	47	51	149	22	21	21	5.7	84
9	4.9	12	112	58	44	57	189	20	20	17	5.4	70
10	4.9	11	186	61	39	75	203	31	18	13	5.4	56
11	4.9	9.0	182	65	35	61	179	34	16	11	4.9	47
12	4.9	8.3	151	59	33	58	155	44	13	7.6	4.9	38
13	4.9	7.9	127	52	31	58	142	164	11	6.5	4.7	43
14	4.9	8.3	175	46	30	49	134	172	9.0	5.9	4.7	40
15	4.5	9.0	175	41	29	37	136	155	7.6	5.7	4.7	34
16	4.2	13	157	39	27	47	125	138	12	5.4	4.7	16
17	4.2	12	172	38	26	99	103	121	43	5.1	5.7	24
18	4.0	8.3	134	36	24	107	89	101	56	5.1	8.3	21
19	4.0	8.3	107	40	27	95	91	82	47	5.1	7.0	19
20	4.0	7.0	89	40	54	85	93	65	41	4.9	6.7	16
21	4.0	5.7	641	47	56	103	80	52	40	4.9	5.9	17
22	3.8	6.5	986	76	67	140	73	46	39	5.1	5.4	19
23	3.8	5.9	614	97	103	134	68	43	37	5.1	6.1	15
24	3.8	6.5	384	114	99	129	62	42	38	5.1	7.6	10
25	3.8	12	264	116	93	110	54	41	42	5.1	9.0	8.3
26	3.8	14	206	112	87	89	46	33	36	5.4	7.6	7.3
27	3.6	14	212	125	75	80	38	28	33	5.4	7.0	6.7
28	3.6	20	206	140	67	68	34	26	30	5.4	7.3	18
29	3.6	31	182	151	-----	65	32	24	29	5.4	10	53
30	4.0	29	159	140	-----	78	32	23	27	5.4	17	56
31	5.1	-----	140	127	-----	123	-----	20	-----	5.4	21	-----
TOTAL	138.9	354.3	6,097	2,528	1,644	2,417	3,446	1,730	894.6	353.0	223.4	1,319.3
MEAN	4.48	11.8	197	81.5	58.7	78.0	115	55.8	29.8	11.4	7.21	44.0
MAX	5.4	31	986	151	110	140	203	172	56	30	21	140
MIN	3.6	5.7	21	36	24	37	32	20	7.6	4.9	4.7	6.7

CAL YR 1973 TOTAL 27,672.4 MEAN 75.8 MAX 986 MIN 3.6
WTR YR 1974 TOTAL 21,145.5 MEAN 57.9 MAX 986 MIN 3.6

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.	DISCHARGE
12-22	0130	4.73	1,140
4-09	1700	3.18	217

PASSAIC RIVER BASIN

37

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 mi² (104.6 km²).

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.--40 years, 80.3 ft³/s (2.274 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,590 ft³/s (45.0 m³/s) Dec. 21 (gage height, 2.85 ft or 0.869 m); minimum, 1.8 ft³/s (0.051 m³/s), regulated, Oct. 25 (gage height, 0.05 ft or 0.015 m); minimum daily, 2.8 ft³/s (0.079 m³/s) Oct. 24.
Period of record: Maximum discharge, 3,640 ft³/s (103 m³/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 ft³/s (28.3 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	14	46	172	145	103	226	62	78	40	6.7	26
2	6.2	18	39	151	130	98	214	52	71	37	6.7	85
3	8.0	19	34	131	125	95	203	54	60	32	13	90
4	7.1	20	32	128	110	95	226	58	52	29	9.8	179
5	6.7	18	56	113	95	90	255	46	46	34	12	128
6	6.2	16	113	103	80	85	265	40	40	40	9.8	103
7	5.8	13	103	93	78	78	218	46	34	32	8.6	116
8	5.8	13	92	83	71	78	196	39	31	26	7.6	105
9	5.8	13	170	80	67	95	325	36	29	22	7.1	90
10	5.8	12	290	85	60	116	300	78	26	18	8.0	78
11	5.8	9.2	290	90	56	98	246	69	22	14	6.7	67
12	5.8	9.8	230	90	52	93	214	140	20	11	6.2	58
13	5.8	11	147	80	50	88	200	350	16	8.6	5.8	50
14	5.4	11	305	85	52	78	189	255	13	7.6	5.8	58
15	4.5	11	242	64	48	67	193	214	12	7.1	5.8	46
16	4.9	12	207	60	42	93	172	186	16	7.1	5.4	39
17	4.5	16	214	64	42	182	144	158	54	6.7	7.1	32
18	4.5	12	175	64	39	154	128	137	71	5.8	12	28
19	4.5	11	151	67	52	137	140	116	60	6.2	9.2	25
20	3.2	10	119	67	113	125	137	98	52	6.2	8.0	21
21	3.2	9.2	1,180	90	90	189	119	80	54	5.8	7.6	24
22	4.0	8.6	900	144	125	214	108	71	56	5.8	6.7	32
23	3.6	8.6	590	158	165	189	105	67	50	6.2	8.0	24
24	2.8	9.2	418	175	137	179	95	69	52	6.7	9.8	16
25	3.6	13	305	168	128	151	85	71	58	6.2	12	13
26	4.9	25	240	158	119	128	76	56	52	6.2	9.2	12
27	4.9	21	305	196	105	116	67	46	44	7.1	8.6	10
28	4.9	34	275	203	100	103	60	42	40	6.7	8.0	14
29	9.2	56	238	214	-----	95	56	37	40	10	13	113
30	40	48	207	190	-----	113	54	39	37	10	24	98
31	13	-----	182	165	-----	222	-----	34	-----	7.6	31	-----
TOTAL	206.6	501.6	7,915	3,731	2,476	3,747	5,016	2,846	1,286	468.6	299.2	1,780
MEAN	6.66	16.7	255	120	88.4	121	167	91.8	42.9	15.1	9.65	59.3
MAX	40	56	1,180	214	165	222	325	350	78	40	31	179
MIN	2.8	8.6	32	60	39	67	54	34	12	5.8	5.4	10

CAL YR 1973 TOTAL 39,324.6 MEAN 108 MAX 1,250 MIN 2.8
WTR YR 1974 TOTAL 30,273.0 MEAN 82.9 MAX 1,180 MIN 2.8

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	1545	2.85	1,590
5-12	2300	1.81	597

PASSAIC RIVER BASIN

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 mi² (49.5 km²).

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.--40 years, 32.8 ft³/s (0.929 m³/s) 23.32 in/yr (592 mm/yr).

EXTREMES.--Current year: Maximum discharge, 668 ft³/s (18.9 m³/s) Dec. 21 (gage height 2.84 ft or 0.866 m); no flow for part of July 29, just after waste gate was closed and water was below spillway and port intakes. Period of record: Maximum discharge, 1,150 ft³/s (32.6 m³/s) Mar. 30, 1951 (gage height, 3.74 ft or 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 except those from Dec. 17 to Jan. 24, which are poor. Records given herein include flow over spillway and through ports in dam or through waste gate in dam. Flow slightly regulated by Ringwood Mill Pond, Sterling, and Sterling Forest Lakes, and several smaller lakes above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	16	10	86	65	45	111	32	50	12	2.9	4.5
2	1.8	11	9.1	82	59	42	97	26	37	8.6	2.7	30
3	2.6	8.7	8.2	77	53	41	88	29	28	6.8	5.0	36
4	2.6	6.9	7.8	74	47	41	115	29	24	6.0	4.3	67
5	2.3	5.5	20	73	41	40	121	24	22	8.6	4.5	27
6	1.9	4.5	42	71	38	36	121	24	19	13	3.3	18
7	1.8	4.3	26	68	36	34	97	26	16	7.8	2.9	29
8	1.8	3.8	21	67	33	34	88	22	16	5.5	2.8	23
9	1.7	3.8	82	55	30	44	183	22	15	4.5	2.8	18
10	1.8	3.3	99	47	28	50	132	41	14	4.1	2.8	15
11	2.2	3.1	65	40	26	41	107	35	11	3.3	2.6	13
12	2.1	3.1	52	35	24	37	95	73	9.1	2.9	2.2	11
13	2.1	3.1	46	31	23	34	95	178	9.1	2.7	2.1	10
14	2.1	3.1	132	28	25	32	91	105	7.8	2.7	1.9	14
15	1.9	3.0	88	26	23	29	99	80	6.0	2.8	1.8	10
16	2.1	3.0	71	25	21	52	79	68	10	2.8	1.8	8.7
17	2.2	2.8	50	25	21	99	70	59	15	2.4	2.1	7.3
18	2.2	2.7	45	25	20	68	65	53	11	2.3	5.3	6.9
19	2.1	2.7	40	24	30	61	73	45	8.7	2.7	2.8	6.4
20	2.1	2.7	38	24	59	55	67	38	7.3	2.9	2.4	6.0
21	1.9	2.7	588	23	38	101	55	34	11	2.6	2.3	8.7
22	2.1	3.0	450	84	61	107	52	30	11	2.2	2.2	12
23	1.9	2.7	261	86	74	84	49	30	10	2.3	2.9	8.2
24	1.9	3.0	160	90	55	77	45	36	12	2.5	3.6	5.5
25	1.8	5.3	120	76	52	67	40	34	14	2.5	2.8	5.5
26	1.9	7.8	100	70	47	67	36	28	13	3.5	2.7	5.3
27	1.9	6.9	130	93	44	61	33	24	11	5.0	2.9	5.0
28	1.9	12	130	93	42	50	30	22	9.6	3.0	2.8	9.6
29	9.6	19	123	95	-----	46	28	22	11	6.8	3.8	82
30	79	14	103	80	-----	58	27	24	9.1	8.2	7.8	42
31	22	-----	91	73	-----	130	-----	22	-----	4.3	7.3	-----
TOTAL	167.1	173.5	3,208.1	1,846	1,115	1,763	2,389	1,315	447.7	147.3	100.1	544.6
MEAN	5.39	5.78	103	59.5	39.8	56.9	79.6	42.4	14.9	4.75	3.23	18.2
MAX	79	19	588	95	74	130	183	178	50	13	7.8	82
MIN	1.7	2.7	7.8	23	20	29	27	22	6.0	2.2	1.8	4.5
CFSM	.28	.30	5.39	3.12	2.08	2.98	4.17	2.22	.78	.25	.17	.95
IN.	.33	.34	6.25	3.60	2.17	3.43	4.65	2.56	.87	.29	.19	1.06

CAL YR 1973 TOTAL 15,996.4 MEAN 43.8 MAX 588 MIN 1.5 CFSM 2.29 IN 31.16
WTR YR 1974 TOTAL 13,216.4 MEAN 36.2 MAX 588 MIN 1.7 CFSM 1.90 IN 25.74

PEAK DISCHARGE (BASE, 230 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	0815	2.84	668
4-09	1215	1.67	232
5-12	2345	1.75	255

PASSAIC RIVER BASIN

39

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 mi² (30.6 km²).

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.--40 years, 23.7 ft³/s (0.671 m³/s), 27.27 in/yr (693 mm/yr).

EXTREMES.--Current year: Maximum discharge, 432 ft³/s (12.2 m³/s) Dec. 21 (gage height, 2.71 ft or 0.826 m); no flow for part of July 19 when waste gate was closed and water was below intake to ports.
Period of record: Maximum discharge, 1,900 ft³/s (53.8 m³/s) Mar. 30, 1951 (gage height, 6.6 ft or 2.01 m, from floodmark), from rating curve extended above 630 ft³/s (17.8 m³/s); no flow part of day in most years just after waste gate was closed and water was below intake to ports.

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

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	14	8.5	38	35	28	106	15	35	8.5	2.8	4.6
2	3.8	9.5	6.0	38	30	26	80	13	27	7.5	2.2	56
3	6.0	7.5	4.6	35	27	25	60	16	17	5.5	6.5	47
4	4.6	5.5	3.8	33	23	24	72	22	13	4.6	4.6	106
5	3.8	5.0	15	26	19	24	72	20	11	6.0	4.6	34
6	3.4	4.6	37	23	20	22	71	17	9.0	8.5	3.4	18
7	3.1	3.8	21	23	17	20	52	20	8.0	6.0	2.5	38
8	2.8	3.4	14	21	16	19	43	13	7.5	3.8	2.5	31
9	2.8	3.1	89	17	15	32	122	12	7.5	3.1	2.2	19
10	2.2	2.8	89	17	14	43	101	44	6.5	2.8	4.2	14
11	2.2	3.4	41	17	13	38	68	37	6.0	2.8	2.8	11
12	1.9	5.5	27	19	12	32	53	50	5.0	2.5	2.2	8.5
13	1.9	4.6	23	19	12	27	52	146	4.6	2.2	1.9	7.0
14	1.9	3.8	128	19	15	22	50	94	4.2	2.2	1.7	12
15	2.2	3.1	62	21	13	21	59	62	3.8	1.9	1.7	8.0
16	2.2	2.8	37	20	15	41	44	45	15	1.9	1.5	6.0
17	2.5	2.2	31	20	13	92	35	36	45	1.7	1.9	5.0
18	2.2	2.2	24	20	12	52	31	31	17	1.5	2.5	5.0
19	2.5	2.2	20	18	21	41	41	24	10	1.3	1.7	4.6
20	1.9	2.2	24	19	56	35	42	20	7.5	1.3	1.5	4.2
21	1.7	2.2	300	30	33	75	32	17	8.5	1.3	1.5	5.0
22	1.7	2.5	192	62	56	94	27	15	11	1.3	1.3	9.0
23	1.9	2.5	89	63	71	59	26	14	7.5	1.3	2.5	7.0
24	2.2	2.8	60	68	41	49	23	15	9.5	1.9	3.8	6.5
25	2.2	7.5	45	52	35	39	22	18	9.0	2.2	5.5	6.0
26	1.9	8.0	59	43	29	35	21	15	10	1.7	2.8	6.0
27	2.2	6.5	108	72	26	31	19	12	8.5	4.2	2.2	6.0
28	3.1	12	77	69	25	28	16	12	8.0	2.8	1.9	11
29	14	16	56	69	-----	26	14	11	10	6.0	1.9	109
30	62	11	45	50	-----	32	13	11	9.0	8.0	7.5	42
31	20	-----	39	42	-----	117	-----	10	-----	4.2	7.5	-----
TOTAL	169.9	162.2	1,774.9	1,083	714	1,249	1,467	887	350.6	110.5	93.3	646.4
MEAN	5.48	5.41	57.3	34.9	25.5	40.3	48.9	28.6	11.7	3.56	3.01	21.5
MAX	62	16	300	72	71	117	122	146	45	8.5	7.5	109
MIN	1.7	2.2	3.8	17	12	19	13	10	3.8	1.3	1.3	4.2
CFSM	.46	.46	4.86	2.96	2.16	3.42	4.14	2.42	.99	.30	.26	1.82
IN.	.54	.51	5.60	3.41	2.25	3.94	4.62	2.80	1.11	.35	.29	2.04

CAL YR 1973 TOTAL 10,377.6 MEAN 28.4 MAX 416 MIN 1.3 CFSM 2.41 IN 32.72
WTR YR 1974 TOTAL 8,707.8 MEAN 23.9 MAX 300 MIN 1.3 CFSM 2.03 IN 27.45

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	2145	2.71	432

PASSAIC RIVER BASIN

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 mi² (234.1 km²), considered as 94 mi² (243 km²) 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.--57 years (1912-14, 1919-74), 78.6 ft³/s (2.226 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 934 ft³/s (26.5 m³/s) Apr. 9 (gage height, 4.51 ft or 1.375 m); minimum, 7.6 ft³/s (0.22 m³/s) regulated, Nov. 9 (gage height, 1.12 ft or 0.341 m); minimum daily, 15 ft³/s (0.42 m³/s) June 15.

Period of record: Maximum discharge, 8,470 ft³/s (240 m³/s) Mar. 31, 1951 (gage height, 9.12 ft or 2.780 m) from rating curve extended above 4,300 ft³/s (122 m³/s); minimum daily, 0.5 ft³/s (0.014 m³/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. 51). 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	17	19	20	26	526	87	51	17	18	19
2	18	17	17	19	20	25	473	65	50	18	18	20
3	18	17	17	19	20	24	411	61	49	18	18	19
4	18	17	17	19	21	22	473	66	48	18	18	19
5	18	17	18	19	21	19	534	56	46	18	18	18
6	18	17	17	19	20	18	584	54	37	18	18	18
7	18	17	17	19	20	17	415	49	28	18	18	19
8	17	17	17	19	20	18	346	44	26	18	18	18
9	17	17	20	19	20	18	699	42	25	18	18	18
10	18	17	18	19	20	89	843	44	23	19	18	18
11	18	17	19	19	20	93	567	43	22	19	18	19
12	18	17	18	19	19	69	436	48	19	19	18	18
13	18	18	18	19	19	65	402	82	19	19	18	18
14	17	18	20	19	19	45	383	197	18	19	18	18
15	17	18	18	19	19	37	384	291	15	20	18	18
16	17	18	18	19	19	38	320	259	16	20	18	18
17	17	18	18	19	19	59	228	212	17	20	19	18
18	17	18	18	19	19	99	197	163	17	20	18	18
19	18	18	18	19	20	72	195	124	17	19	18	18
20	18	18	18	19	19	73	208	101	17	19	18	18
21	18	17	96	19	19	116	178	75	18	19	18	18
22	18	17	22	19	20	326	153	71	17	19	18	18
23	18	17	19	19	22	329	147	69	17	19	18	18
24	18	17	19	19	22	317	149	68	17	19	18	18
25	18	17	19	19	22	238	129	68	17	19	18	18
26	18	17	19	19	25	192	120	64	17	20	18	18
27	18	17	19	19	23	181	94	62	17	20	18	18
28	18	17	19	19	24	148	89	60	17	20	18	19
29	20	17	19	19	-----	119	84	56	17	19	19	20
30	19	17	19	19	-----	154	78	53	17	18	19	18
31	18	-----	19	19	-----	369	-----	50	-----	18	18	-----
TOTAL	554	519	647	589	571	3,415	9,845	2,784	731	584	561	550
MEAN	17.9	17.3	20.9	19.0	20.4	110	328	89.8	24.4	18.8	18.1	18.3
MAX	20	18	96	19	25	369	843	291	51	20	19	20
MIN	17	17	17	19	19	17	78	42	15	17	18	18
CAL YR 1973	TOTAL 41,714		MEAN 114		MAX 2,940		MIN 17					
WTR YR 1974	TOTAL 21,350		MEAN 58.5		MAX 843		MIN 15					

PASSAIC RIVER BASIN

41

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 mi² (31.9 km²).

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.—16 years, 23.8 ft³/s (0.674 m³/s), 26.28 in/yr (667.5 mm/yr).

EXTREMES.—Current year: Maximum discharge, 960 ft³/s (27.2 m³/s) Dec. 21 (gage height, 6.60 ft or 2.012 m); minimum, 1.0 ft³/s (0.028 m³/s) Oct. 24, 25, 26; minimum gage height, 1.19 ft (0.363 m) Oct. 1, Sept. 1.

Period of record: Maximum discharge 1,650 ft³/s (46.7 m³/s) May 29, 1968 (gage height, 7.78 ft or 2.371 m), from rating extended above 850 ft³/s (24.1 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 0.05 ft³/s (0.001 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	9.2	6.2	47	42	29	98	21	41	16	2.8	3.6
2	1.3	6.4	5.2	41	38	28	79	17	31	12	3.1	26
3	1.6	4.8	5.1	37	34	27	65	21	20	9.6	4.9	26
4	1.6	4.2	4.8	35	31	27	70	21	16	8.0	4.2	59
5	1.6	3.8	18	31	28	26	69	17	13	11	3.8	20
6	1.6	3.4	46	29	26	23	67	15	11	14	3.1	11
7	1.3	3.2	28	28	23	21	54	18	8.9	8.5	2.7	23
8	1.2	3.1	19	25	22	20	47	14	8.5	6.9	2.7	14
9	1.3	3.1	86	22	20	27	109	13	8.3	6.0	2.5	9.9
10	1.3	2.8	98	23	18	32	93	40	7.6	5.6	2.1	7.1
11	1.2	2.7	61	26	17	25	71	26	6.7	5.1	1.9	5.7
12	1.3	2.6	42	29	16	22	59	44	6.2	4.5	1.8	4.9
13	1.3	2.7	32	23	16	20	60	102	6.0	4.2	1.8	4.6
14	1.2	2.6	122	21	19	18	60	61	5.4	4.3	1.7	7.8
15	1.4	2.6	79	19	17	17	62	45	5.1	4.0	1.7	5.9
16	1.4	2.5	57	19	14	22	50	35	45	3.4	1.5	4.9
17	1.3	2.3	49	20	14	50	43	31	71	3.3	2.6	4.5
18	1.3	2.2	36	18	13	34	38	29	64	3.3	4.1	4.1
19	1.3	2.1	28	22	21	29	50	23	34	4.8	2.7	3.8
20	1.3	2.1	26	22	63	26	48	20	23	3.7	2.2	3.7
21	1.3	2.1	570	36	35	69	39	17	28	3.1	2.0	3.8
22	1.2	2.1	300	71	49	80	35	15	25	2.8	1.8	4.3
23	1.1	2.1	129	68	60	58	35	15	18	2.7	2.1	3.8
24	1.1	2.3	83	71	41	49	31	18	19	2.9	1.9	3.6
25	1.1	3.6	64	61	37	40	27	22	26	3.3	1.8	3.3
26	1.1	4.8	66	54	34	35	23	16	26	3.2	1.8	3.3
27	1.1	3.7	87	71	29	32	22	13	18	3.4	1.8	3.1
28	1.1	9.9	70	69	28	29	20	12	16	3.6	2.0	4.3
29	4.3	11	58	71	-----	27	19	15	19	5.2	2.6	71
30	66	7.8	50	56	-----	36	18	16	16	4.1	5.6	63
31	14	-----	45	49	-----	118	-----	12	-----	3.4	4.9	-----
TOTAL	120.4	117.8	2,370.3	1,214	805	1,096	1,561	784	642.7	175.9	82.2	413.0
MEAN	3.88	3.93	76.5	39.2	28.8	35.4	52.0	25.3	21.4	5.67	2.65	13.8
MAX	66	11	570	71	63	118	109	102	71	16	5.6	71
MIN	1.1	2.1	4.8	18	13	17	18	12	5.1	2.7	1.5	3.1
CFSM	.32	.32	6.22	3.19	2.34	2.88	4.23	2.06	1.74	.46	.22	1.12
IN.	.36	.36	7.17	3.67	2.43	3.31	4.72	2.37	1.94	.53	.25	1.25

CAL YR 1973 TOTAL 11,869.6 MEAN 32.5 MAX 570 MIN 1.1 CFSM 2.64 IN 35.90
WTR YR 1974 TOTAL 9,382.3 MEAN 25.7 MAX 570 MIN 1.1 CFSM 2.09 IN 28.38

PEAK DISCHARGE (BASE, 200 CFS)

DATE TIME G.H. DISCHARGE
12-21 1515 6.60 960

PASSAIC RIVER BASIN

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 mi² (306 km²).

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.--56 years (1902-6, 1922-74), 226 ft³/s (6.400 m³/s), 26.02 in/yr (661 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,050 ft³/s (171 m³/s) Dec. 21 (gage height, 10.50 ft or 3.200 m); minimum, 15 ft³/s (0.42 m³/s) Aug. 15, 16, gage height, 2.14 ft (0.652 m).
Period of record: Maximum discharge, about 12,400 ft³/s (351 m³/s) Oct. 9, 1903 (gage height, 11.0 ft or 3.35 m, from graph based on gage readings, site and datum then in use) from rating curve extended above 1,400 ft³/s (39.6 m³/s); minimum, 7 ft³/s (0.20 m³/s) Dec. 16, 1930, Sept. 12, 1932; minimum daily, 8 ft³/s (0.23 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	180	98	459	424	265	882	176	292	125	33	54
2	24	119	80	424	377	270	733	159	289	111	53	239
3	24	82	72	372	344	256	626	170	194	89	82	278
4	22	64	68	369	309	252	694	179	164	78	46	660
5	22	53	159	328	281	237	813	152	140	85	39	354
6	21	47	354	298	241	220	834	145	122	96	34	184
7	20	43	273	281	216	239	650	158	109	73	28	254
8	20	40	196	250	201	237	541	142	104	60	25	222
9	22	37	446	224	187	307	897	138	100	52	35	165
10	26	35	962	237	173	342	959	250	93	47	29	139
11	26	33	589	259	167	305	688	239	82	48	22	119
12	26	31	393	272	156	276	533	347	77	45	21	100
13	26	31	310	212	155	252	509	878	73	39	20	98
14	25	31	981	186	167	233	522	629	64	36	18	138
15	27	30	876	176	159	222	571	457	56	31	17	112
16	27	30	549	181	146	281	579	364	176	30	17	96
17	27	33	476	198	142	549	434	305	300	28	59	87
18	26	36	396	165	139	467	367	281	265	26	47	73
19	27	27	308	201	186	379	394	228	162	29	38	63
20	26	27	279	220	427	347	414	193	118	29	28	58
21	26	26	3,940	285	305	533	332	170	158	25	22	61
22	26	26	3,660	525	497	778	294	158	146	23	20	77
23	26	26	1,680	563	535	577	278	155	115	21	29	64
24	26	29	924	582	389	489	252	184	121	27	30	50
25	26	43	653	522	330	422	218	209	174	29	31	45
26	26	63	591	459	305	377	199	164	186	28	27	47
27	27	60	802	554	270	344	184	142	150	41	25	44
28	28	114	717	672	254	314	173	131	131	29	25	87
29	84	155	602	672	-----	296	164	133	131	50	52	502
30	575	119	507	574	-----	354	159	159	120	50	100	429
31	297	-----	452	487	-----	774	-----	139	-----	41	74	-----
TOTAL	1,654	1,670	22,393	11,207	7,482	11,194	14,893	7,334	4,412	1,521	1,126	4,899
MEAN	53.4	55.7	722	362	267	361	496	237	147	49.1	36.3	163
MAX	575	180	3,940	672	535	778	959	878	300	125	100	660
MIN	20	26	68	165	139	220	159	131	56	21	17	44
CFSM	.45	.47	6.12	3.07	2.26	3.06	4.20	2.01	1.25	.42	.31	1.38
IN.	.52	.53	7.06	3.53	2.36	3.53	4.70	2.31	1.39	.48	.35	1.54

CAL YR 1973 TOTAL 105,666 MEAN 289 MAX 3,940 MIN 20 CFSM 2.45 IN 33.30
WTR YR 1974 TOTAL 89,785 MEAN 246 MAX 3,940 MIN 17 CFSM 2.08 IN 28.31

PEAK DISCHARGE (BASE, 1,400 CFS)

DATE TIME G.H. DISCHARGE
12-21 2100 10.50 6,050

PASSAIC RIVER BASIN

43

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 mi² (414 km²).

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.--53 years, 296 ft³/s (8.383 m³/s), 25.13 in/yr (638 mm/yr), adjusted for diversion since Dec. 1, 1953.

EXTREMES.--Current year: Maximum discharge, 7,040 ft³/s (199 m³/s) Dec. 21 (gage height, 3.17 ft or 0.966 m); minimum, 28 ft³/s (0.79 m³/s) Aug. 15, 16 (gage height, 0.09 ft or 0.027 m).
Period of record: Maximum discharge, 12,300 ft³/s (348 m³/s) Mar. 12, 1936 (gage height, 3.56 ft or 1.085 m) from rating curve extended above 2,000 ft³/s (56.6 m³/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. 51). Slight regulation by Pompton Lakes, capacity 300,000,000 gal (1.136 hm³).

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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	254	75	601	540	327	1,160	235	328	148	48	90
2	35	171	69	556	475	337	982	226	385	132	46	339
3	44	124	103	489	436	323	823	233	270	117	121	269
4	35	96	103	474	396	313	849	255	221	103	72	921
5	32	82	154	426	348	297	982	218	185	89	69	676
6	28	75	336	386	314	275	1,040	205	158	117	49	356
7	28	69	180	361	297	283	848	222	139	96	43	342
8	28	69	89	330	278	284	684	201	131	89	39	386
9	28	64	348	302	254	372	1,090	216	127	75	39	287
10	39	59	897	313	233	441	1,290	375	119	69	46	235
11	39	54	640	342	224	390	970	349	103	64	36	196
12	39	54	371	362	211	350	734	446	94	59	32	167
13	35	59	243	295	206	323	676	1,220	96	59	31	134
14	35	54	897	249	220	295	698	918	87	54	30	182
15	32	54	1,030	248	220	280	719	631	78	49	29	157
16	32	49	626	242	202	312	811	492	178	49	26	132
17	32	44	479	258	195	632	640	405	338	44	64	118
18	32	44	371	226	184	596	520	369	314	44	104	109
19	32	44	243	253	214	467	660	315	223	44	61	91
20	39	44	189	288	503	422	660	270	155	39	46	81
21	35	44	3,270	335	418	619	490	241	180	39	38	79
22	54	44	5,510	644	439	998	406	223	227	35	35	87
23	64	44	2,600	732	679	774	386	220	162	35	49	84
24	39	44	1,340	750	525	631	354	246	161	44	48	71
25	35	64	910	688	436	529	316	293	185	44	47	63
26	32	89	783	604	403	461	291	238	241	41	41	61
27	32	89	1,070	707	359	422	268	200	198	43	41	59
28	28	154	981	842	330	387	249	183	166	47	38	77
29	82	154	830	868	-----	371	238	173	158	69	41	624
30	682	82	688	760	-----	422	225	199	151	66	143	547
31	430	-----	599	629	-----	979	-----	187	-----	57	134	-----
TOTAL	2,189	2,371	26,024	14,560	9,539	13,912	20,059	10,204	5,558	2,060	1,686	7,020
MEAN	70.6	79.0	839	470	341	449	669	329	185	66.5	54.4	234
MAX	682	254	5,510	868	679	998	1,290	1,220	385	148	143	921
MIN	28	44	69	226	184	275	225	173	78	35	26	59
(†)	0	3.3	91.9	0	0	0	0	0	0	0	0	0
MEAN†	70.6	82.3	93.1	470	341	449	669	329	185	66.5	54.4	234
CFSM†	.44	.51	5.82	2.94	2.13	2.81	4.18	2.06	1.16	.42	.34	1.46
IN†	.51	.57	6.71	3.38	2.22	3.23	4.66	2.37	1.29	.48	.39	1.63
CAL YR 1973 TOTAL	141,058		MEAN 386	MAX 5,510	MIN 28	MEAN† 394	CFSM† 2.46	IN† 33.48				
WTR YR 1974 TOTAL	115,182		MEAN 316	MAX 5,510	MIN 26	MEAN† 324	CFSM† 2.02	IN† 27.44				

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	2300	3.17	7,040

PASSAIC RIVER BASIN

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 mi² (919 km²).

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 (4.407 m) higher.

AVERAGE DISCHARGE.--35 years (1903-4, 1940-74), 473 ft³/s (13.40 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 9,730 ft³/s (276 m³/s) Dec. 22 (gage height 19.27 ft or 5.873 m); minimum, 57 ft³/s (1.61 m³/s), regulated, Aug. 16; minimum daily, 60 ft³/s (1.70 m³/s) Aug. 16.
Period of record: Maximum discharge observed 28,340 ft³/s (803 m³/s) Oct. 10, 1903 (gage height, 14.3 ft or 4.36 m, site and datum then in use), by computation of peak flow over dam; no flow Aug. 18-20, 1904.

REMARKS.--Records fair. Water diverted from reservoirs on Pequannock and Wanaque Rivers for municipal supply (see p. 51). Water also diverted at station (just above weir) by Passaic Valley Water Commission to Point View Reservoir for low-flow augmentation (see p. 51). 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 fluctuations at low flow caused by powerplant on Wanaque River. Water-stage recorder graph and record of pumpage furnished by Passaic Valley Water Commission. Records include releases from Point View Reservoir. Records of water quality for the current year are published in Part 2 of this report (sta 01389000).

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

REVISIONS (WATER YEARS).--WSP 1202: 1945(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	364	141	838	796	472	2,440	360	500	250	87	127
2	75	275	130	760	688	495	2,100	346	525	217	86	730
3	64	206	155	670	622	472	2,010	350	400	177	203	545
4	76	168	160	694	545	452	2,060	388	353	156	126	1,460
5	69	128	275	604	505	436	2,150	332	304	144	119	724
6	66	128	510	550	452	408	2,240	310	266	171	92	408
7	63	123	316	515	436	392	1,800	332	226	150	80	525
8	68	110	199	464	408	396	1,470	304	213	133	77	476
9	67	119	616	432	384	545	2,410	292	201	123	76	364
10	77	124	1,290	448	360	742	3,030	565	185	113	86	307
11	80	116	838	545	353	688	2,230	500	165	102	76	268
12	84	110	505	560	336	560	1,860	772	150	94	66	242
13	72	109	384	452	307	515	1,640	2,180	153	92	63	210
14	69	105	1,390	392	336	464	1,680	1,910	139	88	63	275
15	64	98	1,430	384	332	424	1,710	1,470	130	85	62	233
16	65	97	868	372	310	500	1,580	1,150	260	80	60	201
17	71	93	712	396	298	1,110	1,150	908	515	77	127	191
18	75	90	575	336	285	1,060	950	772	420	75	177	177
19	77	88	424	360	325	796	971	598	307	78	103	159
20	87	86	353	396	646	694	1,100	490	239	77	80	143
21	79	85	5,090	480	560	1,240	887	412	258	71	72	144
22	96	87	8,010	868	808	2,000	736	376	313	66	68	158
23	105	83	3,950	1,050	943	1,640	682	360	242	68	98	150
24	84	88	2,090	1,110	694	1,400	640	392	244	88	93	133
25	74	124	1,500	1,030	628	1,110	550	440	266	98	92	122
26	71	153	1,360	880	598	887	460	376	319	81	76	118
27	68	144	1,820	1,100	510	796	416	328	280	82	72	113
28	65	254	1,670	1,350	476	688	392	304	248	87	69	165
29	246	260	1,200	1,400	-----	610	353	292	252	137	73	1,080
30	1,090	154	964	1,210	-----	718	353	246	246	128	258	730
31	545	-----	832	978	-----	2,090	-----	298	-----	104	180	-----
TOTAL	3,964	4,169	39,757	21,624	13,941	24,800	42,050	18,153	8,319	3,492	3,060	10,678
MEAN	128	139	1,282	698	498	800	1,402	586	277	113	98.7	356
MAX	1,090	364	8,010	1,400	943	2,090	3,030	2,180	525	250	258	1,460
MIN	63	83	130	336	285	392	353	246	130	66	60	113

CAL YR 1973 TOTAL 262,368 MEAN 719 MAX 10,400 MIN 63
WTR YR 1974 TOTAL 194,007 MEAN 532 MAX 8,010 MIN 60

PEAK DISCHARGE (BASE, 3,200 CFS)

DATE	TIME	G.H.	DISCHARGE
12-22	0030	19.27	9,730
4-10	0200	13.70	3,460

PASSAIC RIVER BASIN

45

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 mi² (1,974 km²).

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.--77 years, 1,159 ft³/s (32.82 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, about 8,910 ft³/s (252 m³/s) Dec. 23 (gage height, about 8.55 ft or 2.606 m) from correlation with auxiliary gage located just above Beattie's Dam; minimum, 69 ft³/s (1.95 m³/s) Aug. 1 (gage height, 0.49 ft or 0.149 m); minimum daily, 91 ft³/s (2.58 m³/s) July 22, 23.
Period of record: Maximum daily discharge, 28,000 ft³/s (793 m³/s) Oct. 10, 1903; no flow July 3-5, 1904, July 16, 23, 1905.

REMARKS.--Records excellent except those for period of no gage-height record, which are good. 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 basin (see p. 49). Large diversions for municipal supply from Passaic River above Beattie's Dam, and from Rockaway, Pequannock, and Wanaque Rivers (see p. 51). In addition, the Commonwealth Water Co., diverts small amounts from Canoe Brook near Summit, average for 1974 was 2.6 ft³/s (0.074 m³/s), and from Passaic River, average for 1974 was 10.9 ft³/s (0.31 m³/s); that company and the city of East Orange also divert water for municipal supply by pumping 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	361	2,450	595	2,800	2,260	1,130	3,590	690	830	530	161	415
2	250	2,400	476	2,800	2,010	1,090	3,850	660	1,050	500	164	1,260
3	295	2,270	423	2,540	1,770	1,030	3,930	650	932	424	572	1,410
4	315	2,030	400	2,260	1,520	980	4,240	758	812	354	540	2,710
5	279	1,730	539	2,010	1,220	974	4,440	665	690	286	456	2,170
6	236	1,370	1,410	1,820	992	896	4,570	594	577	306	290	1,770
7	203	911	1,250	1,660	932	854	4,300	655	451	294	182	2,040
8	185	529	1,060	1,460	890	830	3,730	605	420	240	179	1,920
9	169	380	1,690	1,240	818	1,130	4,350	588	388	182	219	1,750
10	159	330	2,810	1,090	752	1,460	4,920	1,180	362	185	384	1,600
11	164	300	2,500	1,200	710	1,510	4,740	1,440	322	197	346	1,370
12	159	295	2,120	1,350	690	1,400	4,230	1,710	278	185	212	1,080
13	153	275	1,780	1,290	670	1,200	3,750	2,990	302	158	185	734
14	149	282	2,710	1,140	716	1,050	3,510	3,230	294	140	179	635
15	135	250	2,980	1,020	740	908	3,500	3,120	266	130	143	555
16	129	235	2,750	962	685	920	3,360	2,850	424	128	113	442
17	142	216	2,490	992	640	1,690	3,150	2,420	884	120	350	406
18	163	206	2,400	938	605	1,940	2,850	2,000	866	110	890	370
19	165	209	2,300	890	675	1,910	2,660	1,570	788	120	848	334
20	175	216	2,200	950	1,380	1,780	2,580	1,150	530	118	665	310
21	170	213	6,200	1,140	1,460	2,050	2,310	884	610	103	366	310
22	166	217	8,000	1,820	1,580	2,900	2,020	752	926	91	212	235
23	203	213	8,450	2,130	1,910	2,980	1,860	695	872	91	270	310
24	185	214	8,000	2,360	1,810	2,930	1,640	776	860	135	302	280
25	156	292	7,400	2,420	1,730	2,820	1,420	932	812	330	247	260
26	138	413	6,700	2,350	1,640	2,530	1,200	866	818	185	191	250
27	126	402	6,600	2,600	1,440	2,240	1,050	740	690	179	185	240
28	112	689	6,500	2,740	1,230	1,920	920	660	555	179	179	440
29	572	913	6,300	2,900	-----	1,640	842	610	555	209	209	2,440
30	2,990	752	3,600	2,790	-----	1,630	764	599	550	338	583	1,800
31	2,480	-----	2,500	2,550	-----	3,010	-----	566	-----	302	635	-----
TOTAL	11,284	21,202	105,133	56,212	33,475	51,332	90,276	37,605	18,714	6,849	10,457	29,846
MEAN	364	707	3,391	1,813	1,196	1,656	3,009	1,213	624	221	337	995
MAX	2,990	2,450	8,450	2,900	2,260	3,010	4,920	3,230	1,050	530	890	2,710
MIN	112	206	400	890	605	830	764	566	266	91	113	235
CAL YR 1973	TOTAL 657,638	MEAN 1,802	MAX 10,600	MIN 112								
WTR YR 1974	TOTAL 472,385	MEAN 1,294	MAX 8,450	MIN 91								

PEAK DISCHARGE (BASE, 4,400 CFS)

NOTE.--No gage-height record
Dec. 17 to Jan. 3

DATE	TIME	G.H.	DISCHARGE
12-23	About 0500	About 8.55	About 8,910
4-10	1345	6.22	4,970

PASSAIC RIVER BASIN

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 mi² (55.9 km²).

PERIOD OF RECORD.--October 1954 to September 1974 (discontinued).

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.--20 years, 35.3 ft³/s (1.00 m³/s), 22.19 in/yr (564 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,340 ft³/s (37.9 m³/s) Dec. 21 (gage height, 6.23 ft or 1.899 m); minimum, 3.2 ft³/s (0.091 m³/s) Oct. 8, 9, 15, July 22, Aug. 17 (gage height, 1.57 ft or 0.479 m).
Period of record: Maximum discharge, 2,920 ft³/s (82.7 m³/s) Aug. 28, 1971 (gage height, 11.24 ft or 3.426 m); minimum daily, 0.2 ft³/s (0.006 m³/s) Sept. 17, 18, 1966.
Flood on July 23, 1945, reached a discharge of 6,400 ft³/s (181 m³/s), at site 1.6 mi (2.6 km) upstream, drainage area, 19.1 mi² (49.5 km²), by slope-area measurement.

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

REVISIONS.--The figures of discharge, in cubic feet per second and cubic meters per second, for part of the month of September 1971, have been revised and supercede those published in WRD-NJ 1971 and are given below:

DISCHARGE, IN CUBIC FEET PER SECOND, 1971

Sept. 13.....	288	Sept. 19.....	57	Sept. 25.....	34
14.....	260	20.....	55	26.....	32
15.....	108	21.....	66	27.....	32
16.....	78	22.....	48	28.....	31
17.....	66	23.....	42	29.....	30
18.....	61	24.....	39	30.....	29

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	23	13	50	40	32	92	32	63	25	6.4	16
2	5.0	17	11	40	39	31	57	30	33	18	5.7	286
3	5.8	13	11	36	37	32	45	40	23	14	20	131
4	5.3	11	9.5	38	35	31	105	35	22	13	26	250
5	4.5	9.6	32	34	34	29	117	30	17	13	22	38
6	3.8	9.3	57	33	37	27	86	30	15	21	8.6	27
7	4.2	8.3	23	32	33	27	53	33	14	13	6.4	95
8	3.7	8.1	16	30	32	27	46	28	15	10	6.3	39
9	3.8	8.0	175	29	32	54	220	29	14	9.7	6.6	27
10	3.9	7.1	61	30	30	59	91	82	13	8.0	13	24
11	3.8	6.6	28	36	30	34	62	39	12	7.6	9.4	22
12	3.9	6.6	23	39	29	31	54	109	11	7.0	6.0	20
13	3.7	6.4	19	30	30	29	74	145	13	6.5	5.1	19
14	4.5	6.1	154	28	33	27	69	44	10	4.9	5.0	28
15	3.7	6.0	37	28	32	26	101	34	9.5	5.2	4.1	23
16	5.8	6.0	27	29	30	43	56	30	127	5.1	3.6	19
17	4.8	6.2	26	31	29	73	47	30	86	4.1	46	18
18	3.9	6.7	23	27	28	35	45	29	33	4.3	31	18
19	4.6	7.1	19	32	81	32	73	25	21	6.4	10	18
20	4.4	6.5	18	32	98	30	54	23	17	4.7	6.5	16
21	4.3	6.6	702	100	39	156	44	22	44	3.6	5.3	17
22	3.7	7.5	110	108	95	79	42	22	33	3.7	5.1	17
23	4.2	7.2	60	81	63	43	45	24	25	3.9	6.4	15
24	4.0	9.1	46	73	35	39	39	39	28	6.6	6.2	14
25	3.7	18	39	50	35	33	36	38	27	14	6.6	14
26	3.9	23	76	45	33	33	35	26	23	6.9	4.2	13
27	4.5	15	124	111	32	32	33	22	19	8.3	5.1	13
28	4.3	39	63	65	30	32	32	22	16	8.5	5.1	26
29	42	29	48	74	-----	32	31	21	20	33	5.7	243
30	270	18	43	48	-----	62	32	22	17	14	63	35
31	29	-----	43	44	-----	242	-----	19	-----	9.1	24	-----
TOTAL	460.9	351.0	2,136.5	1,463	1,131	1,492	1,916	1,154	820.5	312.1	384.4	1,541
MEAN	14.9	11.7	68.9	47.2	40.4	48.1	63.9	37.2	27.4	10.1	12.4	51.4
MAX	270	39	702	111	98	242	220	145	127	33	63	286
MIN	3.7	6.0	9.5	27	28	26	31	19	9.5	3.6	3.6	13
CFSM	.69	.54	3.19	2.19	1.87	2.23	2.96	1.72	1.27	.47	.57	2.38
IN.	.79	.60	3.68	2.52	1.95	2.57	3.30	1.99	1.41	.54	.66	2.65
CAL YR 1973	TOTAL 16,263.9	MEAN 44.6	MAX 702	MIN 3.7	CFSM 2.06	IN 28.01						
WTR YR 1974	TOTAL 13,162.4	MEAN 36.1	MAX 702	MIN 3.6	CFSM 1.67	IN 22.67						

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0530	4.78	662	5-13	0015	4.20	450
12-09	1830	4.12	426	6-16	1530	4.11	423
12-14	0845	3.98	384	9-02	0615	5.55	998
12-21	1545	6.23	1,340	9-04	0115	4.83	682
3-21	1800	4.11	435	9-29	0530	4.86	694
4-09	1030	4.09	417				

PASSAIC RIVER BASIN

47

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 mi² (141.4 km²).

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.--51 years, 97.7 ft³/s (2.767 m³/s), 24.30 in/yr (617 mm/yr), adjusted for diversion since 1966.

EXTREMES.--Current year: Maximum discharge, 2,940 ft³/s (83.3 m³/s) Dec. 21 (gage height, 8.35 ft or 2.545 m); minimum, 12 ft³/s (0.34 m³/s) Oct. 23 (gage height, 1.60 ft or 0.488 m).
Period of record: Maximum discharge, 3,770 ft³/s (107 m³/s) Sept. 12, 1971 (gage height, 10.98 ft or 3.347 m), from high-water mark in gage house; minimum, 1.0 ft³/s (0.028 m³/s) May 25, 1938 (gage height, 1.03 ft or 0.314 m), site and datum then in use; minimum daily, 6.0 ft³/s (0.17 m³/s) Aug. 4, 1930, Aug. 23, 1934.

REMARKS.--Records excellent. Occasional regulation at low flow by mills above station. Diversion above station by Hackensack Water Co., for municipal supply (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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	80	34	152	116	92	282	101	193	82	27	44
2	31	55	32	124	111	92	196	92	113	54	35	744
3	35	44	31	113	109	92	164	129	76	49	116	376
4	29	40	28	121	101	90	300	116	71	43	88	832
5	27	36	104	109	95	88	285	95	56	45	78	181
6	24	34	161	104	92	84	261	97	54	56	34	116
7	24	33	95	99	101	80	175	111	49	42	30	334
8	24	31	39	92	97	88	195	90	47	38	28	161
9	24	30	354	90	90	172	542	92	49	37	32	111
10	23	28	222	95	86	178	282	236	50	42	40	75
11	23	29	84	121	86	106	196	121	45	33	28	62
12	24	26	62	124	82	97	169	233	45	30	26	57
13	24	27	51	95	88	88	209	412	45	30	25	57
14	24	29	338	84	97	82	209	161	40	27	26	88
15	23	28	126	86	90	80	300	121	38	30	25	58
16	23	28	75	90	82	126	181	106	354	26	24	50
17	24	25	76	95	80	206	155	99	247	29	247	46
18	23	25	58	80	78	109	147	104	106	31	184	51
19	23	24	47	106	158	90	206	88	68	30	46	44
20	23	22	53	99	275	84	178	73	54	25	32	44
21	24	22	2,160	250	126	385	144	59	196	23	30	49
22	23	25	532	296	178	268	139	62	131	23	29	57
23	23	24	203	219	203	139	147	75	108	28	41	41
24	23	29	158	203	116	121	129	129	101	47	30	37
25	25	57	134	152	111	104	119	137	98	49	32	37
26	23	61	243	139	106	101	113	76	69	28	30	38
27	23	40	330	278	95	99	109	64	59	28	28	37
28	23	139	190	196	90	95	106	64	52	29	31	82
29	181	82	150	206	-----	95	104	61	61	104	31	587
30	717	44	134	144	-----	178	101	62	54	45	172	137
31	113	-----	131	131	-----	528	-----	58	-----	30	106	-----
TOTAL	1,702	1,197	6,395	4,293	3,139	4,237	5,803	3,524	2,729	1,213	1,731	4,633
MEAN	54.9	39.9	206	138	112	137	193	114	91.0	39.1	55.8	154
MAX	717	139	2,160	296	275	528	542	412	354	104	247	832
MIN	23	22	28	80	78	80	101	58	38	23	24	37
(†)	4.7	7.9	8.3	0	0	0	0	6.3	12.5	10.8	10.3	9.0
MEAN‡	59.6	47.8	214	138	112	137	193	120	104	49.9	66.1	163
CFSM‡	1.09	.88	3.92	2.53	2.05	2.51	3.53	2.20	1.90	.91	1.21	2.99
IN‡	1.26	.98	4.52	2.92	2.14	2.89	3.95	2.53	2.13	1.05	1.40	3.33

CAL YR 1973 TOTAL 47,624 MEAN 130 MAX 2,160 MIN 22 MEAN‡ 133 CFSM‡ 2.44 IN‡ 33.17
WTR YR 1974 TOTAL 40,596 MEAN 111 MAX 2,160 MIN 22 MEAN‡ 117 CFSM‡ 2.14 IN‡ 29.10

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0345	4.79	1,250	5-13	0315	3.71	665
12-09	1515	3.71	645	6-16	1500	4.00	824
12-21	1700	8.35	2,940	8-17	1830	3.84	738
3-21	1545	4.00	800	9-02	0645	4.83	1,300
3-31	0230	3.66	620	9-04	0515	5.07	1,460
4-09	1315	3.97	806	9-29	0600	4.17	916

† 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 257.86 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, Division 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 302.36 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.
- 01382380 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 (224.942 m). Spillway equipped with Bascule gate 5 ft (1.5 m) high. Storage began May 19, 1961. Capacity (elevation 743.00 ft or 226.466 m, top to 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, 1961, for municipal supply of city of Newark. Elevation record and capacity table furnished by city of Newark, Division of Water Supply.
- CORRECTION.--The station number for Charlotteburg Reservoir has been corrected to 01382380 and supersedes all figures published prior to this report.
- 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 (3.1 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 272.19 m), 1,583,000,000 gal (5.992 hm³) with provision for additional storage of 180,000,000 gal (681,500 m³) at elevation 894.9 ft (272.77 m) with flashboards. Usable contents, 1,045,000,000 gal (3.955 hm³) above elevation 880.0 ft (268.22 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.

PASSAIC RIVER BASIN

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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 mi² (70.2 km²). 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 hm³) June 30 (gage height, 11.63 ft or 3.54 m); minimum, 6,677,000,000 gal (25.272 hm³) 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 hm³) Oct. 9-14, 1903 (gage height, 14.25 ft or 4.34 m, present datum); minimum, 3,160,000,000 gal (11.96 hm³) 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 hm³) between gage heights -4.00 ft or -1.22 m (sill of gate) and 10.00 ft or 3.048 m, (crest spillway). Dead storage, 7,140,000,000 gal (27.02 hm³). 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 mi² (234.1 km²). 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 hm³). Capacity available by gravity at spillway level, 26,230,000,000 gal (99.28 hm³). 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. 51). Elevation record and capacity table furnished by North Jersey District Water Supply Commission.

MONTHEND ELEVATION OR GAGE HEIGHT AND CONTENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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*						
Sept. 30.....	834.70	3,247	-	297.91	5,778	-
Oct. 31.....	834.90	3,282	+1.7	297.77	5,745	-1.6
Nov. 30.....	835.10	3,325	+2.2	299.17	6,081	+17.3
Dec. 31.....	835.40	3,385	+3.0	306.07	7,833	+87.4
CAL YR 1973.....	-	-	-4	-	-	-1
Jan. 31.....	835.40	3,385	0	305.87	7,781	-2.6
Feb. 28.....	835.30	3,364	-1.2	305.65	7,724	-3.2
Mar. 31.....	835.30	3,364	0	305.97	7,807	+4.1
Apr. 30.....	835.20	3,346	-9	305.77	7,755	-2.7
May 31.....	835.10	3,325	-10	307.42	8,184	+21.4
June 30.....	835.05	3,316	-5	307.44	8,189	+5
July 31.....	834.80	3,266	-2.5	302.49	6,910	-63.8
Aug. 31.....	834.65	3,236	-1.5	298.42	5,901	-50.3
Sept. 30.....	835.10	3,325	+4.6	307.62	8,236	+120.4
WTR YR 1974.....	-	-	+3	-	-	+10.4
01382100 Canistear Reservoir†						
Sept. 30.....	1,086.00	2,407	-	832.20	2,095	-
Oct. 31.....	1,086.30	2,437	+1.5	827.60	1,594	-25.0
Nov. 30.....	1,084.90	2,290	-7.6	822.40	1,119	-24.5
Dec. 31.....	1,086.20	2,427	+6.8	845.60	3,838	+135.7
CAL YR 1973.....	-	-	+4	-	-	-4
Jan. 31.....	1,086.20	2,427	0	846.30	3,938	+5.0
Feb. 28.....	1,086.20	2,427	0	846.10	3,909	-1.6
Mar. 31.....	1,086.30	2,437	+5	846.30	3,938	+1.4
Apr. 30.....	1,086.10	2,417	-10	846.10	3,909	-1.5
May 31.....	1,086.10	2,417	0	846.20	3,924	+7
June 30.....	1,086.00	2,407	-5	846.10	3,909	-7
July 31.....	1,085.80	2,386	-10	837.10	2,695	-60.6
Aug. 31.....	1,086.10	2,417	+1.5	829.40	1,781	-45.6
Sept. 30.....	1,086.10	2,417	0	829.40	1,781	0
WTR YR 1974.....	-	-	+4	-	-	-1.2
01382200 Oak Ridge Reservoir†						
Sept. 30.....	1,086.00	2,407	-	832.20	2,095	-
Oct. 31.....	1,086.30	2,437	+1.5	827.60	1,594	-25.0
Nov. 30.....	1,084.90	2,290	-7.6	822.40	1,119	-24.5
Dec. 31.....	1,086.20	2,427	+6.8	845.60	3,838	+135.7
CAL YR 1973.....	-	-	+4	-	-	-4
Jan. 31.....	1,086.20	2,427	0	846.30	3,938	+5.0
Feb. 28.....	1,086.20	2,427	0	846.10	3,909	-1.6
Mar. 31.....	1,086.30	2,437	+5	846.30	3,938	+1.4
Apr. 30.....	1,086.10	2,417	-10	846.10	3,909	-1.5
May 31.....	1,086.10	2,417	0	846.20	3,924	+7
June 30.....	1,086.00	2,407	-5	846.10	3,909	-7
July 31.....	1,085.80	2,386	-10	837.10	2,695	-60.6
Aug. 31.....	1,086.10	2,417	+1.5	829.40	1,781	-45.6
Sept. 30.....	1,086.10	2,417	0	829.40	1,781	0
WTR YR 1974.....	-	-	+4	-	-	-1.2

* Elevation at 0900.

† Elevation at 0800 on first day of following month.

PASSAIC RIVER BASIN

Reservoirs in Passaic River basin--Continued

MONTHEND ELEVATION OR GAGE HEIGHT AND CONTENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in cfs)
<hr/>						
01382300 Clinton Reservoir						
Sept. 30.....	987.80	2,862	-	733.80	1,998	-
Oct. 31.....	982.00	2,270	-29.5	734.60	2,072	+3.7
Nov. 30.....	979.20	1,975	-15.2	731.70	1,811	-13.5
Dec. 31.....	991.60	3,467	+74.5	742.70	2,929	+55.8
CAL YR 1973.....	-	-	- .3	-	-	- .3
Jan. 31.....	992.20	3,544	+3.8	743.20	2,989	+3.0
Feb. 28.....	992.20	3,544	0	743.05	2,970	-1.0
Mar. 31.....	992.30	3,556	+6	743.20	2,989	+9
Apr. 30.....	992.20	3,544	-7	742.30	2,883	-5.5
May 31.....	992.20	3,544	0	740.70	2,697	-9.2
June 30.....	992.10	3,531	-7	735.15	2,124	-29.6
July 31.....	989.40	3,185	-17.2	733.40	1,961	-8.1
Aug. 31.....	984.40	2,537	-32.3	733.00	1,925	-1.8
Sept. 30.....	983.60	2,444	-4.8	734.50	2,063	+7.1
WTR YR 1974.....	-	-	-1.7	-	-	+ .3
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01382400 Echo Lake†						
Sept. 30.....	892.70	1,555	-	9.70	6,677	-
Oct. 31.....	893.10	1,592	+1.8	a10.10	6,922	+12.2
Nov. 30.....	893.00	1,583	-.5	a10.15	6,953	+1.6
Dec. 31.....	893.20	1,601	+9	10.41	7,114	+8.0
CAL YR 1973.....	-	-	0	-	-	- .4
Jan. 31.....	893.20	1,601	0	a10.37	7,089	-1.2
Feb. 28.....	893.20	1,601	0	a10.28	7,034	-3.1
Mar. 31.....	893.30	1,611	+5	10.45	7,139	+5.2
Apr. 30.....	893.10	1,592	-1.0	10.15	6,953	-9.6
May 31.....	893.10	1,592	0	10.10	6,922	-1.5
June 30.....	893.00	1,583	-.5	a10.18	6,972	+2.6
July 31.....	892.70	1,555	-1.4	a9.75	6,708	-13.1
Aug. 31.....	892.80	1,564	+4	a10.10	6,922	+10.7
Sept. 30.....	893.00	1,583	+1.0	10.25	7,015	+4.8
WTR YR 1974.....	-	-	+1	-	-	+1.4
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01386990 Wanaque Reservoir						
Sept. 30.....	291.37	21,710	-			
Oct. 31.....	286.79	18,810	-145			
Nov. 30.....	282.57	16,370	-126			
Dec. 31.....	297.77	26,130	+487			
CAL YR 1973.....	-	-	+15.0			
Jan. 31.....	300.47	28,140	+100			
Feb. 28.....	301.27	28,760	+34.2			
Mar. 31.....	302.60	29,780	+50.9			
Apr. 30.....	301.82	29,190	-30.4			
May 31.....	301.59	29,010	-9.0			
June 30.....	299.44	27,360	-85.1			
July 31.....	295.14	24,260	-155			
Aug. 31.....	290.55	21,180	-154			
Sept. 30.....	289.65	20,600	-29.9			
WTR YR 1974.....	-	-	-4.7			

** Gage height at 2400.

† Elevation at 0800 on first day of following month.

a Gage height estimated.

PASSAIC RIVER BASIN

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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 diverts water from reservoir formed by Macopin intake dam on Pequannock River and since May 21, 1961, also from Charlotteburg Reservoir on Pequannock River (diversion No. 01382370) 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 1973 TO SEPTEMBER 1974

Month	North Jersey District Water Supply Commission				Passaic Valley Water Commission
	Jersey City	Newark	From Wanaque Reservoir	From Ramapo River to Wanaque Reservoir	
October.....	116	107	165	0	85.7
November.....	113	105	160	3.3	84.4
December.....	106	90.6	167	91.9	76.7
CAL YR 1973.....	112	109	159	7.9	80.4
January.....	106	102	163	0	75.2
February.....	109	115	154	0	75.6
March.....	109	113	156	0	75.7
April.....	101	109	140	0	75.5
May.....	97.6	115	142	0	77.1
June.....	102	118	146	0	86.1
July.....	102	123	154	0	89.3
August.....	103	121	159	0	95.9
September.....	93.4	126	163	0	74.4
WTR YR 1974.....	105	112	156	7.9	81.0

NOTE.--Records for diversion from Post Brook to Wanaque Reservoir not available for this water year. Estimated diversion of 2.6 ft³/s (0.074 m³/s) 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 1973 TO SEPTEMBER 1974

	Stored	*Released
October.....	0	0
November.....	0	0
December.....	0	0
CAL YR 1973.....	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 1974.....	0	0

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

ELIZABETH RIVER BASIN

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 (23 m) upstream of bridge on Trotters Lane and 3.8 mi (6.1 km) upstream from mouth.

DRAINAGE AREA.--16.9 mi² (43.8 km²).

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 (850 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 (850 m) downstream at datum 5.23 ft (1.594 m) higher and published as "Elizabeth River at Elizabeth" (sta 01393500).

AVERAGE DISCHARGE.--53 years, 25.4 ft³/s (0.719 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,580 ft³/s (73.1 m³/s) Oct. 30 (elevation 23.77 ft or 7.245 m); minimum, 2.8 ft³/s (0.08 m³/s) July 21 (elevation, 13.15 ft or 4.008 m).
Period of record: Maximum discharge, 4,110 ft³/s (116 m³/s) Aug. 28, 1971 (gage height, 18.7 ft or 5.70 m, from floodmark, site and datum then in use), from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of contracted-opening measurement of peak flow; no flow many times.

REMARKS.--Records fair. Diversion by pumpage from Hammock well field, in Union, for municipal supply by Elizabethtown Water Co., probably reduces the flow past the station.

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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	41	7.7	38	13	13	23	9.3	53	23	8.5	7.6
2	18	15	7.7	19	11	8.5	24	9.3	32	9.7	53	64
3	22	10	9.2	36	11	7.6	15	50	11	10	65	232
4	13	6.9	13	94	10	9.7	78	10	11	6.8	49	124
5	13	8.1	40	25	10	11	63	7.2	11	22	62	32
6	11	8.5	60	17	13	10	19	17	11	8.5	21	24
7	8.9	9.3	18	14	14	9.7	11	13	10	6.2	21	150
8	11	8.9	11	14	12	40	12	8.9	8.1	7.6	18	21
9	11	8.9	220	15	10	41	211	58	6.5	8.9	41	16
10	12	7.2	35	18	10	31	27	135	9.7	17	30	15
11	11	5.8	16	60	11	10	16	17	9.7	8.1	10	13
12	9.3	5.9	11	40	12	9.7	11	153	29	6.2	9.3	11
13	7.2	7.5	24	19	13	9.7	57	37	16	4.4	9.7	10
14	5.5	9.0	173	14	14	9.7	14	17	11	3.8	9.3	19
15	8.1	7.0	22	15	12	9.3	79	12	8.1	5.6	8.9	28
16	8.1	5.7	13	27	9.3	92	15	11	69	6.8	8.5	12
17	8.1	4.8	19	18	7.6	32	13	11	28	6.5	173	14
18	8.1	5.6	13	16	7.6	12	12	9.3	16	6.5	126	13
19	8.1	7.2	11	19	48	11	32	7.6	12	7.2	43	13
20	6.9	7.0	43	35	33	9.7	12	9.7	10	5.0	20	15
21	4.8	7.4	710	172	12	152	9.3	11	18	3.4	14	16
22	5.8	8.1	66	70	41	46	11	10	9.3	4.7	12	17
23	6.9	8.5	25	40	20	19	17	33	70	6.2	25	14
24	6.9	11	16	26	9.7	12	11	63	18	41	27	13
25	7.2	17	12	24	17	11	11	26	21	12	7.6	13
26	7.2	11	199	41	16	12	11	11	12	7.6	15	12
27	5.8	16	300	36	11	11	9.3	7.6	10	5.8	13	13
28	3.8	60	60	30	11	11	8.1	8.9	14	4.1	79	30
29	647	16	27	25	-----	12	10	9.7	21	6.2	27	240
30	272	10	25	18	-----	166	10	8.9	6.5	27	70	29
31	46	-----	35	15	-----	144	-----	8.9	-----	8.9	12	-----
TOTAL	1,228.7	354.3	2,241.6	1,050	419.2	982.6	851.7	800.3	571.9	306.7	1,087.8	1,230.6
MEAN	39.6	11.8	72.3	33.9	15.0	31.7	28.4	25.8	19.1	9.89	35.1	41.0
MAX	647	60	710	172	48	166	211	153	70	41	173	240
MIN	3.8	4.8	7.7	14	7.6	7.6	8.1	7.2	6.5	3.4	7.6	7.6

CAL YR 1973 TOTAL 13,646.5 MEAN 37.4 MAX 723 MIN 3.8
WTR YR 1974 TOTAL 11,125.4 MEAN 30.5 MAX 710 MIN 3.4

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	ELEV.	DISCHARGE	DATE	TIME	ELEV.	DISCHARGE
10-30	0030	23.77	2,580	12-21	0415	22.54	2,070

NOTE.--No gage-height record Nov. 12 to Dec. 10, Dec. 26 to Feb. 15 and Sept. 11 to 30.

RAHWAY RIVER BASIN

53

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 mi² (2.15 km²).

PERIOD OF RECORD.--May 1972 to September 1974 (discontinued).

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 ft³/s (2.407 m³/s) which was reached or exceeded on Oct. 29, Dec. 21 and Apr. 15; maximum gage height, 7.91 ft (2.411 m) Oct. 29; minimum daily discharge, 0.18 ft³/s (0.005 m³/s) July 13-18, 28, 31 Aug. 1, 13, 14.
Period of record: Maximum discharge, about 85 ft³/s (2.407 m³/s) June 29, Aug. 2, Oct. 29, Dec. 21, 1973 and Apr. 15, 1974; maximum gage height, 8.80 ft (2.682 m) Aug. 2, 1973; minimum daily discharge, 0.05 ft³/s (0.001 m³/s) Oct. 3-5, 22-27, 1973.

REMARKS.--Records fair except those for periods of doubtful or no gage-height record, which are poor. Flow exceeding 85 ft³/s (2.407 m³/s) either goes into storage or bypasses the gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	3.7	.35	1.7	.70	.62	2.5	1.0	1.7	.84	.18	1.5
2	1.9	1.5	.30	1.5	.60	.50	2.3	1.1	.70	.42	3.9	3.0
3	.35	.40	.25	2.0	.50	.45	1.7	2.0	.35	.35	.70	8.6
4	.30	.40	.30	2.9	.47	.43	3.4	.42	.30	.35	.90	10
5	.27	.42	7.3	1.0	.44	.41	3.2	.35	.25	1.4	.49	1.0
6	.25	.45	1.5	.80	.50	.41	1.8	.49	.27	.42	.29	.60
7	.23	.40	.80	.70	.70	.45	1.6	.35	.30	.35	.70	4.8
8	.24	.30	.60	.70	.45	1.5	1.6	.35	.62	.29	.35	2.0
9	.25	.33	13	.78	.40	1.4	8.7	3.2	.49	.23	2.6	1.0
10	.25	.36	2.7	.90	.37	.84	2.6	.90	.49	.84	.42	.83
11	.26	.40	1.6	2.1	.40	.60	2.1	.57	.45	.29	.29	.76
12	.27	.40	1.2	.84	.45	.45	1.6	5.4	.54	.23	.23	.63
13	.25	.42	2.1	.78	.55	.44	3.2	1.5	.43	.18	.18	.66
14	.25	.41	6.3	.78	.45	.43	3.1	.98	.41	.18	.18	2.2
15	.25	.40	1.2	.78	.40	.62	6.2	.78	3.5	.18	.23	.46
16	.24	.38	1.2	.90	.37	3.8	2.4	.40	1.5	.18	.23	.54
17	.27	.35	1.3	.78	.35	1.1	2.0	.32	.55	.18	7.4	.58
18	.30	.38	1.2	.62	.40	.84	1.0	.30	.44	.18	.35	.56
19	.27	.42	.84	.98	1.8	.60	1.2	.28	.44	.23	.29	.42
20	.25	.40	1.9	.57	.98	.45	1.0	.26	1.5	.23	.23	.42
21	.25	.35	40	5.6	.62	8.2	.70	.26	1.3	.23	.23	1.2
22	.27	.25	7.4	2.3	1.6	2.1	1.0	.26	2.8	.23	.23	.49
23	.29	.22	4.5	2.0	.90	1.6	.80	1.4	1.5	.23	1.2	.35
24	.27	.60	3.1	1.9	.70	1.4	.60	4.5	.88	2.0	3.3	.23
25	.30	1.1	2.0	1.7	.65	1.1	.55	.70	.82	.29	.23	.35
26	.35	.50	8.6	1.5	.70	1.1	.50	.30	.70	.23	.23	.42
27	.30	.35	3.1	2.5	.45	.80	.48	.25	.42	.23	.29	.49
28	.27	.30	2.2	2.4	.55	.60	.47	.23	.35	.18	1.9	5.4
29	40	.25	2.2	1.5	-----	.55	.46	.23	.78	.23	1.1	3.4
30	5.9	.50	1.3	1.2	-----	6.5	.48	.23	.98	.98	2.1	.73
31	1.7	-----	1.5	.90	-----	7.1	-----	.23	-----	.18	.30	-----
TOTAL	56.84	16.64	121.84	45.61	17.45	47.39	59.24	29.54	25.76	12.56	31.25	53.62
MEAN	1.83	.55	3.93	1.47	.62	1.53	1.97	.95	.86	.41	1.01	1.79
MAX	40	3.7	40	5.6	1.8	8.2	8.7	5.4	3.5	2.0	7.4	10
MIN	.23	.22	.25	.57	.35	.41	.46	.23	.25	.18	.18	.23

CAL YR 1973 TOTAL 778.30 MEAN 2.13 MAX 50 MIN .13
WTR YR 1974 TOTAL 517.74 MEAN 1.42 MAX 40 MIN .18

NOTE.--Doubtful or no gage-height record Oct. 1 to Dec. 5, Apr. 16 to May 8, June 8-26, July 11-23 and Aug. 28 to Sept. 18.

RAHWAY RIVER BASIN

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 mi² (66.0 km²).

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.--36 years, 27.0 ft³/s (0.765 m³/s).

EXTREMES.--Current year: Maximum discharge, 1,870 ft³/s (53.0 m³/s) Dec. 21 (gage height, 7.20 ft or 2.195 m); minimum, 2.8 ft³/s (0.079 m³/s) July 17, 18, 21-23 (gage height, 1.24 ft or 0.378 m).
Period of record: Maximum discharge, 5,430 ft³/s (154 m³/s) Aug. 2, 1973 (gage height 9.76 ft or 2.975 m, from floodmark), rating extended above 1,600 ft³/s (45.3 m) on basis of slope-area measurement of peak flow; minimum, 0.1 ft³/s (0.003 m³/s) Sept. 11, 1966.

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

REVISIONS (WATER YEARS).--WSP 1622: 1945. WRD-NJ 1973: 1938(M), 1968(M), 1971(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	39	7.2	41	20	19	97	15	50	15	3.8	4.5
2	12	15	6.2	23	19	16	76	14	30	11	53	158
3	17	11	6.5	40	18	13	58	42	13	5.7	126	367
4	7.2	8.3	6.2	67	17	13	150	13	11	4.3	36	446
5	5.7	9.4	111	27	13	13	122	11	10	17	13	24
6	5.5	9.4	115	20	15	13	89	16	11	6.7	4.8	14
7	5.0	9.9	20	18	24	12	56	19	12	4.5	9.9	144
8	5.0	9.9	13	16	13	27	64	11	13	4.3	5.0	22
9	5.3	8.8	426	16	13	45	528	41	13	5.7	48	11
10	5.3	7.8	94	17	11	47	94	150	13	6.4	19	8.3
11	5.5	7.8	27	63	12	17	43	28	12	6.4	3.8	7.8
12	5.5	9.9	17	39	13	14	33	156	14	3.8	3.6	6.2
13	5.7	8.8	21	19	17	13	77	158	11	3.3	4.1	6.5
14	5.3	9.4	230	15	14	13	47	32	11	3.5	4.5	25
15	5.7	8.8	37	17	12	13	223	23	92	5.0	4.8	5.0
16	5.3	8.8	23	23	11	45	49	17	45	4.1	5.0	5.5
17	5.3	8.3	30	25	11	65	33	15	15	3.6	436	6.0
18	6.2	7.2	15	15	10	24	29	14	11	3.3	154	6.0
19	6.0	8.8	11	20	28	18	51	11	11	4.1	5.7	5.3
20	5.5	8.8	28	15	61	13	31	11	38	4.5	5.3	6.0
21	5.3	8.8	1,310	205	23	302	23	10	32	3.1	5.3	6.5
22	5.5	6.7	138	112	42	92	22	9.9	72	3.3	4.8	7.2
23	6.0	4.8	56	71	44	37	28	23	40	3.1	25	4.1
24	6.2	13	30	56	20	27	21	85	23	36	13	5.5
25	5.7	24	24	35	20	19	19	30	20	6.2	6.2	5.3
26	7.2	15	218	25	23	16	16	12	14	4.1	6.2	5.3
27	6.0	11	193	71	14	17	16	10	14	3.6	6.0	5.5
28	5.5	81	56	45	15	17	14	11	33	3.6	32	77
29	515	19	34	48	-----	19	15	10	16	4.3	19	180
30	730	8.8	30	27	-----	148	15	9.9	36	33	41	11
31	33	-----	33	24	-----	406	-----	8.8	-----	4.3	5.3	-----
TOTAL	1,457.2	407.2	3,366.1	1,255	553	1,553	2,139	1,016.6	736	226.8	1,109.1	1,585.5
MEAN	47.0	13.6	109	40.5	19.8	50.1	71.3	32.8	24.5	7.32	35.8	52.9
MAX	730	81	1,310	205	61	406	528	158	92	36	436	446
MIN	5.0	4.8	6.2	15	10	12	14	8.8	10	3.1	3.6	4.1

CAL YR 1973 TOTAL 19,747.7 MEAN 54.1 MAX 1,560 MIN 4.8
WTR YR 1974 TOTAL 15,404.5 MEAN 42.2 MAX 1,310 MIN 3.1

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0030	7.05	1,770	8-17	1830	6.84	1,650
12-21	1130	7.20	1,870	9-03	2300	6.30	1,410

NOTE.--No gage-height record June 2 to July 2.

RAHWAY RIVER BASIN

55

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 mi² (105.9 km²).

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.--53 years (1921-74), 45.7 ft³/s (1.294 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,640 ft³/s (74.8 m³/s) Dec. 21 (gage height, 5.82 ft or 1.774 m) from rating curve extended above 2,000 ft³/s (57 m³/s); no flow part of several days during the summer months. Period of record: Maximum discharge, 5,420 ft³/s (153 m³/s) Aug. 2, 1973 (gage height, 7.88 ft or 2.402 m) from rating curve extended above 2,000 ft³/s (57 m³/s); no flow for part or all of some days in many years.

REMARKS.--Records good except those below 3.0 ft³/s (0.08 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	61	1.5	58	23	19	180	19	75	41	4.2	.90
2	26	32	7.2	32	21	11	63	18	40	13	8.4	174
3	34	21	4.7	46	19	15	55	55	45	8.4	180	186
4	19	7.2	13	128	16	13	158	30	18	.90	105	1,090
5	12	15	75	60	15	23	112	5.2	13	3.2	116	149
6	3.7	18	270	33	19	14	121	24	11	25	25	33
7	5.2	15	34	27	28	12	43	33	10	6.2	17	210
8	5.7	18	19	25	21	16	46	17	2.7	6.2	19	101
9	9.0	15	349	27	18	71	475	19	7.8	15	13	26
10	9.0	13	490	27	15	67	254	262	6.7	10	81	19
11	7.2	9.8	51	43	16	27	63	69	12	17	23	16
12	7.2	7.2	27	110	16	20	42	101	18	6.2	12	12
13	1.8	10	27	42	18	15	81	349	58	.70	4.7	7.8
14	4.7	12	298	25	22	13	93	56	5.2	.50	1.5	55
15	2.7	21	101	25	18	12	266	32	14	.90	1.5	11
16	5.2	17	34	28	14	40	91	26	99	5.7	.10	12
17	5.7	3.7	37	42	13	149	48	21	87	3.7	344	6.7
18	4.2	6.2	29	28	11	32	40	10	19	1.8	1,060	7.8
19	5.2	7.8	13	30	18	19	40	15	9.0	1.8	41	7.8
20	6.2	9.8	27	63	97	16	53	20	20	.90	16	6.7
21	5.2	12	1,940	306	31	344	31	15	14	.50	10	1.5
22	3.2	21	1,140	118	37	457	36	14	32	2.2	9.8	5.2
23	2.2	6.7	103	77	67	53	34	28	53	1.5	37	12
24	5.7	1.2	49	49	25	43	27	45	81	40	7.2	1.5
25	4.7	28	33	37	20	31	23	130	30	53	18	1.8
26	2.7	28	168	55	27	24	19	22	21	10	15	3.7
27	6.2	9.8	520	69	22	24	2.2	16	16	1.8	8.4	3.2
28	2.7	107	97	58	17	21	16	19	14	.70	19	43
29	505	51	49	48	-----	20	21	16	26	10	99	298
30	1,780	21	38	31	-----	147	23	15	15	45	116	61
31	258	-----	41	27	-----	609	-----	14	-----	19	19	-----
TOTAL	2,756.5	605.4	6,085.4	1,774	684	2,377	2,556.2	1,515.2	872.4	351.80	2,430.80	2,562.60
MEAN	88.9	20.2	196	57.2	24.4	76.7	85.2	48.9	29.1	11.3	78.4	85.4
MAX	1,780	107	1,940	306	97	609	475	349	99	53	1,060	1,090
MIN	1.8	1.2	1.5	25	11	11	2.2	5.2	2.7	.50	.10	.90
CAL YR 1973	TOTAL 36,428.40	MEAN 99.8	MAX 2,110	MIN 1.2								
WTR YR 1974	TOTAL 24,571.30	MEAN 67.3	MAX 1,940	MIN .10								

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	1000	5.25	2,120	3-21	1630	3.65	898
12-09	1600	3.60	877	3-31	1315	3.35	722
12-21	1400	5.82	2,640	4-09	1745	3.33	710
12-27	0645	3.33	704	8-18	0345	4.85	1,830
				9-04	0800	4.49	1,540

RAHWAY RIVER BASIN

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 mi² (55.9 km²).

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 sea level (New Jersey Geological Survey bench mark).

AVERAGE DISCHARGE.--35 years, 23.7 ft³/s (0.671 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,280 ft³/s (36.2 m³/s) Dec. 21 (gage height, 4.98 ft or 1.518 m) from rating curve extended above 750 ft³/s (21 m³/s) on basis of computation of flow over dam; minimum, 1.4 ft³/s (0.040 m³/s) July 22 (gage height, 3.20 ft or 0.975 m).
Period of record: Maximum discharge, 2,380 ft³/s (67.4 m³/s) Aug. 2, 1973 (gage height, 5.65 ft or 1.722 m) from rating curve extended above 750 ft³/s (21 m³/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 fair except those below 10 ft³/s (0.28 m³/s), which are poor. 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 (1.136 hm³) 3,200 ft (980 m) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	23	8.5	45	16	21	86	11	23	20	4.0	9.9
2	5.6	9.9	6.9	23	16	16	33	6.7	20	7.8	13	21
3	11	7.9	7.7	35	15	15	25	27	14	6.1	68	98
4	6.7	6.3	8.5	103	15	15	61	14	7.0	5.6	86	213
5	6.2	6.2	48	40	12	16	70	6.9	6.0	5.5	65	38
6	4.4	5.9	107	25	11	13	64	9.2	5.5	6.7	10	14
7	4.1	4.6	18	23	19	13	29	14	5.7	5.5	12	124
8	4.6	5.2	9.4	19	16	27	23	8.1	6.3	5.3	8.5	35
9	4.6	6.4	252	18	13	48	259	16	6.9	5.6	16	15
10	5.4	5.4	197	19	12	70	97	88	6.8	5.9	25	10
11	5.5	4.6	40	61	12	23	28	27	6.7	6.3	6.3	8.4
12	5.9	6.0	21	64	13	19	22	69	6.2	4.5	5.1	7.6
13	6.2	6.9	16	29	18	16	47	108	7.7	3.8	4.7	10
14	5.9	8.3	128	18	21	12	44	24	5.8	4.9	5.2	55
15	4.1	7.7	35	19	16	12	92	12	5.5	4.9	4.7	14
16	4.3	5.9	23	27	13	53	33	9.3	50	5.2	4.4	8.0
17	3.0	4.2	29	33	15	92	19	8.5	24	3.9	198	7.9
18	3.1	4.4	18	21	13	23	16	7.7	8.0	3.4	128	9.7
19	3.6	6.5	13	21	25	18	18	7.0	6.1	4.6	19	8.4
20	4.2	6.0	23	19	53	15	16	6.4	6.0	4.4	7.7	9.1
21	4.2	6.3	912	119	23	265	12	6.2	21	1.8	6.0	11
22	6.1	7.4	375	155	38	202	11	6.3	17	1.9	5.6	12
23	8.4	6.7	100	70	31	38	13	17	40	3.2	16	8.7
24	4.5	8.9	29	48	16	25	10	20	21	36	8.9	8.8
25	5.1	16	21	31	21	18	8.9	23	12	11	6.4	8.5
26	5.6	13	170	25	21	15	9.3	8.1	11	5.0	5.6	8.5
27	7.0	8.8	265	50	16	15	8.1	6.1	7.4	4.8	5.8	8.1
28	5.1	50	64	33	16	13	8.5	8.7	7.4	4.5	18	41
29	337	32	29	33	-----	13	10	6.4	18	4.3	54	97
30	383	9.7	25	23	-----	119	11	6.1	8.4	16	115	22
31	99	-----	38	21	-----	329	-----	5.6	-----	5.2	23	-----
TOTAL	968.0	300.1	3,037.0	1,270	526	1,589	1,183.8	593.3	390.4	213.6	954.9	941.6
MEAN	31.2	10.0	98.0	41.0	18.8	51.3	39.5	19.1	13.0	6.89	30.8	31.4
MAX	383	50	912	155	53	329	259	108	50	36	198	213
MIN	3.0	4.2	6.9	18	11	12	8.1	5.6	5.5	1.8	4.0	7.6

CAL YR 1973 TOTAL 16,859.59 MEAN 46.2 MAX 912 MIN .02
WTR YR 1974 TOTAL 11,967.70 MEAN 32.8 MAX 912 MIN 1.8

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-29	2245	4.93	1,170	3-21	1515	4.56	764
12-09	1515	4.47	664	8-17	1900	4.81	1,010
12-21	1115	4.98	1,280	9-03	2300	4.35	525

RARITAN RIVER BASIN

57

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 mi² (169.1 km²).

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.--56 years, 118 ft³/s (3.342 m³/s), 24.54 in/yr (623 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,360 ft³/s (95.2 m³/s) Dec. 21 (gage height, 10.47 ft or 3.191 m from peak-stage indicator); minimum, 41 ft³/s (1.16 m³/s) July 23, 24, Aug. 16, 17 (gage height, 5.89 ft or 1.795 m).

Period of record: Maximum discharge, 5,160 ft³/s (146 m³/s) Mar. 15, 1940 (gage height, 11.78 ft or 3.591 m) from rating curve extended above 1,600 ft³/s (45 m³/s); minimum, 6.6 ft³/s (0.19 m³/s) Oct. 11, 1930; minimum daily, 13 ft³/s (0.37 m³/s) Aug. 11, 1966.

REMARKS.--Records good. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	188	103	310	195	147	340	140	163	132	49	84
2	75	145	94	269	190	143	269	132	132	89	49	554
3	307	125	91	248	177	134	239	163	115	74	116	328
4	131	119	91	257	163	138	424	168	101	69	69	718
5	89	111	303	228	138	140	351	138	96	65	78	235
6	73	105	379	214	143	130	337	138	91	62	58	166
7	68	100	190	203	156	123	266	172	85	57	51	342
8	65	96	154	188	147	134	242	140	87	55	49	223
9	64	92	413	175	140	214	460	134	85	53	50	165
10	63	89	354	188	136	239	327	281	82	54	115	141
11	60	85	231	220	138	163	263	195	77	55	63	123
12	56	85	200	223	132	145	245	248	75	51	51	115
13	56	84	182	177	136	132	281	513	74	49	48	106
14	55	82	492	161	149	123	287	237	72	47	46	211
15	55	80	260	168	136	123	444	201	69	47	44	126
16	54	80	217	168	119	170	275	175	220	46	42	103
17	51	78	206	190	123	365	245	161	436	44	163	93
18	51	73	195	154	119	188	225	149	132	44	296	90
19	51	75	188	161	136	163	257	138	98	46	88	85
20	51	73	178	158	344	152	260	130	89	45	87	82
21	50	72	2,360	217	175	365	220	125	103	43	58	87
22	50	75	1,060	351	220	372	206	123	125	43	56	107
23	50	73	545	291	269	234	231	125	130	42	162	83
24	49	73	429	287	165	225	198	136	152	48	75	74
25	47	91	361	234	154	193	188	134	130	60	84	72
26	45	111	472	223	145	183	175	115	119	49	64	71
27	46	94	724	317	134	177	161	109	95	48	69	68
28	46	222	406	275	132	168	145	109	90	48	66	151
29	550	225	347	272	-----	161	147	105	97	49	80	746
30	1,060	125	320	228	-----	195	143	107	85	99	137	261
31	242	-----	297	212	-----	448	-----	101	-----	64	140	-----
TOTAL	3,776	3,126	11,842	6,967	4,511	5,987	7,851	5,042	3,505	1,777	2,523	5,810
MEAN	122	104	382	225	161	193	262	163	117	57.3	81.4	194
MAX	1,060	225	2,360	351	344	448	460	513	436	132	296	746
MIN	45	72	91	154	119	123	143	101	69	42	42	68
CFSM	1.87	1.59	5.85	3.45	2.47	2.96	4.01	2.50	1.79	.88	1.25	2.97
IN.	2.15	1.78	6.75	3.97	2.57	3.41	4.47	2.87	2.00	1.01	1.44	3.31

CAL YR 1973 TOTAL 70,853 MEAN 194 MAX 2,360 MIN 45 CFSM 2.97 IN 40.36
WTR YR 1974 TOTAL 62,717 MEAN 172 MAX 2,360 MIN 42 CFSM 2.63 IN 35.73

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0800	9.29	1,790	9-04	0615	8.60	1,140
12-21	Unk	10.47	3,360	9-29	0800	8.71	1,230
12-27	0415	8.45	1,020				

NOTE.--Gage-height record for Dec. 14-26 furnished by the Bureau of Water Facilities, New Jersey Department of Environmental Protection.

RARITAN RIVER BASIN

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 mi² (107.0 km²).

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.--15 years, 56.2 ft³/s (1.592 m³/s).

EXTREMES.--Current year: Maximum discharge, 2,700 ft³/s (76.5 m³/s) Dec. 21 (gage height, 3.86 ft or 1.177 m); minimum daily, 9.6 ft³/s (0.27 m³/s) Aug. 30.

Period of record: Maximum discharge, 6,410 ft³/s (182 m³/s) Apr. 2, 1970 (gage height, 5.17 ft or 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 good. Flow regulated by Spruce Run Reservoir (see p. 79). 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	36	49	137	145	76	179	83	69	45	25	10
2	22	25	13	115	144	62	156	25	62	36	70	11
3	21	26	15	104	141	62	128	31	51	27	45	12
4	18	24	20	101	102	52	228	83	41	27	15	11
5	17	24	110	97	46	34	223	27	35	23	14	10
6	17	30	219	94	46	39	210	36	28	19	16	10
7	17	25	101	92	46	35	139	75	23	21	23	11
8	17	21	71	92	45	51	121	44	24	20	23	10
9	16	16	213	94	44	52	256	52	29	27	24	10
10	18	17	261	97	44	88	248	156	25	38	23	10
11	30	16	147	153	45	53	126	110	44	37	23	10
12	34	16	94	219	45	53	114	153	21	36	19	10
13	34	16	80	219	44	90	115	310	18	35	13	11
14	35	15	182	219	44	67	145	137	18	43	13	14
15	39	16	121	219	46	49	236	101	18	98	13	11
16	46	21	91	103	46	53	148	83	40	90	13	11
17	54	18	132	94	45	165	93	85	82	98	39	12
18	61	16	104	92	45	104	104	73	45	114	40	12
19	62	13	50	92	46	53	93	60	30	128	22	14
20	61	11	68	92	45	51	104	49	26	133	22	18
21	61	11	1,530	94	44	197	97	46	25	134	22	23
22	62	11	347	94	45	274	91	46	33	113	22	26
23	64	11	270	94	109	208	123	52	38	101	23	31
24	74	11	199	94	46	213	102	61	51	82	23	42
25	82	11	164	120	57	105	53	68	55	40	22	42
26	82	14	297	144	82	38	53	45	45	33	22	35
27	82	13	429	142	77	44	38	32	35	28	18	29
28	82	21	234	144	77	36	41	42	29	47	14	41
29	55	91	156	145	-----	37	52	32	34	62	12	365
30	25	46	135	144	-----	39	43	29	33	53	9.6	178
31	24	-----	177	147	-----	219	-----	30	-----	24	10	-----
TOTAL	1,345	642	6,079	3,887	1,791	2,699	3,859	2,256	1,107	1,812	692.6	1,040
MEAN	43.4	21.4	196	125	64.0	87.1	129	72.8	36.9	58.5	22.3	34.7
MAX	82	91	1,530	219	145	274	256	310	82	134	70	365
MIN	16	11	13	92	44	34	38	25	18	19	9.6	10

CAL YR 1973 TOTAL 34,950.0 MEAN 95.8 MAX 1,530 MIN 11
WTR YR 1974 TOTAL 27,209.6 MEAN 74.5 MAX 1,530 MIN 9.6

RARITAN RIVER BASIN

59

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 mi² (381 km²).

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.--58 years (1904-6, 1920-74), 236 ft³/s (6.683 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 6,460 ft³/s (183 m³/s) Dec. 21 (gage height, 9.77 ft or 2.978 m); minimum, 66 ft³/s (1.87 m³/s), regulated, Aug. 15; minimum daily, 72 ft³/s (2.04 m³/s) Aug. 14.
Period of record: Maximum discharge, 18,000 ft³/s (510 m³/s) Aug. 19, 1955 (gage height 15.22 ft or 4.639 m) from rating curve extended above 6,400 ft³/s (180 m³/s) on basis of computation of flow over Clinton Dam, 6.5 mi (10.5 km) upstream, at gage height, 10.72 ft (3.267 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 ft³/s (0.25 m³/s) Nov. 7, 1931; minimum daily, 12 ft³/s (0.34 m³/s) Oct. 18, 1963.

REMARKS.--Records good. Flow regulated by Spruce Run Reservoir since September 1963 (see p. 79). 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. 79). 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	298	167	595	420	272	733	275	263	215	120	125
2	116	234	122	505	400	258	577	212	256	176	159	576
3	378	197	114	659	396	243	492	240	211	141	232	405
4	197	180	118	543	392	238	934	321	181	136	116	933
5	130	170	336	460	340	218	829	219	165	132	122	343
6	112	166	768	429	289	213	788	219	150	127	103	244
7	104	153	340	405	253	201	571	305	138	123	118	457
8	101	144	263	368	243	232	504	236	139	125	116	331
9	98	132	600	367	253	332	1,040	232	143	111	159	241
10	95	128	1,000	425	230	478	827	532	136	132	187	216
11	103	122	483	646	233	310	559	399	146	151	118	201
12	126	120	388	541	227	273	495	536	119	138	91	187
13	148	118	344	500	210	287	551	1,100	116	130	74	170
14	145	116	926	470	250	267	596	482	110	140	72	289
15	125	115	554	442	232	232	912	379	108	195	79	198
16	110	117	414	324	212	278	592	326	348	195	107	162
17	112	110	462	348	217	669	464	315	666	195	145	154
18	121	104	419	328	209	397	440	287	235	210	466	145
19	121	105	331	304	227	286	436	250	167	225	148	143
20	121	99	322	320	466	269	489	227	144	232	114	140
21	119	98	4,820	340	290	714	411	216	138	232	122	148
22	120	101	2,460	654	292	957	382	214	192	216	145	181
23	122	100	1,180	580	495	572	429	231	187	198	204	151
24	130	100	908	550	276	553	390	242	252	204	192	154
25	141	117	741	465	262	426	317	256	231	159	184	151
26	140	130	1,180	474	283	301	292	209	216	143	162	145
27	140	116	1,210	535	262	299	263	181	179	125	151	132
28	137	230	815	555	260	276	245	188	163	143	145	360
29	547	340	748	530	-----	269	245	174	179	159	159	1,780
30	1,420	193	616	460	-----	342	248	173	162	216	162	581
31	421	-----	640	438	-----	917	-----	168	-----	156	195	-----
TOTAL	6,125	4,453	23,789	14,560	8,119	11,579	16,051	9,344	5,840	5,180	4,667	9,443
MEAN	198	148	767	470	290	374	535	301	195	167	151	315
MAX	1,420	340	4,820	659	495	957	1,040	1,100	666	232	466	1,780
MIN	95	98	114	304	209	201	245	168	108	111	72	125
CAL YR 1973	TOTAL 140,350	MEAN 385	MAX 4,820	MIN 95								
WTR YR 1974	TOTAL 119,150	MEAN 326	MAX 4,820	MIN 72								

RARITAN RIVER BASIN

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 mi² (66.6 km²).

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.--44 years, 35.0 ft³/s (0.991 m³/s), 18.48 in/yr (469 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,320 ft³/s (94.0 m³/s) Sept. 29 (gage height, 9.10 ft or 2.774 m) from rating curve extended above 1,700 ft³/s (48 m³/s) on basis of slope-area measurement 0.7 mi (1.1 km) downstream at gage height 11.90 ft (3.627 m); minimum, 0.16 ft³/s (0.005 m³/s) Oct. 28 (gage height, 2.08 ft or 0.634 m).
Period of record: Maximum discharge, 15,900 ft³/s (450 m³/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 ft³/s (48 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	43	15	70	36	29	117	12	16	21	1.3	3.0
2	8.7	27	12	46	33	25	85	11	19	13	25	17
3	23	21	12	56	28	25	63	18	16	9.7	25	123
4	6.1	16	11	125	22	25	111	14	9.2	8.5	5.3	125
5	4.2	14	96	68	19	23	129	11	7.7	7.7	5.0	38
6	3.3	12	140	57	19	19	101	13	6.6	12	2.8	26
7	3.1	9.8	54	51	22	19	67	14	5.5	6.6	2.8	18
8	3.1	8.7	40	39	19	40	56	11	6.6	5.3	2.7	13
9	2.7	8.3	365	36	17	73	299	15	5.9	4.3	4.5	11
10	2.5	7.3	144	40	18	111	113	73	5.0	3.8	5.9	10
11	2.2	6.4	76	113	16	56	73	27	4.3	3.3	2.4	9.0
12	2.0	6.4	53	81	15	46	58	203	3.8	2.7	1.9	9.0
13	2.0	6.1	46	44	17	36	125	154	3.8	2.7	1.7	13
14	1.9	6.1	182	32	18	30	90	55	3.3	2.8	1.6	20
15	1.6	5.8	71	36	15	27	270	38	2.8	2.0	1.2	12
16	1.7	5.8	55	39	13	113	85	29	47	1.7	1.0	9.2
17	1.7	5.0	63	43	14	147	61	30	28	1.6	1.7	8.1
18	1.9	4.5	43	31	12	63	50	29	12	1.3	2.5	7.4
19	1.9	4.8	36	35	21	49	46	19	7.7	1.4	1.1	6.2
20	2.0	4.5	59	31	49	38	39	16	5.9	2.5	.95	5.5
21	1.9	4.0	1,680	109	28	387	33	14	21	1.4	.95	5.9
22	1.9	4.2	163	200	50	140	29	13	17	1.3	1.7	5.5
23	1.7	4.0	98	140	53	80	29	21	35	1.0	18	4.5
24	1.7	4.5	65	111	33	63	24	17	29	3.8	3.3	3.8
25	1.4	5.8	50	80	33	45	21	14	28	3.0	2.0	3.8
26	1.4	6.4	505	64	29	39	19	11	22	1.9	1.7	3.8
27	1.3	5.3	279	105	25	33	17	9.7	17	1.7	1.7	3.3
28	1.4	26	109	71	25	30	15	9.7	16	1.6	7.4	228
29	105	37	76	67	-----	28	15	8.8	28	1.6	8.8	469
30	234	19	61	50	-----	121	14	8.5	16	6.6	5.0	71
31	56	-----	57	44	-----	331	-----	7.7	-----	1.9	3.3	-----
TOTAL	485.0	338.7	4,716	2,114	699	2,291	2,254	926.4	445.1	139.7	150.20	1,282.0
MEAN	15.6	11.3	152	68.2	25.0	73.9	75.1	29.9	14.8	4.51	4.85	42.7
MAX	234	43	1,680	200	53	387	299	203	47	21	25	469
MIN	1.3	4.0	11	31	12	19	14	7.7	2.8	1.0	.95	3.0
CFSM	.61	.44	5.91	2.65	.97	2.88	2.92	1.16	.58	.18	.19	1.66
IN.	.70	.49	6.83	3.06	1.01	3.32	3.26	1.34	.64	.20	.22	1.86

CAL YR 1973 TOTAL 21,057.90 MEAN 57.7 MAX 1,680 MIN 1.1 CFSM 2.25 IN 30.48
WTR YR 1974 TOTAL 15,841.10 MEAN 43.4 MAX 1,680 MIN .95 CFSM 1.69 IN 22.93

PEAK DISCHARGE (BASE, 1,600 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	0530	8.96	3,160
3-21	1615	7.15	1,620
9-29	0015	9.10	3,320

RARITAN RIVER BASIN

61

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 mi² (67.9 km²).

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.--53 years, 46.7 ft³/s (1.323 m³/s), 24.21 in/yr (615 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,390 ft³/s (39.4 m³/s) Dec. 21 (gage height, 4.22 ft or 1.286 m); no flow Oct. 29 and June 14 when gate was closed and lake was filling.
Period of record: Maximum discharge, 6,390 ft³/s (181 m³/s) Aug. 28, 1971 (gage height 7.28 ft or 2.219 m) from rating curve extended above 2,000 ft³/s (57 m³/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 ft³/s (200 m³/s).

REMARKS.--Records good except those for periods when waste gate was open, which are fair. Records given herein include diversion of about 2.0 ft³/s (0.057 m³/s) by small turbine at dam, Oct. 1-15, June 17 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	44	29	101	63	44	120	37	41	45	11	25
2	17	31	27	86	66	42	94	34	35	35	10	65
3	54	30	26	79	60	42	82	41	31	28	26	77
4	28	34	26	86	54	42	168	41	25	28	24	131
5	19	40	109	72	44	42	140	36	19	19	45	35
6	18	34	122	66	47	39	112	30	17	18	29	27
7	17	29	52	63	52	39	96	37	16	16	16	71
8	17	28	44	54	47	44	78	33	15	15	13	38
9	14	27	160	54	45	66	220	30	15	14	17	31
10	14	26	105	57	44	72	120	105	14	13	34	26
11	16	25	66	75	45	45	91	53	13	13	17	22
12	16	26	57	72	44	45	76	175	12	13	11	20
13	17	26	54	49	45	39	105	180	14	11	10	19
14	19	25	169	47	49	40	98	80	13	11	10	26
15	17	25	72	49	44	47	190	66	12	11	9.3	20
16	15	23	63	47	40	80	110	57	40	10	8.8	16
17	14	21	69	52	40	145	85	52	77	9.8	56	15
18	14	20	54	42	39	74	70	60	33	9.3	45	15
19	14	21	49	47	66	61	70	55	28	10	21	14
20	14	20	52	45	105	54	67	41	26	10	13	14
21	13	20	845	79	49	250	61	38	49	9.3	11	30
22	13	21	229	105	90	150	57	37	41	8.8	11	36
23	11	20	174	90	79	94	57	35	38	8.8	39	20
24	11	20	141	90	49	80	50	40	45	16	29	12
25	10	27	118	69	47	70	44	49	34	25	19	11
26	10	40	235	66	45	61	38	38	35	16	14	12
27	10	29	235	127	44	53	34	34	29	13	14	11
28	10	72	156	86	42	49	33	34	27	13	15	32
29	100	66	118	90	-----	46	35	36	32	13	15	302
30	305	35	105	69	-----	80	44	41	33	24	31	65
31	45	-----	97	66	-----	190	-----	34	-----	16	33	-----
TOTAL	913	905	3,858	2,180	1,484	2,225	2,645	1,659	859	502.0	657.1	1,238
MEAN	29.5	30.2	124	70.3	53.0	71.8	88.2	53.5	28.6	16.2	21.2	41.3
MAX	305	72	845	127	105	250	220	180	77	45	56	302
MIN	10	20	26	42	39	39	33	30	12	8.8	8.8	11
CFSM	1.13	1.15	4.73	2.68	2.02	2.74	3.37	2.04	1.09	.62	.81	1.58
IN.	1.30	1.28	5.48	3.10	2.11	3.16	3.76	2.36	1.22	.71	.93	1.76

CAL YR 1973 TOTAL 26,041.0 MEAN 71.3 MAX 845 MIN 10 CFSM 2.72 IN 36.97
WTR YR 1974 TOTAL 19,125.1 MEAN 52.4 MAX 845 MIN 8.8 CFSM 2.00 IN 27.15

PEAK DISCHARGE (BASE, 700 CFS)

NOTE.--Waste gate open Oct. 14-29 and Mar. 14 to June 14.

DATE	TIME	G.H.	DISCHARGE
10-30	0015	4.18	1,350
12-21	0800	4.22	1,390
9-29	0130	3.99	1,130

RARITAN RIVER BASIN

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 mi² (85.0 km²).

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.--53 years, 54.9 ft³/s (1.555 m³/s), 22.73 in/yr (577 mm/yr).

EXTREMES.--Current year: Maximum discharge, 980 ft³/s (27.8 m³/s), Dec. 21, (gage height, 3.95 ft or 1.204 m) from rating curve extended above 380 ft³/s (10.8 m³/s) on basis of slope-area measurement at gage height 4.71 ft (1.436 m); minimum, 13 ft³/s (0.37 m³/s) July 22, 23 (gage height, 1.53 ft or 0.466 m).
Period of record: Maximum discharge, 2,700 ft³/s (76.5 m³/s) Aug. 28, 1971 (gage height, 5.39 ft or 1.643 m) from rating curve extended above 380 ft³/s (10.8 m³/s) on basis of slope-area measurement at gage height 4.71 ft (1.436 m); minimum, 1.3 ft³/s (0.037 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	163	63	173	118	66	135	61	58	54	20	73
2	55	135	57	155	108	64	145	58	55	42	24	90
3	92	103	48	150	96	64	133	67	58	40	36	88
4	64	78	41	145	88	63	163	67	54	37	34	118
5	63	66	98	133	84	63	158	64	46	33	32	92
6	63	54	108	125	108	61	158	66	39	28	27	92
7	54	45	86	120	70	60	140	67	35	26	25	123
8	44	40	90	110	74	64	125	63	33	24	27	92
9	36	37	135	98	82	77	173	67	32	23	32	75
10	31	35	120	98	105	90	145	103	31	22	37	67
11	26	33	98	103	60	78	135	90	27	21	28	58
12	24	32	96	113	58	75	125	138	27	19	23	49
13	23	32	86	123	52	66	130	155	26	19	23	43
14	23	32	150	158	64	58	128	120	26	18	21	44
15	22	31	105	110	63	54	184	113	25	17	19	37
16	21	31	105	92	60	78	138	92	113	16	18	34
17	20	31	94	100	55	105	128	77	125	15	39	33
18	20	29	84	113	54	90	115	67	86	15	39	33
19	19	29	77	110	75	92	115	62	90	15	29	36
20	19	28	80	86	110	82	108	53	77	15	36	39
21	19	28	616	110	95	138	100	49	80	14	39	35
22	19	28	420	153	138	130	98	46	64	13	34	30
23	19	28	390	150	125	118	96	48	64	13	40	26
24	19	29	303	158	103	118	88	55	67	19	31	24
25	19	37	233	148	96	98	84	55	66	18	27	23
26	19	39	291	135	82	86	78	51	64	17	26	26
27	19	44	324	155	70	77	74	48	57	17	19	36
28	19	75	275	145	66	72	70	45	52	18	21	80
29	130	72	237	153	-----	69	66	41	49	18	46	105
30	173	64	199	140	-----	78	64	41	44	32	26	63
31	148	-----	178	128	-----	140	-----	41	-----	22	45	-----
TOTAL	1,355	1,508	5,287	3,990	2,359	2,574	3,599	2,170	1,670	700	923	1,764
MEAN	43.7	50.3	171	129	84.3	83.0	120	70.0	55.7	22.6	29.8	58.8
MAX	173	163	616	173	138	140	184	155	125	54	46	123
MIN	19	28	41	86	52	54	64	41	25	13	18	23
CFSM	1.33	1.53	5.21	3.93	2.57	2.53	3.66	2.13	1.70	.69	.91	1.79
IN.	1.54	1.71	6.00	4.53	2.68	2.92	4.08	2.46	1.89	.79	1.05	2.00

CAL YR 1973 TOTAL 32,310 MEAN 88.5 MAX 616 MIN 17 CFSM 2.70 IN 36.64
WTR YR 1974 TOTAL 27,899 MEAN 76.4 MAX 616 MIN 13 CFSM 2.33 IN 31.64

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE
10-29	2200	3.12	420
12-21	1045	3.95	980
6-16	1815	3.34	544

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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.

PERIOD OF RECORD.--October 1972 to Current year.

GAGE.--Water-stage recorder above a rock outcrop control. Altitude of gage is 470 ft (143 m), from topographic map.

Period of record: Maximum discharge, 150 ft³/s (4.25 m³/s) June 30, 1973 (gage height, 2.54 ft or 0.774 m); minimum daily, 0.20 ft³/s (0.006 m³/s) Aug. 16, 1974.

REMARKS.--Record good. Flow regulated by Pottersville Reservoir 400 ft (122 m) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	2.8	2.1	7.8	4.5	3.3	6.4	3.1	4.5	2.9	.58	1.0
2	4.2	2.0	2.0	6.2	4.5	3.1	6.0	2.9	2.8	1.8	1.2	2.6
3	3.6	1.8	2.0	6.8	4.0	3.0	5.2	5.0	2.3	1.7	1.6	4.5
4	1.6	1.7	2.5	6.6	3.3	3.1	11	3.5	1.9	1.6	1.8	3.6
5	1.4	1.6	5.0	5.4	3.2	3.0	9.3	3.1	1.9	1.5	1.4	1.5
6	1.2	1.6	5.1	5.2	3.5	2.8	7.0	4.2	1.7	1.5	.84	1.3
7	1.2	1.5	4.8	5.0	3.8	2.8	5.8	3.8	1.7	1.4	.84	4.2
8	1.1	1.4	5.8	4.3	3.3	2.8	5.8	3.0	1.7	1.3	.75	1.6
9	1.2	1.4	7.0	4.5	3.3	4.8	14	4.3	1.7	1.2	1.4	1.4
10	1.2	1.3	6.9	4.8	3.2	5.4	7.5	8.0	1.5	1.3	1.1	1.2
11	1.1	1.3	6.5	7.5	3.1	3.3	6.4	3.8	1.4	1.3	.75	1.1
12	1.0	1.3	6.3	5.2	3.1	3.2	6.0	13	1.6	1.0	.75	1.1
13	.90	1.3	6.1	4.0	4.0	3.0	8.5	8.8	1.6	.87	.67	1.1
14	.90	1.2	6.0	4.2	3.5	2.9	6.8	5.2	1.4	.68	.49	1.4
15	.90	1.2	4.8	4.2	3.1	2.8	10	4.3	1.4	.58	.39	.92
16	.90	1.2	4.3	4.7	2.8	7.8	6.2	3.5	18	.49	.20	.84
17	.90	1.1	4.7	4.5	3.0	6.4	5.6	3.1	5.4	.39	1.9	.84
18	.80	1.1	3.5	3.6	2.8	4.0	5.2	3.0	2.5	.58	1.0	.75
19	.80	1.0	3.2	4.3	6.8	3.6	6.8	2.8	2.0	.58	.67	.75
20	.80	1.0	6.2	3.5	6.2	3.3	5.4	2.5	1.9	.39	.49	.84
21	.80	1.1	54	9.5	3.6	14	4.8	2.5	3.2	.29	.39	1.7
22	.70	1.2	14	9.3	6.8	6.8	4.7	2.3	2.2	.29	.68	1.2
23	.70	1.5	11	8.0	5.0	5.6	5.0	2.6	4.0	.39	1.9	.84
24	.70	1.5	9.0	6.8	3.6	5.6	4.2	3.6	2.9	1.6	.84	.75
25	.70	1.8	8.0	6.2	3.6	4.5	3.8	2.9	3.3	1.2	.67	.84
26	.60	2.5	21	6.4	3.3	4.2	3.6	2.4	2.5	1.0	.76	.75
27	1.5	3.6	13	8.0	3.1	3.8	3.5	2.3	2.2	.92	.76	.75
28	3.5	3.8	9.8	6.8	3.1	3.6	3.3	2.2	2.3	.92	.84	12
29	9.2	2.6	8.5	6.0	-----	3.6	3.2	2.2	2.3	.84	.84	7.8
30	10	2.3	7.8	5.2	-----	6.4	3.1	2.2	1.9	1.8	1.3	2.8
31	5.0	-----	7.5	5.0	-----	12	-----	2.4	-----	.84	.92	-----
TOTAL	60.07	50.7	258.4	179.5	107.1	145.5	184.1	118.5	85.7	33.15	28.72	61.97
MEAN	1.94	1.69	8.34	5.79	3.83	4.69	6.14	3.82	2.86	1.07	.93	2.07
MAX	10	3.8	54	9.5	6.8	14	14	13	18	2.9	1.9	12
MIN	.60	1.0	2.0	3.5	2.8	2.8	3.1	2.2	1.4	.29	.20	.75
CAL YR 1973	TOTAL	1,711.27	MEAN	4.69	MAX	54	MIN	.60				
WTR YR 1974	TOTAL	1,313.41	MEAN	3.60	MAX	54	MIN	.20				

RARITAN RIVER BASIN

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 (2.3 km) upstream from confluence with South Branch, and 2.7 mi (4.3 km) west of Raritan.

DRAINAGE AREA.--190 mi² (492 km²).

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.--51 years, 295 ft³/s (8.354 m³/s), 21.08 in/yr (535 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,270 ft³/s (263 m³/s) Dec. 21 (gage height, 10.42 ft or 3.176 m); minimum, 48 ft³/s (1.36 m³/s) July 23 (gage height, 2.63 ft or 0.802 m).
Period of record: Maximum discharge, 24,900 ft³/s (705 m³/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 ft³/s (420 m³/s); minimum observed, about 3 ft³/s (0.08 m³/s) Nov. 28, 1930 (gage height, 1.72 ft or 0.524 m), result of freezeup; minimum daily, 7.5 ft³/s (0.21 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	484	217	679	396	283	790	271	301	196	70	95
2	129	374	192	547	371	267	710	251	260	156	112	560
3	423	309	178	522	343	259	583	306	236	132	215	486
4	221	259	168	915	320	259	1,190	300	187	120	104	1,460
5	166	228	745	590	304	262	922	258	140	115	176	368
6	150	205	1,050	493	356	242	835	222	124	120	94	264
7	140	180	411	461	313	234	656	272	113	99	82	865
8	128	167	340	407	246	262	548	240	113	90	79	416
9	115	158	1,500	372	227	473	1,610	237	111	84	112	274
10	108	148	980	408	210	785	862	750	105	84	218	225
11	99	139	519	564	247	387	643	401	94	88	99	187
12	96	138	419	647	245	340	547	891	91	76	76	168
13	94	135	368	400	266	295	767	1,460	103	71	68	146
14	97	134	1,250	335	287	289	705	561	92	69	66	330
15	111	131	563	328	248	352	1,390	456	90	67	59	160
16	109	133	444	356	215	654	786	382	371	63	55	130
17	106	126	505	394	221	1,080	605	331	773	59	160	117
18	103	122	406	316	210	542	505	301	252	56	248	113
19	104	127	342	343	271	442	515	276	213	60	100	103
20	102	122	342	329	744	386	501	245	191	58	80	101
21	99	116	6,360	679	374	1,820	441	223	196	54	81	108
22	93	123	2,030	1,230	603	1,060	418	217	255	53	80	153
23	78	120	1,240	868	647	653	421	227	229	52	197	107
24	76	119	1,000	782	375	601	378	233	279	88	128	86
25	76	147	797	597	356	504	325	309	249	120	104	83
26	76	197	1,730	521	331	435	270	222	243	79	80	85
27	77	159	2,470	819	282	378	253	201	194	71	79	82
28	74	388	1,020	601	270	359	245	189	182	68	119	153
29	990	436	827	653	-----	339	252	203	198	67	169	2,170
30	2,490	251	717	498	-----	558	265	300	165	132	169	531
31	544	-----	631	447	-----	1,410	-----	249	-----	92	131	-----
TOTAL	7,405	5,875	29,761	17,101	9,278	16,210	18,938	10,984	6,150	2,739	3,610	10,126
MEAN	239	196	960	552	331	523	631	354	205	88.4	116	338
MAX	2,490	484	6,360	1,230	744	1,820	1,610	1,460	773	196	248	2,170
MIN	74	116	168	316	210	234	245	189	90	52	55	82
CFSM	1.26	1.03	5.05	2.91	1.74	2.75	3.32	1.86	1.08	.47	.61	1.78
IN.	1.45	1.15	5.83	3.35	1.82	3.17	3.71	2.15	1.20	.54	.71	1.98
CAL YR 1973	TOTAL 174,899	MEAN 479	MAX 6,360	MIN 67	CFSM 2.52	IN 34.24						
WTR YR 1974	TOTAL 138,177	MEAN 379	MAX 6,360	MIN 52	CFSM 1.99	IN 27.05						

PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0545	8.12	5,240	12-21	1445	10.42	9,270

RARITAN RIVER BASIN

65

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. From Oct. 1, 1952 to Sept. 30, 1966, water-stage recorder at station at Bound Brook, above Calco Dam (sta. 01403000) used as auxiliary gage when stage is above 5.0 ft (1.52 m). Since Oct. 1, 1966, water-stage recorder at station at Bound Brook, used as auxiliary gage, was moved downstream to present site (sta. 01403060).

AVERAGE DISCHARGE.--56 years (1903-6, 1921-74), 739 ft³/s (20.93 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 20,600 ft³/s (532 m³/s) Dec. 21 (gage height, 18.42 ft or 5.614 m); minimum, 143 ft³/s (4.05 m³/s) Aug. 13, 14, but may have been lower during period of no gage-height record Aug. 18 to Sept. 4; minimum daily, 151 ft³/s (4.28 m³/s) Aug. 14.
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 discharge, 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), periods of no gage-height record, and those provided by N. J. Dept. of Environmental Protection, 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. 79). Diversion to Round Valley Reservoir (see p. 80). 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. 80). Records of water quality for the current year for Raritan River near Manville (sta. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	1,100	506	1,280	800	693	2,010	577	571	459	202	315
2	239	886	431	1,200	720	619	1,550	579	663	459	291	1,090
3	741	700	371	1,880	660	554	1,340	625	575	347	1,250	1,350
4	614	589	357	1,340	600	519	2,010	748	441	302	347	4,090
5	345	515	920	1,200	480	498	2,050	637	358	291	319	1,380
6	281	461	2,560	1,110	600	459	2,110	537	323	297	227	835
7	260	415	1,180	1,000	580	465	1,520	663	295	258	219	1,990
8	237	378	887	800	500	534	1,270	611	295	227	198	1,370
9	220	352	2,570	840	470	1,030	3,520	560	293	202	281	890
10	208	323	3,610	1,280	500	1,690	2,430	1,450	281	210	547	678
11	198	306	1,470	1,560	450	1,070	1,580	1,140	255	258	291	561
12	205	291	1,140	1,140	430	872	1,310	1,300	252	236	190	512
13	243	281	965	1,010	500	756	1,530	3,640	245	210	158	439
14	253	278	2,390	1,050	580	711	1,710	1,470	229	210	151	762
15	258	269	1,550	892	500	727	2,980	1,110	223	236	174	547
16	219	267	1,150	969	450	861	1,790	933	328	267	420	389
17	211	260	1,260	851	440	2,600	1,380	811	1,800	249	860	342
18	217	246	1,090	870	430	1,330	1,170	837	680	258	820	313
19	224	247	904	859	700	999	1,120	682	459	281	345	291
20	225	243	870	1,230	1,440	867	1,180	590	389	302	225	277
21	226	229	12,000	2,630	965	2,470	1,010	516	395	291	205	281
22	218	238	7,000	2,110	1,020	3,950	940	501	561	286	230	365
23	201	238	3,500	1,800	1,540	1,580	933	559	519	254	465	313
24	201	236	2,300	1,500	900	1,340	923	591	716	330	400	254
25	211	277	1,500	1,250	775	1,160	780	638	590	342	315	245
26	217	365	7,160	1,600	745	902	647	515	582	232	280	240
27	219	328	2,600	1,450	650	816	615	446	472	198	252	223
28	219	648	1,800	1,300	620	755	567	413	427	190	290	286
29	1,420	992	1,610	1,200	-----	710	555	405	472	206	510	4,850
30	5,970	651	1,370	1,000	-----	1,020	587	513	420	319	525	1,840
31	1,600	-----	1,550	900	-----	3,260	-----	474	-----	302	395	-----
TOTAL	16,393	12,609	68,571	39,101	19,045	35,817	43,117	25,071	14,109	8,509	11,382	27,318
MEAN	529	420	2,212	1,261	680	1,155	1,437	809	470	274	367	911
MAX	5,970	1,100	12,000	2,630	1,540	3,950	3,520	3,640	1,800	459	1,250	4,850
MIN	198	229	357	800	430	459	555	405	223	190	151	223

CAL YR 1973 TOTAL 403,508 MEAN 1,106 MAX 12,600 MIN 198
WTR YR 1974 TOTAL 321,042 MEAN 880 MAX 12,000 MIN 151

PEAK DISCHARGE (BASE, 10,000 CFS)

DATE TIME G.H. DISCHARGE
12-21 2145 18.42 20,600

NOTE.--No gage-height record Dec. 22 to Jan. 14, Jan. 21 to Feb. 28, and Aug. 15 to Sept. 5. Discharge for these periods furnished by N.J. Dept. of Environmental Protection.

RARITAN RIVER BASIN

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 mi² (170.4 km²).

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.--10 years, 94.5 ft³/s (2.676 m³/s), 19.50 in/yr (495 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,740 ft³/s (49.3 m³/s) Dec. 22 (gage height, 5.89 ft or 1.795 m, from crest-stage gage); minimum daily, 13 ft³/s (0.37 m³/s) July 17.
Period of record: Maximum discharge, 3,780 ft³/s (107 m³/s) Aug. 28, 1971 (gage height, 8.73 ft or 2.661 m); minimum daily, 1.9 ft³/s (0.054 m³/s) Aug. 10-13, 1966.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	340	68	200	94	94	450	70	40	43	19	60
2	49	204	60	149	90	116	300	64	50	43	17	138
3	40	114	54	160	90	129	179	63	80	42	21	156
4	37	69	50	250	87	121	171	78	70	38	24	253
5	32	58	94	200	76	101	191	72	55	38	29	420
6	30	58	250	175	66	92	241	66	45	49	42	140
7	29	59	125	142	65	84	212	70	40	49	36	230
8	29	47	86	121	71	80	170	74	35	46	35	200
9	28	42	190	115	78	92	330	66	32	39	35	170
10	28	41	450	109	78	130	680	135	30	34	44	130
11	27	37	270	112	75	143	350	230	27	33	138	105
12	27	33	160	169	75	130	170	170	25	25	64	125
13	27	32	100	229	75	102	230	450	22	18	50	100
14	26	34	220	211	89	87	310	330	20	16	33	70
15	25	37	180	136	102	79	250	220	19	16	21	52
16	25	36	110	121	106	76	197	155	25	15	24	48
17	25	34	140	109	98	144	178	108	30	13	20	50
18	26	32	125	127	91	220	141	125	31	15	34	46
19	26	31	100	167	90	206	122	102	30	17	27	42
20	26	31	82	129	116	131	111	70	38	33	27	38
21	26	30	350	101	176	125	107	40	36	26	26	34
22	25	32	1,600	274	153	457	106	40	42	21	18	34
23	26	33	900	440	130	324	107	60	56	18	15	38
24	26	33	440	300	137	201	112	80	75	18	18	38
25	25	35	170	160	119	147	109	82	49	28	18	38
26	25	38	280	131	104	145	105	65	49	34	18	33
27	25	43	640	120	95	110	100	47	49	36	17	28
28	26	63	350	125	91	77	95	42	46	34	29	24
29	170	145	250	129	-----	110	90	40	46	29	44	61
30	800	86	175	119	-----	250	80	39	43	25	48	52
31	500	-----	150	105	-----	510	-----	38	-----	22	50	-----
TOTAL	2,285	1,907	8,219	5,135	2,717	4,813	5,994	3,291	1,235	913	1,041	2,953
MEAN	73.7	63.6	265	166	97.0	155	200	106	41.2	29.5	33.6	98.4
MAX	800	340	1,600	440	176	510	680	450	80	49	138	420
MIN	25	30	50	101	65	76	80	38	19	13	15	24
CFSM	1.12	.97	4.03	2.52	1.47	2.36	3.04	1.61	.63	.45	.51	1.50
IN.	1.29	1.08	4.65	2.90	1.54	2.72	3.39	1.86	.70	.52	.59	1.67

CAL YR 1973 TOTAL 49,604 MEAN 136 MAX 1,600 MIN 20 CFSM 2.07 IN 28.04
WTR YR 1974 TOTAL 40,503 MEAN 111 MAX 1,600 MIN 13 CFSM 1.69 IN 22.90

NOTE.--No gage-height record Oct. 1-31, Nov. 29 to Jan. 5, and Mar. 25 to June 20.

RARITAN RIVER BASIN

67

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 mi² (1.81 km²).

PERIOD OF RECORD.--April 1967 to September 1974 (discontinued).

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

AVERAGE DISCHARGE.--7 years, 1.25 ft³/s (0.0354 m³/s), 24.25 in/yr (616 mm/yr).

EXTREMES.--Current year: Maximum discharge, 161 ft³/s (4.56 m³/s) Dec. 21 (gage height, 2.98 ft or 0.908 m) from rating curve extended above 80 ft³/s (2.3 m³/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 ft³/s (15.2 m³/s) Aug. 28, 1971 (gage height 4.79 ft or 1.460 m) from rating curve extended above 80 ft³/s (2.3 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for many days during most years.

REMARKS.--Records good.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	1.4	.75	2.1	.64	.98	1.5	.13	.18	.11	0	.03
2	.09	.79	.60	1.1	.64	.75	1.2	.04	.57	.02	6.1	6.4
3	.32	.60	.57	1.2	.57	.71	.98	.24	.39	0	5.0	5.9
4	.16	.42	.54	4.8	.48	.68	1.3	.26	.15	0	.51	9.6
5	.09	.39	5.3	1.4	.34	.60	4.4	.12	.08	0	.57	1.2
6	.06	.36	6.8	1.2	.26	.48	1.5	.17	.04	.07	.17	.71
7	.04	.30	1.2	1.2	.45	.45	.98	.28	.02	.01	.24	10
8	.03	.28	.98	.94	.51	1.3	.83	.17	.02	0	.20	1.4
9	.02	.28	18	.83	.39	2.7	10	.26	.13	0	.28	.87
10	.01	.24	5.0	.94	.30	2.2	1.4	2.4	.18	0	.36	.64
11	0	.18	1.7	5.5	.24	.90	.98	.60	.08	0	.13	3.2
12	0	.20	1.2	3.4	.13	.83	.83	3.9	0	0	.05	2.0
13	0	.20	1.3	1.2	.39	.64	3.6	1.6	0	0	.03	.90
14	0	.20	9.3	.87	.79	.57	1.4	.68	0	0	.02	1.2
15	0	.20	1.6	.94	.57	.51	.98	.48	0	0	.01	.64
16	.05	.20	1.3	1.2	.32	5.7	.71	.34	0	0	0	.42
17	0	.12	2.2	1.3	.32	4.6	.64	.32	0	0	.42	.28
18	0	.11	1.3	.98	.15	1.0	.57	.42	0	0	.57	.26
19	0	.15	.98	.98	1.1	.83	.57	.24	0	0	.15	.20
20	0	.13	2.7	.98	2.0	.71	.60	.17	0	0	.05	.20
21	0	.11	59	8.8	.94	15	.48	.12	0	0	.01	.18
22	0	.18	3.9	6.4	1.8	1.8	.36	.11	0	0	.01	.20
23	0	.15	1.6	2.2	1.2	1.1	.54	.26	.07	0	.32	.13
24	0	.15	1.2	1.6	.75	.94	.42	.26	.11	0	.15	.07
25	0	.24	.94	1.2	.79	.71	.32	.18	.06	0	.05	.07
26	0	.26	26	1.0	.75	.64	.26	.15	.03	0	.02	.08
27	0	.28	9.6	2.0	.71	.57	.20	.07	.02	0	.02	.07
28	0	6.4	2.0	1.2	.87	.48	.18	.08	.05	0	.13	.30
29	16	2.9	1.4	1.2	-----	.57	.18	.07	.15	0	.17	1.3
30	5.9	.98	1.2	.90	-----	7.9	.15	.08	.06	0	.11	.45
31	1.4	-----	1.4	.79	-----	10	-----	.05	-----	0	.05	-----
TOTAL	24.24	18.40	171.56	60.35	18.40	66.85	38.06	14.25	2.39	.21	15.90	48.90
MEAN	.78	.61	5.53	1.95	.66	2.16	1.27	.46	.080	.007	.51	1.63
MAX	16	6.4	59	8.8	2.0	15	10	3.9	.57	.11	6.1	10
MIN	0	.11	.54	.79	.13	.45	.15	.04	0	0	0	.03
CFSM	1.11	.87	7.90	2.79	.94	3.09	1.81	.66	.11	.01	.73	2.33
IN.	1.29	.98	9.12	3.21	.98	3.55	2.02	.76	.13	.01	.84	2.60

CAL YR 1973 TOTAL 684.52 MEAN 1.88 MAX 59 MIN 0 CFSM 2.69 IN 36.38
WTR YR 1974 TOTAL 479.51 MEAN 1.31 MAX 59 MIN 0 CFSM 1.87 IN 25.48

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0315	2.98	161	3-21	1500	2.58	77
12-26	1700	2.59	79				

RARITAN RIVER BASIN

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 mi² (115.3 km²).

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.--21 years, 61.3 ft³/s (1.736 m³/s), 18.71 in/yr (475 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,290 ft³/s (121 m³/s) Dec. 21 (gage height, 10.29 ft or 3.136 m); minimum, 1.2 ft³/s (0.034 m³/s) July 17 (gage height, 1.31 ft or 0.399 m).

Period of record: Maximum discharge, 8,960 ft³/s (254 m³/s) Aug. 28, 1971 (gage height, 14.26 ft or 4.346 m) from rating curve extended above 4,000 ft³/s (110 m³/s) on basis of contracted-opening measurement of peak flow; no flow many days in August and September 1966.

REMARKS.--Records fair. Since July 1959 some regulation by several small reservoirs, combined capacity, 49,800,000 gal (188,500 m³). 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	57	35	72	60	83	204	20	14	12	2.2	12
2	4.4	44	27	78	54	66	139	16	32	10	8.3	157
3	18	27	23	78	50	57	106	22	41	7.4	332	163
4	14	20	22	194	41	53	160	29	20	5.0	66	551
5	8.6	17	109	90	28	51	274	20	14	5.9	60	109
6	5.9	15	301	81	32	41	211	20	11	18	22	60
7	4.4	14	88	76	40	39	118	26	9.5	14	19	432
8	3.8	13	59	70	33	60	90	21	9.2	8.0	18	139
9	3.5	12	566	56	38	215	618	21	9.5	5.6	70	121
10	2.9	12	245	63	29	201	211	239	8.9	3.5	40	54
11	2.5	12	115	175	30	93	127	106	8.0	2.2	17	62
12	2.4	10	74	233	27	73	98	160	6.5	1.8	12	127
13	2.4	9.8	66	106	32	60	245	310	5.3	1.7	8.9	98
14	2.1	10	333	66	56	50	190	88	5.0	1.7	8.6	96
15	1.8	11	130	66	50	44	124	58	4.4	1.6	8.3	45
16	1.9	11	86	68	35	154	78	44	4.7	1.4	7.7	32
17	2.6	9.8	124	98	37	342	66	38	7.4	1.4	21	27
18	2.9	8.6	86	78	33	112	60	44	9.5	1.5	28	23
19	2.5	8.3	76	66	45	78	55	31	6.5	2.2	12	18
20	2.2	8.3	73	70	218	65	57	23	4.7	2.6	8.6	16
21	1.9	8.0	2,190	274	90	670	48	20	4.4	1.4	7.1	16
22	2.1	8.3	279	391	118	261	44	17	4.1	1.4	6.2	16
23	2.2	8.3	148	241	157	136	50	24	14	1.4	14	13
24	2.5	8.3	103	197	70	100	58	30	20	4.1	21	11
25	2.5	9.2	74	133	65	73	35	21	12	4.1	11	10
26	2.4	10	686	100	60	65	30	16	8.6	2.9	7.7	10
27	2.4	12	786	169	53	57	27	14	7.4	2.9	6.2	9.2
28	2.6	106	200	127	57	51	24	13	7.7	2.2	37	13
29	279	151	90	115	-----	53	23	13	11	1.9	41	118
30	328	53	70	83	-----	306	22	12	11	5.0	17	63
31	76	-----	62	70	-----	638	-----	11	-----	2.6	18	-----
TOTAL	795.4	703.9	7,326	3,784	1,638	4,347	3,592	1,527	331.3	137.4	955.8	2,621.2
MEAN	25.7	23.5	236	122	58.5	140	120	49.3	11.0	4.43	30.8	87.4
MAX	328	151	2,190	391	218	670	618	310	41	18	332	551
MIN	1.8	8.0	22	56	27	39	22	11	4.1	1.4	2.2	9.2
CFSM	.58	.53	5.30	2.74	1.31	3.15	2.70	1.11	.25	.10	.69	1.96
IN.	.66	.59	6.12	3.16	1.37	3.63	3.00	1.28	.28	.11	.80	2.19

CAL YR 1973 TOTAL 35,814.1 MEAN 98.1 MAX 2,190 MIN 1.3 CFSM 2.20 IN 29.94
WTR YR 1974 TOTAL 27,759.0 MEAN 76.1 MAX 2,190 MIN 1.4 CFSM 1.71 IN 23.21

PEAK DISCHARGE (BASE, 1,800 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	0900	10.29	4,290
3-21	1800	7.45	2,270

RARITAN RIVER BASIN

69

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, 2.5 mi (4.0 km) northeast of Princeton.

DRAINAGE AREA.--159 mi² (412 km²).

PERIOD OF RECORD.--October 1972 to September 1974 (discontinued). 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, 6,180 ft³/s (175 m³/s) Dec. 21 (gage height, 4.93 ft or 1.503 m); minimum daily, 20 ft³/s (0.57 m³/s) July 17.
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 ft³/s (368 m³/s), from rating curve extended above 4,000 ft³/s (113 m³/s) on basis of computation of peak flow over dam.

REMARKS.--Record fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	270	125	355	237	258	660	138	69	86	28	138
2	75	200	114	325	216	279	480	130	91	81	28	400
3	81	150	103	300	205	268	370	145	140	69	604	430
4	81	120	130	430	198	247	400	160	120	60	130	1,010
5	58	100	568	415	168	205	478	145	94	66	153	478
6	50	92	258	325	168	205	640	138	84	130	92	310
7	45	86	190	289	190	190	400	153	80	119	86	550
8	45	75	568	247	198	216	310	138	75	72	81	478
9	45	72	1,010	226	190	415	1,330	130	67	56	103	355
10	44	69	430	226	183	445	1,150	415	51	44	237	279
11	43	69	340	385	183	340	622	355	39	36	190	237
12	42	66	310	550	175	279	385	289	34	30	160	279
13	41	69	700	385	175	237	460	709	31	26	114	190
14	40	72	470	310	216	205	640	355	28	23	75	168
15	39	69	350	268	226	190	460	247	24	22	56	130
16	38	66	490	268	216	258	355	190	30	22	50	125
17	38	66	400	268	205	801	300	160	47	20	60	125
18	38	63	310	289	198	445	268	160	50	22	97	114
19	38	56	300	289	216	355	247	138	53	28	72	103
20	37	38	285	268	445	268	247	92	47	28	56	86
21	37	26	5,780	385	400	954	226	69	44	28	53	75
22	37	53	3,380	1,090	340	1,660	205	72	56	26	42	75
23	38	66	1,040	778	385	663	216	97	92	24	50	75
24	37	69	445	550	289	430	216	119	119	32	60	72
25	37	75	310	385	258	300	190	108	108	38	53	75
26	37	75	663	310	247	258	183	86	103	36	44	69
27	36	183	2,140	370	226	237	183	69	86	36	42	66
28	50	268	801	370	216	216	160	66	75	36	66	72
29	245	168	496	325	-----	205	153	64	86	32	258	216
30	1,400	145	370	289	-----	320	153	62	75	36	168	205
31	500	-----	300	258	-----	1,400	-----	60	-----	32	160	-----
TOTAL	3,447	2,996	23,176	11,528	6,569	12,749	12,087	5,259	2,098	1,396	3,468	6,985
MEAN	111	99.9	748	372	235	411	403	170	69.9	45.0	112	233
MAX	1,400	270	5,780	1,090	445	1,660	1,330	709	140	130	604	1,010
MIN	36	26	103	226	168	190	153	60	24	20	28	66
CFSM	.70	.63	4.70	2.34	1.48	2.58	2.53	1.07	.44	.28	.70	1.47
IN.	.81	.70	5.42	2.70	1.54	2.98	2.83	1.23	.49	.33	.81	1.63

CAL YR 1973 TOTAL 124,559 MEAN 341 MAX 5,780 MIN 22 CFSM 2.14 IN 29.14
WTR YR 1974 TOTAL 91,758 MEAN 251 MAX 5,780 MIN 20 CFSM 1.58 IN 21.47

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1430	4.93	6,180	3-22	0015	4.12	2,780
12-27	0445	4.23	3,220	4-09	1615	3.94	2,060

NOTE.--No gage-height record Oct. 5 to Nov. 9 and Dec. 11-21.
Fragmentary record on Dec. 21 with the peak of the year recorded.

RARITAN RIVER BASIN

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 mi² (668 km²).

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.--53 years (1921-74), 367 ft³/s (10.39 m³/s), 19.32 in/yr (491 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,080 ft³/s (257 m³/s) Dec. 21 (gage height, 13.21 ft or 4.026 m); minimum, 36 ft³/s (1.02 m³/s) July 15-17 (gage height, 1.40 ft or 0.427 m).

Period of record: Maximum discharge, 22,200 ft³/s (629 m³/s) Aug. 28, 1971 (gage height, 18.68 ft or 5.694 m, from high-water mark) from rating curve extended above 9,000 ft³/s (255 m³/s); minimum, about 5 ft³/s (0.14 m³/s) Sept. 16, 1923.

REMARKS.--Records good except those above 1,000 ft³/s (28.3 m³/s), which are fair. Inflow from and losses to Delaware and Raritan Canal above station. Flow slightly regulated by Lake Carnegie, capacity, 310,000,000 gal (1,173,000 m³) and by several smaller reservoirs, combined capacity, 49,800,000 gal (188,500 m³). Records of water quality for the current year for Millstone River near Manville (sta. 01402900), are published in Part 2 of this report.

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

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	644	242	695	356	371	1,940	173	112	123	49	163
2	98	422	199	579	321	382	884	158	137	114	53	569
3	113	302	180	517	302	366	644	183	221	100	945	807
4	110	216	161	868	274	346	644	210	174	89	258	2,100
5	95	180	292	733	233	316	431	185	140	82	238	1,100
6	81	158	1,290	573	220	279	1,200	171	115	141	137	546
7	73	150	550	500	246	255	690	205	95	140	120	1,230
8	68	141	351	434	260	297	511	189	90	109	121	990
9	68	125	1,030	377	246	638	1,850	176	87	85	204	575
10	68	116	2,320	377	229	876	2,370	601	82	72	594	445
11	66	110	888	676	224	585	1,190	601	74	61	264	339
12	66	107	562	1,040	216	451	650	465	63	53	205	402
13	64	104	416	695	229	356	752	1,380	58	47	153	283
14	64	101	1,070	517	297	307	1,080	628	55	42	115	257
15	61	107	690	451	307	288	771	416	49	37	86	217
16	61	104	481	445	279	351	562	297	62	37	73	183
17	59	95	602	494	269	1,440	451	246	82	39	206	171
18	59	92	517	475	255	752	382	299	81	38	333	164
19	59	89	351	439	269	550	341	220	70	44	155	149
20	59	87	336	434	676	422	341	175	78	49	112	138
21	57	76	5,400	681	550	1,040	307	129	70	47	94	128
22	57	48	6,360	1,960	469	2,700	279	132	81	45	86	126
23	59	64	2,980	1,590	644	1,580	292	150	121	43	119	118
24	59	87	1,000	1,040	451	742	283	198	165	60	121	114
25	57	98	573	704	394	517	237	173	141	78	104	112
26	57	110	949	545	361	422	222	137	130	63	88	112
27	59	107	3,230	662	326	356	214	118	120	59	84	103
28	57	399	2,300	620	321	321	204	110	107	88	125	107
29	676	608	925	550	-----	302	189	104	128	55	419	320
30	2,560	331	671	475	-----	761	183	101	114	64	234	282
31	1,250	-----	562	410	-----	2,310	-----	97	-----	58	204	-----
TOTAL	6,447	5,378	37,478	20,556	9,224	20,679	20,494	8,427	3,111	2,162	6,099	12,350
MEAN	208	179	1,209	663	329	667	683	272	104	69.7	197	412
MAX	2,560	644	6,360	1,960	676	2,700	2,370	1,380	221	141	945	2,100
MIN	57	48	161	377	216	255	183	97	49	37	49	103
CFSM	.81	.69	4.69	2.57	1.28	2.59	2.65	1.05	.40	.27	.76	1.60
IN.	.93	.78	5.40	2.96	1.33	2.98	2.95	1.22	.45	.31	.88	1.78

CAL YR 1973 TOTAL 215,809 MEAN 591 MAX 7,660 MIN 48 CFSM 2.29 IN 31.12
WTR YR 1974 TOTAL 152,405 MEAN 418 MAX 6,360 MIN 37 CFSM 1.62 IN 21.97

PEAK DISCHARGE (BASE, 3,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	2115	13.21	9,080	12-27	1300	8.47	3,440

RARITAN RIVER BASIN

71

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 mi² (0.75 km²).

PERIOD OF RECORD.--October 1968 to September 1974 (discontinued).

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

AVERAGE DISCHARGE.--6 years, 0.503 ft³/s (0.0142 m³/s), 23.55 in/yr (598 mm/yr).

EXTREMES.--Current year: Maximum discharge, 68 ft³/s (1.93 m³/s) Dec. 21 (gage height, 2.31 ft or 0.704 m), from rating curve extended above 30 ft³/s (0.85 m³/s); no flow many days during summer months.
Period of record: Maximum discharge, 164 ft³/s (4.64 m³/s) Aug. 28, 1971 (gage height, 3.25 ft or 0.991 m) from rating curve extended above 30 ft³/s (0.85 m³/s); no flow many times during summer and autumn months in most years.

REMARKS.--Records good except those below 1.0 ft³/s (0.028 m³/s), which are fair.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	1.5	.16	.76	.21	.44	.64	.02	.07	.09	0	.05
2	0	.25	.11	.44	.19	.51	.52	.02	.15	0	.14	.46
3	0	.20	.10	.67	.16	.49	.41	.08	.07	.01	.02	4.0
4	0	.09	.10	1.7	.16	.47	1.1	.05	.03	0	.07	2.8
5	0	.07	1.5	.77	.16	.34	2.3	.03	.02	.01	.04	.48
6	0	.04	1.3	.54	.12	.12	.93	.04	.02	.01	0	.26
7	0	.04	.48	.50	.16	.12	.45	.05	.02	0	.02	3.2
8	0	.04	.33	.33	.25	.38	.36	.03	.02	0	0	.62
9	0	.04	4.3	.26	.23	1.3	5.7	.14	.02	0	.05	.29
10	0	.03	1.1	.29	.19	1.5	.82	1.1	.01	0	.03	.15
11	0	.03	.58	1.1	.19	.47	.43	.31	0	0	.01	.09
12	0	.03	.43	1.2	.20	.35	.30	2.3	0	0	.01	.07
13	0	.03	.45	.90	.41	.22	1.2	1.1	0	0	0	.06
14	0	.03	2.0	.90	.28	.17	.99	.33	0	0	.01	.20
15	0	.03	.65	.86	.16	.14	2.2	.14	0	0	0	.06
16	0	.03	.48	.52	.11	2.4	.46	.07	.01	.02	0	.04
17	0	.02	1.2	.75	.11	1.5	.26	.07	.01	0	.21	.04
18	0	.02	.68	.90	.09	.46	.17	.07	0	0	.05	.03
19	0	.03	.48	.76	.54	.32	.22	.04	0	.02	.02	.03
20	0	.02	1.2	.62	.95	.22	.18	.03	0	0	.01	.06
21	0	.02	19	3.0	.44	5.6	.12	.03	.15	0	0	.04
22	0	.03	.83	2.3	1.0	.95	.09	.02	.02	0	0	.03
23	0	.02	.53	1.1	.62	.49	.10	.12	.20	0	0	.02
24	0	.03	.40	.77	.33	.38	.07	.08	.06	0	.09	.02
25	0	.07	.32	.57	.34	.23	.06	.06	.03	.04	0	.03
26	0	.07	5.0	.44	.41	.20	.04	.03	.02	.02	0	.02
27	0	.07	2.1	.89	.39	.15	.04	.03	.02	0	0	.02
28	0	.90	.69	.58	.30	.14	.03	.03	.02	0	0	.30
29	11	.55	.50	.57	-----	.12	.03	.03	.02	0	.17	.71
30	4.0	.25	.45	.41	-----	2.7	.03	.03	0	.02	.67	.22
31	1.7	-----	.52	.31	-----	2.8	-----	.02	-----	0	.15	-----
TOTAL	16.7	4.58	47.97	25.71	8.70	25.68	20.25	6.50	.99	.24	1.77	14.40
MEAN	.54	.15	1.55	.83	.31	.83	.68	.21	.033	.008	.057	.48
MAX	11	1.5	19	3.0	1.0	5.6	5.7	2.3	.20	.09	.67	4.0
MIN	0	.02	.10	.26	.09	.12	.03	.02	0	0	0	.02
CFSM	1.86	.52	5.34	2.86	1.07	2.86	2.34	.72	.11	.03	.20	1.66
IN.	2.14	.59	6.15	3.30	1.12	3.29	2.60	.83	.13	.03	.23	1.85

CAL YR 1973 TOTAL 229.01 MEAN .63 MAX 27 MIN 0 CFSM 2.17 IN 29.38
WTR YR 1974 TOTAL 173.49 MEAN .48 MAX 19 MIN 0 CFSM 1.66 IN 22.25

PEAK DISCHARGE (BASE, 45 CFS)

DATE TIME G.H. DISCHARGE
12-21 0155 2.31 68

RARITAN RIVER BASIN

01402600 Royce Brook tributary near Belle Mead, 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 mi² (3.11 km²).

PERIOD OF RECORD.--October 1966 to September 1974 (discontinued).

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

AVERAGE DISCHARGE.--8 years, 2.39 ft³/s (0.0677 m³/s) 27.05 in/yr (687 mm/yr).

EXTREMES.--Current year: Maximum discharge, 228 ft³/s (6.46 m³/s) Dec. 21 (gage height, 4.34 ft or 1.323 m); no flow on many days.

Period of record: Maximum discharge, 1,450 ft³/s (41.1 m³/s) Aug. 28, 1971 (gage height, 7.01 ft or 2.137 m, from high-water mark) from rating curve extended above 140 ft³/s (3.9 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	2.3	.76	2.8	.67	1.1	4.8	.14	.54	.43	.50	1.6
2	.16	.76	.62	1.6	.59	.76	2.8	.10	.85	.12	6.3	5.9
3	.18	.59	.60	2.6	.51	.76	1.6	.31	.45	.12	2.6	20
4	.16	.31	.60	9.4	.37	.86	4.8	.18	.16	.09	2.6	20
5	.14	.21	6.6	3.6	.31	.76	11	.14	.14	.09	1.5	6.3
6	.10	.18	4.0	2.3	.25	.76	5.9	.18	.12	.09	.31	4.1
7	.09	.16	1.9	1.5	.21	.67	3.9	.18	.12	.09	.59	13
8	.06	.14	1.1	.76	.21	1.8	2.2	.14	.12	.12	.25	6.4
9	.06	.14	18	.67	.18	4.8	24	.59	.12	.37	3.4	2.1
10	.05	.12	5.4	.59	.16	6.5	6.7	2.5	.14	.59	2.4	.82
11	.03	.12	2.6	4.2	.14	1.8	4.2	.67	.14	.10	.59	.38
12	.01	.10	2.0	4.2	.12	1.1	2.0	6.3	.12	.31	.36	.37
13	0	.09	1.9	1.9	.14	.76	3.9	3.6	.12	.07	.16	.35
14	0	.10	8.6	.76	.16	1.3	4.3	1.0	.10	.17	.21	.98
15	0	.10	2.7	.76	.18	.76	11	.51	.10	.06	.12	.35
16	0	.12	1.9	2.3	.16	8.4	4.5	.45	.18	.07	.09	.19
17	0	.16	5.6	3.0	.16	5.4	1.3	.50	.12	.06	4.3	.19
18	0	.16	2.7	1.5	.16	1.8	.86	.25	.10	.06	3.1	.18
19	0	.18	1.8	1.5	2.0	1.1	.86	.18	.10	.08	.54	.21
20	0	.21	4.2	.86	3.7	.76	9.2	.18	.10	.07	.36	.29
21	0	.18	34	13	1.5	15	4.5	.16	.98	.06	.21	.22
22	0	.18	5.6	9.7	3.9	5.6	4.1	.16	.21	.06	.12	.19
23	0	.16	4.1	5.2	2.7	4.0	3.7	.43	1.6	.07	1.8	.17
24	0	.18	2.6	4.3	1.0	2.5	2.8	1.0	.25	1.6	.98	4.9
25	0	.31	1.1	3.4	1.5	.76	2.4	.37	.16	.59	.45	4.0
26	0	.59	12	1.6	.76	.76	2.0	.18	.14	.37	.12	2.9
27	0	.51	8.9	3.4	.67	.67	2.0	.16	.12	.45	.11	.86
28	0	5.0	4.6	2.5	.67	.59	2.0	.16	.21	.45	3.7	3.4
29	29	2.7	4.0	2.4	-----	.51	1.9	.14	.26	.45	3.6	6.3
30	9.2	1.1	2.2	1.0	-----	13	1.7	.14	.12	.76	8.9	2.9
31	3.5	-----	2.3	.76	-----	14	-----	.12	-----	.51	3.8	-----
TOTAL	42.99	17.16	154.98	94.06	23.08	99.34	136.92	21.12	7.99	8.53	54.07	109.55
MEAN	1.39	.57	5.00	3.03	.82	3.20	4.56	.68	.27	.28	1.74	3.65
MAX	29	5.0	34	13	3.9	15	24	6.3	1.6	1.6	8.9	20
MIN	0	.09	.60	.59	.12	.51	.86	.10	.10	.06	.09	.17
CFSM	1.16	.48	4.17	2.53	.68	2.67	3.80	.57	.23	.23	1.45	3.04
IN.	1.33	.53	4.80	2.92	.72	3.08	4.24	.65	.25	.26	1.68	3.40

CAL YR 1973 TOTAL 882.46 MEAN 2.42 MAX 105 MIN 0 CFSM 2.02 IN 27.36
WTR YR 1974 TOTAL 769.79 MEAN 2.11 MAX 34 MIN 0 CFSM 1.76 IN 23.86

PEAK DISCHARGE (BASE, 100 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	0155	4.34	228

RARITAN RIVER BASIN

73

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 mi² (2,033 km²), includes 11 mi² (28 km²) 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.--35 years (1903-8, 1944-74), 1,230 ft³/s (34.83 m³/s), adjusted for diversion by Elizabethtown Water Co. since 1944 and to Round Valley Reservoir since 1966.

EXTREMES.--Current year: Maximum discharge, 31,000 ft³/s (878 m³/s) Dec. 21 (elevation, 31.73 ft or 9.671 m); minimum, 137 ft³/s (3.88 m³/s) Aug. 1, 2 (elevation, 16.50 ft or 5.029 m).

Period of record: Maximum discharge, 46,100 ft³/s (1,310 m³/s) Aug. 28, 1971 (elevation, 37.47 ft or 11.421 m, from floodmark); minimum daily, 37 ft³/s (1.05 m³/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. 80). Flow regulated by Spruce Run Reservoir (see p. 79). Diversion to Round Valley Reservoir (see p. 80). 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	1,860	710	2,450	1,380	1,030	4,600	656	584	460	163	445
2	225	1,340	590	2,010	1,270	1,030	2,840	623	704	450	277	1,500
3	735	1,010	496	1,760	1,200	984	2,190	668	704	333	2,360	2,190
4	612	794	470	3,260	1,060	935	3,090	800	529	294	645	7,420
5	315	674	1,380	2,430	722	886	3,430	680	412	281	529	2,740
6	249	595	4,420	1,890	770	788	3,950	573	356	342	338	1,370
7	230	535	1,830	1,650	907	740	2,520	704	311	311	294	3,570
8	207	475	1,250	1,440	806	776	1,910	645	302	240	281	2,640
9	187	445	4,680	1,240	764	1,680	6,280	595	294	194	407	1,450
10	181	397	6,620	1,260	728	3,090	5,460	1,950	259	200	1,220	1,100
11	163	374	2,680	2,140	782	1,770	3,160	1,670	225	233	546	851
12	168	356	1,740	2,940	692	1,340	2,130	1,670	225	197	365	851
13	205	347	1,380	1,890	728	1,130	2,490	5,810	206	166	268	686
14	212	347	4,180	1,480	851	1,010	3,230	2,250	191	163	218	970
15	207	329	2,510	1,450	824	984	4,720	1,460	174	177	180	728
16	181	316	1,670	1,300	728	1,200	2,740	1,160	268	188	160	529
17	174	289	2,060	1,440	740	4,840	1,940	956	1,840	171	590	470
18	184	281	1,600	1,300	692	2,340	1,550	1,030	634	188	1,190	440
19	189	289	1,200	1,240	734	1,560	1,430	818	421	206	470	397
20	191	277	1,260	1,280	2,200	1,290	1,500	680	356	233	281	374
21	186	251	20,900	2,010	1,460	4,400	1,300	557	383	218	237	370
22	184	233	21,200	5,280	1,480	8,060	1,180	540	524	218	244	435
23	173	229	7,480	4,400	2,340	3,720	1,180	606	546	188	465	374
24	179	255	3,650	3,380	1,400	2,400	1,150	710	746	302	450	307
25	185	311	2,460	2,460	1,200	1,800	963	734	606	360	347	298
26	191	412	4,400	2,020	1,140	1,350	800	584	584	218	277	294
27	191	365	12,800	2,630	998	1,180	746	496	480	182	248	268
28	194	998	5,850	2,390	956	1,070	698	445	430	197	324	338
29	2,160	1,600	3,210	2,260	-----	998	662	430	480	180	893	6,170
30	9,360	963	2,570	1,780	-----	1,800	680	513	426	289	764	2,400
31	3,470	-----	2,160	1,540	-----	6,620	-----	480	-----	281	590	-----
TOTAL	21,568	16,947	129,326	66,000	29,552	62,801	70,519	31,493	14,200	7,660	15,621	41,975
MFAN	696	545	4,172	2,129	1,055	2,026	2,351	1,016	473	247	504	1,399
MAX	9,360	1,860	21,200	5,280	2,340	8,060	6,280	5,810	1,840	460	2,360	7,420
MTN	163	229	470	1,240	692	740	662	430	174	163	160	268

CAL YR 1973 TOTAL 687,336 MFAN 1,883 MAX 23,100 MIN 163
WTR YR 1974 TOTAL 507,662 MFAN 1,391 MAX 21,200 MIN 160

PEAK DISCHARGE (BASE, 12,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0915	25.46	13,100	12-27	0800	26.38	15,800
12-21	2130	31.73	31,000	3-22	0100	25.16	12,300

RARITAN RIVER BASIN

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 mi² (25.25 km²).

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.--36 years, 12.4 ft³/s (0.351 m³/s).

EXTREMES.--Current year: Maximum discharge, 1,360 ft³/s (38.5 m³/s) Dec. 21 (gage height, 4.60 ft or 1.402 m, from crest-stage gage); minimum, 0.38 ft³/s (0.011 m³/s) Oct. 22, 23, Aug. 2 (gage height, 0.57 ft or 0.174 m).

Period of record: Maximum discharge, 2,890 ft³/s (81.8 m³/s) July 23, 1938 (gage height, 5.82 ft or 1.774 m) from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of contracted-opening measurement of peak flow (an unknown additional amount probably bypassed gage); no flow for part or all of day at times in most years.

REMARKS.--Records good except those for periods of doubtful 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-NJ 1969: 1966-68. WRD-NJ 1973: 1968(M), 1969(M), 1971(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	11	3.3	21	8.0	11	40	6.7	17	5.8	.76	3.3
2	2.9	5.2	2.7	13	7.4	8.9	27	6.1	12	2.0	60	40
3	5.2	3.7	2.7	34	6.9	7.6	21	13	6.7	1.6	27	176
4	2.0	2.9	2.7	20	6.6	7.6	50	8.4	4.6	1.5	9.3	116
5	1.5	2.9	42	15	6.5	7.1	45	6.1	3.7	2.9	4.0	16
6	1.2	2.4	52	10	6.5	6.4	31	8.0	3.3	2.6	1.5	8.4
7	1.1	2.4	11	9.0	9.0	6.1	20	8.4	3.1	1.3	4.3	57
8	1.2	2.0	7.6	9.0	6.5	13	18	5.8	2.9	1.2	1.6	14
9	1.3	1.6	114	9.5	5.5	20	141	15	2.8	1.2	17	8.4
10	.97	1.4	49	15	4.3	24	45	50	2.9	3.3	6.7	6.1
11	.86	1.2	23	32	4.8	11	28	16	2.4	2.6	1.6	4.9
12	.86	1.4	12	15	5.4	9.7	23	66	3.3	1.3	1.3	4.0
13	.65	1.4	10	8.4	6.8	8.0	42	47	3.7	1.1	1.1	5.8
14	.65	1.3	78	6.1	6.2	7.1	30	17	2.2	.97	.97	12
15	.86	1.2	25	8.0	5.5	6.7	57	13	2.0	1.1	.86	3.7
16	.65	1.4	14	10	4.4	31	25	10	10	1.1	.76	3.5
17	.55	1.3	17	8.5	6.4	29	20	8.4	7.1	.86	128	3.3
18	.65	.86	8.8	6.2	5.8	13	18	7.6	2.6	.76	23	2.4
19	.86	1.4	6.7	8.4	18	10	21	6.4	2.0	.97	3.7	2.0
20	.49	1.1	15	6.0	26	8.9	16	5.8	1.8	.66	2.2	2.2
21	.55	.97	490	80	11	116	14	5.5	3.3	.55	1.6	2.4
22	.65	1.1	68	40	20	47	14	5.2	2.6	.66	1.5	2.7
23	.65	.97	33	25	17	25	15	10	18	.76	9.3	1.5
24	1.1	2.9	22	20	10	18	12	22	5.2	15	1.8	1.4
25	1.6	4.9	18	10	11	14	10	19	5.2	2.4	1.2	1.5
26	1.4	4.0	100	14	9.7	13	9.3	7.1	3.5	1.1	1.4	1.4
27	1.5	2.4	53	27	8.4	13	8.9	5.2	2.6	.86	1.8	1.4
28	1.3	25	39	18	8.0	12	8.0	5.8	2.6	1.1	12	41
29	209	8.9	26	20	-----	12	8.4	4.6	6.4	.76	14	80
30	100	4.3	21	12	-----	52	8.0	4.3	2.9	10	20	8.4
31	11	-----	18	9.0	-----	114	-----	3.7	-----	.67	3.3	-----
TOTAL	355.00	103.50	1,384.5	539.1	251.6	682.1	825.6	417.1	148.4	68.68	363.55	630.7
MEAN	11.5	3.45	44.7	17.4	8.99	22.0	27.5	13.5	4.95	2.22	11.7	21.0
MAX	209	25	490	80	26	116	141	66	18	15	128	176
MIN	.49	.86	2.7	6.0	4.3	6.1	8.0	3.7	1.8	.55	.76	1.4

CAL YR 1973 TOTAL 7,255.94 MEAN 19.9 MAX 865 MIN .49
WTR YR 1974 TOTAL 5,769.83 MEAN 15.8 MAX 490 MIN .49

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0030	3.13	614	8-17	1845	2.74	446
12-21	1345	4.60	1,360	9-03	2045	3.39	730
8-02	2200	3.08	591	9-29	0045	2.84	486

NOTE.--Gage-height record doubtful Dec. 14 to Feb. 19.

RARITAN RIVER BASIN

75

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 mi² (125.4 km²).

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

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

EXTREMES.--Current year: Maximum discharge, about 2,000 ft³/s (56.6 m³/s) probably Dec. 22; minimum daily, 2.5 ft³/s (0.07 m³/s) July 21.

Period of record: Maximum discharge, 7,000 ft³/s (198 m³/s) Aug. 2, 1973 (elevation, 41.18 ft or 12.552 m); minimum daily, 2.5 ft³/s (0.07 m) July 21, 1974.

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	95	41	76	52	40	160	47	74	27	3.6	13
2	35	60	33	64	49	35	122	43	50	15	160	230
3	57	43	32	68	45	32	100	78	30	12	74	550
4	32	35	24	72	40	31	220	52	24	10	35	225
5	17	32	148	69	38	30	170	36	21	13	15	60
6	12	29	275	62	35	28	130	43	18	11	7.0	80
7	12	28	85	56	35	25	100	61	16	7.1	19	190
8	13	27	53	48	33	54	90	46	14	5.2	8.4	57
9	14	26	415	38	33	110	660	115	13	6.2	58	34
10	10	23	160	44	32	75	180	230	13	11	18	24
11	8.2	20	100	54	32	49	115	115	12	8.3	6.4	18
12	7.3	19	70	64	31	40	98	235	15	4.6	4.9	13
13	6.2	21	60	45	31	33	170	140	18	3.7	4.3	30
14	6.4	22	360	37	30	25	120	80	14	3.3	3.8	46
15	7.6	22	110	39	29	52	280	62	12	4.0	3.5	17
16	6.3	22	65	42	26	112	110	53	41	4.5	3.3	14
17	5.0	23	80	47	25	100	90	47	30	3.5	330	13
18	6.0	19	50	38	24	60	82	44	17	2.8	60	12
19	7.4	22	36	31	50	46	90	38	12	3.6	17	10
20	4.5	26	70	31	93	38	82	35	10	3.1	9.8	9.3
21	5.4	24	1,300	35	50	620	76	34	16	2.5	7.5	11
22	5.6	23	500	42	86	200	68	30	15	3.2	6.0	14
23	7.0	20	120	46	74	105	74	48	56	7.0	37	9.0
24	10	28	80	48	50	90	66	83	30	52	6.5	7.3
25	19	44	68	49	38	64	62	63	23	10	4.9	6.2
26	18	43	90	50	40	54	57	47	17	6.0	8.0	6.0
27	21	32	260	52	34	49	53	35	14	4.1	25	18
28	19	186	150	56	33	45	51	33	16	5.5	40	95
29	517	116	100	60	-----	42	49	24	26	4.7	62	215
30	937	53	78	60	-----	150	52	21	18	32	70	64
31	175	-----	70	58	-----	570	-----	19	-----	7.0	16	-----
TOTAL	2,024.9	1,183	5,083	1,581	1,168	3,004	3,777	2,037	685	292.9	1,123.9	2,090.8
MEAN	65.3	39.4	164	51.0	41.7	96.9	126	65.7	22.8	9.45	36.3	69.7
MAX	937	186	1,300	76	93	620	660	235	74	52	330	550
MIN	4.5	19	24	31	24	25	49	19	10	2.5	3.3	6.0

CAL YR 1973 TOTAL 40,024.6 MEAN 110 MAX 2,990 MIN 4.5
WTR YR 1974 TOTAL 24,050.5 MEAN 65.9 MAX 1,300 MIN 2.5

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE
10-30	0315	36.17	1,530
12-22	UNK	UNK	About 2,000
4-09	UNK	UNK	About 900

NOTE.--No gage-height record Oct. 1-29 and Dec. 10 to Sept. 30.

RARITAN RIVER BASIN

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 mi² (89.1 km²).

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.--47 years, 46.8 ft³/s (1.325 m³/s), 15.51 in/yr (394 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,720 ft³/s (48.7 m³/s) Dec. 21 (gage height, 25.90 ft or 7.894 m) from rating curve extended above 1,100 ft³/s (31 m³/s) on basis of weir formula; minimum daily, 3.0 ft³/s (0.085 m³/s) Sept. 4.

Period of record: Maximum discharge, 2,920 ft³/s (82.7 m³/s) Aug. 28, 1971 (gage height, 26.34 ft or 8.028 m) from rating curve extended above 1,100 ft³/s (31 m³/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 fair. Records given herein include flow over dam and through blowoff gate. Blowoff gate was open Oct. 1 to Nov. 5, June 13 to Sept. 30. Flow regulated by Farrington Reservoir, capacity, 655,250,000 gal (2.48 hm³).

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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	73	28	89	39	45	112	27	28	20	11	18
2	15	57	25	63	37	44	72	25	33	19	11	20
3	15	51	22	57	38	41	63	34	36	18	11	11
4	15	47	20	104	34	39	67	35	28	18	11	3.0
5	15	37	36	75	31	30	75	32	22	17	11	15
6	15	27	147	55	29	32	91	32	19	21	11	28
7	15	23	68	49	37	31	59	40	18	21	11	100
8	15	22	43	45	39	36	47	33	21	19	11	64
9	12	20	179	45	35	61	305	31	20	18	11	36
10	9.5	19	172	46	31	116	167	111	17	16	11	27
11	9.5	18	75	84	31	65	84	101	15	15	11	23
12	9.5	18	49	121	30	49	64	80	13	14	11	24
13	9.5	18	42	71	35	41	85	183	18	13	26	19
14	9.5	18	85	49	44	37	116	74	20	12	18	19
15	9.5	19	60	46	44	34	74	49	18	12	16	17
16	9.5	20	47	49	39	54	56	38	19	12	15	15
17	9.5	19	55	61	40	133	51	33	22	12	15	14
18	9.5	19	43	52	40	66	48	38	21	12	20	13
19	9.5	22	34	47	45	51	46	33	20	12	18	16
20	9.5	24	35	46	92	45	45	28	19	12	16	21
21	9.5	23	1,140	119	62	263	40	26	18	12	15	20
22	9.5	25	297	183	56	261	39	23	17	12	16	19
23	13	23	116	109	56	98	43	29	18	12	26	18
24	17	24	80	81	43	67	40	34	19	12	19	17
25	17	29	57	62	43	54	37	30	18	12	17	16
26	17	34	181	52	42	48	36	24	19	12	15	16
27	17	35	334	75	37	42	34	23	19	12	15	16
28	17	88	124	67	37	37	30	23	18	12	16	16
29	18	58	83	57	-----	38	30	22	19	12	50	24
30	298	35	65	51	-----	100	29	22	19	12	20	26
31	113	-----	65	45	-----	284	-----	21	-----	12	52	-----
TOTAL	782.5	945	3,807	2,155	1,166	2,342	2,085	1,334	611	445	537	691.0
MEAN	25.2	31.5	123	69.5	41.6	75.5	69.5	43.0	20.4	14.4	17.3	23.0
MAX	298	88	1,140	183	92	284	305	183	36	21	52	100
MIN	9.5	18	20	45	29	30	29	21	13	12	11	3.0
(†)	+7.0	-.3	+2	-.2	0	+7	-.9	0	-.5	-7.9	+9	+7.6
MEAN†	32.2	31.2	123	69.3	41.6	76.2	68.6	43.0	19.9	6.5	18.2	30.6
CFSM†	.94	.91	3.58	2.01	1.21	2.22	1.99	1.25	.58	.19	.53	.89
IN†	1.08	1.01	4.13	2.32	1.26	2.56	2.23	1.44	.64	.22	.61	.99

CAL YR 1973 TOTAL 24,365.5 MEAN 66.8 MAX 1,140 MIN 9.5 MEAN† 66.8 CFSM† 1.94 IN† 26.38
WTR YR 1974 TOTAL 16,900.5 MEAN 46.3 MAX 1,140 MIN 3.0 MEAN† 46.8 CFSM† 1.36 IN† 18.49

PEAK DISCHARGE (BASE, 450 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0500	25.23	469	3-21	2000	25.38	676
12-21	1200	25.90	1,720	4-09	1300	25.25	482
12-26	2400	25.32	583				

† Change in contents, in cubic feet per second, in Farrington Reservoir.

‡ Adjusted for change in contents.

RARITAN RIVER BASIN

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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 mi² (105.4 km²).

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 Duhermal Water System). January 1957 to September 1966 at datum 17.72 ft (5.401 m) higher.

AVERAGE DISCHARGE.--17 years, 65.1 ft³/s (1.844 m³/s), 21.72 in/yr (552 mm/yr).

EXTREMES.--Current year: Maximum discharge, 841 ft³/s (23.8 m³/s) Dec. 22 (elevation, 19.14 ft or 5.834 m waste gate open); no flow on days when gate was closed and dam was filling.
Period of record: Maximum discharge, 1,650 ft³/s (46.7 m³/s) May 30, 1968 (elevation 19.90 ft or 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 Oct. 29-31, Dec. 21-28, Feb. 22-24, Apr. 12-17, and Sept. 3-8. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	242	50	102	65	82	275	53	49	45	21	59
2	29	61	45	72	61	102	158	51	60	42	21	107
3	29	71	42	51	61	94	85	59	75	37	23	200
4	29	59	41	114	58	74	113	67	61	32	26	270
5	27	54	46	100	50	67	126	59	48	33	32	200
6	25	51	40	96	50	61	143	56	43	44	32	100
7	23	47	71	81	77	58	99	66	39	40	31	150
8	25	44	57	74	112	61	73	62	41	33	33	250
9	25	42	95	99	31	94	159	57	42	28	34	135
10	25	40	189	107	42	118	244	96	40	26	54	70
11	23	40	176	99	60	98	144	107	37	24	50	52
12	23	39	95	116	58	74	100	96	34	23	34	44
13	25	39	48	120	59	64	110	144	34	23	25	42
14	25	39	88	87	70	58	155	94	33	22	23	44
15	23	39	104	90	78	55	120	75	32	21	21	55
16	23	39	84	118	70	61	90	60	42	21	21	47
17	23	38	78	99	64	139	78	55	64	21	23	36
18	23	36	79	94	67	157	74	70	64	20	34	31
19	23	38	66	90	67	94	70	57	66	24	34	29
20	23	37	60	72	105	70	70	49	49	23	27	29
21	25	36	315	64	113	102	67	46	43	23	23	27
22	23	38	752	189	80	224	66	44	43	20	21	44
23	23	39	415	181	120	256	69	48	58	20	25	42
24	25	39	101	144	60	125	69	55	76	31	29	31
25	23	40	40	85	73	101	65	52	68	43	25	29
26	25	42	88	38	89	79	60	46	56	37	23	27
27	25	41	233	79	47	76	59	44	50	32	21	27
28	23	59	129	90	64	57	57	44	47	27	27	27
29	140	68	154	82	-----	43	56	44	49	26	64	55
30	370	60	66	75	-----	107	55	44	47	25	61	61
31	400	-----	72	70	-----	269	-----	43	-----	23	58	-----
TOTAL	1,609	1,557	3,979	2,978	1,951	3,120	3,109	1,943	1,490	889	976	2,320
MEAN	51.9	51.9	128	96.1	69.7	101	104	62.7	49.7	28.7	31.5	77.3
MAX	400	242	752	189	120	269	275	144	76	45	64	270
MIN	23	36	40	38	31	43	55	43	32	20	21	27
CFSM	1.28	1.28	3.15	2.36	1.71	2.48	2.56	1.54	1.22	.71	.77	1.90
IN.	1.47	1.42	3.64	2.72	1.78	2.85	2.84	1.78	1.36	.81	.89	2.12

CAL YR 1973 TOTAL 33,699 MEAN 92.3 MAX 752 MIN 21 CFSM 2.27 IN 30.80
WTR YR 1974 TOTAL 25,921 MEAN 71.0 MAX 752 MIN 20 CFSM 1.74 IN 23.69

RARITAN RIVER BASIN

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 mi² (245.0 km²).

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.--35 years, 136 ft³/s (3.852 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,680 ft³/s (67.1 m³/s) Dec. 21 (elevation, 11.28 ft or 3.438 m); minimum, 23 ft³/s (0.65 m³/s) Aug. 2 (elevation, 9.60 ft or 2.926 m).
Period of record: Maximum discharge, 4,250 ft³/s (120 m³/s) Sept. 15, 1944 (elevation, 11.71 ft or 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 good. 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 m³), 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	391	85	304	150	215	758	103	75	88	28	115
2	54	145	72	235	145	245	369	92	110	82	24	291
3	54	134	64	245	145	215	255	110	189	61	28	454
4	51	107	64	330	134	165	255	152	124	50	37	616
5	48	103	95	235	140	215	330	124	85	48	61	516
6	45	96	205	215	103	145	317	106	64	78	66	245
7	41	88	145	195	129	129	225	140	54	85	46	341
8	43	82	110	175	235	134	165	129	54	61	59	600
9	43	69	354	172	107	265	557	106	56	48	52	315
10	43	66	584	208	99	291	931	205	52	40	92	166
11	43	64	291	224	134	235	488	267	45	40	88	115
12	43	66	181	403	129	175	235	189	40	40	50	88
13	43	66	159	276	134	150	245	354	38	37	38	72
14	43	64	267	185	175	134	356	215	37	35	34	99
15	37	61	205	178	185	129	265	159	35	33	29	152
16	35	59	181	219	155	137	205	129	59	33	25	102
17	34	56	205	246	150	410	165	110	181	31	28	72
18	34	54	173	207	155	356	160	145	197	30	82	64
19	35	56	129	175	150	205	155	124	140	30	66	59
20	35	56	368	174	269	160	150	95	85	34	40	54
21	35	56	2,230	195	245	255	140	82	72	35	31	52
22	35	56	1,280	534	205	806	134	75	78	31	28	129
23	37	59	454	410	278	550	145	75	124	29	31	106
24	37	59	330	317	140	265	155	110	245	43	46	69
25	35	64	205	215	155	215	145	99	159	134	40	54
26	35	69	278	145	185	175	134	78	124	95	31	48
27	35	69	669	175	134	165	124	69	99	64	29	45
28	34	134	426	215	150	150	114	69	85	52	34	45
29	202	152	317	195	-----	114	110	66	102	46	181	129
30	790	110	185	175	-----	288	107	66	99	41	140	159
31	723	-----	235	155	-----	758	-----	66	-----	31	166	-----
TOTAL	2,869	2,711	10,546	7,332	4,515	7,851	7,894	3,909	2,907	1,585	1,730	5,372
MEAN	92.5	90.4	340	237	161	253	263	126	96.9	51.1	55.8	179
MAX	790	391	2,230	534	278	806	931	354	245	134	181	616
MIN	34	54	64	145	99	114	107	66	35	29	24	45

CAL YR 1973 TOTAL 76,063 MEAN 208 MAX 2,230 MIN 23
WTR YR 1974 TOTAL 59,221 MEAN 162 MAX 2,230 MIN 24

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1100	11.28	2,680	4-01	0100	10.62	952
12-27	1900	10.51	739	4-10	0700	10.70	1,120
3-22	1900	10.61	931				

RARITAN RIVER BASIN

79

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 mi² (107.0 km²). 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, 11,400,000,000 gal (43.149 hm³) Dec. 21 (elevation, 273.88 ft or 83.479 m); minimum observed, 9,900,000,000 gal (37.472 hm³) Aug. 17 (elevation, 270.51 ft or 82.451 m). Extremes for period of record: Maximum contents observed, 11,400,000,000 gal (43.149 hm³) 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 hm³). Dead storage 300,000 gal (1,136 m³). 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 mi² (14.8 km²). 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, 55,200,000,000 gal (208.93 hm³) June 17 (elevation, 385.15 ft or 117.394 m); minimum observed, 53,500,000,000 gal (202.50 hm³) Oct. 29 (elevation, 383.05 ft or 116.754 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 hm³). Reservoir is used primarily for storage and is filled by pumping from South Branch Raritan River at Hamden Pumping Station (see below). 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 1973 TO SEPTEMBER 1974

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.....	271.95	10,500	-	383.47	53,800	-
Oct. 31.....	272.23	10,600	+5.0	383.41	53,700	-5.0
Nov. 30.....	272.98	11,000	+20.6	383.18	53,500	-10.4
Dec. 31.....	273.13	11,000	0	383.84	54,000	+24.9
CAL YR 1973.....	-	-	0	-	-	+4.2
Jan. 31.....	272.49	10,800	-9.9	384.11	54,300	+15.0
Feb. 28.....	272.48	10,800	0	384.13	54,300	0
Mar. 31.....	273.18	11,100	+15.0	384.50	54,600	+15.0
Apr. 30.....	272.95	11,000	-5.1	384.86	54,900	+15.5
May 31.....	272.99	11,000	0	385.05	55,000	+5.0
June 30.....	272.98	11,000	0	385.08	55,100	+5.1
July 31.....	270.63	9,900	+54.9	383.99	54,200	-44.9
Aug. 31.....	270.94	10,100	+9.9	383.34	53,600	-30.0
Sept. 30.....	273.13	11,000	+46.4	383.66	53,900	+15.5
WTR YR 1974.....	-	-	+2.1	-	-	+4

* Elevation at 0800 on first day of following month.

RARITAN RIVER BASIN

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 1973 TO SEPTEMBER 1974

Month	Hamden Pumping Station	Johns-Manville Products Corporation	Elizabethtown Water Company
October.....	0	9.0	98.6
November.....	0	8.5	90.2
December.....	0	9.4	109
CAL YR 1973.....	0	9.0	107
January.....	0	9.7	108
February.....	0	9.7	108
March.....	0	9.9	108
April.....	0	9.2	107
May.....	0	8.8	108
June.....	0	8.2	110
July.....	0	8.8	125
August.....	0	9.1	108
September.....	0	8.9	94.1
WTR YR 1974.....	0	9.1	106.2

NAVESINK RIVER BASIN

81

01407500 Swimming River near Red Bank, N. J.

LOCATION.--Lat 40°19'10", long 74°06'55", Monmouth County, on left bank 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 mi² (125.6 km²).

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.--52 years, 78.7 ft³/s (2.229 m³/s), 22.04 in/yr (560 mm/yr), adjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 1,540 ft³/s (43.6 m³/s) Oct. 30 (gage height, 6.12 ft or 1.865 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s) on basis of weir formula; minimum daily, 0.30 ft³/s (0.008 m³/s) many days in summer months.
Period of record: Maximum discharge, 8,910 ft³/s (252 m³/s) Oct. 27, 1943 (gage height, 8.96 ft or 2.731 m, site and datum then in use) from rating curve extended above 1,000 ft³/s (28.3 m³/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 flow or leakage through blowoff gates (leakage only 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	68	20	136	51	97	178	41	29	18	.30	.30
2	.30	36	20	89	56	97	125	33	56	13	.30	.30
3	.30	33	17	81	62	81	115	56	62	11	.30	.30
4	.30	29	17	125	56	68	146	62	33	8.3	.30	11
5	.30	26	23	89	41	51	136	46	20	6.9	.30	16
6	.30	26	51	74	41	46	125	46	15	8.7	.30	15
7	.30	17	36	68	74	51	81	56	12	8.7	.30	220
8	.30	17	26	56	74	56	74	41	13	6.9	.30	106
9	.30	17	310	74	62	97	505	41	13	5.5	.30	41
10	.30	16	220	89	51	125	235	115	11	3.6	.30	29
11	.30	14	74	157	56	74	136	97	8.7	2.0	.30	20
12	.30	13	51	157	51	62	115	68	6.9	.80	.30	16
13	.30	13	46	81	56	56	136	115	6.4	.30	.30	13
14	.30	12	97	62	74	46	146	62	5.2	.30	.30	33
15	.30	12	68	68	68	46	115	41	3.9	.30	.30	33
16	.30	12	51	74	56	89	81	33	6.1	.30	.30	18
17	.30	11	136	97	62	210	74	29	11	.30	.30	14
18	.30	11	74	68	56	68	74	41	13	.30	.30	13
19	.30	11	41	74	68	62	74	29	11	.30	.30	12
20	.30	12	51	68	97	56	74	20	9.5	.30	.30	10
21	.30	12	842	199	68	325	62	18	8.0	.30	.30	11
22	.30	13	295	265	68	325	56	16	8.7	.30	.30	29
23	.30	14	106	125	68	115	68	18	26	.30	.30	20
24	.30	16	81	89	46	97	68	41	51	.30	.30	13
25	.30	23	68	81	68	74	62	36	29	.30	.30	11
26	.30	20	115	74	74	68	56	26	29	.30	.30	9.9
27	.30	20	265	81	56	62	51	20	20	.30	.30	8.7
28	.30	62	115	74	62	62	46	26	20	.30	.30	8.0
29	168	56	81	74	-----	68	41	20	56	.30	.30	16
30	747	26	81	68	-----	295	41	18	26	.30	.30	17
31	136	-----	81	62	-----	520	-----	17	-----	.30	.30	-----
TOTAL	1,059.40	668	3,559	2,979	1,722	3,549	3,296	1,328	619.4	99.10	9.30	764.50
MEAN	34.2	22.3	115	96.1	61.5	114	110	42.8	20.6	3.20	.30	25.5
MAX	747	68	842	265	97	520	505	115	62	18	.30	220
MIN	.30	11	17	56	41	46	41	16	3.9	.30	.30	.30
(†)	45.5	28.8	32.0	29.9	30.4	32.0	28.0	37.3	42.7	35.4	45.5	54.4
MEAN‡	79.7	51.1	147	126	91.9	146	138	80.1	63.3	38.6	45.8	79.9
CFSM‡	1.64	1.05	3.03	2.60	1.89	3.01	2.84	1.65	1.31	.79	.94	1.65
IN‡	1.89	1.18	3.50	2.99	1.97	3.47	3.18	1.90	1.46	.92	1.09	1.84

CAL YR 1973 TOTAL 29,765.36 MEAN 81.5 MAX 842 MIN .30 MEAN‡ 113 CFSM‡ 2.33 IN‡ 31.57
WTR YR 1974 TOTAL 19,652.70 MEAN 53.8 MAX 842 MIN .30 MEAN‡ 90.7 CFSM‡ 1.87 IN‡ 25.39

† Diversion and change in contents in Swimming River Reservoir, in cubic feet per second.

‡ Adjusted for diversion and change in contents.

SHARK RIVER BASIN

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 mi² (25.80 km²).

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

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

AVERAGE DISCHARGE.--8 years, 13.6 ft³/s (0.385 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, about 200 ft³/s (5.66 m³/s) probably Dec. 21; minimum daily, 1.3 ft³/s (0.037 m³/s) July 9.
Period of record: Maximum discharge, 580 ft³/s (16.4 m³/s) Dec. 26, 1969 (gage height, 7.94 ft or 2.420 m); minimum, 0.11 ft³/s (0.003 m³/s) Sept. 23, 1972.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	10	3.2	20	3.0	9.8	31	9.8	4.5	7.0	5.2	8.2
2	2.9	8.0	2.9	25	3.2	7.0	22	9.0	7.0	4.2	2.6	50
3	2.8	7.0	2.8	18	3.0	2.9	18	8.0	8.5	2.2	5.2	18
4	3.2	6.0	2.9	21	2.7	1.9	19	16	5.0	1.7	14	65
5	2.5	5.6	3.8	15	2.5	1.5	21	13	3.5	2.2	15	16
6	2.5	5.0	6.0	11	4.6	1.7	22	9.0	2.7	8.2	5.8	5.8
7	2.4	4.5	4.5	11	3.8	2.4	16	13	3.2	3.3	9.8	58
8	2.3	4.2	3.0	6.4	3.4	7.6	16	11	3.5	2.0	5.8	21
9	2.3	3.8	50	11	3.1	16	118	11	3.0	1.3	6.4	16
10	2.7	3.6	17	19	2.9	14	55	17	2.7	11	7.6	13
11	3.5	3.5	9.0	42	4.3	11	28	12	2.5	5.8	5.8	11
12	2.3	3.4	6.2	32	6.4	9.0	23	9.8	2.2	2.2	4.2	9.8
13	2.2	4.0	5.2	19	4.5	7.0	26	13	2.0	3.7	4.2	7.6
14	2.0	4.5	9.1	12	3.2	5.8	26	9.0	1.7	7.0	8.2	7.6
15	1.9	3.8	6.8	9.8	3.7	4.7	23	4.8	1.9	7.6	8.2	6.4
16	2.0	3.1	6.0	14	4.6	17	21	2.6	3.7	7.6	8.2	3.7
17	2.0	3.0	13	18	4.2	4.4	19	2.5	4.2	7.6	11	3.7
18	1.8	2.8	5.4	11	3.8	20	18	3.5	2.6	7.6	11	3.7
19	2.0	3.0	3.8	8.2	3.6	15	17	3.0	1.6	9.0	7.0	6.4
20	2.4	3.1	10	4.7	3.8	16	17	2.5	1.5	9.0	8.2	7.6
21	2.7	2.8	160	21	3.8	82	16	2.3	1.5	9.0	9.0	9.8
22	2.3	3.2	50	24	3.3	73	14	2.0	1.6	8.2	9.0	16
23	2.0	3.1	25	13	2.9	27	13	2.0	11	9.0	16	5.2
24	2.2	3.0	15	7.0	2.9	22	15	2.5	9.0	9.8	2.4	4.2
25	2.3	3.3	12	4.2	3.5	18	14	3.0	11	8.2	3.7	4.2
26	2.3	3.1	20	4.7	4.2	16	13	2.8	15	5.2	7.0	4.2
27	2.1	3.5	50	5.0	5.0	16	12	2.1	7.6	3.7	9.0	3.7
28	6.0	7.1	25	4.5	6.2	16	11	2.7	9.0	3.7	13	3.7
29	30	5.8	18	4.0	-----	16	11	2.5	11	2.6	29	14
30	130	4.9	15	3.5	-----	80	10	2.1	4.7	2.2	26	5.2
31	40	-----	12	2.9	-----	112	-----	3.1	-----	1.9	16	-----
TOTAL	270.6	131.7	572.6	421.9	106.1	692.3	685	206.6	148.9	173.7	293.5	408.7
MEAN	8.73	4.39	18.5	13.6	3.79	22.3	22.8	6.66	4.96	5.60	9.47	13.6
MAX	130	10	160	42	6.4	112	118	17	15	11	29	65
MIN	1.8	2.8	2.8	2.9	2.5	1.5	10	2.0	1.5	1.3	2.4	3.7

CAL YR 1973 TOTAL 6,460.9 MEAN 17.7 MAX 160 MIN 1.8
WTR YR 1974 TOTAL 4,111.6 MEAN 11.3 MAX 160 MIN 1.3

NOTE.--No gage-height record Oct. 1 to Jan. 4, Jan. 26 to Feb. 27 and Apr. 17 to June 14.

SHARK RIVER BASIN

83

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 mi² (16.65 km²).

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

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

AVERAGE DISCHARGE.--8 years, 10.4 ft³/s (0.295 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,150 ft³/s (32.6 m³/s) Oct. 29 (gage height, 5.01 ft or 1.527 m) from rating curve extended above 150 ft³/s (4.25 m); minimum daily, 1.5 ft³/s (0.042 m³/s) Aug. 15.
Period of record: Maximum discharge, 1,830 ft³/s (51.8 m³/s) Sept. 12, 1971 (gage height, 6.34 ft or 1.932 m) from rating curve extended above 150 ft³/s (4.25 m³/s); no flow June 7, 1971.

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

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	9.7	3.8	21	6.4	15	40	6.3	6.1	5.6	2.7	4.6
2	3.0	7.6	3.6	11	7.4	12	18	5.1	10	3.8	3.0	153
3	3.5	6.3	3.5	13	7.6	10	14	9.8	8.0	3.0	3.7	11
4	3.4	5.4	3.5	20	6.6	9.4	17	8.5	4.7	2.9	12	28
5	2.7	5.6	5.2	12	6.0	8.4	17	6.2	4.1	4.4	15	9.2
6	2.7	5.4	7.4	10	8.0	7.5	15	6.6	3.2	8.3	4.4	6.9
7	2.5	4.5	4.8	9.2	10	7.1	12	6.0	4.1	3.3	11	35
8	2.5	4.3	4.2	8.6	9.0	16	13	5.5	3.8	2.2	6.8	12
9	2.6	4.7	6.4	11	8.0	17	20	6.1	3.9	3.0	6.1	7.9
10	2.6	4.5	20	17	7.4	16	40	11	3.4	8.5	7.1	6.2
11	3.7	4.3	9.3	33	7.6	10	20	9.0	3.1	5.7	3.4	5.5
12	2.5	4.3	7.5	23	12	8.9	12	9.4	3.0	3.0	2.8	5.3
13	2.5	5.6	6.5	12	15	7.9	16	13	3.1	2.7	2.7	4.8
14	2.5	5.5	11	9.8	13	7.2	16	8.1	2.7	2.9	1.7	8.3
15	2.1	3.8	7.8	9.9	11	6.7	14	6.1	2.9	2.7	1.5	5.4
16	2.1	3.7	8.9	13	10	23	11	5.2	6.3	2.6	1.9	4.6
17	2.2	3.5	36	13	11	34	10	5.2	5.4	2.7	4.9	4.4
18	2.2	3.5	12	10	10	13	9.1	5.6	3.4	2.4	3.9	4.2
19	2.0	3.8	8.5	12	9.4	10	9.4	4.5	2.9	3.1	2.6	3.8
20	2.4	3.9	11	10	9.0	8.8	8.6	4.5	2.4	2.7	2.3	3.8
21	3.0	3.5	9.4	16	8.4	56	8.0	4.1	2.6	2.2	1.6	8.6
22	3.1	4.1	26	27	9.2	32	8.5	4.2	3.5	2.7	2.4	14
23	2.3	3.6	12	22	8.0	14	8.1	6.2	11	2.5	20	5.3
24	2.4	3.7	9.1	18	6.8	10	8.3	5.7	7.1	5.3	4.9	4.1
25	2.5	4.2	8.3	15	7.0	9.0	7.0	5.5	10	5.3	3.2	3.7
26	2.6	3.8	16	11	10	7.5	7.4	4.5	9.9	3.3	2.6	3.6
27	2.5	4.2	25	12	9.6	7.2	6.4	4.4	5.7	2.9	4.0	3.9
28	2.4	8.9	12	11	11	7.2	7.0	5.3	6.8	3.1	8.3	4.4
29	255	6.9	9.5	9.0	-----	8.0	6.1	4.5	7.5	2.7	24	13
30	97	4.7	9.6	7.6	-----	20	6.6	4.6	4.6	2.1	15	6.2
31	14	-----	11	7.0	-----	55	-----	3.7	-----	1.9	11	-----
TOTAL	439.7	147.5	471.0	434.1	254.4	473.8	405.5	194.4	155.2	109.5	196.5	390.7
MEAN	14.2	4.92	15.2	14.0	9.09	15.3	13.5	6.27	5.17	3.53	6.34	13.0
MAX	255	9.7	9.4	33	15	56	40	13	11	8.5	24	153
MIN	2.0	3.5	3.5	7.0	6.0	6.7	6.1	3.7	2.4	1.9	1.5	3.6

CAL YR 1973 TOTAL 4,630.8 MEAN 12.7 MAX 255 MIN 2.0
WTR YR 1974 TOTAL 3,672.3 MEAN 10.1 MAX 255 MIN 1.5

NOTE.--No gage-height record Jan. 21 to Feb. 26 and Mar. 24 to Apr. 16.

MANASQUAN RIVER BASIN

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 mi² (112.4 km²).

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.--43 years, 73.7 ft³/s (2.087 m³/s), 23.06 in/yr (586 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,340 ft³/s (37.9 m³/s) probably Dec. 22 (gage height, 8.47 ft or 2.582 m, from peak-stage indicator); minimum, 27 ft³/s (0.76 m³/s) Oct. 14, 15 (gage height, 2.53 ft or 0.771 m).
Period of record: Maximum discharge, 2,940 ft³/s (83.3 m³/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 ft³/s (25.5 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 12.9 ft³/s (0.37 m³/s) Sept. 10, 1932.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	106	47	160	79	138	231	69	57	54	31	53
2	33	80	43	150	77	127	154	65	69	45	31	239
3	34	69	42	120	75	102	137	81	81	42	40	88
4	32	60	43	170	72	94	171	79	56	41	40	259
5	32	55	47	116	67	90	161	69	50	40	49	94
6	30	52	72	99	65	82	159	67	48	59	34	75
7	29	50	51	93	94	79	121	72	46	44	37	283
8	29	49	47	88	92	80	109	63	48	40	44	129
9	30	50	238	90	78	114	481	63	48	38	36	81
10	30	47	212	104	71	119	346	102	45	36	53	69
11	30	44	92	189	72	92	189	92	42	38	34	57
12	30	45	75	218	70	86	147	79	38	36	31	56
13	30	45	67	117	74	79	164	115	40	36	32	52
14	29	45	105	96	103	75	186	79	37	36	31	70
15	28	45	78	94	88	73	135	69	37	35	30	56
16	29	45	69	110	75	87	117	62	48	35	30	50
17	29	42	121	137	84	276	107	59	53	35	33	49
18	30	41	92	101	78	121	100	60	48	34	62	48
19	30	42	69	98	81	100	94	56	41	37	34	48
20	31	42	81	100	120	94	90	53	38	45	34	46
21	29	41	550	165	91	204	85	52	38	37	33	48
22	29	43	1,000	302	96	472	85	50	44	35	34	65
23	30	40	450	142	111	157	90	54	63	36	59	48
24	31	40	250	118	84	126	85	62	65	56	45	45
25	31	43	150	105	83	108	81	54	54	77	37	45
26	32	42	110	96	91	101	77	49	65	49	36	44
27	30	41	250	104	84	95	74	48	56	48	35	44
28	30	63	220	96	86	91	72	50	50	44	35	44
29	216	71	150	96	-----	90	70	49	72	33	129	81
30	614	51	130	88	-----	269	70	50	48	33	70	52
31	154	-----	110	84	-----	486	-----	49	-----	32	133	-----
TOTAL	1,835	1,529	5,061	3,846	2,341	4,307	4,188	2,021	1,525	1,286	1,392	2,418
MEAN	59.2	51.0	163	124	83.6	139	140	65.2	50.8	41.5	44.9	80.6
MAX	614	106	1,000	302	120	486	481	115	81	77	133	283
MIN	28	40	42	84	65	73	70	48	37	32	30	44
CFSM	1.36	1.18	3.76	2.86	1.93	3.20	3.23	1.50	1.17	.96	1.03	1.86
IN.	1.57	1.31	4.34	3.30	2.01	3.69	3.59	1.73	1.31	1.10	1.19	2.07

CAL YR 1973 TOTAL 35,051 MEAN 96.0 MAX 1,000 MIN 28 CFSM 2.21 IN 30.04
WTR YR 1974 TOTAL 31,749 MEAN 87.0 MAX 1,000 MIN 28 CFSM 2.00 IN 27.21

PEAK DISCHARGE (BASE, 600 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	1430	7.22	896	3-31	1230	6.10	610
12-22	Unk	8.47	1,340	4-09	2115	6.91	808
3-22	0615	6.98	825				

NOTE.--No record Dec. 21 to Jan. 4.

METEDECONK RIVER BASIN

85

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 mi² (90.4 km²).

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

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

EXTREMES.--Current year: Maximum discharge, 508 ft³/s (14.4 m³/s) Oct. 30 (gage height, 7.35 ft or 2.240 m); minimum, 17 ft³/s (0.48 m³/s) July 17, 21-24, Aug. 1, 2.
Period of record: Maximum discharge, 508 ft³/s (14.4 m³/s) Oct. 30, 1973 (gage height, 7.35 ft or 2.240 m); minimum, 17 ft³/s (0.48 m³/s) Sept. 13, 1973, July 21-24, Aug. 1, 2, 1974.

REMARKS.--Records good except those above 100 ft³/s (2.83 m³/s), which are fair. Possible backwater at peak discharges from debris at bridge.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	147	36	97	57	69	194	50	33	34	17	50
2	28	102	33	98	55	75	156	47	49	32	17	62
3	26	56	31	87	56	75	130	55	73	28	24	80
4	25	44	31	100	54	65	101	64	54	25	23	118
5	24	40	33	96	48	58	95	55	36	25	50	104
6	23	38	46	79	47	53	102	48	31	52	30	75
7	22	37	40	66	70	51	96	48	28	34	42	94
8	22	36	35	61	75	50	79	46	29	26	50	103
9	22	39	99	64	65	66	143	44	30	24	30	89
10	22	37	148	78	59	75	215	51	28	21	37	60
11	22	35	114	109	57	70	182	61	26	20	31	39
12	22	35	72	131	55	60	147	61	25	19	24	35
13	22	35	49	132	57	53	116	73	26	18	21	33
14	24	34	57	132	69	48	114	66	25	18	21	36
15	23	34	58	94	70	46	111	53	24	18	20	36
16	21	33	52	71	63	54	92	42	27	18	18	34
17	21	33	90	77	65	110	77	37	36	18	22	31
18	21	32	99	78	63	117	68	36	29	17	45	29
19	22	32	99	67	66	96	65	34	27	18	31	29
20	22	32	60	66	90	69	64	33	27	19	24	28
21	21	31	150	87	73	92	62	32	25	17	22	29
22	21	32	304	134	74	173	61	31	25	17	24	50
23	22	32	240	141	95	168	62	34	33	17	52	41
24	21	31	149	120	71	140	62	39	44	27	50	31
25	22	34	106	86	61	107	60	35	37	44	33	28
26	22	33	74	70	62	73	56	32	40	31	28	28
27	22	32	102	67	58	65	54	31	38	25	25	28
28	22	40	111	67	58	62	52	32	34	23	24	28
29	102	51	99	68	-----	62	51	31	43	21	42	45
30	428	44	88	64	-----	107	50	31	38	20	40	46
31	306	-----	74	60	-----	174	-----	31	-----	18	51	-----
TOTAL	1,478	1,271	2,779	2,747	1,793	2,583	2,917	1,363	1,020	744	968	1,519
MEAN	47.7	42.4	89.6	88.6	64.0	83.3	97.2	44.0	34.0	24.0	31.2	50.6
MAX	428	147	304	141	95	174	215	73	73	52	52	118
MIN	21	31	31	60	47	46	50	31	24	17	17	28
CFSM	1.37	1.21	2.57	2.54	1.83	2.39	2.79	1.26	.97	.69	.89	1.45
IN.	1.58	1.35	2.96	2.93	1.91	2.75	3.11	1.45	1.09	.79	1.03	1.62

CAL YR 1973 TOTAL 27,657 MEAN 75.8 MAX 428 MIN 18 CFSM 2.17 IN 29.48
WTR YR 1974 TOTAL 21,182 MEAN 58.0 MAX 428 MIN 17 CFSM 1.66 IN 22.58

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G.H.	DISCHARGE
10-30	1600	7.35	508
12-22	1045	6.60	320

METEDECONK RIVER BASIN

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 mi² (67.3 km²).

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

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

EXTREMES.--Current year: Maximum discharge, about 380 ft³/s (10.8 m³/s) Oct. 30; minimum daily, 9.8 ft³/s (0.28 m³/s) Oct. 26, 27.

Period of record: Maximum discharge, 412 ft³/s (11.7 m³/s) Nov. 8, 1972 (gage height, 5.87 ft or 1.789 m); minimum daily, 9.8 ft³/s (0.28 m³/s) Oct. 26, 27, 1974.

REMARKS.--Records fair except those from Jan. 25 to July 17 and for period of no gage-height record, which are poor. Occasional regulation from cranberry bogs and lakes upstream. Possible gate operation on Lake Carasaljo.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	140	49	96	67	37	131	61	38	44	26	55
2	45	100	47	102	66	78	130	56	48	42	26	71
3	44	60	44	90	66	106	129	56	102	39	26	77
4	44	47	42	103	65	93	112	57	100	35	28	120
5	33	43	40	100	62	88	68	57	39	35	40	132
6	13	41	41	90	59	47	67	57	35	50	38	98
7	13	40	43	76	65	16	64	56	32	57	45	38
8	16	40	51	69	78	25	66	55	31	46	47	76
9	22	42	146	72	89	94	88	53	33	26	41	102
10	26	40	103	80	86	109	135	55	32	26	43	90
11	55	39	101	100	83	90	149	65	31	24	41	53
12	42	38	80	130	71	24	141	77	29	23	33	28
13	15	38	45	140	58	24	107	108	31	22	28	28
14	15	37	46	130	58	46	53	76	35	21	27	29
15	16	37	52	110	59	66	46	37	10	20	27	28
16	18	37	66	100	60	67	72	37	11	22	27	28
17	20	37	90	78	64	74	88	42	22	21	34	30
18	35	37	121	82	66	83	82	92	44	20	44	30
19	44	36	87	78	70	83	79	74	83	19	50	28
20	40	35	59	74	73	96	76	31	61	22	42	28
21	36	35	102	88	90	115	74	31	21	19	34	30
22	38	35	400	110	108	123	56	31	21	19	32	35
23	32	35	280	220	102	102	11	34	25	19	55	36
24	36	35	200	150	95	111	22	35	30	30	56	34
25	28	35	120	120	90	107	46	35	40	54	50	32
26	9.8	35	78	74	68	95	88	35	46	31	40	32
27	9.8	35	100	74	30	80	79	35	48	31	34	28
28	23	37	112	73	30	42	54	36	47	29	32	30
29	150	39	100	73	-----	44	26	36	48	26	33	34
30	450	48	90	73	-----	82	42	36	46	26	39	33
31	250	-----	80	72	-----	135	-----	36	-----	28	45	-----
TOTAL	1,663.6	1,333	3,015	3,027	1,978	2,382	2,381	1,582	1,219	926	1,163	1,493
MEAN	53.7	44.4	97.3	97.6	70.6	76.8	79.4	51.0	40.6	29.9	37.5	49.8
MAX	450	140	400	220	108	135	149	108	102	57	56	132
MIN	9.8	35	40	69	30	16	11	31	10	19	26	28
CFSM	2.07	1.71	3.74	3.75	2.72	2.95	3.05	1.96	1.56	1.15	1.44	1.92
IN.	2.38	1.91	4.31	4.33	2.83	3.41	3.41	2.26	1.74	1.32	1.66	2.14

CAL YR 1973 TOTAL 25,777.6 MEAN 70.6 MAX 450 MIN 9.8 CFSM 2.72 IN 36.88
WTR YR 1974 TOTAL 22,162.6 MEAN 60.7 MAX 450 MIN 9.8 CFSM 2.33 IN 31.71

PEAK DISCHARGE (BASE, 260 CFS)

DATE	TIME	G.H.	DISCHARGE
10-30	UNK	UNK	About 380
12-22	UNK	UNK	About 280

NOTE.--No gage-height record Oct. 29 to Nov. 16 and Dec. 22 to Jan. 26.

TOMS RIVER BASIN

87

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 mi² (321 km²).

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 (2.469 m) above mean sea level.

AVERAGE DISCHARGE.--46 years, 214 ft³/s (6.060 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 855 ft³/s (24.2 m³/s) Dec. 23 (gage height, 8.37 ft or 2.551 m); minimum, 81 ft³/s (2.29 m³/s) July 23, 24 (gage height, 3.12 ft or 0.951 m).
Period of record: Maximum discharge, 2,000 ft³/s (56.6 m³/s) Sept. 23, 1938 (gage height, 12.50 ft or 3.810 m, from floodmark) from rating curve extended above 1,500 ft³/s (42 m³/s); minimum, 46 ft³/s (1.30 m³/s) many days in August and September 1966 (gage height, 2.70 ft or 0.823 m).

REMARKS.--Records excellent. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	745	165	343	247	229	403	190	155	157	89	132
2	135	570	156	333	238	231	479	181	182	150	84	136
3	126	430	147	342	228	247	471	178	218	135	85	144
4	121	322	143	359	219	253	424	173	226	125	90	194
5	117	252	140	347	209	243	381	186	225	117	102	223
6	112	220	149	335	204	224	359	203	201	134	112	242
7	112	191	154	322	216	213	349	201	172	153	124	266
8	107	198	151	300	231	203	332	196	162	142	153	287
9	102	192	200	286	231	220	373	194	159	124	152	294
10	102	183	252	291	237	238	430	199	149	110	149	301
11	102	171	286	315	235	250	524	219	141	103	158	266
12	101	163	328	357	225	261	515	235	132	98	164	214
13	102	157	297	385	219	250	462	253	129	96	158	180
14	102	153	247	391	224	226	416	244	125	97	145	161
15	99	150	227	373	231	207	385	243	121	97	137	159
16	96	146	234	338	237	207	368	224	126	92	131	155
17	95	143	246	310	240	251	339	199	140	87	125	145
18	94	141	248	297	233	265	308	199	144	86	143	137
19	94	138	238	294	229	300	277	196	138	87	185	131
20	98	134	236	284	243	304	260	191	126	88	194	125
21	100	134	325	284	234	311	251	173	118	90	187	124
22	99	136	447	333	242	349	239	162	120	90	172	126
23	99	135	803	353	261	410	243	165	143	82	160	132
24	98	134	677	368	255	490	243	173	166	91	180	131
25	98	137	530	354	251	440	256	177	175	122	183	121
26	99	136	444	326	240	368	251	170	174	132	169	113
27	100	133	395	298	230	310	220	165	170	131	154	115
28	100	137	371	276	228	272	210	157	160	128	140	112
29	187	150	382	268	-----	250	203	152	164	122	132	123
30	405	162	380	263	-----	277	197	152	161	111	131	143
31	601	-----	352	250	-----	338	-----	153	-----	97	131	-----
TOTAL	4,150	6,193	9,350	9,975	6,517	8,637	10,168	5,903	4,722	3,474	4,419	5,132
MEAN	134	206	302	322	233	279	339	190	157	112	143	171
MAX	601	745	803	391	261	490	524	253	226	157	194	301
MIN	94	133	140	250	204	203	197	152	118	82	84	112
CFSM	1.08	1.66	2.44	2.60	1.88	2.25	2.73	1.53	1.27	.90	1.15	1.38
IN.	1.25	1.86	2.81	2.99	1.96	2.59	3.05	1.77	1.42	1.04	1.33	1.54
CAL YR 1973	TOTAL	100,083	MEAN	274	MAX	803	MIN	94	CFSM	2.21	IN	30.02
WTR YR 1974	TOTAL	78,640	MEAN	215	MAX	803	MIN	82	CFSM	1.73	IN	23.59

OYSTER CREEK BASIN

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 mi² (19.24 km²).

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.--9 years, 28.3 ft³/s (0.801 m³/s), 51.72 in/yr (1,314 mm/yr).

EXTREMES.--Current year: Maximum discharge, 76 ft³/s (2.15 m³/s) Oct. 30 (gage height, 5.30 ft or 1.615 m); minimum, 19 ft³/s (0.54 m³/s) Aug. 2, Sept. 27 (gage height, 3.91 ft or 1.192 m).
Period of record: Maximum discharge, 232 ft³/s (6.57 m³/s) Dec. 26, 1969 (gage height, 6.18 ft or 1.884 m); minimum, 12 ft³/s (0.340 m³/s) Aug. 6, 7, 1965 (gage height, 3.46 ft or 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. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	32	24	40	27	29	42	26	28	26	22	24
2	28	28	24	36	28	28	34	25	36	24	22	24
3	28	27	24	32	29	27	31	32	46	24	23	25
4	26	26	24	37	29	27	32	35	34	23	24	31
5	26	26	26	35	27	26	33	30	29	22	26	28
6	25	26	29	31	27	26	32	28	26	26	25	26
7	25	25	27	29	33	26	30	28	26	26	32	33
8	25	25	25	29	33	25	28	27	26	24	38	32
9	25	29	42	32	31	31	44	26	25	23	32	28
10	25	29	46	38	29	32	47	27	25	26	37	26
11	25	27	33	45	28	29	36	28	24	30	31	24
12	25	26	28	48	28	27	32	28	24	25	27	24
13	25	25	27	37	28	26	30	30	24	24	25	23
14	25	25	29	35	32	25	30	28	23	23	24	23
15	30	25	28	31	30	25	28	27	23	22	24	23
16	34	24	27	32	28	28	26	26	24	22	23	22
17	30	24	36	32	29	41	26	26	24	22	24	22
18	30	24	34	30	29	33	25	29	24	22	28	22
19	28	24	28	30	28	25	28	25	23	22	26	23
20	26	24	28	30	30	27	25	26	23	21	24	22
21	25	24	58	32	28	36	25	26	23	21	23	24
22	24	24	56	36	28	54	25	25	24	21	23	28
23	24	24	37	32	29	37	28	30	27	21	25	26
24	24	24	32	30	27	32	28	35	28	25	25	24
25	24	24	30	31	28	29	28	31	27	35	24	23
26	24	24	30	30	29	28	27	28	27	29	23	21
27	24	24	32	29	28	28	26	28	26	27	23	22
28	24	25	31	29	32	27	26	29	27	26	23	22
29	53	25	29	31	-----	28	26	27	29	24	23	24
30	66	24	29	29	-----	36	26	30	26	24	23	24
31	44	-----	31	28	-----	46	-----	29	-----	23	24	-----
TOTAL	895	763	984	1,026	812	947	901	878	801	753	796	743
MEAN	28.9	25.4	31.7	33.1	29.0	30.5	30.0	28.3	26.7	24.3	25.7	24.8
MAX	66	32	58	48	33	54	47	35	46	35	38	33
MIN	24	24	24	28	27	25	25	25	23	21	22	21
CFSM	3.89	3.42	4.27	4.45	3.90	4.11	4.04	3.81	3.59	3.27	3.46	3.34
IN.	4.48	3.82	4.93	5.14	4.07	4.74	4.51	4.40	4.01	3.77	3.99	3.72

CAL YR 1973 TOTAL 12,842 MEAN 35.2 MAX 437 MIN 24 CFSM 4.74 IN 64.30
WTR YR 1974 TOTAL 10,299 MEAN 28.2 MAX 66 MIN 21 CFSM 3.80 IN 51.56

PEAK DISCHARGE (BASE, 75 CFS)

DATE	TIME	G.H.	DISCHARGE
10-30	0230	5.30	76

WESTECUNK CREEK BASIN

89

01409280 Westecunk Creek at Stafford Forge, N. J.

LOCATION.--Lat 39°40'00", long 74°19'12", Ocean County, 30 ft (9 m) downstream from dam, 0.2 mi (0.3 km) south of Stafford Forge, 1.2 mi (1.9 km) below log Swamp Branch, and 2 mi (3.2 km) west of Staffordville.

DRAINAGE AREA.--16.0 m² (41.4 km²).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969-73, at site 500 ft (150 m) downstream. October 1973 to September 1974.

GAGE.--Water-stage recorder and wooden control. Altitude of gage is 20 ft (6.1 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 94 ft³/s (2.66 m³/s) Dec. 22 (gage height, 3.08 ft or 0.939 m); no flow part of May 17.

REMARKS.--Records fair. Flow regulated at times by cranberry bogs directly upstream from station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	35	27	45	36	32	57	28	31	28	24	42
2	32	35	27	42	34	31	49	27	38	26	27	35
3	33	33	27	39	36	31	41	33	52	25	28	34
4	32	30	27	44	37	31	41	36	40	24	29	34
5	31	30	28	42	38	31	44	34	24	23	30	29
6	30	30	30	40	37	30	44	32	30	30	28	27
7	30	28	29	38	38	30	40	31	28	28	32	30
8	29	29	28	37	40	30	38	30	27	25	36	31
9	29	32	40	40	40	39	46	29	26	25	33	28
10	29	31	45	44	37	39	56	30	26	28	34	27
11	29	30	40	53	36	34	46	30	26	36	32	26
12	29	29	31	58	35	32	39	30	25	30	29	26
13	30	28	30	53	36	30	39	32	25	24	28	26
14	32	27	32	45	37	28	41	30	25	24	28	26
15	35	27	31	41	44	28	40	29	25	24	28	25
16	33	27	30	40	47	30	36	28	26	24	27	25
17	32	27	63	39	53	39	34	33	26	24	28	25
18	31	27	34	38	46	38	33	31	25	23	42	26
19	30	27	31	37	45	36	33	29	25	23	40	27
20	30	27	30	36	47	34	33	28	25	25	33	26
21	30	27	68	37	42	39	33	27	25	24	30	26
22	30	27	87	40	43	59	32	26	27	24	29	28
23	29	27	71	38	44	57	33	32	30	23	30	28
24	29	27	50	37	39	44	33	40	32	24	30	27
25	29	27	41	37	39	38	33	35	30	26	29	26
26	29	27	39	36	40	36	31	31	31	32	28	26
27	29	27	40	36	39	35	30	31	28	30	28	26
28	40	28	38	35	35	34	29	31	30	30	28	26
29	60	29	36	37	-----	33	30	30	33	29	32	27
30	44	28	38	36	-----	38	31	33	30	28	42	27
31	37	-----	38	35	-----	55	-----	32	-----	26	46	-----
TOTAL	1,004	863	1,206	1,255	1,120	1,121	1,145	958	871	815	968	842
MEAN	32.4	28.8	38.9	40.5	40.0	36.2	38.2	30.9	29.0	26.3	31.2	28.1
MAX	60	35	87	58	53	59	57	40	52	36	46	42
MIN	29	27	27	35	34	28	29	26	24	23	24	25
CFSM	2.03	1.80	2.43	2.53	2.50	2.26	2.39	1.93	1.81	1.64	1.95	1.76
IN.	2.33	2.01	2.80	2.92	2.60	2.61	2.66	2.23	2.03	1.89	2.25	1.96

CAL YR 1973 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1974 TOTAL 12,168 MEAN 33.3 MAX 87. MIN 23 CFSM 2.08 IN 28.29

PEAK DISCHARGE (BASE, 60 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	1730	3.08	94	2-22	1900	3.00	68
2-17	1115	2.97	60	4-10	1230	2.98	63

NOTE.--No gage-height record
Oct. 1-28, Nov. 16 to
Dec. 21 and Dec. 28 to
Jan. 17.

MULLICA RIVER BASIN

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 mi² (119.4 km²).

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.--17 years, 110 ft³/s (3.115 m³/s) 32.41 in/yr (823 mm/yr).

EXTREMES.--Current year: Maximum discharge, 489 ft³/s (13.8 m³/s) Dec. 24 (gage height, 3.78 ft or 1.152 m); minimum, 25 ft³/s (0.71 m³/s) Oct. 22-26 (gage height, 0.48 ft or 0.146 m).
Period of record: Maximum discharge, 1,190 ft³/s (33.7 m³/s) Aug. 27, 1958 (gage height, 5.37 ft or 1.637 m); minimum, 7.0 ft³/s (0.20 m³/s) Sept. 6-8, 1966 (gage height, 0.28 ft or 0.085 m).

REMARKS.--Records good. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	151	46	183	110	99	246	82	71	59	33	60
2	33	117	46	185	108	102	267	79	87	59	33	57
3	36	102	46	176	111	97	277	94	113	57	35	71
4	35	89	47	192	111	94	264	102	114	52	39	117
5	34	83	50	195	104	94	266	99	107	49	57	142
6	30	62	54	185	99	94	235	100	102	70	54	142
7	29	46	54	175	109	93	204	110	94	74	70	120
8	28	46	57	163	107	90	202	105	88	70	81	174
9	28	59	83	158	103	93	215	96	82	67	68	158
10	27	60	119	174	108	96	217	99	76	63	70	143
11	27	57	137	196	107	94	203	117	70	57	62	161
12	27	55	141	222	105	93	197	124	66	52	58	133
13	27	53	113	208	112	92	196	136	51	49	57	93
14	28	51	88	202	119	89	197	146	46	47	55	87
15	27	50	105	190	119	86	187	148	50	42	55	81
16	26	50	136	186	120	91	172	122	55	40	50	66
17	26	46	125	180	129	122	161	106	54	38	47	57
18	26	44	95	159	129	127	153	96	53	37	49	55
19	27	44	94	148	132	130	141	92	51	37	46	54
20	30	43	98	151	140	136	124	85	50	35	46	54
21	28	42	194	158	117	156	118	73	52	34	42	54
22	27	42	334	167	122	219	114	66	58	34	39	58
23	25	42	422	156	125	231	116	75	68	34	46	54
24	25	41	465	152	114	244	116	83	69	38	68	52
25	25	42	388	153	113	259	113	78	65	42	217	50
26	26	43	320	148	108	213	105	76	62	39	208	51
27	25	43	215	144	108	159	103	75	59	40	157	50
28	27	45	137	138	104	146	99	81	61	40	108	46
29	64	50	155	128	-----	134	93	79	64	37	115	51
30	116	47	179	115	-----	145	85	77	62	36	78	50
31	130	-----	165	111	-----	217	-----	73	-----	34	59	-----
TOTAL	1,103	1,745	4,708	5,198	3,193	4,135	5,186	2,974	2,100	1,462	2,202	2,541
MEAN	35.6	58.2	152	168	114	133	173	95.9	70.0	47.2	71.0	84.7
MAX	130	151	465	222	140	259	277	148	114	74	217	174
MIN	25	41	46	111	99	86	85	66	46	34	33	46
CFSM	.77	1.26	3.30	3.64	2.47	2.89	3.75	2.08	1.52	1.02	1.54	1.84
IN.	.89	1.41	3.80	4.19	2.58	3.34	4.18	2.40	1.69	1.18	1.78	2.05

CAL YR 1973 TOTAL 47,592 MEAN 130 MAX 582 MIN 25 CFSM 2.82 IN 38.40
WTR YR 1974 TOTAL 36,547 MEAN 100 MAX 465 MIN 25 CFSM 2.17 IN 29.49

MULLICA RIVER BASIN

91

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 mi² (182.6 km²).

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.--47 years, 126 ft³/s (3.568 m³/s), 24.27 in/yr (616 mm/yr).

EXTREMES.--Current year: Maximum daily discharge, 524 ft³/s (14.8 m³/s) Dec. 23; minimum daily, 45 ft³/s (1.27 m³/s) Aug. 2.

Period of record: Maximum daily discharge, 1,310 ft³/s (37.1 m³/s) Aug. 24, 1933; maximum gage height, 8.7 ft (2.65 m) Aug. 20, 1939, from floodmark; minimum daily discharge, 5.7 ft³/s (0.16 m³/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 m³).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	118	71	169	109	105	227	91	82	65	48	78
2	52	106	69	179	106	106	284	90	97	64	45	73
3	52	96	69	176	111	103	260	93	114	65	50	76
4	53	90	69	182	111	104	222	104	127	65	54	118
5	51	88	69	173	102	104	232	102	123	62	66	136
6	51	81	71	159	99	99	220	92	113	75	64	153
7	50	79	71	148	106	96	185	92	101	79	88	175
8	48	76	71	138	116	93	179	90	92	70	98	171
9	50	83	146	136	119	98	222	88	92	66	96	184
10	51	83	116	151	111	104	252	100	85	64	94	166
11	52	79	125	173	110	105	229	128	79	61	87	140
12	50	76	116	208	107	102	190	110	75	61	81	121
13	51	76	114	236	108	97	181	116	73	59	76	108
14	49	76	116	219	110	92	191	118	66	55	78	100
15	47	74	118	184	116	91	183	114	66	54	83	94
16	48	73	127	168	117	96	170	104	69	54	88	87
17	48	73	136	164	117	111	150	125	73	49	81	83
18	49	71	123	162	117	128	138	94	68	50	83	81
19	52	71	118	153	115	136	128	94	67	50	81	76
20	53	69	131	146	117	132	120	93	65	50	81	76
21	52	69	203	155	114	145	113	91	65	49	74	76
22	48	69	478	153	116	158	111	83	75	48	71	78
23	49	71	524	162	117	221	115	90	80	49	73	73
24	49	71	481	160	116	236	114	90	80	52	83	69
25	50	69	280	155	113	200	108	89	80	60	98	66
26	66	69	220	149	108	169	104	89	75	58	106	64
27	51	71	200	142	107	146	99	85	73	57	110	68
28	50	73	141	136	106	131	97	88	82	57	96	70
29	158	74	163	136	-----	124	95	87	74	51	83	73
30	125	73	157	131	-----	163	92	84	73	51	78	76
31	129	-----	150	121	-----	185	-----	84	-----	50	78	-----
TOTAL	1,837	2,347	5,043	5,024	3,121	3,980	5,011	2,998	2,484	1,800	2,472	3,009
MEAN	59.3	78.2	163	162	111	128	167	96.7	82.8	58.1	79.7	100
MAX	158	118	524	236	119	236	284	128	127	79	110	184
MIN	47	69	69	121	99	91	92	83	65	48	45	64

CAL YR 1973 TOTAL 50,407 MEAN 138 MAX 578 MIN 17
WTR YR 1974 TOTAL 39,126 MEAN 107 MAX 524 MIN 45

MULLICA RIVER BASIN

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 mi² (165.8 km²).

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.--44 years, 87.5 ft³/s (2.478 m³/s), 18.57 in/yr (472 mm/yr).

EXTREMES.--Current year: Maximum discharge, 252 ft³/s (7.14 m³/s) Apr. 11, but may have been more during the high water of Dec. 21 when some flow probably bypassed gage (gage height, 3.49 ft or 1.064 m); no flow part of day on May 29, 30.
Period of record: Maximum discharge, 1,390 ft³/s (39.4 m³/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 ft³/s (18.1 m³/s); practically no flow for several hours on Oct. 26, 1932, June 10, 1970, and May 29, 30, 1974, while pond was filling.

REMARKS.--Records good except those above 125 ft³/s (3.54 m³/s) during period Oct. 1 to Mar. 28, which are poor. Flow regulated by Harrisville Pond 200 ft (61 m) above station, capacity, about 30,000,000 gal (114,000 m³) and by ponds and cranberry bogs 5 to 10 mi (8 to 16 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	96	46	133	83	76	211	63	66	79	37	57
2	37	118	39	130	79	75	221	61	99	68	37	53
3	40	150	35	122	86	86	193	84	138	59	37	57
4	40	140	35	138	86	78	175	84	126	55	39	79
5	39	108	37	136	83	71	179	73	106	57	55	76
6	34	89	40	126	81	67	179	73	92	66	50	66
7	34	77	34	115	88	65	157	71	84	61	81	99
8	34	68	31	108	94	64	130	68	81	55	115	112
9	39	81	71	119	96	68	183	115	89	50	109	102
10	31	84	97	143	98	81	221	99	73	48	106	86
11	32	78	85	180	85	82	226	99	66	50	86	71
12	29	72	77	196	81	76	183	79	61	48	79	63
13	31	68	75	178	81	70	175	92	52	46	71	59
14	30	64	87	157	87	65	183	119	46	42	66	59
15	28	59	90	135	86	62	170	179	46	39	76	55
16	28	52	88	124	80	60	153	161	63	35	61	53
17	31	49	109	119	85	83	145	96	68	33	63	50
18	30	48	109	111	82	111	130	84	63	33	112	50
19	31	49	106	105	78	103	115	81	57	35	92	48
20	38	50	97	99	81	89	99	73	48	33	79	46
21	40	50	195	101	79	115	89	66	50	32	73	46
22	35	51	220	114	79	169	86	61	59	32	68	68
23	39	50	184	115	85	157	89	81	81	32	66	59
24	50	49	151	108	80	136	84	119	102	40	61	48
25	44	49	131	109	78	131	81	106	92	66	57	48
26	36	52	120	104	82	113	79	86	86	57	53	44
27	32	53	128	99	78	102	76	81	79	50	48	48
28	38	54	117	95	75	98	76	89	73	46	53	46
29	90	55	107	94	-----	102	71	42	79	42	61	44
30	159	52	102	90	-----	119	68	39	81	40	57	40
31	120	-----	103	89	-----	175	-----	68	-----	39	55	-----
TOTAL	1,360	2,115	2,946	3,792	2,336	2,949	4,227	2,692	2,306	1,468	2,103	1,832
MEAN	43.9	70.5	95.0	122	83.4	95.1	141	86.8	76.9	47.4	67.8	61.1
MAX	159	150	220	196	98	175	226	179	138	79	115	112
MIN	28	48	31	89	75	60	68	39	46	32	37	40
CFSM	.69	1.10	1.48	1.91	1.30	1.49	2.20	1.36	1.20	.74	1.06	.95
IN.	.79	1.23	1.71	2.20	1.36	1.71	2.46	1.56	1.34	.85	1.22	1.06

CAL YR 1973 TOTAL 40,002 MEAN 110 MAX 396 MIN 28 CFSM 1.72 IN 23.25
WTR YR 1974 TOTAL 30,126 MEAN 82.5 MAX 226 MIN 28 CFSM 1.29 IN 17.51

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 mi² (43.0 km²).

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.--37 years (1924-28, 1933-38, 1946-74), 27.5 ft³/s (0.779 m), adjusted for diversion.

EXTREMES.--Current year: Maximum daily discharge, 92 ft³/s (2.61 m³/s) Dec. 21; minimum daily, 4.8 ft³/s (0.14 m³/s) July 22.

Period of record: Maximum daily discharge, 295 ft³/s (8.35 m³/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 (927,500 m³), and by Kuehnle Reservoir, capacity, 250,000,000 gal (946,200 m³), 1.5 mi (2.4 km) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	24	15	26	9.5	7.6	41	22	15	12	5.4	6.4
2	26	16	9.6	23	9.4	7.6	32	9.6	29	8.4	5.2	6.4
3	30	18	11	27	9.0	8.2	24	33	39	6.9	5.2	6.4
4	21	14	13	32	7.4	7.9	33	32	24	6.4	6.3	13
5	20	16	12	21	6.5	7.4	32	18	20	6.4	6.0	9.6
6	16	18	27	17	8.0	7.0	29	19	14	6.9	7.9	8.4
7	16	14	15	15	9.5	7.2	20	21	14	9.6	6.2	20
8	16	14	9.8	14	8.4	6.8	22	18	16	8.4	7.6	18
9	16	22	39	13	8.1	6.7	44	20	14	7.3	6.6	13
10	19	20	35	19	7.8	8.0	30	24	13	6.9	6.3	9.6
11	18	14	22	30	7.8	15	24	21	13	6.6	35	8.4
12	17	14	15	35	7.8	9.0	22	20	9.6	6.6	15	7.3
13	16	14	15	22	9.0	6.6	27	20	9.6	6.4	12	7.8
14	18	14	21	17	11	6.6	27	14	10	6.2	9.0	9.6
15	15	13	16	14	8.4	8.4	29	16	9.6	5.9	8.0	7.3
16	18	18	15	13	8.2	16	20	16	11	6.0	7.6	6.9
17	15	13	17	14	8.2	41	18	18	12	6.4	7.4	6.4
18	15	9.6	15	12	8.1	24	21	20	10	6.0	9.0	6.4
19	16	13	15	13	11	18	19	18	8.4	5.6	13	6.4
20	16	11	14	15	16	16	19	15	8.4	8.0	8.4	6.4
21	16	12	92	17	11	27	18	15	8.4	7.0	7.0	7.8
22	16	14	78	20	8.2	37	18	18	10	4.8	6.6	6.9
23	16	13	50	16	8.0	24	21	14	14	4.9	7.0	8.4
24	16	13	34	12	8.0	27	20	14	14	5.4	13	6.4
25	17	14	20	11	8.0	17	14	14	13	11	6.6	6.4
26	16	14	28	12	7.9	16	20	9.6	12	9.0	6.4	6.4
27	15	14	49	11	7.8	18	14	13	10	6.0	6.4	6.4
28	13	14	31	11	7.6	16	16	15	13	5.2	6.4	6.4
29	40	18	27	10	-----	20	16	14	14	5.0	6.4	6.4
30	50	11	23	9.8	-----	34	15	14	12	4.9	6.4	9.6
31	29	-----	21	9.6	-----	73	-----	14	-----	7.0	6.4	-----
TOTAL	611	446.6	804.4	531.4	245.6	544.0	705	549.2	420.0	213.1	265.7	254.8
MEAN	19.7	14.9	25.9	17.1	8.77	17.5	23.5	17.7	14.0	6.87	8.57	8.49
MAX	50	24	92	35	16	73	44	33	39	12	35	20
MIN	13	9.6	9.6	9.6	6.5	6.6	14	9.6	8.4	4.8	5.2	6.4
(†)	1.02	1.39	4.46	7.01	5.67	4.78	5.46	3.29	4.43	9.59	8.34	4.76

CAL YR 1973 TOTAL 11,150.0 MEAN 30.5 MAX 133 MIN 9.6 † 2.34
WTR YR 1974 TOTAL 5,590.8 MEAN 15.3 MAX 92 MIN 4.8 † 5.02

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

NOTE.--No gage-height record Dec. 4 to Mar. 14 and July 11 to Aug. 25.

GREAT EGG HARBOR RIVER BASIN

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 mi² (4.25 km²).

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, 59 ft³/s (1.67 m³/s) Aug. 22 (gage height, 4.07 ft or 1.241 m) from rating curve extended above 40 ft³/s (1.13 m³/s); negligible or no flow Nov. 28 to Dec. 4.
Period of record: Maximum discharge, 59 ft³/s (1.67 m³/s) Aug. 22, 1974 (gage height, 4.07 ft or 1.241 m) rating curve extended above 40 ft³/s (1.13 m³/s); negligible or no flow Nov. 28 to Dec. 4, 1973.

REMARKS.--Records fair. Possible regulation from unknown sources 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.2	0	3.7	1.0	1.3	5.7	.98	.86	1.2	.33	.37
2	1.4	.63	0	3.3	1.2	1.2	3.8	.92	2.6	.44	.51	.40
3	.98	.80	.75	2.6	1.3	1.1	3.1	3.4	2.4	.40	.57	2.4
4	1.0	.92	.47	3.3	1.2	1.4	4.7	2.3	1.3	.37	.75	3.0
5	.98	1.7	.02	2.0	.92	1.4	4.0	1.6	.92	.29	2.7	.69
6	.92	1.5	.01	1.7	.92	.75	3.1	2.2	.80	11	.51	.63
7	.98	1.1	0	1.5	2.0	.75	2.4	2.1	.75	1.7	2.0	4.2
8	1.2	.92	.01	1.3	1.5	.75	2.6	1.5	.75	1.1	.80	1.1
9	.80	.98	4.3	2.1	1.4	1.2	7.5	1.7	.57	.63	.69	.92
10	.86	.44	1.2	3.4	1.2	1.2	4.1	2.7	.86	.51	.69	.63
11	.92	.57	.57	5.3	1.2	1.2	2.8	2.0	.44	.44	.40	.57
12	.92	1.2	.37	4.8	2.0	.80	2.4	3.8	.47	.40	.51	.51
13	.69	1.4	.57	2.7	2.3	.75	4.0	4.3	.47	.40	.29	.47
14	.47	1.3	1.6	2.2	1.9	.75	3.6	2.7	.63	.37	.29	.69
15	1.1	.80	.51	2.0	1.5	.63	3.1	1.7	.40	.57	.29	.51
16	.86	.63	.57	2.0	1.5	3.5	2.2	1.4	.44	.37	.29	.92
17	1.1	.57	1.4	2.1	1.7	3.8	2.0	1.2	.51	.37	.33	.40
18	1.2	.80	.44	1.7	1.7	2.0	1.7	1.2	.40	.37	.33	.40
19	.63	1.2	.29	1.7	1.2	2.0	1.7	.98	.37	.37	.51	.40
20	.57	.75	2.2	1.6	1.3	1.3	1.7	1.0	.33	.37	.26	.40
21	.80	.75	23	3.3	1.0	9.9	1.7	.75	.57	.33	.22	.57
22	1.7	.75	6.0	2.4	1.2	5.7	1.9	.75	1.7	.51	11	.75
23	.98	.75	2.7	1.9	1.1	2.9	2.4	3.0	5.3	.33	3.7	.69
24	.92	.69	1.9	1.7	.92	2.2	2.0	3.2	1.5	.47	.98	.40
25	1.1	.80	1.5	1.6	1.4	1.9	1.6	2.7	.80	.47	.57	.40
26	.92	.98	2.4	1.5	1.2	1.5	1.5	1.5	.69	.40	.86	.40
27	.69	.44	2.9	1.9	.98	1.4	1.4	1.2	.57	.40	.40	.40
28	.57	.08	2.0	1.8	1.0	1.3	1.4	1.5	.92	.40	.51	.80
29	3.8	0	1.6	1.2	-----	1.5	1.5	.92	.80	.37	.40	1.5
30	3.6	0	1.5	1.2	-----	7.8	.98	.86	.57	.63	.44	.98
31	2.5	-----	2.1	1.2	-----	14	-----	.80	-----	.37	.40	-----
TOTAL	36.16	24.65	62.88	70.7	37.74	77.88	82.58	56.86	29.69	26.35	32.53	26.50
MEAN	1.17	.82	2.03	2.28	1.35	2.51	2.75	1.83	.99	.85	1.05	.88
MAX	3.8	1.7	23	5.3	2.3	14	7.5	4.3	5.3	11	11	4.2
MIN	.47	0	0	1.2	.92	.63	.98	.75	.33	.29	.22	.37

CAL YR 1973 TOTAL 883.26 MEAN 2.42 MAX 40 MIN 0
WTR YR 1974 TOTAL 564.52 MEAN 1.55 MAX 23 MIN 0

PEAK DISCHARGE (BASE, 30 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0945	3.60	49	7-06	0330	3.74	53
3-21	1400	3.11	34	8-22	1530	4.07	59
3-30	2215	2.97	30				

GREAT EGG HARBOR RIVER BASIN

95

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 mi² (20.05 km²).

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

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

EXTREMES.--Current year: Maximum discharge, 128 ft³/s (3.62 m³/s) Dec. 22 (gage height, 4.24 ft or 1.292 m); minimum, 4.8 ft³/s (0.13 m³/s) Aug. 21, 22 (gage height, 1.88 ft or 0.573 m).
Period of record: Maximum discharge, 128 ft³/s (3.62 m³/s) Dec. 22, 1973 (gage height, 4.24 ft or 1.292 m); maximum gage height, 4.41 ft (1.344 m) Feb. 3, 1973; minimum discharge, 4.3 ft³/s (0.12 m³/s) Sept. 3, 1973 (gage height, 1.96 ft or 0.597 m).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	13	8.4	18	9.9	11	55	10	9.4	7.3	5.2	6.0
2	6.2	11	7.8	17	9.8	11	24	8.7	11	6.9	5.4	5.8
3	7.6	9.5	7.3	14	11	11	17	12	14	6.5	6.0	6.6
4	8.0	8.8	7.3	16	10	10	17	14	11	6.2	5.8	15
5	7.2	8.7	7.6	15	9.6	10	19	12	9.8	6.0	9.9	11
6	6.8	8.7	8.5	13	9.1	9.7	16	11	8.8	18	7.2	8.7
7	6.4	8.2	7.9	12	11	9.8	14	12	7.9	21	9.3	13
8	6.0	8.1	7.5	12	12	9.6	13	11	8.2	9.9	9.6	14
9	6.2	9.5	14	12	11	11	22	10	7.8	7.9	8.4	9.6
10	6.2	9.2	25	15	10	12	23	12	7.2	7.0	8.7	8.2
11	6.2	8.5	16	19	10	11	16	12	6.6	6.6	6.9	7.5
12	6.2	8.1	12	24	9.9	10	21	12	6.5	6.3	6.1	7.0
13	6.1	7.9	11	17	11	9.8	21	18	6.3	6.6	5.8	6.8
14	6.1	7.9	14	13	12	9.6	25	14	6.0	5.8	5.8	6.9
15	6.0	7.8	13	13	13	9.5	25	12	5.8	5.8	5.6	6.8
16	6.1	7.8	11	13	11	11	20	11	6.0	5.7	5.4	6.5
17	6.1	7.6	12	13	12	23	16	9.9	6.2	5.5	5.2	6.2
18	6.2	7.5	11	12	11	16	14	9.8	6.0	5.4	5.2	6.1
19	6.2	7.5	10	12	11	13	13	9.3	5.7	5.4	5.1	5.8
20	6.2	7.5	10	12	11	12	12	8.4	5.7	5.5	5.0	5.8
21	6.1	7.5	66	12	10	16	11	7.8	5.8	5.4	4.9	5.8
22	6.1	7.5	99	14	10	40	11	7.5	6.9	5.4	10	6.3
23	6.1	7.3	48	13	11	23	13	9.4	13	5.4	22	6.0
24	6.1	7.3	20	12	10	15	16	12	11	5.5	13	5.7
25	6.1	7.3	15	12	10	13	16	14	8.5	6.0	8.8	5.7
26	6.2	7.6	13	11	11	12	13	12	7.8	5.6	7.2	5.7
27	6.2	7.5	16	11	10	11	12	10	7.3	5.5	6.6	5.6
28	6.1	8.1	15	11	10	11	11	10	7.6	5.4	6.5	5.7
29	14	9.8	13	11	-----	11	10	9.7	8.2	5.5	6.3	7.9
30	24	9.2	13	11	-----	15	10	9.4	7.3	5.5	6.0	6.9
31	18	-----	12	10	-----	48	-----	9.2	-----	5.5	6.0	-----
TOTAL	233.0	251.9	551.3	420	297.3	445.0	526	340.1	239.3	216.0	228.9	224.6
MEAN	7.52	8.40	17.8	13.5	10.6	14.4	17.5	11.0	7.98	6.97	7.38	7.49
MAX	24	13	99	24	13	48	55	18	14	21	22	15
MIN	6.0	7.3	7.3	10	9.1	9.5	10	7.5	5.7	5.4	4.9	5.6
CFSM	.97	1.09	2.30	1.74	1.37	1.86	2.26	1.42	1.03	.90	.95	.97
IN.	1.12	1.21	2.65	2.02	1.43	2.14	2.53	1.63	1.15	1.04	1.10	1.08

CAL YR 1973 TOTAL 5,939.8 MEAN 16.3 MAX 101 MIN 4.8 CFSM 2.11 IN 28.55

WTR YR 1974 TOTAL 3,973.4 MEAN 10.9 MAX 99 MIN 4.9 CFSM 1.41 IN 19.10

PEAK DISCHARGE (BASE, 60 CFS)

DATE	TIME	G.H.	DISCHARGE
12-22	0145	4.24	128
3-31	2245	3.66	64

GREAT EGG HARBOR RIVER BASIN

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 mi² (96.6 km²).

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, 368 ft³/s (10.4 m³/s) Dec. 22 (gage height, 5.96 ft or 1.817 m); minimum, 20 ft³/s (0.57 m³/s) Aug. 2 (gage height, 2.91 ft or 0.890 m).
Period of record: Maximum discharge 407 ft³/s (11.5 m³/s) Feb. 4, 1973 (gage height, 6.09 ft or 1.856 m); minimum, 19 ft³/s (0.54 m³/s) Sept. 1, 2, 1972 (gage height, 2.87 ft or 0.875 m).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	90	41	89	53	54	211	44	44	41	21	37
2	30	80	40	95	51	56	190	43	49	39	21	34
3	44	65	38	87	53	55	141	54	67	35	27	37
4	44	53	37	91	52	53	114	68	65	32	26	84
5	42	48	37	89	50	50	111	63	57	30	43	74
6	39	47	40	82	48	48	100	58	48	72	40	61
7	34	45	39	74	50	47	89	60	43	90	47	82
8	32	43	38	69	57	46	78	57	42	65	49	90
9	31	47	55	68	58	50	96	53	41	47	47	76
10	30	47	92	77	57	55	116	59	40	39	53	65
11	30	45	91	94	54	53	104	62	37	35	44	51
12	29	43	80	120	51	49	90	63	36	32	39	43
13	29	42	66	105	51	47	80	87	35	31	34	41
14	29	41	66	93	59	45	88	87	34	29	32	39
15	28	41	69	82	64	44	85	76	32	28	30	37
16	28	41	62	75	60	47	77	63	32	28	28	36
17	28	39	60	73	61	82	67	56	33	26	27	34
18	28	38	57	72	60	88	61	49	32	25	27	32
19	29	38	56	68	57	79	58	47	31	25	26	31
20	28	37	56	65	57	68	57	44	29	24	26	31
21	28	38	193	66	56	74	55	42	30	23	24	31
22	28	41	363	80	53	142	53	41	34	23	52	31
23	28	38	322	79	55	143	57	43	63	23	187	30
24	28	37	223	74	52	116	60	55	72	23	113	29
25	28	35	148	70	51	90	57	67	56	27	74	28
26	28	37	100	64	52	71	53	62	49	27	53	28
27	28	37	91	61	51	62	49	53	44	26	44	27
28	29	38	91	61	51	57	48	49	43	24	40	29
29	53	42	85	61	-----	55	46	47	45	24	37	32
30	97	42	79	58	-----	67	45	46	43	23	36	34
31	97	-----	73	55	-----	165	-----	44	-----	23	36	-----
TOTAL	1,113	1,355	2,888	2,397	1,524	2,158	2,536	1,742	1,306	1,039	1,383	1,314
MEAN	35.9	45.2	93.2	77.3	54.4	69.6	84.5	56.2	43.5	33.5	44.6	43.8
MAX	97	90	363	120	64	165	211	87	72	90	187	90
MIN	28	35	37	55	48	44	45	41	29	23	21	27
CFSM	.96	1.21	2.50	2.07	1.46	1.87	2.27	1.51	1.17	.90	1.20	1.17
IN.	1.11	1.35	2.88	2.39	1.52	2.15	2.53	1.74	1.30	1.04	1.38	1.31

CAL YR 1973 TOTAL 26,391 MEAN 72.3 MAX 383 MIN 21 CFSM 1.94 IN 26.32
WTR YR 1974 TOTAL 20,755 MEAN 56.9 MAX 363 MIN 21 CFSM 1.53 IN 20.70

PEAK DISCHARGE (BASE, 250 CFS)

DATE TIME G.H. DISCHARGE
12-22 0045 5.96 368

97

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.

PERIOD OF RECORD.--September 1925 to current year. Prior to October 1947, published as "Great Egg River at Folsom".

AVERAGE DISCHARGE.--49 years, 86.0 ft³/s (2.436 m³/s) 20.74 in/yr (527 mm/yr).

EXTREMES.--Current year: Maximum discharge, 381 ft³/s (10.8 m³/s) Dec. 23 (gage height, 5.68 ft or 1.731 m); minimum, 35 ft³/s (0.991 m³/s) Aug. 1, 2 (gage height, 3.60 ft or 1.097 m).
Period of record: Maximum discharge, 1,440 ft³/s (40.8 m³/s) Sept. 3, 1940 (gage height, 9.09 ft or 2.771 m); minimum, 15 ft³/s (0.42 m³/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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	115	56	131	88	81	248	75	73	62	36	61
2	44	110	55	139	85	81	275	72	76	59	36	58
3	54	102	54	151	85	83	250	76	95	55	43	56
4	64	90	51	151	85	85	217	93	105	52	45	88
5	58	73	51	149	83	81	204	105	104	49	56	127
6	55	67	54	146	80	80	197	104	93	64	64	131
7	51	62	54	134	78	76	177	97	78	90	67	121
8	48	59	52	124	81	75	155	95	73	115	80	139
9	45	62	64	117	81	75	149	92	72	102	76	149
10	44	65	85	119	81	80	166	90	68	68	78	127
11	44	64	102	136	81	83	185	93	64	56	78	104
12	43	61	117	170	81	81	172	95	61	51	65	83
13	43	59	110	187	81	78	156	98	59	48	56	70
14	43	58	102	175	85	73	143	114	58	47	52	65
15	42	56	95	160	92	68	141	127	56	44	49	65
16	40	55	95	139	97	70	139	117	55	43	47	61
17	40	54	88	126	98	83	127	87	55	43	44	58
18	40	52	85	117	97	104	114	87	55	40	44	55
19	40	51	85	114	95	124	104	85	54	40	43	52
20	40	51	83	109	92	119	98	78	51	39	42	51
21	40	51	119	105	92	117	97	73	49	38	40	49
22	40	52	258	107	90	141	93	68	54	36	39	51
23	39	52	374	117	88	192	92	72	61	36	81	51
24	40	51	342	122	88	200	95	88	85	36	192	49
25	40	51	279	119	85	175	98	89	94	40	173	47
26	39	49	212	112	81	148	93	98	88	42	124	47
27	39	49	177	107	81	122	88	94	75	43	85	45
28	39	51	153	102	81	104	83	87	67	48	65	44
29	56	55	143	98	-----	95	80	81	68	42	65	47
30	83	58	136	97	-----	98	78	78	67	39	58	52
31	98	-----	127	93	-----	149	-----	75	-----	38	61	-----
TOTAL	1,478	1,885	3,858	3,973	2,412	3,221	4,314	2,783	2,113	1,605	2,084	2,203
MEAN	47.7	62.8	124	128	86.1	104	144	89.8	70.4	51.8	67.2	73.4
MAX	98	115	374	187	98	200	275	127	105	115	192	149
MIN	39	49	51	93	78	68	78	68	49	36	36	44
CFSM	.85	1.12	2.20	2.27	1.53	1.85	2.56	1.60	1.25	.92	1.19	1.30
IN.	.98	1.25	2.55	2.63	1.59	2.13	2.85	1.84	1.40	1.06	1.38	1.46
CAL YR 1973	TOTAL	40,510	MEAN	111	MAX	418	MIN	37	CFSM	1.97	IN	26.77
WTR YR 1974	TOTAL	31,929	MEAN	87.5	MAX	374	MIN	36	CFSM	1.55	IN	21.10

TUCKAHOE RIVER BASIN

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 mi² (79.8 km²).

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, 98 ft³/s (2.78 m³/s) Dec. 22; maximum elevation, 4.68 ft
(1.426 m) Dec. 9; minimum daily discharge, 12 ft³/s (0.34 m³/s) Oct. 17, July 23, 31, Aug. 1-3.
Period of record: Maximum discharge, 315 ft³/s (8.92 m³/s) Aug. 28, 1971 (elevation, 5.83 ft or
1.777 m); minimum daily, 9.7 ft³/s (0.27 m³/s) Sept. 13, 1973.

REMARKS.--Records poor. Occasional regulation by ponds above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	32	17	50	28	29	98	24	28	21	12	34
2	19	27	16	49	26	29	78	23	50	21	12	44
3	22	24	15	36	28	29	64	56	85	21	12	45
4	20	22	16	48	29	28	57	74	75	19	13	56
5	19	20	18	49	25	26	57	61	56	18	17	62
6	17	19	18	37	24	25	52	50	45	19	16	44
7	16	18	18	34	30	31	43	45	38	24	15	61
8	17	17	18	29	44	31	37	37	41	21	58	78
9	18	20	55	44	44	30	64	33	36	19	54	63
10	17	19	40	65	30	28	73	36	31	18	51	44
11	20	18	21	80	29	25	57	37	28	18	41	36
12	17	18	16	81	28	27	45	45	24	17	28	32
13	15	18	15	65	29	26	44	40	24	17	22	29
14	14	17	26	49	43	27	57	35	24	16	20	27
15	13	17	20	46	43	24	49	35	23	15	20	26
16	13	17	19	45	33	24	38	32	24	14	18	24
17	12	16	32	41	48	55	33	31	24	14	17	22
18	13	16	23	35	40	49	30	36	22	13	16	22
19	17	15	18	31	31	42	30	45	20	14	15	22
20	16	16	24	30	31	39	30	41	20	13	14	22
21	15	17	69	33	30	49	27	35	20	13	14	21
22	15	16	98	35	30	79	24	32	21	13	14	21
23	14	15	71	30	29	73	30	33	26	12	22	20
24	13	15	47	30	28	63	36	38	26	13	22	20
25	15	15	36	31	27	53	36	38	24	14	18	19
26	23	15	31	36	28	47	33	33	23	14	16	19
27	25	16	29	33	29	43	30	30	26	14	15	19
28	27	17	28	30	29	41	27	32	23	14	22	18
29	30	18	24	37	-----	43	27	30	23	14	62	21
30	40	18	26	33	-----	70	26	30	22	13	79	20
31	35	-----	29	30	-----	96	-----	28	-----	12	50	-----
TOTAL	587	548	933	1,302	893	1,281	1,332	1,175	952	498	805	991
MEAN	18.9	18.3	30.1	42.0	31.9	41.3	44.4	37.9	31.7	16.1	26.0	33.0
MAX	40	32	98	81	48	96	98	74	85	24	79	78
MIN	12	15	15	29	24	24	24	23	20	12	12	18
CFSM	.61	.59	.98	1.36	1.04	1.34	1.44	1.23	1.03	.52	.84	1.07
IN.	.71	.66	1.13	1.57	1.08	1.55	1.61	1.42	1.15	.60	.97	1.20

CAL YR 1973 TOTAL 18,365.6 MEAN 50.3 MAX 200 MIN 9.7 CFSM 1.63 IN 22.18
WTR YR 1974 TOTAL 11,297.0 MEAN 31.0 MAX 98 MIN 12 CFSM 1.01 IN 13.64

MAURICE RIVER BASIN

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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 mi² (293 km²). ,

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 (14.307 m) above mean sea level.

AVERAGE DISCHARGE.--42 years, 167 ft³/s (4.729 m³/s) 20.07 in/yr (510 mm/yr).

EXTREMES.--Current year: Maximum discharge, 379 ft³/s (10.7 m³/s) Dec. 23 (gage height, 3.49 ft or 1.064 m); minimum, 49 ft³/s (1.39 m³/s) July 16, 21 (gage height, 2.44 ft or 0.744 m).

Period of record: Maximum discharge, 7,360 ft³/s (208 m³/s) Sept. 2, 1940 (gage height, 8.72 ft or 2.658 m) from rating curve extended above 3,000 ft³/s (85 m³/s); minimum daily, 23 ft³/s (0.65 m³/s) Sept. 8, 1964, July 2, Sept. 7, 11-13, 1966.

REMARKS.--Records good. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	139	87	225	165	150	283	161	126	103	58	97
2	81	127	84	225	160	155	301	156	143	98	60	95
3	107	116	82	219	155	165	312	176	170	92	85	98
4	109	107	81	229	150	165	310	191	168	87	77	165
5	105	101	81	230	145	160	317	194	166	91	102	167
6	98	100	84	221	150	150	307	195	151	158	94	172
7	94	95	83	211	150	140	284	197	135	147	112	206
8	86	91	79	200	155	140	266	184	128	137	126	205
9	80	99	126	199	155	150	278	171	121	129	137	188
10	76	100	191	210	155	160	281	175	119	118	151	176
11	72	96	190	234	150	140	276	178	111	107	119	160
12	70	96	176	257	150	145	272	178	108	92	99	136
13	70	96	160	250	150	142	267	190	102	79	86	121
14	67	93	167	244	160	137	270	191	91	72	80	118
15	66	90	161	235	170	134	262	193	89	55	77	112
16	65	89	154	224	180	140	252	185	90	52	73	105
17	66	83	159	220	185	180	241	175	91	60	69	100
18	67	80	152	204	180	185	230	167	91	60	67	96
19	67	80	139	198	175	189	220	165	91	67	64	93
20	66	80	136	190	175	191	211	151	89	64	62	90
21	65	78	252	200	170	208	202	140	93	50	60	88
22	65	78	341	205	170	260	192	127	100	55	64	91
23	64	78	366	215	165	263	196	104	106	55	135	87
24	65	78	377	220	155	263	198	137	113	57	222	84
25	65	77	343	210	155	258	192	144	105	69	312	83
26	65	78	299	205	155	243	186	147	103	76	247	82
27	63	78	284	195	155	225	179	148	102	58	187	66
28	65	81	246	190	150	207	172	147	101	72	145	65
29	94	91	214	180	-----	193	169	139	105	54	113	78
30	125	89	207	175	-----	207	165	134	103	60	98	85
31	131	-----	205	170	-----	254	-----	128	-----	60	101	-----
TOTAL	2,460	2,764	5,706	6,590	4,490	5,699	7,291	5,068	3,411	2,534	3,482	3,509
MEAN	79.4	92.1	184	213	160	184	243	163	114	81.7	112	117
MAX	131	139	377	257	185	263	317	197	170	158	312	206
MIN	63	77	79	170	145	134	165	104	89	50	58	65
CFSM	.70	.82	1.63	1.89	1.42	1.63	2.15	1.44	1.01	.72	.99	1.04
IN.	.81	.91	1.88	2.17	1.48	1.88	2.40	1.67	1.12	.83	1.15	1.16

CAL YR 1973 TOTAL 77,247 MEAN 212 MAX 768 MIN 49 CFSM 1.88 IN 25.43
WTR YR 1974 TOTAL 53,004 MEAN 145 MAX 377 MIN 50 CFSM 1.28 IN 17.45

PEAK DISCHARGE (BASE, 380 CFS)

NOTE.--No gage-height record
Jan. 16 to Mar. 11.

DATE TIME G.H. DISCHARGE
12-23 2200 3.49 379

DELAWARE RIVER BASIN

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 mi² (7,967 km²).

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 (October 1904 to June 20, 1914 operated by U.S. Weather Bureau. June 20, 1914 to Aug. 13 1928, nonrecording gages at highway bridge 250 ft (76 m) upstream at present datum.

EXTREMES.--Current year: Maximum discharge, 68,800 ft³/s (1,950 m³/s) Dec. 21 (gage height, 13.07 ft (3.984 m)), minimum, 830 ft³/s (23.5 m³/s) Oct 12 (gage height, 1.80 ft (0.549 m)), minimum daily, 1,070 ft³/s (30.3 m³/s) Aug. 9.

Period of record: Maximum discharge, 233,000 ft³/s (6,600 m³/s) Aug. 19, 1955 (gage height 23.91 ft (7.288 m), from floodmarks in gage house), from rating curve extended above 89,000 ft³/s (2,520 m³/s) on basis of slope-area measurement of peak flow; minimum observed, 175 ft³/s (4.96 m³/s) Sept. 23, 1908 (gage height, 0.6 ft (0.18 m)).

Maximum discharge previously known, 205,000 ft³/s (5,810 m³/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 ft³/s (1,980 m³/s) by velocity-area studies; maximum stage known, 25.5 ft (7.77 m) Mar. 8, 1904 (ice jam).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi² (961 km²) of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² (1,176 km²) 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 for the current year are published in Part 2 of WRD-NY 1974.

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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,450	2,130	4,480	11,800	13,300	6,470	8,650	4,320	4,190	2,660	3,700	2,850
2	1,600	1,830	3,790	10,800	11,400	6,340	10,300	5,150	6,910	3,080	2,770	5,810
3	1,870	1,740	3,400	9,530	9,710	5,920	12,300	4,570	5,070	2,590	2,360	7,410
4	1,680	1,720	3,040	8,630	8,800	5,860	15,900	5,020	4,210	2,690	1,950	10,100
5	3,340	1,530	3,290	7,100	8,130	7,850	18,700	4,790	4,200	2,690	1,890	10,100
6	3,010	1,310	8,090	6,090	6,830	12,400	22,100	4,410	3,680	2,120	1,890	6,800
7	1,580	1,560	9,710	6,120	6,000	12,100	18,500	5,040	3,430	1,650	1,580	6,260
8	1,780	1,850	7,100	5,800	5,800	11,700	14,800	5,260	3,030	1,920	1,350	6,090
9	2,420	1,960	6,940	5,020	5,400	11,700	15,200	4,500	2,240	2,840	1,070	5,430
10	2,290	2,040	20,200	4,900	4,900	10,600	15,300	4,630	2,520	2,620	1,180	4,540
11	1,720	2,070	14,900	5,000	4,300	9,760	13,100	5,150	2,930	1,670	1,430	3,630
12	1,360	2,050	10,400	5,400	4,500	8,400	12,700	4,730	2,580	1,260	1,580	3,300
13	2,330	2,250	8,090	4,900	4,400	7,560	12,600	19,400	1,920	1,850	1,710	3,290
14	2,290	2,310	7,850	4,400	4,600	6,120	13,100	17,300	1,310	1,720	1,880	2,280
15	1,920	2,210	7,850	4,200	4,500	5,870	18,000	13,200	1,760	1,890	1,970	2,020
16	1,830	2,250	6,530	4,300	4,400	5,600	19,500	10,800	2,910	2,840	1,760	2,340
17	1,810	2,360	5,660	4,600	3,700	9,670	16,100	9,530	4,480	1,280	2,080	2,290
18	1,830	2,380	4,730	4,800	3,800	9,700	13,500	8,000	4,910	1,330	3,030	2,220
19	1,830	2,310	4,200	4,400	4,070	8,570	11,900	6,380	3,070	1,940	2,560	2,210
20	1,900	2,170	3,760	4,200	4,480	7,760	10,200	5,710	2,410	2,200	2,760	2,130
21	1,890	2,070	34,300	4,410	4,270	7,990	8,300	5,000	2,130	1,740	2,220	1,620
22	2,040	1,320	45,100	6,870	5,160	13,900	7,260	4,490	2,420	1,800	2,120	1,980
23	2,290	1,340	21,600	8,970	10,100	11,600	6,480	5,010	2,780	1,640	1,870	2,940
24	2,420	1,850	15,300	9,310	14,100	9,950	5,860	4,340	2,440	1,880	1,820	2,860
25	2,020	2,170	10,300	8,970	11,900	10,100	5,500	3,940	1,880	2,170	1,760	2,520
26	1,940	3,370	9,580	8,220	9,570	9,370	4,960	3,280	2,120	2,170	1,760	2,200
27	1,960	3,620	21,100	8,760	7,940	8,310	4,520	3,160	2,360	2,130	2,040	1,820
28	1,870	4,350	28,700	18,300	6,980	7,360	4,110	2,860	3,370	2,090	1,820	1,950
29	2,270	6,270	22,000	20,800	-----	6,950	3,730	2,800	2,710	2,530	2,120	5,930
30	3,010	5,520	16,600	18,100	-----	6,420	3,030	3,290	1,640	4,970	1,910	11,100
31	2,500	-----	13,300	15,000	-----	6,810	-----	3,270	-----	5,310	2,730	-----
TOTAL	64,050	71,910	381,890	249,700	193,040	268,710	346,200	189,330	91,610	71,270	62,670	126,020
MEAN	2,066	2,397	12,320	8,055	6,894	8,668	11,540	6,107	3,054	2,299	2,022	4,201
MAX	3,340	6,270	45,100	20,800	14,100	13,900	22,100	19,400	6,910	5,310	3,700	11,100
MIN	1,360	1,310	3,040	4,200	3,700	5,600	3,030	2,800	1,310	1,260	1,070	1,620
CAL YR 1973	TOTAL 2,493,550		MEAN 6,832		MAX 78,300		MIN 1,160					
WTR YR 1974	TOTAL 2,116,400		MEAN 5,798		MAX 45,100		MIN 1,070					

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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 Bashe 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.

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.

EXTREMES.--Current year: Maximum discharge, 7,170 ft³/s (203 m³/s) Dec. 21 (gage height, 8.36 ft or 2.548 m); minimum, 66 ft³/s (1.87 m³/s) Oct. 29 (gage height, 2.87 ft or 0.875 m).

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 mi² (238 km²) 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.

REVISIONS (WATER YEARS).--WSP 821: Drainage area. WSP 1502: 1951(M).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	340	418	1,020	975	564	845	420	599	345	308	442
2	102	320	355	888	800	557	984	460	578	312	233	913
3	121	265	330	769	720	514	1,160	375	420	245	216	753
4	124	226	315	660	620	526	1,240	425	400	245	212	930
5	121	200	436	540	540	641	1,230	405	321	212	205	620
6	145	184	921	480	500	634	1,340	345	281	202	174	448
7	121	169	640	420	500	564	993	410	254	177	146	502
8	111	159	544	360	450	550	854	436	237	153	128	400
9	103	149	868	320	410	550	1,010	395	226	135	135	395
10	106	145	1,630	320	380	544	1,010	390	216	125	133	350
11	100	136	1,060	320	350	532	993	460	198	115	133	321
12	93	130	876	320	330	478	1,040	410	188	108	118	290
13	90	124	755	300	310	400	1,220	1,750	177	100	110	263
14	90	118	1,070	300	300	360	1,240	1,760	167	93	108	267
15	95	113	965	290	280	390	1,990	1,090	153	93	105	254
16	103	121	793	300	270	466	1,720	845	290	95	95	226
17	173	173	710	300	260	1,220	1,150	683	655	85	130	212
18	145	152	650	280	250	803	984	613	390	90	514	198
19	133	133	600	280	250	725	879	484	317	118	263	188
20	118	124	570	280	350	711	862	410	281	105	188	181
21	113	116	4,680	300	440	1,000	777	360	281	98	153	191
22	106	118	3,390	500	640	1,200	662	340	330	95	128	308
23	111	118	2,190	580	1,910	905	550	326	285	90	125	245
24	98	121	1,600	580	1,040	871	544	330	258	95	170	202
25	90	275	1,240	560	888	777	460	321	254	115	153	191
26	86	330	1,220	560	720	676	405	299	272	113	128	181
27	76	305	2,270	739	620	620	390	285	263	160	120	177
28	69	496	2,450	1,260	585	564	350	267	237	160	133	219
29	86	613	1,880	1,560	-----	526	330	285	230	578	153	599
30	619	478	1,460	1,260	-----	502	312	330	216	984	557	641
31	429	-----	1,160	1,090	-----	711	-----	281	-----	496	811	-----
TOTAL	4,179	6,451	38,046	17,736	15,688	20,081	27,524	15,990	8,974	6,137	6,285	11,107
MEAN	135	215	1,227	572	560	648	917	516	299	198	203	370
MAX	619	613	4,680	1,560	1,910	1,220	1,990	1,760	655	984	811	930
MIN	69	113	315	280	250	360	312	267	153	85	95	177
CAL YR 1973	TOTAL 219,015	MEAN 600	MAX 7,360	MIN 69								
WTR YR 1974	TOTAL 178,198	MEAN 488	MAX									

LOCATION.--Lat 41°18'33", long 74°47'44" (revised), 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 Sawkill Creek, and at mile 246.3 (396.3 km).

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.

AVERAGE DISCHARGE.--35 years, 5,846 ft³/s (165.6 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 77,000 ft³/s (2,180 m³/s) Dec. 22 (gage height, 19.33 ft or 5.892 m); minimum, 1,110 ft³/s (31.4 m³/s) Aug. 9; minimum daily, 1,280 ft³/s (36.2 m³/s) Aug. 9.
Period of record: Maximum discharge, 250,000 ft³/s (7,080 m³/s) Aug. 19, 1955 (gage height, 35.15 ft or 10.714 m); from rating curve extended above 90,000 ft³/s (2,550 m³/s) on basis of flood-routing study; minimum, 382 ft³/s (10.8 m³/s) Aug. 24, 1954, gage height, 3.83 ft (1.167 m); minimum daily, 412 ft³/s (11.7 m³/s) Aug. 23, 1954.
Maximum Stage during period 1903-74, 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. 127) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see p. 133). Records of water quality for the current year are published in Part 2 of this report.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,550	2,930	5,170	13,600	15,200	7,690	10,000	4,840	4,680	2,860	4,380	3,720
2	1,840	2,350	4,380	12,500	13,100	7,550	11,900	5,940	7,960	3,780	3,250	7,650
3	2,100	2,140	3,890	11,000	11,200	7,180	14,100	5,350	5,970	2,960	2,950	8,800
4	1,950	2,070	3,530	10,000	10,400	6,850	17,500	5,660	4,830	3,310	2,360	11,600
5	3,260	1,890	3,760	8,480	9,000	8,600	20,500	5,570	4,850	3,120	2,300	10,000
6	3,500	1,650	8,150	7,470	7,800	12,900	24,400	5,070	4,240	2,760	2,230	6,800
7	2,080	1,710	10,900	7,130	7,200	13,100	20,900	5,630	4,000	2,080	1,860	6,800
8	1,680	2,140	8,050	6,810	6,800	12,600	16,700	6,050	3,630	2,040	1,730	6,450
9	2,720	2,110	7,420	6,040	6,600	12,600	16,900	5,250	2,680	3,120	1,280	5,690
10	2,710	2,280	21,200	6,020	6,000	11,800	17,500	5,270	2,640	2,850	1,420	4,510
11	2,030	2,300	17,100	6,880	5,600	10,800	14,900	5,940	3,490	2,080	1,600	3,860
12	1,580	2,220	12,000	6,820	5,600	9,540	14,500	5,410	3,000	1,370	1,760	3,560
13	2,240	2,470	9,400	5,830	5,000	8,590	14,500	20,900	2,310	1,940	1,930	3,290
14	2,700	2,530	9,310	4,920	5,200	7,200	15,000	20,200	1,680	1,930	2,070	3,100
15	2,100	2,410	9,460	4,800	5,200	6,820	20,300	15,100	1,940	1,910	2,140	2,300
16	2,020	2,470	7,960	5,200	4,900	6,470	22,500	12,200	2,940	3,100	2,000	2,410
17	2,070	2,600	6,930	5,770	4,200	11,100	18,400	10,600	5,440	1,660	2,300	2,700
18	2,050	2,650	5,600	5,280	4,300	11,200	15,400	9,420	5,750	1,290	3,680	2,650
19	2,030	2,500	5,000	4,970	4,600	9,940	13,500	7,440	3,800	2,130	3,060	2,450
20	2,110	2,400	4,800	4,940	5,200	9,160	11,900	6,450	2,970	2,430	3,080	2,470
21	2,080	2,340	31,800	4,930	5,000	9,090	9,820	5,740	2,770	1,960	2,490	2,360
22	2,130	1,680	55,300	7,810	5,600	15,500	9,600	5,090	2,680	1,930	2,360	2,090
23	2,510	1,480	26,600	10,100	16,800	13,400	7,530	5,590	3,460	1,810	2,120	3,000
24	2,560	1,950	18,500	10,500	16,200	11,600	6,870	4,990	2,950	2,000	2,100	3,310
25	2,260	2,380	12,900	10,200	13,600	11,400	6,400	4,740	2,440	2,410	2,030	2,850
26	2,110	3,580	11,400	9,410	11,200	10,800	5,770	3,930	2,550	2,390	2,050	2,710
27	2,110	4,050	21,800	9,640	9,420	10,600	5,300	3,690	2,730	2,360	2,300	2,060
28	2,030	4,600	32,400	19,500	8,290	8,580	4,830	3,410	3,660	2,390	2,100	2,190
29	2,320	6,890	26,000	22,600	-----	8,070	4,470	3,320	3,350	2,010	2,470	5,640
30	3,700	6,260	19,400	20,600	-----	7,600	3,690	3,680	2,160	6,450	2,650	11,600
31	3,330	-----</										

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 mi² (168.6 km²).

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.--51 years, 108 ft³/s (3.059 m³/s) 22.53 in/yr (572 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,060 ft³/s (115 m³/s) Dec. 21 (gage height, 8.56 ft or 2.609 m) from rating curve extended above 2,000 ft³/s (56.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 15 ft³/s (0.42 m³/s) Oct. 28, 29 (gage height, 1.87 ft or 0.570 m).
Period of record: Maximum discharge, 9,560 ft³/s (271 m³/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 ft³/s (56.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.6 ft³/s (0.102 m³/s) Sept. 25, 26, 1964, Sept. 11, 1966.

REMARKS.--Records good. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	109	56	265	237	159	350	125	140	75	40	56
2	19	91	50	241	208	155	385	109	146	71	31	84
3	26	71	46	211	187	146	400	114	96	51	43	101
4	30	60	43	201	173	146	485	125	80	43	45	159
5	24	53	71	173	137	146	485	103	71	40	77	143
6	21	48	241	173	137	131	575	98	62	48	56	101
7	20	43	149	159	143	120	395	134	56	51	40	87
8	19	40	114	143	128	117	314	114	53	42	34	103
9	18	39	162	125	120	155	470	103	53	36	30	87
10	18	36	435	140	112	208	440	128	50	32	27	69
11	18	35	253	146	109	187	346	128	45	30	24	58
12	17	34	190	149	101	159	293	140	42	27	22	50
13	17	34	155	122	101	137	277	610	40	25	20	43
14	17	34	395	117	109	125	281	350	39	24	20	67
15	16	31	314	120	98	122	405	241	36	23	19	84
16	17	31	215	120	84	146	319	194	69	21	17	62
17	17	30	190	131	89	425	261	173	269	20	20	48
18	17	28	169	98	82	273	233	162	120	19	53	45
19	17	30	146	122	91	218	222	134	71	21	43	40
20	17	28	137	128	293	201	222	117	58	24	32	36
21	17	27	2,030	137	187	245	197	109	58	20	26	36
22	17	27	1,850	305	253	460	180	101	91	18	22	46
23	16	27	670	273	570	289	166	96	67	17	21	50
24	16	27	425	269	301	269	149	101	80	19	24	43
25	16	34	310	233	241	233	140	98	73	25	23	37
26	16	42	310	208	197	201	131	89	96	22	20	35
27	16	40	665	273	169	183	122	80	73	21	19	32
28	15	53	590	435	159	169	117	77	60	23	19	37
29	32	91	435	465	-----	155	112	77	56	71	35	253
30	337	67	337	346	-----	166	103	82	51	112	67	269
31	162	-----	281	281	-----	261	-----	73	-----	64	69	-----
TOTAL	1,044	1,340	11,434	6,309	4,816	6,107	8,575	4,385	2,301	1,135	1,038	2,361
MEAN	33.7	44.7	369	204	172	197	286	141	76.7	36.6	33.5	78.7
MAX	337	109	2,030	465	570	460	575	610	269	112	77	269
MIN	15	27	43	98	82	117	103	73	36	17	17	32
CFSM	.52	.69	5.67	3.13	2.64	3.03	4.39	2.17	1.18	.56	.51	1.21
IV.	.60	.77	6.53	3.61	2.75	3.49	4.90	2.51	1.31	.65	.59	1.35
CAL YR 1973	TOTAL 57,750	MEAN 158	MAX 2,030	MIN 15	CFSM 2.43	IN 33.00						
WTR YR 1974	TOTAL 50,845	MEAN 139	MAX 2,030	MIN 15	CFSM 2.14	IN 29.05						

PEAK DISCHARGE (BASE, 650 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	2200	8.56	4,060	4-06	0330	3.70	650
12-27	1515	3.93	765	5-13	1030	3.93	765
2-23	0345	3.80	700				

DELAWARE RIVER BASIN

01440200 Delaware River below Tocks Island damsite, near Delaware Water Gap, Pa.

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, 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 mile 216.1 (347.7 km).

DRAINAGE AREA.--3,850 mi² (9,970 km²) 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.--10 years, 6,037 ft³/s (171.0 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 83,000 ft³/s (2,350 m³/s) Dec. 22 (gage height, 20.43 ft or 6.227 m); minimum daily, 1,560 ft³/s (44.2 m³/s) Nov. 23.
Period of record: Maximum discharge, 103,000 ft³/s (2,920 m³/s) June 30, 1973 (gage height, 23.82 ft or 7.260 m); minimum daily, 580 ft³/s (16.4 m³/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. 127) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see p. 133). Records of water quality for the current year are published in Part 2 of this report (see station 01442750).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,000	4,130	6,210	15,300	16,700	9,110	10,800	4,920	4,360	3,100	5,100	4,200
2	2,000	3,590	5,160	13,900	14,600	8,470	13,200	5,940	7,570	4,100	3,700	7,500
3	2,300	3,080	4,560	12,500	12,700	8,200	15,200	6,440	7,430	3,500	3,400	10,000
4	2,300	2,780	4,220	11,500	11,000	7,520	17,900	6,220	5,610	3,600	2,900	12,600
5	3,000	2,600	4,190	10,000	10,000	8,100	22,500	6,450	5,330	3,300	2,800	12,000
6	3,700	2,180	7,500	8,660	9,340	10,900	26,800	5,840	5,540	3,300	2,600	8,400
7	2,600	1,930	12,600	7,820	8,950	14,200	27,500	5,940	5,210	2,500	2,300	7,800
8	1,900	2,300	10,100	7,950	8,000	13,100	22,300	6,580	4,400	2,300	2,000	7,700
9	2,600	2,450	8,980	7,330	7,400	13,300	19,200	6,210	3,530	3,000	1,700	6,800
10	2,800	2,690	19,900	6,690	7,000	13,900	20,800	6,000	3,290	3,200	1,600	5,600
11	2,480	2,600	21,800	8,000	6,640	12,400	17,600	6,640	3,580	2,600	1,700	5,370
12	1,850	2,690	14,900	8,000	6,300	11,800	16,200	6,690	3,700	1,700	1,800	4,630
13	2,000	2,790	11,700	7,000	6,210	10,100	15,400	17,700	3,000	1,900	2,000	4,300
14	2,700	2,960	11,100	5,700	5,940	9,330	15,900	25,600	2,470	2,250	2,100	4,120
15	2,400	2,990	11,700	5,600	5,600	8,110	19,300	18,300	1,890	2,060	2,200	3,270
16	2,200	2,870	10,300	6,000	5,440	7,880	24,700	14,600	2,680	3,170	2,200	2,950
17	2,200	2,960	8,940	6,400	5,200	9,400	20,600	12,200	4,930	2,600	2,300	3,110
18	2,200	3,080	8,140	6,000	4,900	13,900	16,800	11,200	6,800	1,800	3,170	2,880
19	2,300	3,020	7,020	5,800	4,970	12,500	14,700	8,960	5,400	2,000	4,560	2,740
20	2,150	2,960	7,100	5,600	6,010	11,400	13,500	7,780	3,400	2,440	3,400	2,770
21	2,210	2,810	29,900	5,810	6,320	10,500	11,100	7,150	3,200	2,140	2,900	2,790
22	2,180	2,240	71,700	8,640	5,880	13,800	9,840	6,130	3,000	2,000	2,500	2,220
23	2,570	1,560	36,500	11,800	12,300	17,600	8,760	6,460	3,700	1,900	2,400	3,030
24	2,630	1,600	23,800	12,300	21,500	14,600	7,920	6,050	3,500	2,100	2,300	3,980
25	2,750	2,420	16,600	11,600	15,500	13,200	7,480	5,860	3,100	2,400	2,200	3,510
26	2,210	3,080	13,600	10,800	13,700	13,200	6,740	5,080	3,000	2,500	2,200	3,140
27	2,120	4,460	21,200	9,630	11,500	12,000	6,250	4,500	3,100	2,500	2,400	2,340
28	2,150	4,560	36,800	19,500	9,370	10,900	5,800	4,270	3,700	2,500	2,300	2,470
29	2,270	6,860	31,200	24,600	-----	9,850	5,360	3,700	4,000	2,800	2,500	4,880
30	4,950	7,460	23,000	23,900	-----	9,610	4,720	3,770	2,800	6,290	3,200	11,100
31	5,300	-----	18,200	19,300	-----	9,340	-----	4,330	-----	7,300	4,200	-----
TOTAL	79,020	93,700	518,620	323,630	258,970	348,220	445,070	247,510	123,220	88,950	82,630	158,200
MEAN	2,549	3,123	16,730	10,440	9,249	11,230	14,840	7,984	4,107	2,869	2,665	5,273
MAX	5,300	7,460	71,700	24,600	21,500	17,600	27,500	25,600	7,570	7,300	5,100	12,600
MIN	1,850	1,560	4,190	5,600	4,900	7,520	4,720	3,700	1,890	1,700	1,600	2,220

CAL YR 1973 TOTAL 3,294,380 MEAN 9,026 MAX 95,600 MIN 1,560
WTR YR 1974 TOTAL 2,767,740 MEAN 7,583 MAX 71,700 MIN 1,560

NOTE.--Doubtful or no gage-height record Oct. 1 to Nov. 30 and June 18 to Sept. 30.

DELAWARE RIVER BASIN

105

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 mi² (326 km²).

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) downstream at present datum.

AVERAGE DISCHARGE.--53 years, 190 ft³/s (5.381 m³/s), 20.48 in/yr (520 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,350 ft³/s (94.9 m³/s) Dec. 21 (gage height, 7.42 ft or 2.262 m); minimum, 32 ft³/s (0.906 m³/s) July 22, 23, 24 (gage height, 1.55 ft or 0.472 m).
Period of record: Maximum discharge, 8,750 ft³/s (248 m³/s) Aug. 19, 1955 (gage height, 11.12 ft or 3.389 m, from high-water mark in gage house); minimum, about 2.8 ft³/s (0.079 m³/s) Nov. 1, 1922; minimum daily, 5 ft³/s (0.14 m³/s) Aug. 13, 14, 1930.

REMARKS.--Records good except those above 800 ft³/s (23 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	225	118	487	459	255	705	240	185	99	52	143
2	56	181	99	445	406	250	713	220	210	93	46	267
3	91	143	90	400	361	245	585	220	171	79	99	322
4	88	118	87	380	335	240	783	230	143	72	139	459
5	74	108	148	341	297	240	896	200	131	82	261	400
6	60	96	406	315	279	230	960	195	118	108	161	297
7	56	90	291	303	267	220	697	245	108	82	111	291
8	51	84	235	279	250	220	564	220	99	70	87	285
9	51	84	315	255	230	291	855	200	93	60	82	240
10	51	77	649	267	215	361	896	240	93	58	74	210
11	47	74	476	285	210	328	673	240	84	54	62	181
12	47	77	335	273	195	297	557	267	79	48	54	161
13	49	74	291	250	200	267	515	760	74	44	62	152
14	47	74	380	235	205	245	515	515	72	42	50	205
15	45	72	367	230	195	225	721	393	70	40	46	176
16	51	72	303	220	176	261	571	335	93	42	38	148
17	49	70	279	235	171	585	466	291	181	37	79	135
18	43	62	255	200	166	459	419	267	148	36	176	139
19	43	65	250	210	176	380	419	240	111	38	114	118
20	39	60	240	215	335	348	432	225	93	40	84	105
21	37	56	1,940	230	285	419	374	190	90	34	74	118
22	36	56	2,120	387	315	768	341	181	90	34	62	135
23	37	56	1,470	426	536	536	328	181	90	32	65	122
24	37	58	1,170	445	400	494	303	181	99	40	72	102
25	34	70	890	413	341	432	279	195	99	46	72	93
26	34	82	729	393	303	374	255	176	108	42	72	90
27	33	77	1,150	466	273	341	255	161	93	42	65	84
28	33	107	1,110	673	255	315	240	148	87	40	62	148
29	94	181	902	827	-----	297	225	143	82	42	67	515
30	419	148	657	641	-----	315	220	139	79	82	131	480
31	322	-----	522	522	-----	459	-----	127	-----	72	185	-----
TOTAL	2,207	2,797	18,224	11,248	7,836	10,697	15,762	7,565	3,273	1,730	2,804	6,321
MEAN	71.2	93.2	588	363	280	345	525	244	109	55.8	90.5	211
MAX	419	225	2,120	827	536	768	960	760	210	108	261	515
MIN	33	56	87	200	166	220	220	127	70	32	38	84
CFSM	.57	.74	4.67	2.88	2.22	2.74	4.17	1.94	.87	.44	.72	1.67
IN.	.65	.83	5.38	3.32	2.31	3.16	4.65	2.23	.97	.51	.83	1.87

CAL YR 1973 TOTAL 104,186 MEAN 285 MAX 2,120 MIN 33 CFSM 2.26 IN 30.76
WTR YR 1974 TOTAL 90,464 MEAN 248 MAX 2,120 MIN 32 CFSM 1.97 IN 26.71

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	2130	7.42	3,350
12-27	1345	3.89	1,200
4-06	0315	3.37	1,030

DELAWARE RIVER BASIN

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 mi² (18.54 km²).

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.--8 years, 10.3 ft³/s (0.292 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 121 ft³/s (3.43 m³/s) Dec. 26 (gage height, 3.08 ft or 0.939 m); minimum daily, 0.41 ft³/s (0.012 m³/s) Aug. 16.

Period of record: Maximum discharge, 140 ft³/s (3.96 m³/s) Jan. 14, 1968 (gage height, 3.14 ft or 0.957 m); maximum gage height, 3.66 ft (1.116 m) Feb. 6, 1971, backwater from ice; no flow Sept. 12, 1971.

REMARKS.--Records good. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	2.8	1.5	16	20	17	24	10	4.0	2.5	.73	20
2	1.3	2.1	1.4	17	22	17	31	5.5	2.5	1.5	1.5	24
3	1.4	1.9	1.3	20	18	15	49	6.5	1.8	2.0	3.3	33
4	.83	1.7	1.2	20	16	14	58	6.0	1.7	1.6	5.8	20
5	.83	1.5	15	21	19	12	58	5.3	1.5	4.3	3.8	19
6	.77	1.5	27	20	20	9.6	58	6.0	1.4	3.4	1.7	18
7	.83	1.5	24	16	18	7.0	49	6.2	1.5	2.1	1.3	19
8	.71	1.5	24	7.7	20	8.6	45	5.5	1.7	1.0	3.8	9.6
9	.60	1.4	29	8.6	25	10	55	6.7	1.5	.95	4.3	6.7
10	.65	1.4	35	8.2	25	9.6	54	9.1	.73	1.2	1.7	11
11	.65	1.3	45	9.1	19	8.6	52	7.2	.95	1.0	1.4	7.0
12	.77	1.1	44	8.6	20	8.2	49	16	.95	1.1	1.1	4.5
13	.90	1.1	45	11	16	7.7	39	19	.56	1.1	1.3	4.7
14	.83	.90	40	9.1	16	7.2	15	24	.50	.70	.53	7.2
15	.65	.90	17	9.1	16	7.2	20	24	.56	1.1	.44	10
16	.65	.83	15	7.7	17	13	16	26	1.6	1.1	.41	14
17	.56	.71	17	8.2	14	12	14	48	1.6	.95	5.0	12
18	.65	.71	17	14	14	8.6	14	60	.59	.67	2.5	8.5
19	.65	.71	14	11	17	9.6	16	42	.47	1.1	.70	7.0
20	.71	.65	18	6.5	17	13	15	19	.95	1.2	.59	7.2
21	.71	.71	88	10	17	19	13	19	1.0	1.1	.61	9.1
22	.56	.90	93	12	21	20	12	20	1.0	.44	.56	4.6
23	1.1	.77	86	12	18	23	13	19	1.8	.73	.85	2.7
24	.77	.90	80	12	16	20	13	11	1.3	1.7	2.0	2.2
25	.71	1.3	75	11	16	20	13	3.0	1.7	1.3	1.8	1.8
26	.56	1.1	88	12	17	21	13	2.7	1.8	1.0	.56	4.0
27	.49	1.0	103	13	17	20	12	2.3	1.5	1.5	.53	11
28	.53	2.9	75	16	17	20	5.3	2.3	1.5	1.7	.56	22
29	8.8	2.3	17	20	-----	22	5.3	2.5	1.6	1.0	2.4	25
30	6.7	1.7	16	19	-----	24	5.5	2.4	1.6	2.7	4.1	13
31	2.6	-----	16	18	-----	31	-----	2.4	-----	1.0	4.6	-----
TOTAL	39.24	39.79	1,168.4	403.8	508	454.9	836.1	438.6	41.86	44.74	60.47	357.8
MEAN	1.27	1.33	37.7	13.0	18.1	14.7	27.9	14.1	1.40	1.44	1.95	11.9
MAX	8.8	2.9	103	21	25	31	58	60	4.0	4.3	5.8	33
MIN	.49	.65	1.2	6.5	14	7.0	5.3	2.3	.47	.44	.41	1.8

CAL YR 1973 TOTAL 4,821.03 MEAN 13.2 MAX 103 MIN .42
WTR YR 1974 TOTAL 4,393.70 MEAN 12.0 MAX 103 MIN .41

DELAWARE RIVER BASIN

107

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 mi² (280 km²).

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.--53 years, 150 ft³/s (4.248 m³/s), 18.86 in/yr (479 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,420 ft³/s (40.2 m³/s) Dec. 21 (gage height, 4.73 ft or 1.442 m); minimum, 38 ft³/s (1.08 m³/s) July 20, 21 (gage height, 1.27 ft or 0.387 m).
Period of record: Maximum discharge, 1,810 ft³/s (51.3 m³/s) Mar. 14, 1936 (gage height, 4.97 ft or 1.515 m); minimum, 12 ft³/s (0.34 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	218	102	454	359	202	503	199	146	90	49	107
2	81	175	88	409	316	196	436	190	166	83	46	326
3	124	149	88	375	284	190	395	199	154	74	62	312
4	102	129	94	355	263	184	490	205	134	69	72	566
5	80	112	193	330	221	184	535	184	122	66	77	400
6	72	94	309	305	225	175	557	181	102	69	65	316
7	66	88	208	291	221	166	490	211	96	69	55	333
8	66	83	172	263	208	172	422	187	94	65	52	291
9	68	81	323	228	193	249	616	172	92	61	54	239
10	65	77	409	235	181	298	580	214	88	58	62	199
11	59	72	295	249	184	242	503	202	83	58	52	172
12	56	71	256	256	172	214	440	232	80	55	49	152
13	55	71	225	218	184	190	422	552	78	51	47	139
14	55	71	333	193	190	178	435	395	74	50	47	205
15	62	68	281	211	184	175	498	326	75	49	46	172
16	59	68	239	208	163	232	413	274	86	47	43	144
17	56	65	214	225	160	395	413	238	107	46	72	127
18	52	65	196	184	154	316	371	214	104	46	129	114
19	51	63	208	199	175	281	333	196	88	46	84	104
20	51	62	202	196	305	249	344	178	81	43	65	100
21	50	61	1,130	249	253	379	351	166	77	40	58	117
22	49	63	1,240	383	295	458	326	160	81	42	52	124
23	47	62	1,160	400	359	379	298	157	88	41	61	104
24	47	62	970	436	291	355	302	163	96	45	58	94
25	47	71	674	387	249	319	277	157	100	50	62	88
26	47	84	598	359	218	295	260	152	100	49	59	86
27	46	83	773	436	196	274	242	144	92	47	59	83
28	45	119	674	458	190	256	224	139	83	46	65	114
29	102	187	503	490	-----	242	211	129	81	45	74	333
30	476	129	517	436	-----	277	202	129	80	58	196	284
31	277	-----	467	400	-----	485	-----	126	-----	55	147	-----
TOTAL	2,594	2,803	13,191	9,818	6,393	8,207	11,889	6,371	2,928	1,713	2,119	5,945
MEAN	83.7	93.4	426	317	228	265	396	206	97.6	55.3	68.4	198
MAX	476	218	1,240	490	359	485	616	552	166	90	196	566
MIN	45	61	88	184	154	166	202	126	74	40	43	83
CFSM	.78	.86	3.94	2.94	2.11	2.45	3.67	1.91	.90	.51	.63	1.83
IN.	.89	.97	4.54	3.38	2.20	2.83	4.10	2.19	1.01	.59	.73	2.05

CAL YR 1973 TOTAL 83,273 MEAN 228 MAX 1,240 MIN 45 CFSM 2.11 IN 28.68
WTR YR 1974 TOTAL 73,971 MEAN 203 MAX 1,240 MIN 40 CFSM 1.88 IN 25.48

PEAK DISCHARGE (BASE, 650 CFS, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1530	4.73	1,420	5-13	0430	3.21	669
12-27	0800	3.55	822	9-04	0515	3.17	652

DELAWARE RIVER BASIN

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 mile 197.7 (318.1 km).

DRAINAGE AREA.--4,535 mi² (11,746 km²).

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.--52 years, 7,842 ft³/s (222.1 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 101,000 ft³/s (2,860 m³/s) Dec. 22 (gage height, 18.13 ft or 5.526 m); minimum, 1,600 ft³/s (45.3 m³/s) July 19 (gage height 3.10 ft or 0.945 m).
 Period of record: Maximum discharge, 273,000 ft³/s (7,730 m³/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 ft³/s (4,810 m³/s) on basis of flood-routing study; minimum, 609 ft³/s (17.2 m³/s) Sept. 28, 29, 1943 (gage height, 2.11 ft or 0.643 m).
 Flood of Oct. 10, 1903, reached a stage of 28.6 ft (8.72 m), from floodmark, discharge, 220,000 ft³/s (6,230 m³/s), from rating curve extended above 170,000 ft³/s (4,810 m³/s).

REMARKS.--Records excellent. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see p. 127) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see p. 133).

REVISIONS (WATER YEARS).--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,770	5,670	6,900	19,400	20,500	10,700	14,600	6,080	5,590	3,420	6,620	4,970
2	2,160	4,740	5,910	17,700	18,100	10,300	16,500	7,110	8,120	4,590	4,670	7,380
3	2,600	4,050	5,220	15,800	15,700	9,830	17,300	7,750	8,890	4,470	4,100	12,000
4	2,790	3,610	4,790	14,500	13,700	9,020	23,300	7,410	6,850	4,160	3,760	15,000
5	2,680	3,370	5,160	13,000	12,200	9,810	27,600	7,630	6,320	3,690	3,930	15,300
6	4,150	3,060	9,660	11,000	10,400	13,000	32,900	7,050	5,730	4,140	3,350	11,300
7	3,540	2,740	14,700	9,930	10,000	16,100	30,200	7,400	5,060	3,330	2,960	9,670
8	2,380	2,810	12,400	9,880	9,390	15,200	24,200	7,920	4,810	2,700	2,500	9,850
9	2,420	3,080	11,600	8,650	8,920	16,000	23,700	7,640	4,200	3,000	2,290	8,630
10	3,060	3,100	22,400	7,130	8,090	16,300	25,700	7,850	3,580	3,630	1,920	7,600
11	2,890	3,120	27,100	8,030	7,900	14,600	21,900	8,330	3,890	3,320	1,910	6,110
12	2,380	3,120	19,000	9,650	7,230	13,600	19,900	8,750	3,960	2,370	2,040	5,450
13	1,970	3,100	14,900	7,900	7,370	11,800	19,400	21,700	3,530	1,910	2,230	5,100
14	2,830	3,300	14,900	5,910	7,130	10,400	19,800	30,800	2,910	2,440	2,340	5,240
15	2,830	3,320	15,000	7,010	7,300	9,080	22,900	22,200	2,310	2,360	2,370	4,480
16	2,500	3,210	13,100	7,650	6,530	9,170	29,400	17,900	3,290	2,610	2,490	3,800
17	2,400	3,230	11,400	8,200	6,260	13,600	24,900	15,000	6,370	3,250	2,630	3,810
18	2,400	3,320	9,660	6,490	5,910	16,200	20,600	13,800	7,370	1,980	4,050	3,770
19	2,420	3,320	7,540	6,360	6,090	14,300	18,400	11,000	6,140	1,820	4,510	3,580
20	2,380	3,210	7,220	6,510	8,340	13,100	17,100	9,390	4,560	2,570	3,900	3,460
21	2,460	3,040	34,200	6,670	8,020	13,000	14,000	8,540	3,930	2,690	3,480	3,510
22	2,420	2,930	89,100	10,600	8,380	19,500	12,400	7,530	3,630	2,280	2,870	3,310
23	2,580	2,270	48,300	13,800	18,200	19,800	11,100	7,550	4,090	2,270	2,780	3,420
24	2,830	2,160	31,100	15,000	24,500	15,600	9,960	7,120	4,410	2,210	2,650	4,270
25	2,890	2,810	22,300	14,700	18,400	15,400	9,360	7,000	4,080	2,520	2,530	4,020
26	2,520	3,470	18,000	13,800	16,000	15,300	8,530	6,130	3,730	2,800	2,420	3,650
27	2,420	4,740	25,600	13,600	13,500	13,700	7,800	5,400	3,860	2,810	2,610	3,250
28	2,400	5,130	42,500	21,700	11,400	12,300	7,150	5,180	3,850	2,790	2,570	3,350
29	2,680	7,100	37,700	29,000	-----	11,200	6,600	4,760	5,000	2,810	2,710	6,490
30	8,180	8,300	28,400	28,800	-----	11,200	6,010	4,790	3,910	5,770	4,150	12,800
31	7,260	-----	22,600	23,600	-----	12,600	-----	5,260	-----	7,470	4,470	-----
TOTAL	92,190	110,430	638,360	391,970	315,460	411,710	543,210	301,970	143,970	98,180	97,810	194,570
MEAN	2,974	3,681	20,590	12,640	11,270	13,280	18,110	9,741	4,799	3,167	3,155	6,486
MAX	8,180	8,300	89,100	29,000	24,500	19,800	32,900	30,800	8,890	7,470	6,620	15,300
MIN	1,970	2,160	4,790	5,910	5,910	9,020	6,010	4,760	2,310	1,820	1,910	3,250
CAL YR 1973	TOTAL	3,959,350	MEAN	10,850	MAX	109,000	MIN	1,970				
WTR YR 1974	TOTAL	3,339,830	MEAN	9,150	MAX	89,100	MIN	1,820				

DELAWARE RIVER BASIN

109

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 at Easton.

DRAINAGE AREA.--4,636 mi² (12,007 km²).

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.--7 years, 8,754 ft³/s (247.9 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, about 100,000 ft³/s (2,830 m³/s) Dec. 22; minimum daily, 2,000 ft³/s (56.6 m³/s) July 19.
Period of record: Maximum discharge, about 100,000 ft³/s (2,830 m³/s) Dec. 22, 1973; minimum, 1,640 ft³/s (46.4 m³/s) Aug. 16, 1971 (gage height, 3.87 ft or 1.180 m).

REMARKS.--Records good. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 127) and by Cannonsville, Pepacton, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs about 100 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,450	6,170	7,340	19,500	21,300	11,000	14,900	6,430	5,990	3,960	7,250	5,000
2	2,760	5,240	6,250	17,700	18,900	10,600	17,200	7,550	8,420	4,890	5,260	7,400
3	2,860	4,490	5,500	16,000	16,300	10,200	19,100	8,320	9,530	5,050	4,650	11,000
4	3,090	4,000	5,070	14,400	14,100	9,500	23,200	8,030	7,540	4,480	4,430	15,000
5	2,920	3,760	5,430	12,700	12,400	10,100	27,600	8,180	6,770	4,390	4,420	15,000
6	4,220	3,450	9,770	11,100	10,400	12,600	32,000	7,700	6,070	4,550	3,920	11,000
7	4,040	3,130	14,700	10,200	10,400	15,900	30,000	7,880	5,620	3,970	3,680	9,700
8	2,920	3,080	12,700	10,100	9,760	15,000	24,400	8,190	5,190	3,250	3,650	9,800
9	2,500	3,430	12,000	8,850	9,270	15,800	23,800	8,290	4,360	3,190	3,400	8,800
10	3,450	3,410	22,700	7,650	8,460	16,300	25,700	8,430	3,980	4,160	2,700	7,700
11	3,390	3,500	27,700	9,110	8,440	14,600	22,400	8,780	4,450	3,890	2,400	6,200
12	2,790	3,480	19,700	9,740	7,670	13,700	20,100	9,250	3,890	3,130	2,500	5,500
13	2,350	3,390	15,300	8,010	7,890	12,100	19,500	20,700	3,600	2,390	2,500	5,100
14	2,880	3,600	15,400	6,270	7,590	10,900	19,900	31,900	3,260	2,740	2,600	5,200
15	3,290	3,640	15,300	7,900	7,710	9,560	22,100	23,700	2,810	2,910	2,750	4,600
16	2,790	3,520	13,500	8,040	7,060	9,560	29,700	19,000	3,610	2,770	3,000	3,900
17	2,710	3,520	11,800	8,700	6,750	13,000	26,400	16,000	6,420	3,750	3,750	3,800
18	2,740	3,620	10,100	7,290	6,310	16,400	22,000	14,500	7,490	2,100	4,500	3,800
19	2,730	3,640	8,010	6,590	6,420	14,500	19,500	11,800	6,510	2,000	3,900	3,700
20	2,730	3,500	7,670	7,070	8,590	12,900	18,100	10,100	5,000	2,870	3,550	3,500
21	2,780	3,350	34,200	7,100	8,570	12,900	15,200	9,210	4,000	3,170	3,000	3,500
22	2,740	3,290	85,000	10,500	8,310	20,000	13,300	8,190	3,700	2,760	2,800	3,400
23	2,790	2,730	50,000	14,000	17,100	20,000	12,000	8,090	4,300	2,500	2,700	3,500
24	3,170	2,440	32,600	15,500	25,000	16,000	10,800	7,540	4,500	2,500	2,600	4,300
25	3,180	2,990	23,900	15,400	18,200	16,000	10,000	7,380	4,200	2,600	2,500	4,000
26	2,930	3,620	19,400	14,400	16,000	15,000	9,280	6,160	3,800	2,900	2,550	3,700
27	2,760	4,840	26,500	14,000	13,400	14,000	8,510	5,760	4,000	3,000	2,600	3,350
28	2,730	5,350	41,600	20,700	11,600	12,500	7,890	5,400	4,000	3,000	2,750	3,600
29	2,920	7,230	36,700	29,000	-----	11,500	7,330	5,110	5,360	3,000	3,500	6,000
30	8,100	8,530	27,000	29,600	-----	11,500	6,760	5,280	4,580	5,260	4,400	12,000
31	7,930	-----	22,300	24,600	-----	12,900	-----	5,690	-----	8,070	4,750	-----
TOTAL	102,640	119,940	645,140	401,720	323,900	416,520	558,670	318,540	152,950	109,200	108,960	193,050
MEAN	3,311	3,998	20,810	12,960	11,570	13,440	18,620	10,280	5,098	3,523	3,515	6,435
MAX	8,100	8,530	85,000	29,600	25,000	20,000	32,000	31,900	9,530	8,070	7,250	15,000
MIN	2,350	2,440	5,070	6,270	6,310	9,500	6,760	5,110	2,810	2,000	2,400	3,350
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
CAL YR 1973 TOTAL	4,091,980			MEAN 11,210								
WTR YR 1974 TOTAL	3,451,230			MEAN 9,455								
					MAX 86,100	MIN 2,350	CFSM	-	IN.	-		
					MAX 85,000	MIN 2,000	CFSM	-	IN.	-		

NOTE.--Doubtful gage-height record Dec. 22, 23, July 18-29.

DELAWARE RIVER BASIN

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 mi² (3,313 km²) includes that of Monocacy Creek. At site used prior to Oct. 1, 1928, 1,229 mi² (3,183 km²).

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.--67 years (1902-4, 1909-74), 2,286 ft³/s (64.74 m³/s), 24.27 in/yr (616 mm/yr), adjusted for diversion 1902-04, 1909-42 and, for recirculated water, October 1, 1959, to September 30, 1962.

EXTREMES.--Current year: Maximum discharge, 28,600 ft³/s (810 m³/s) Dec. 21 (gage height, 11.41 ft or 3.478 m), from rating curve extended above 8,900 ft³/s (252 m³/s) on basis of slope-area measurement at gage height 20.02 ft (6.102 m); minimum, 870 ft³/s (24.6 m³/s) July 29 (gage height, 1.90 ft or 0.579 m). Period of record: Maximum discharge, 92,000 ft³/s (2,610 m³/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 ft³/s (1,360 m³/s); minimum, 125 ft³/s (3.54 m³/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 ft³/s or 2,490 m³/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. 128). Records of water quality for current year are published in Part 2 of WRD-PA 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,620	2,940	1,830	5,980	7,560	3,250	5,310	2,020	1,650	3,430	1,180	4,210
2	2,300	2,410	1,600	5,530	6,350	3,170	5,090	2,090	1,830	2,650	1,170	4,950
3	2,500	2,090	1,530	5,630	5,400	3,010	5,280	2,230	1,740	2,420	1,370	8,110
4	2,330	2,010	1,460	4,550	4,460	2,930	8,000	2,150	1,670	1,820	1,460	7,580
5	1,680	1,900	2,250	3,130	3,330	2,910	9,430	1,990	1,520	1,730	1,570	6,200
6	1,530	1,650	5,310	2,770	2,750	2,910	8,850	2,020	1,420	1,850	1,380	4,730
7	1,440	1,590	4,490	2,730	3,150	2,810	7,710	2,120	1,380	1,560	1,220	4,550
8	1,420	1,680	3,260	4,120	2,930	2,930	6,640	1,910	1,290	1,680	1,110	4,030
9	1,350	1,680	4,430	3,750	2,650	3,530	8,180	1,850	1,250	1,680	1,290	3,590
10	1,250	1,710	7,150	3,270	2,510	4,950	7,150	2,100	1,210	1,530	1,530	3,090
11	1,220	1,620	6,210	3,310	2,530	4,900	5,640	2,040	1,170	1,600	1,230	2,610
12	1,180	1,620	4,950	3,290	2,350	4,730	5,150	2,780	1,150	1,600	1,120	2,420
13	1,150	1,440	4,100	2,890	2,240	4,010	4,930	5,790	1,140	1,510	1,090	2,510
14	1,090	1,280	5,130	2,630	2,260	3,510	4,560	5,110	1,100	1,380	1,090	3,230
15	1,080	1,350	4,820	2,670	2,210	3,330	5,950	3,960	1,070	1,280	1,040	3,230
16	1,060	1,380	4,320	2,630	2,040	3,570	5,330	3,160	1,640	1,190	1,040	2,730
17	1,040	1,380	3,500	2,730	2,070	4,780	4,820	3,040	1,680	1,160	2,140	2,330
18	1,160	1,320	3,520	2,590	2,010	4,460	4,230	2,740	1,460	1,130	2,280	2,140
19	1,110	1,330	3,550	2,470	2,100	3,850	3,920	2,520	1,280	1,130	1,520	2,000
20	1,060	1,240	3,990	2,430	3,190	3,750	3,830	2,390	1,240	1,120	1,400	1,970
21	1,050	1,100	20,300	2,870	2,810	4,600	3,410	2,330	1,280	1,070	1,460	2,140
22	1,050	1,140	14,700	4,750	3,570	6,230	3,260	2,200	1,370	1,060	1,380	2,240
23	1,030	1,170	9,130	6,280	6,830	5,730	3,220	2,170	1,770	1,030	1,900	1,980
24	1,020	1,100	11,100	6,180	6,130	5,200	3,000	2,170	1,650	1,070	1,710	1,920
25	971	1,100	9,790	6,230	4,320	4,210	2,940	2,010	1,530	1,080	1,440	1,940
26	980	1,220	9,880	6,150	4,010	3,750	2,740	1,930	1,350	975	1,480	1,790
27	989	1,240	13,500	6,450	3,390	3,590	2,440	1,930	1,320	930	1,600	1,760
28	971	1,440	12,000	7,380	3,350	3,290	2,250	1,880	1,340	915	1,740	2,120
29	1,200	1,820	8,500	9,400	-----	2,800	2,120	1,570	1,400	885	2,150	3,230
30	3,550	2,200	7,430	9,010	-----	3,100	1,930	1,470	1,250	1,180	3,220	3,230
31	3,460	-----	6,700	8,680	-----	5,170	-----	1,420	-----	1,200	4,010	-----
TOTAL	44,841	47,150	200,430	142,480	98,500	120,960	147,310	75,090	42,150	44,845	49,320	98,560
MEAN	1,446	1,572	6,465	4,596	3,518	3,902	4,910	2,422	1,405	1,447	1,591	3,285
MAX	3,550	2,940	20,300	9,400	7,560	6,230	9,430	5,790	1,830	3,430	4,010	8,110
MIN	971	1,100	1,460	2,430	2,010	2,800	1,930	1,420	1,070	885	1,040	1,760
CFSM	1.13	1.23	5.05	3.59	2.75	3.05	3.84	1.89	1.10	1.13	1.24	2.57
IN.	1.30	1.37	5.83	4.14	2.86	3.52	4.28	2.18	1.23	1.30	1.43	2.87

CAL YR 1973 TOTAL 1,331,081 MEAN 3,647 MAX 20,300 MIN 850 CFSM 2.85 IN 38.71
WTR YR 1974 TOTAL 1,111,636 MEAN 3,046 MAX 20,300 MIN 885 CFSM 2.38 IN 32.33

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 mi² (66.3 km²).

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.--46 years, 43.0 ft³/s (1.218 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 209 ft³/s (5.92 m³/s), Jan. 7 (gage height, 3.26 ft or 0.994 m); minimum, 0.55 ft³/s (0.016 m³/s) Oct. 29, Apr. 1 (gage height, 0.52 ft or 0.158 m).

Period of record: Maximum discharge, 795 ft³/s (22.5 m³/s) Aug. 20, 1955 (gage height, 3.85 ft or 1.173 m), from rating curve extended above 300 ft³/s (8.50 m³/s); maximum gage height, 3.96 ft (1.207 m) Aug. 5, 1969; no flow many days in some years.

REMARKS.--Records good. Flow regulated by Lake Hopatcong (see p. 129).

COOPERATION.--Water-stage recorder inspected by employees of Morris Canal and Banking Company.

REVISIONS (WATER YEARS).--WSP 781: 1928(M), Drainage area. WSP 1051: 1944-45.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	7.5	92	195	70	44	2.4	41	34	39	11	15
2	15	25	91	193	70	44	6.1	35	36	36	11	51
3	8.2	55	90	191	70	44	6.7	37	32	32	11	75
4	8.2	55	90	191	70	44	6.3	38	28	30	11	133
5	8.0	55	90	189	89	44	18	33	26	28	11	127
6	8.0	55	90	188	98	22	48	32	26	28	11	124
7	8.0	87	90	200	98	5.9	60	34	24	24	11	141
8	8.0	105	90	205	97	5.9	74	32	19	20	11	127
9	18	103	90	204	97	5.5	105	31	17	17	11	112
10	24	103	90	202	97	5.7	107	45	15	15	12	106
11	24	103	90	202	97	5.7	102	46	13	14	11	100
12	23	114	90	200	96	5.7	99	55	11	11	11	86
13	22	122	90	198	96	5.7	102	97	11	11	11	75
14	31	121	91	196	61	5.9	103	100	10	11	11	80
15	40	119	91	195	20	5.9	105	97	10	10	11	67
16	26	119	91	191	20	5.9	101	98	25	10	11	60
17	9.2	119	91	189	20	5.9	90	88	68	10	11	55
18	9.2	118	91	74	20	5.9	83	83	64	9.9	11	54
19	8.9	118	91	13	20	5.9	86	74	55	10	11	53
20	8.9	118	91	13	20	5.9	86	62	47	10	11	53
21	8.9	117	94	13	31	5.0	77	50	51	10	11	53
22	8.7	117	98	13	36	7.1	71	44	55	9.9	11	53
23	8.7	115	99	40	37	8.2	71	44	54	9.9	11	52
24	8.7	115	99	53	37	8.2	67	43	53	10	11	53
25	8.2	114	146	53	41	8.0	60	42	52	9.8	11	52
26	5.9	114	176	61	44	8.0	53	37	46	9.9	10	52
27	5.2	113	176	70	43	8.0	47	35	42	11	11	51
28	3.9	105	179	70	43	8.0	42	30	43	11	11	51
29	6.1	92	193	70	-----	8.0	40	27	37	11	11	51
30	8.0	92	198	70	-----	8.0	40	27	33	11	12	63
31	8.0	-----	196	70	-----	3.3	-----	24	-----	11	13	-----
TOTAL	411.9	2,915.5	3,464	4,012	1,638	403.2	1,958.5	1,561	1,037	490.4	344	2,225
MEAN	13.3	97.2	112	129	58.5	13.0	65.3	50.4	34.6	15.8	11.1	74.2
MAX	40	122	198	205	98	44	107	100	68	39	13	141
MIN	3.9	7.5	90	13	20	3.3	2.4	24	10	9.8	10	15
CAL YR 1973	TOTAL 22,532.70	MEAN 61.7	MAX 198	MIN .50								
WTR YR 1974	TOTAL 20,460.50	MEAN 56.1	MAX 205	MIN 2.4								

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 mi² (370 km²).

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 gage at bridge at present datum.

AVERAGE DISCHARGE.--56 years (1903-6, 1921-74), 228 ft³/s (6.457 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,730 ft³/s (77.3 m³/s) Dec. 21 (gage height, 5.92 ft or 1.804 m); minimum daily, 70 ft³/s (1.98 m³/s) July 22.
Period of record: Maximum discharge 6,960 ft³/s (197 m³/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 ft³/s (51.0 m³/s) on basis of slope-area measurement at gage height 6.95 ft (2.118 m); minimum, 8.1 ft³/s (0.23 m³/s) Aug. 2, 1955; minimum daily, 27 ft³/s (0.76 m³/s) Sept. 8, 1966.

REMARKS.--Records excellent. Flow regulated by Lake Hopatcong (see p. 129). Diurnal fluctuation caused by small powerplants above station. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 521: Drainage area. WSP 1051: 1944-45. WSP 1382: 1904-6, 1922, 1923-29(M), 1931(M), 1933-34(M), 1936(M), 1940, 1942(M), 1944-45(M), 1951-52(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	400	268	700	428	280	508	308	248	198	99	178
2	138	312	244	645	408	280	468	292	252	180	97	725
3	324	264	237	605	388	268	464	320	231	163	130	564
4	248	240	234	615	364	264	655	324	210	150	138	775
5	175	252	360	568	336	256	635	296	192	143	133	572
6	150	248	496	544	340	248	588	284	178	138	118	456
7	133	240	416	528	356	231	508	324	170	133	99	536
8	125	244	360	512	348	219	476	288	165	125	93	496
9	120	252	552	512	340	284	660	276	163	118	101	420
10	115	240	605	516	332	336	670	364	158	112	120	360
11	118	231	516	544	320	280	600	352	155	102	135	312
12	123	225	456	528	312	248	556	432	145	98	101	284
13	120	225	424	488	316	231	564	700	138	94	91	272
14	120	237	588	468	328	219	556	572	133	90	87	384
15	118	237	532	460	292	213	685	504	130	87	83	296
16	125	240	468	460	228	268	564	452	155	83	81	248
17	140	237	456	472	219	440	508	424	304	80	312	231
18	138	231	440	436	210	380	468	384	300	78	352	213
19	108	234	412	356	231	320	480	356	228	82	186	201
20	101	228	424	272	404	288	504	324	204	86	135	198
21	97	228	2,240	340	316	460	464	304	189	80	113	216
22	97	228	2,150	440	336	500	432	284	201	70	103	237
23	97	228	1,450	428	416	432	444	280	222	74	130	201
24	99	228	1,030	440	348	404	416	280	222	86	123	160
25	99	244	775	432	312	368	392	264	225	96	138	155
26	105	276	900	412	292	340	364	244	219	95	118	150
27	130	252	1,050	476	276	316	344	231	195	93	108	150
28	101	328	910	504	268	296	328	225	180	95	110	310
29	272	396	815	516	-----	284	316	213	180	91	135	450
30	805	312	750	484	-----	336	308	210	173	115	170	380
31	556	-----	710	456	-----	512	-----	201	-----	113	207	-----
TOTAL	5,337	7,737	21,268	15,157	9,064	9,801	14,925	10,312	5,865	3,348	4,146	10,130
MEAN	172	258	686	489	324	316	498	333	196	108	134	338
MAX	805	400	2,240	700	428	512	685	700	304	198	352	775
MIN	97	225	234	272	210	213	308	201	130	70	81	150

CAL YR 1973 TOTAL 132,095 MEAN 362 MAX 2,240 MIN 97
WTR YR 1974 TOTAL 117,090 MEAN 321 MAX 2,240 MIN 70

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	0400	3.66	1,030	12-26	2045	3.95	1,200
12-21	1545	5.92	2,730	9-02	0730	3.85	1,140

DELAWARE RIVER BASIN

113

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 new bridge on State Highway 27.

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 and discharges into Raritan River at New Brunswick. Some water wasted to the Millstone River 500 ft (152 m) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	103	103	100	104	101	108	99	77	81	88	95
2	91	105	103	100	99	102	105	98	78	81	88	105
3	92	105	97	100	97	102	101	98	80	87	89	107
4	92	103	97	100	97	102	102	99	79	92	89	103
5	92	103	98	101	95	102	105	98	78	98	91	100
6	92	103	104	104	93	101	109	98	77	101	91	96
7	92	102	101	103	95	100	107	99	77	97	91	105
8	92	102	101	102	95	101	105	98	77	95	90	103
9	92	102	100	101	93	105	113	96	77	94	89	97
10	96	102	106	99	93	108	101	105	77	95	95	96
11	100	102	105	101	94	106	101	110	76	98	95	95
12	105	102	102	101	95	102	102	108	76	102	92	97
13	106	102	102	99	96	101	106	113	76	100	90	95
14	100	99	99	99	97	100	109	108	77	98	88	95
15	99	105	103	99	98	99	105	102	77	69	87	94
16	100	103	103	99	99	100	102	97	77	76	85	93
17	100	102	102	100	101	108	104	93	78	86	86	93
18	102	102	103	99	101	106	109	90	79	85	87	93
19	99	100	98	98	101	102	109	87	79	85	85	92
20	99	90	97	98	107	102	108	81	79	86	85	92
21	100	82	154	101	107	108	106	70	79	85	85	91
22	100	96	106	116	107	112	103	79	80	86	85	91
23	99	100	107	103	107	106	103	79	82	87	87	91
24	100	102	107	100	102	103	103	79	86	87	88	91
25	102	102	103	100	100	100	101	76	87	86	87	91
26	100	102	119	102	100	99	102	75	83	85	87	91
27	100	102	107	105	101	99	102	75	79	84	88	90
28	102	105	105	108	100	99	102	74	80	57	90	93
29	105	105	103	108	-----	99	101	75	80	85	95	98
30	103	105	102	108	-----	104	100	76	78	85	95	98
31	103	-----	101	107	-----	115	-----	76	-----	72	96	-----
TOTAL	3,046	3,038	3,238	3,161	2,774	3,194	3,134	2,811	2,365	2,705	2,764	2,871
MEAN	98.3	101	104	102	99.1	103	104	90.7	78.8	87.3	89.2	95.7
MAX	106	105	154	116	107	115	113	113	87	102	96	107
MIN	91	82	97	98	93	99	100	70	76	57	85	90

CAL YR 1973 TOTAL 35,919 MEAN 98.4 MAX 154 MIN 70
WTR YR 1974 TOTAL 35,101 MEAN 96.2 MAX 154 MIN 57

DELAWARE RIVER BASIN

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 Assumpink Creek, and at mile 134.5 (216.4 km).

DRAINAGE AREA.--6,780 mi² (17,560 km²).

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.--62 years, 11,570 ft³/s (327.7 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 119,000 ft³/s (3,370 m³/s) Dec. 22 (elevation 18.90 ft or 5.761 m); minimum, 2,850 ft³/s (80.7 m³/s) July 20, elevation, 8.02 ft (2.444 m). Flow in Delaware and Raritan Canal not included.

Period of record: Maximum discharge, 329,000 ft³/s (9,320 m³/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 ft³/s (6,510 m³/s); minimum, 1,180 ft³/s (33.4 m³/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 ft³/s (8,350 m³/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. 127) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see p. 133). Water diverted just above station by borough of Morrisville, Pa., and city of Trenton for municipal supply (see p. 133). 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,770	12,300	11,300	30,100	28,800	15,900	24,200	9,870	8,520	6,430	9,560	9,230
2	5,070	10,300	9,520	26,900	25,600	15,400	24,300	10,100	9,770	7,030	8,740	13,500
3	5,670	8,470	8,300	24,700	22,900	14,900	26,200	11,700	13,000	8,110	8,630	18,400
4	6,200	7,350	7,660	24,000	20,100	13,900	31,900	12,000	11,700	7,310	6,800	26,400
5	5,860	6,760	8,000	20,700	18,200	13,200	40,200	11,400	9,830	6,720	6,910	24,900
6	5,060	6,330	16,400	17,600	16,500	14,900	44,800	11,200	9,300	6,080	6,570	20,400
7	6,290	5,700	19,400	16,100	15,100	18,400	43,700	11,300	8,410	6,380	5,600	18,200
8	5,380	5,270	19,800	15,600	14,500	19,000	36,200	11,500	7,840	5,270	4,880	17,600
9	4,270	5,470	19,900	16,000	13,700	20,300	37,300	11,600	7,230	4,510	4,460	15,600
10	4,250	5,610	28,000	14,300	12,800	22,300	37,600	13,200	6,330	4,840	5,000	13,600
11	4,840	5,610	38,000	13,600	12,200	21,900	32,900	12,900	5,690	5,250	4,270	11,900
12	4,560	5,510	29,300	15,600	11,600	19,800	28,500	13,400	6,070	4,880	3,740	10,500
13	4,000	5,460	22,900	14,500	11,400	18,600	27,900	26,700	5,890	3,910	3,610	9,390
14	3,520	5,340	23,400	12,300	11,300	16,600	27,700	40,000	5,350	3,350	3,730	10,400
15	4,230	5,450	23,600	10,700	11,100	14,900	30,900	32,600	4,720	3,720	3,810	10,300
16	4,250	5,430	21,500	12,200	10,800	13,800	35,900	25,600	4,210	3,620	3,740	8,730
17	3,850	5,260	19,400	12,500	9,930	18,700	34,400	21,700	7,880	3,780	3,940	7,560
18	3,760	5,270	17,000	12,700	9,480	22,500	29,000	19,800	10,500	4,400	10,300	7,320
19	3,920	5,440	14,700	10,800	9,230	21,100	25,300	17,600	10,100	3,350	7,670	6,830
20	3,830	5,370	13,500	11,200	11,600	19,000	23,900	15,000	8,100	2,990	6,790	6,440
21	3,760	5,030	53,900	11,600	13,200	20,400	21,400	13,500	6,650	3,770	6,070	6,410
22	3,800	4,780	107,000	17,200	12,300	26,200	18,800	12,500	6,240	3,900	5,460	6,880
23	3,730	4,680	77,300	21,600	18,800	29,300	17,500	11,600	6,150	3,500	5,110	6,270
24	3,850	4,080	50,200	23,500	31,200	25,500	15,900	11,900	7,830	3,560	5,370	6,280
25	4,110	3,970	39,400	22,900	26,400	22,900	14,700	11,100	7,290	3,680	4,820	7,200
26	4,140	5,020	35,900	21,600	22,800	21,000	13,800	10,700	6,750	3,890	4,310	6,590
27	3,780	5,560	42,500	20,900	19,500	19,700	12,800	9,590	6,140	4,100	4,200	6,050
28	3,660	7,430	52,800	23,500	17,100	18,100	11,900	8,880	6,240	4,090	4,570	5,560
29	4,930	9,230	54,400	35,400	-----	16,600	11,200	8,480	6,440	4,030	5,020	16,500
30	13,000	11,700	42,900	38,600	-----	17,000	10,700	7,850	7,640	4,400	5,580	15,900
31	15,100	-----	35,000	33,800	-----	25,100	-----	7,840	-----	8,740	8,340	-----
TOTAL	158,440	189,180	963,050	602,700	458,140	596,900	791,400	453,110	227,810	149,590	177,600	350,840
MEAN	5,111	6,306	31,070	19,440	16,360	19,250	26,380	14,620	7,594	4,825	5,729	11,690
MAX	15,100	12,300	107,000	38,600	31,200	29,300	44,800	40,000	13,000	8,740	10,300	26,400
MIN	3,520	3,970	7,660	10,700	9,230	13,200	10,700	7,840	4,210	2,990	3,610	5,560
CAL YR 1973 TOTAL	6,057,630			MEAN 16,596		MAX 109,000		MIN 3,520				
WTR YR 1974 TOTAL	5,118,760			MEAN 14,020		MAX 107,000		MIN 2,990				

PEAK DISCHARGE (BASE, 50,000 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	1500	18.90	119,000	12-28	2115	14.79	58,800

DELAWARE RIVER BASIN

115

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 mi² (88.8 km²).

PERIOD OF RECORD.--October 1972 to current year. Occasional low-flow measurements water years 1963-67.

GAGE.--Water-stage recorder. Datum of gage is 49.28 ft (15.021 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 638 ft³/s (18.1 m³/s) Dec. 22 (gage height, 8.14 ft or 2.481 m); minimum daily, 9.0 ft³/s (0.25 m³/s) Aug. 4.

Period of record: Maximum discharge, 709 ft³/s (20.1 m³/s) Feb. 3, 1973 (gage height, 8.58 ft or 2.615 m); minimum daily, 9.0 ft³/s (0.25 m³/s) Aug. 4, 1974.

Flood of Aug. 28, 1971, reached a stage of 10.9 ft (3.32 m), discharge, 1,110 ft³/s or 31.4 m³/s (revised).

REVISIONS.--The maximum discharge for water year 1973 has been revised to 709 ft³/s (20.1 m³/s) Feb. 3, 1973 (gage height, 8.58 ft or 2.615 m) superseding figure published in WRD-NJ 1973.

REMARKS.--Records fair. Some regulation from dams and ponds upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	96	28	84	48	48	175	36	28	21	12	28
2	22	62	25	94	43	53	106	28	32	21	13	27
3	22	50	25	84	39	53	94	24	41	17	10	68
4	20	40	25	107	38	49	86	26	32	12	9.0	66
5	19	38	27	112	33	44	102	24	23	13	12	107
6	15	34	53	94	36	42	99	33	20	19	15	64
7	17	31	45	81	54	38	81	46	18	18	15	47
8	20	29	36	75	42	36	69	30	15	22	16	63
9	17	28	72	58	39	49	162	32	19	17	16	76
10	16	27	144	61	37	64	225	58	24	14	45	56
11	16	25	97	88	55	64	128	66	21	16	32	44
12	15	26	61	132	66	52	89	51	16	15	21	37
13	13	24	49	105	72	48	80	84	16	16	18	34
14	15	24	61	78	91	44	108	62	15	18	16	33
15	18	25	65	66	65	42	97	49	12	17	15	41
16	13	25	51	65	49	44	75	41	15	16	30	34
17	17	24	53	77	47	120	62	36	23	16	22	31
18	14	22	53	74	49	113	53	38	21	17	18	30
19	13	23	45	61	50	75	50	34	19	17	16	28
20	14	22	44	63	68	61	48	33	16	13	15	26
21	15	22	245	94	70	120	47	29	16	11	16	29
22	18	22	595	195	60	268	46	25	16	15	18	32
23	16	23	337	200	54	165	46	25	17	18	21	27
24	15	25	160	120	52	86	48	29	28	19	18	26
25	15	33	155	91	63	74	37	25	27	22	15	26
26	14	30	140	74	52	60	32	22	25	21	14	25
27	12	24	220	66	45	54	30	18	23	16	15	24
28	12	29	170	82	32	50	27	23	22	12	19	31
29	71	35	108	73	-----	48	35	26	19	14	25	49
30	206	33	88	65	-----	70	38	25	18	22	48	42
31	198	-----	78	60	-----	182	-----	25	-----	18	30	-----
TOTAL	933	951	3,355	2,779	1,449	2,316	2,375	1,103	637	523	605.0	1,251
MEAN	30.1	31.7	108	89.6	51.8	74.7	79.2	35.6	21.2	16.9	19.5	41.7
MAX	206	96	595	200	91	268	225	84	41	22	48	107
MIN	12	22	25	58	32	36	27	18	12	11	9.0	24
CFSM	.88	.92	3.15	2.61	1.51	2.18	2.31	1.04	.62	.49	.57	1.22
IN.	1.01	1.03	3.64	3.01	1.57	2.51	2.58	1.20	.69	.57	.66	1.36

CAL YR 1973. TOTAL 22,819.0

MEAN 62.5

MAX 595

MIN 12

CFSM 1.82

IN 24.75

WTR YR 1974. TOTAL 18,277.0

MEAN 50.1

MAX 595

MIN 9.0

CFSM 1.46

IN 19.82

PEAK DISCHARGE (BASE, 300 CFS)

NOTE.--Doubtful or no gage-height record
June 10 to Sept. 30.

DATE	TIME	G.H.	DISCHARGE
12-22	0730	8.14	638

DELAWARE RIVER BASIN

01464000 Assumpink 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 mi² (231.5 km²).

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.--51 years, 124 ft³/s (3.512 m³/s), unadjusted.

EXTREMES.--Current year: Maximum discharge, 2,020 ft³/s (57.2 m³/s) Dec. 21 (gage height, 8.69 ft or 2.649 m); minimum, 26 ft³/s (0.74 m³/s) July 21, 28 (gage height, 2.48 ft or 0.756 m).
Period of record: Maximum discharge, 3,920 ft³/s (111 m³/s) Aug. 28, 1971 (gage height, 13.46 ft or 4.103 m, from high-water mark in gage house); minimum, 1.0 ft³/s (0.028 m³/s) Aug. 21, Oct. 22, 1931 (gage height, 0.25 ft or 0.076 m); minimum daily, 4.0 ft³/s (0.11 m³/s) July 21, Aug. 8, Sept. 2, 1929.

REMARKS.--Records good. Records include water diverted from outside the basin since February 1954 for municipal supply which returns to Assumpink 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 ft³/s (0.057 m³/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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	200	66	245	144	159	452	92	83	86	37	70
2	70	131	56	215	131	161	308	80	173	56	41	434
3	82	102	60	213	125	150	245	114	123	54	76	422
4	59	82	61	318	121	142	250	88	92	46	61	479
5	54	79	148	258	105	133	320	73	73	248	102	238
6	45	74	280	208	103	119	305	99	65	130	54	158
7	42	69	131	190	138	118	220	123	61	70	94	473
8	53	66	94	176	131	119	200	92	56	62	60	283
9	49	64	377	161	112	184	617	110	55	57	223	185
10	47	60	353	165	112	200	494	395	64	53	443	141
11	46	53	218	315	114	165	341	228	64	50	118	116
12	47	57	150	359	110	140	243	228	56	50	77	114
13	42	59	136	258	121	125	320	326	53	42	66	97
14	37	57	293	190	150	112	323	190	51	42	57	198
15	47	59	171	178	148	107	265	141	44	46	53	118
16	42	57	134	192	127	215	208	116	47	47	49	99
17	41	54	190	215	123	340	175	143	65	42	91	86
18	42	49	157	192	121	240	158	165	57	41	74	79
19	42	54	118	172	142	174	148	100	55	60	55	74
20	38	54	157	169	250	146	134	94	49	53	50	71
21	34	53	1,540	333	194	566	121	86	65	30	46	80
22	37	50	935	449	192	593	125	82	59	35	49	88
23	47	50	697	356	190	401	173	110	170	38	97	73
24	44	51	362	263	148	253	141	94	86	89	53	68
25	42	51	228	208	148	203	114	76	70	57	41	66
26	42	55	467	180	148	170	105	65	64	46	42	65
27	38	59	641	228	134	150	91	59	59	37	45	62
28	33	144	419	205	134	139	83	71	60	30	88	94
29	467	121	285	186	-----	141	94	71	57	34	180	188
30	479	80	228	169	-----	265	99	71	46	51	170	105
31	328	-----	208	159	-----	635	-----	69	-----	41	107	-----
TOTAL	2,578	2,194	9,350	7,125	3,916	6,764	6,872	3,851	2,122	1,823	2,799	4,824
MEAN	83.2	73.1	302	230	140	218	229	124	70.7	58.8	90.3	161
MAX	479	200	1,540	449	250	635	617	395	173	248	443	479
MIN	33	49	56	159	103	107	83	59	44	30	37	62
(†)	11.3	10.8	15.8	17.1	13.3	15.2	17.6	13.5	11.6	11.2	11.3	15.2

CAL YR 1973 TOTAL 68,757 MEAN 188 MAX 1,780 MIN 33 † 14.4
WTR YR 1974 TOTAL 54,218 MEAN 149 MAX 1,540 MIN 30 † 13.6

PEAK DISCHARGE (BASE, 900 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-29	1745	5.87	900	3-21	1815	6.72	1,230
12-21	1015	8.69	2,020	8-10	0145	6.50	1,140
12-26	2300	6.00	945	9-02	0500	6.09	976

† Inflow from outside basin, 2.4 mi (3.9 m) upstream of station through plant of Ewing-Lawrence Sewerage Authority, in cubic feet per second.

DELAWARE RIVER BASIN

117

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 mi² (216.5 km²).

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.--33 years, (1940-51, 1952-74) 132 ft³/s (3.738 m³/s), 21.44 in/yr (545 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,380 ft³/s (67.4 m³/s) Dec. 21 (gage height, 10.73 ft or 3.271 m); minimum, 33 ft³/s (0.93 m³/s) July 22, 23, Aug. 2 (gage height, 2.39 ft or 0.728 m).
Period of record: Maximum discharge, 5,180 ft³/s (147 m³/s) Aug. 28, 1971 (gage height, 13.93 ft or 4.246 m); minimum, 13.1 ft³/s (0.37 m³/s) Feb. 14, 1942 (result of freezeup); minimum daily, 16 ft³/s (0.45 m³/s) Aug. 30 to Sept. 3, Sept. 12, 1966.

REMARKS.--Records good. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	187	81	284	131	221	820	103	81	70	35	61
2	49	120	73	270	126	221	496	91	103	68	34	73
3	53	110	71	197	133	171	324	98	176	57	47	84
4	51	100	66	292	121	152	266	138	123	53	47	215
5	47	90	71	284	116	140	348	118	98	48	55	174
6	40	83	110	197	131	131	300	103	86	62	52	113
7	39	78	95	174	140	123	226	118	77	64	47	228
8	39	74	81	157	169	121	178	116	77	53	61	296
9	40	70	171	152	160	238	404	101	79	48	52	143
10	42	66	488	183	148	278	840	118	68	45	257	106
11	37	62	245	314	133	194	470	194	62	44	145	81
12	37	66	150	602	126	160	274	143	55	41	75	68
13	37	69	120	354	138	145	217	190	59	40	61	61
14	39	66	171	183	176	128	348	164	55	38	53	116
15	35	66	168	197	162	121	262	128	50	37	47	106
16	33	64	128	251	138	140	190	111	55	38	44	68
17	33	60	155	203	152	558	162	98	75	53	45	61
18	33	55	175	171	143	436	148	98	64	38	116	57
19	33	57	128	162	128	212	143	93	59	37	86	53
20	37	60	113	167	164	174	140	81	55	37	68	52
21	37	55	1,310	210	143	302	133	77	57	35	57	50
22	37	55	1,720	512	145	946	121	75	61	33	50	86
23	38	57	760	318	167	602	126	77	75	33	57	64
24	38	55	372	215	136	332	126	101	121	37	62	50
25	38	62	226	183	131	212	116	84	86	73	53	48
26	35	64	206	164	145	169	113	77	91	53	47	48
27	35	64	500	174	136	148	106	73	77	45	45	47
28	35	85	402	171	138	136	103	75	70	44	45	47
29	160	113	223	157	-----	131	101	73	77	40	70	171
30	632	95	199	148	-----	234	101	77	68	38	62	123
31	582	-----	183	140	-----	652	-----	77	-----	37	86	-----
TOTAL	2,483	2,308	8,961	7,186	3,976	7,928	7,702	3,270	2,340	1,439	2,061	2,950
MEAN	80.1	76.9	289	232	142	256	257	105	78.0	46.4	66.5	98.3
MAX	632	187	1,720	602	176	946	840	194	176	73	257	296
MIN	33	55	66	140	116	121	101	73	50	33	34	47
CFSM	.96	.92	3.46	2.78	1.70	3.06	3.07	1.26	.93	.56	.80	1.18
IN.	1.10	1.03	3.99	3.20	1.77	3.53	3.43	1.46	1.04	.64	.92	1.31

CAL YR 1973 TOTAL 66,542 MEAN 182 MAX 1,720 MIN 33 CFSM 2.18 IN 29.61
WTR YR 1974 TOTAL 52,604 MEAN 144 MAX 1,720 MIN 33 CFSM 1.72 IN 23.41

PEAK DISCHARGE (BASE, 750 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-31	0100	7.19	1,000	4-01	0400	6.64	900
12-21	2300	10.73	2,380	4-10	0900	6.82	936
3-22	1400	7.41	1,050				

DELAWARE RIVER BASIN

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 mi² (138.0 km²).

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.--13 years, 93.9 ft³/s (2.659 m³/s), 23.92 in/yr (608 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,060 ft³/s (30.0 m³/s) Dec. 21 (gage height, 7.42 ft or 2.262 m); minimum, 16 ft³/s (0.42 m³/s) July 23.
Period of record: Maximum discharge, 1,110 ft³/s (31.4 m³/s) Nov. 9, 1972 (gage height, 7.56 ft or 2.304 m); minimum, 2.8 ft³/s (0.079 m³/s) July 17, 18, Aug. 9, 1966.

REMARKS.--Records good. Occasional regulation by lakes and ponds above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	129	53	193	76	94	377	66	67	51	26	45
2	37	105	48	178	74	96	277	57	80	49	26	50
3	35	86	45	150	75	94	248	66	142	45	28	51
4	32	76	43	197	76	90	225	82	128	38	29	159
5	32	71	36	179	77	87	252	69	110	28	35	155
6	38	69	44	143	71	85	226	70	96	46	36	120
7	33	56	56	129	75	82	189	89	94	74	37	210
8	32	51	51	119	84	80	154	70	82	68	44	266
9	32	50	90	108	91	90	273	91	56	59	54	170
10	29	51	189	120	84	94	317	119	45	47	124	127
11	31	52	144	203	76	94	230	109	56	41	88	113
12	36	65	114	296	73	83	185	101	54	36	74	96
13	27	59	103	212	73	77	171	125	51	33	62	80
14	24	49	114	158	85	70	201	104	46	32	53	72
15	25	44	120	125	85	66	179	108	42	29	46	70
16	25	41	107	126	77	79	151	85	39	28	39	63
17	24	53	119	134	81	212	131	79	39	25	42	55
18	22	51	127	110	82	150	127	78	38	17	126	50
19	28	45	106	93	77	117	119	71	37	18	90	47
20	40	57	98	89	81	106	112	63	36	20	68	43
21	37	54	721	99	77	164	101	56	33	19	58	41
22	42	48	752	180	74	358	93	65	37	17	185	45
23	28	43	491	141	95	257	82	53	65	16	615	39
24	26	40	372	120	88	209	70	63	83	23	237	36
25	31	31	292	109	83	170	79	64	80	54	226	30
26	31	34	230	101	91	147	77	65	84	64	163	37
27	37	46	296	100	87	129	72	65	86	53	113	28
28	30	49	204	98	88	116	73	59	66	42	94	40
29	74	61	163	95	-----	105	81	62	61	32	82	70
30	158	59	142	89	-----	127	93	64	52	20	66	60
31	154	-----	134	81	-----	335	-----	70	-----	28	58	-----
TOTAL	1,269	1,725	5,594	4,275	2,256	4,063	4,965	2,388	1,985	1,152	3,024	2,468
MEAN	40.9	57.5	180	138	80.6	131	166	77.0	66.2	37.2	97.5	82.3
MAX	158	129	752	296	95	358	377	125	142	74	615	266
MIN	22	31	36	81	71	66	70	53	33	16	26	28
CFSM	.77	1.08	3.38	2.59	1.51	2.46	3.11	1.44	1.24	.70	1.83	1.54
IN.	.89	1.20	3.90	2.98	1.57	2.84	3.47	1.67	1.39	.80	2.11	1.72

CAL YR 1973 TOTAL 43,856.8 MEAN 120 MAX 752 MIN 8.2 CFSM 2.25 IN 30.61
WTR YR 1974 TOTAL 35,164.0 MEAN 96.3 MAX 752 MIN 16 CFSM 1.81 IN 24.54

PEAK DISCHARGE (BASE, 550 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	1900	7.42	1,060
8-23	0400	6.70	790

DELAWARE RIVER BASIN

119

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 mi² (5.98 km²).

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.--21 years, 2.30 ft³/s (0.0651 m³/s), 13.52 in/yr (343 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5.1 ft³/s (0.14 m³/s) Apr. 10 (gage height, 1.50 ft or 0.457 m); minimum, 1.1 ft³/s (0.031 m³/s) Oct. 23-29 (gage height, 1.08 ft or 0.329 m).

Period of record: Maximum discharge, 35 ft³/s (0.99 m³/s) Aug. 25, 1958 (gage height, 2.33 ft or 0.710 m); minimum daily, 0.8 ft³/s (0.023 m³/s) July 6, 19, 1967.

REMARKS.--Records good. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.7	1.1	2.2	2.4	2.5	4.8	2.5	2.2	1.6	1.1	1.5
2	1.3	1.7	1.1	2.0	2.3	2.5	4.0	2.5	2.7	1.6	1.1	1.5
3	1.3	1.6	1.1	2.1	2.3	2.4	3.5	2.7	3.2	1.5	1.2	1.7
4	1.3	1.5	1.1	2.2	2.3	2.4	3.5	2.7	2.9	1.5	1.4	3.2
5	1.3	1.4	1.1	2.0	2.3	2.3	3.5	2.5	2.6	1.6	1.6	2.3
6	1.1	1.4	1.1	2.0	2.3	2.3	3.5	2.5	2.4	2.1	1.4	2.3
7	1.1	1.4	1.1	2.0	2.4	2.3	3.3	2.5	2.3	2.0	1.7	3.4
8	1.1	1.3	1.1	1.9	2.4	2.2	3.2	2.5	2.3	1.6	1.8	3.6
9	1.1	1.4	1.7	1.9	2.3	2.4	4.4	2.4	2.2	1.5	1.8	2.8
10	1.1	1.3	1.6	2.0	2.3	2.5	4.8	2.5	2.0	1.4	2.3	2.4
11	1.1	1.3	1.4	2.2	2.3	2.3	4.0	2.5	2.0	1.4	2.0	2.2
12	1.1	1.3	1.3	2.5	2.3	2.3	3.6	2.5	2.0	1.4	1.9	2.1
13	1.1	1.3	1.3	2.5	2.3	2.3	3.7	2.6	1.9	1.3	1.6	2.0
14	1.1	1.3	1.4	2.7	2.5	2.3	3.7	2.5	1.8	1.3	1.5	2.0
15	1.1	1.3	1.2	2.6	2.5	2.3	3.6	2.3	1.8	1.3	1.4	1.8
16	1.1	1.2	1.2	2.6	2.4	2.5	3.4	2.3	2.0	1.2	1.3	1.8
17	1.1	1.1	1.2	2.7	2.5	2.7	3.3	2.3	2.0	1.2	1.5	1.7
18	1.1	1.1	1.2	2.6	2.5	2.5	3.2	2.5	1.8	1.2	2.0	1.7
19	1.1	1.1	1.1	2.5	2.4	2.5	3.0	2.3	1.7	1.2	1.7	1.6
20	1.1	1.1	1.3	2.5	2.5	2.5	2.9	2.2	1.7	1.1	1.4	1.7
21	1.1	1.1	2.7	2.8	2.4	3.3	2.8	2.1	1.7	1.1	1.3	1.7
22	1.1	1.1	3.6	3.2	2.6	4.4	2.7	2.0	1.7	1.1	1.3	1.9
23	1.1	1.1	3.0	2.9	2.7	4.0	2.8	2.3	1.9	1.1	2.7	1.7
24	1.1	1.1	2.5	2.9	2.5	3.4	2.8	2.4	2.0	1.6	2.5	1.6
25	1.1	1.1	2.3	2.8	2.5	3.2	2.8	2.3	1.9	2.2	2.4	1.7
26	1.1	1.1	2.2	2.6	2.5	2.9	2.7	2.1	1.9	1.8	2.0	1.6
27	1.1	1.1	2.3	2.5	2.4	2.8	2.7	2.1	1.8	1.5	1.7	1.5
28	1.1	1.2	2.1	2.5	2.4	2.7	2.6	2.3	1.7	1.4	1.7	1.6
29	2.5	1.2	1.9	2.5	-----	2.7	2.6	2.2	1.8	1.4	1.7	1.9
30	2.5	1.1	1.9	2.5	-----	3.0	2.5	2.4	1.6	1.3	1.7	1.8
31	2.0	-----	1.9	2.4	-----	4.1	-----	2.3	-----	1.2	1.6	-----
TOTAL	38.8	38.0	51.1	75.3	67.5	84.5	99.9	73.8	61.5	44.7	52.3	60.3
MEAN	1.25	1.27	1.65	2.43	2.41	2.73	3.33	2.38	2.05	1.44	1.69	2.01
MAX	2.5	1.7	3.6	3.2	2.7	4.4	4.8	2.7	3.2	2.2	2.7	3.6
MIN	1.1	1.1	1.1	1.9	2.3	2.2	2.5	2.0	1.6	1.1	1.1	1.5
CFSM	.54	.55	.71	1.05	1.04	1.18	1.44	1.03	.89	.62	.73	.87
IN.	.62	.61	.82	1.21	1.09	1.36	1.61	1.19	.99	.72	.84	.97

CAL YR 1973 TOTAL 1,139.4 MEAN 3.12 MAX 10 MIN 1.1 CFSM 1.35 IN 18.35
WTR YR 1974 TOTAL 747.7 MEAN 2.05 MAX 4.8 MIN 1.1 CFSM .89 IN 12.04

PEAK DISCHARGE (BASE, 7.0 CFS).--No peak above base.

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 mi² (287 km²).

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.--53 years, 170 ft³/s (4.814 m³/s), 20.80 in/yr (528 mm/yr).

EXTREMES.--Current year: Maximum discharge, 656 ft³/s (18.6 m³/s) Dec. 21 (gage height, 2.57 ft or 0.783 m); minimum, 58 ft³/s (1.64 m³/s) Aug. 2 (gage height, 1.52 ft or 0.463 m).
Period of record: Maximum discharge, 1,730 ft³/s (49.0 m³/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 ft³/s (0.25 m³/s) Sept. 29, 1932.

REMARKS.--Records excellent. 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	255	102	220	181	187	429	154	138	106	62	114
2	82	214	94	285	158	181	447	142	170	98	70	114
3	90	187	86	309	158	176	339	150	243	94	74	118
4	90	158	82	315	158	170	333	162	192	90	102	309
5	90	138	86	285	154	166	357	158	198	86	102	249
6	82	130	114	279	150	166	357	154	170	134	98	209
7	82	122	98	255	166	158	315	154	154	154	94	333
8	82	114	86	243	181	162	273	150	142	142	106	357
9	82	114	170	237	170	176	321	150	134	122	142	351
10	83	114	255	249	162	181	423	181	126	106	339	315
11	83	114	203	297	162	170	417	192	114	98	209	273
12	84	114	162	351	158	162	363	203	106	90	142	255
13	83	118	142	339	162	154	327	243	102	82	134	203
14	83	110	170	321	170	146	327	231	94	78	122	209
15	82	106	166	297	170	138	279	209	94	82	106	198
16	82	102	158	214	170	130	279	181	94	74	90	166
17	80	98	170	192	176	250	255	154	106	66	110	138
18	80	98	176	192	170	215	231	138	106	66	170	126
19	78	102	162	203	170	170	220	126	98	70	192	122
20	78	106	162	225	170	150	214	122	86	66	170	114
21	78	98	478	255	170	200	203	98	82	66	142	118
22	78	90	572	279	181	390	192	98	90	66	134	146
23	78	90	572	255	176	370	203	110	122	66	138	146
24	82	90	435	249	166	310	225	130	158	82	158	122
25	74	98	393	261	170	260	220	126	154	118	192	110
26	94	102	387	237	166	230	214	118	146	114	203	110
27	86	94	387	192	170	214	209	106	142	98	181	122
28	82	106	333	187	170	198	181	114	208	86	154	138
29	187	122	187	198	-----	198	176	114	181	66	142	162
30	261	114	162	220	-----	231	166	130	118	70	138	154
31	285	-----	154	203	-----	369	-----	130	-----	66	134	-----
TOTAL	3,047	3,618	6,904	7,844	4,685	6,378	8,495	4,628	4,068	2,802	4,350	5,601
MEAN	98.3	121	223	253	167	206	283	149	136	90.4	140	187
MAX	285	255	572	351	181	390	447	243	243	154	339	357
MIN	74	90	82	187	150	130	166	98	82	66	62	110
CFSM	.89	1.09	2.01	2.28	1.50	1.86	2.55	1.34	1.23	.81	1.26	1.68
IN.	1.02	1.21	2.31	2.63	1.57	2.14	2.85	1.55	1.36	.94	1.46	1.88

CAL YR 1973 TOTAL 80,460 MEAN 220 MAX 856 MIN 63 CFSM 1.98 IN 26.96
WTR YR 1974 TOTAL 62,420 MEAN 171 MAX 572 MIN 62 CFSM 1.54 IN 20.92

PEAK DISCHARGE (BASE, 600 CFS)

DATE TIME G.H. DISCHARGE
12-21 1230 2.57 656

DELAWARE RIVER BASIN

121

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 mi² (23.72 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 8.12 ft (2.475 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 18.0 ft³/s (0.510 m³/s), 26.68 in/yr (678 mm/yr).

EXTREMES.--Current year: Maximum discharge, 421 ft³/s (11.9 m³/s) Dec. 21 (gage height, 7.46 ft or 2.274 m); minimum, 3.8 ft³/s (0.11 m³/s) Aug. 1 (gage height, 1.75 ft or 0.533 m).
Period of record: Maximum discharge, 781 ft³/s (22.1 m³/s) Aug. 28, 1971 (gage height, 11.34 ft or 3.456 m); minimum, 2.6 ft³/s (0.074 m³/s) Oct. 6, 9, 10, 11, 1970 (gage height, 1.71 ft or 0.521 m).

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	13	6.0	37	9.6	21	44	11	9.4	14	4.2	4.6
2	4.9	8.2	5.8	15	11	13	35	10	35	6.3	5.4	6.0
3	37	7.5	5.8	24	12	13	27	34	12	6.0	5.8	16
4	7.7	6.7	5.8	19	9.6	9.6	56	14	6.8	5.8	4.4	26
5	6.3	7.7	13	19	8.2	9.0	46	11	6.3	8.4	10	5.8
6	6.3	7.2	12	15	8.0	8.0	32	13	5.8	6.5	4.4	5.6
7	6.0	6.7	6.3	13	23	8.2	22	13	5.6	5.6	22	80
8	6.0	6.7	6.0	11	14	7.5	26	9.0	6.3	5.4	5.6	11
9	5.8	11	94	18	11	29	103	15	5.4	5.6	8.7	6.8
10	5.2	7.2	26	36	9.6	25	37	48	5.4	6.0	35	6.0
11	5.2	6.7	10	69	10	13	24	14	4.8	6.0	5.8	6.0
12	5.2	7.0	7.5	40	11	11	21	23	5.4	5.8	4.8	6.0
13	5.2	6.7	14	19	16	10	51	30	5.2	5.8	4.6	6.3
14	5.1	6.6	43	13	17	9.2	32	11	5.0	5.6	4.8	13
15	4.8	6.6	11	15	11	9.0	23	9.7	4.8	6.0	4.8	5.6
16	5.5	6.4	11	19	10	49	19	8.7	6.5	6.0	4.4	5.4
17	5.4	6.3	23	20	15	47	17	9.4	7.9	5.8	32	5.4
18	5.1	6.4	11	13	9.6	15	17	9.0	5.0	5.8	14	5.4
19	5.1	6.7	7.5	14	12	12	19	7.1	4.6	7.6	5.0	5.4
20	5.1	6.4	37	12	15	9.2	18	6.5	4.8	6.3	4.6	5.6
21	5.1	6.1	293	39	12	114	17	6.8	11	6.0	4.4	8.2
22	5.5	6.4	30	29	14	36	16	6.5	11	6.0	39	12
23	5.5	5.8	17	16	12	15	24	18	82	6.3	31	5.6
24	5.1	6.7	12	13	8.7	12	16	9.4	14	39	13	5.2
25	5.4	7.5	10	14	13	9.2	15	8.7	9.4	11	19	5.4
26	5.4	7.0	41	11	15	8.7	15	6.5	8.4	5.0	5.4	5.2
27	5.4	6.3	43	22	11	8.2	14	6.8	6.8	4.8	5.2	5.0
28	5.2	16	17	15	14	8.0	14	12	16	4.4	9.0	22
29	130	11	13	14	-----	13	14	7.1	12	4.4	7.6	20
30	32	6.1	15	11	-----	62	11	7.1	6.8	11	5.0	5.2
31	8.7	-----	20	10	-----	174	-----	6.8	-----	4.4	5.8	-----
TOTAL	400.0	226.6	866.7	661	342.3	787.8	825	402.1	329.4	232.6	334.7	325.7
MEAN	12.9	7.55	28.0	21.3	12.2	25.4	27.5	13.0	11.0	7.50	10.8	10.9
MAX	130	16	293	69	23	174	103	48	82	39	39	80
MIN	4.8	5.8	5.8	10	8.0	7.5	11	6.5	4.6	4.4	4.2	4.6
CFSM	1.41	.82	3.06	2.33	1.33	2.77	3.00	1.42	1.20	.82	1.18	1.19
IN.	1.62	.92	3.52	2.68	1.39	3.20	3.35	1.63	1.34	.94	1.36	1.32

CAL YR 1973 TOTAL 7,302.5 MEAN 20.0 MAX 293 MIN 4.3 CFSM 2.18 IN 29.66
WTR YR 1974 TOTAL 5,733.9 MEAN 15.7 MAX 293 MIN 4.2 CFSM 1.71 IN 23.29

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-29	1315	6.31	306	3-21	1500	6.35	310
12-21	1015	7.46	421	3-31	0015	6.62	337

DELAWARE RIVER BASIN

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 mi² (45.1 km²).

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.--11 years, 33.1 ft³/s (0.937 m³/s), 25.83 in/yr (656 mm/yr).

EXTREMES.--Current year: Maximum discharge, 495 ft³/s (14.0 m³/s) Dec. 21 (gage height, 2.75 ft or 0.838 m); minimum, 9.2 ft³/s (0.261 m³/s) Oct. 21, 22 (gage height, 1.40 ft or 0.427 m).
Period of record: Maximum discharge 3,300 ft³/s (93.5 m³/s) Aug. 28, 1971 (gage height, 5.46 ft or 1.664 m); minimum, 0.8 ft³/s (0.023 m³/s) Nov. 13, 1972 (gage height, 1.07 ft or 0.326 m) regulation from unknown source; minimum daily, 1.2 ft³/s (0.034 m³/s) June 27, 1964.

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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	37	24	71	31	42	76	26	28	35	17	15
2	58	29	19	41	34	34	54	25	59	24	18	19
3	106	25	19	45	35	31	44	66	43	20	20	29
4	32	22	21	84	32	30	82	39	28	17	19	60
5	26	23	31	44	29	28	69	28	26	19	28	28
6	23	24	32	36	27	27	54	32	24	29	20	23
7	22	24	24	35	53	26	42	39	26	27	45	117
8	20	22	22	31	40	26	46	29	27	22	27	36
9	19	23	144	42	35	43	160	37	24	21	57	24
10	18	23	62	69	32	40	64	82	24	21	110	22
11	18	21	37	123	32	31	44	43	20	18	23	20
12	19	22	29	88	32	29	40	48	19	14	21	20
13	16	20	33	47	38	26	74	66	19	14	20	20
14	15	20	84	38	42	26	56	37	22	14	19	28
15	18	22	37	38	33	25	42	25	17	17	17	17
16	17	21	33	44	29	81	39	27	24	22	17	17
17	17	21	47	43	36	91	37	23	30	22	31	16
18	18	21	32	34	30	39	36	23	20	24	27	15
19	18	22	26	33	32	36	39	22	18	27	18	15
20	16	23	59	31	35	32	38	23	18	29	16	15
21	11	24	391	66	29	182	35	23	46	29	13	20
22	10	22	85	57	37	93	35	23	57	29	28	31
23	11	22	46	42	32	43	46	44	82	29	55	17
24	11	22	37	36	27	35	37	36	44	73	25	16
25	11	21	32	37	33	34	35	31	29	42	20	15
26	11	28	70	33	35	34	33	25	25	23	17	14
27	10	24	78	45	30	30	24	24	24	19	16	14
28	10	37	46	38	34	30	26	42	33	17	20	24
29	179	33	37	36	-----	37	29	30	31	16	23	56
30	89	24	38	35	-----	112	29	27	25	24	23	22
31	33	-----	42	33	-----	288	-----	25	-----	18	20	-----
TOTAL	899	722	1,717	1,475	944	1,661	1,465	1,070	912	755	830	785
MEAN	29.0	24.1	55.4	47.6	33.7	53.6	48.8	34.5	30.4	24.4	26.8	26.2
MAX	179	37	391	123	53	288	160	82	82	73	110	117
MIN	10	20	19	31	27	25	24	22	17	14	13	14
CFSM	1.67	1.39	3.18	2.74	1.94	3.08	2.80	1.98	1.75	1.40	1.54	1.51
IN.	1.92	1.54	3.67	3.15	2.02	3.55	3.13	2.29	1.95	1.61	1.77	1.68

CAL YR 1973 TOTAL 15,865 MEAN 43.5 MAX 470 MIN 10 CFSM 2.50 IN 33.92
WTR YR 1974 TOTAL 13,235 MEAN 36.3 MAX 391 MIN 10 CFSM 2.09 IN 28.30

PEAK DISCHARGE (BASE, 500 CFS).--No peak above base.

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 Fairmount 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 mi² (4,903 km²).

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 Fairmount 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 Fairmount Dam at same datum.

AVERAGE DISCHARGE.--43 years, 2,871 ft³/s (81.30 m³/s), 20.59 in/yr (523 mm/yr), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 51,300 ft³/s (1,450 m³/s) Dec. 21 (gage height, 11.47 ft or 3.496 m); minimum, 427 ft³/s (12.1 m³/s) July 23 (gage height, 5.77 ft or 1.759 m); minimum daily discharge, 461 ft³/s (13.1 m³/s) July 23.

Period of record: Maximum discharge, 103,000 ft³/s (2,920 m³/s) June 23, 1972 (gage height, 14.65 ft or 4.465 m); no flow over dam at times; minimum daily, 0.6 ft³/s (0.02 m³/s) Sept. 2, 1966. Maximum stage known, 17.0 ft (5.18 m) Oct. 4, 1869 (discharge, 135,000 ft³/s or 3,820 m³/s, from rating curve extended above 46,000 ft³/s or 1,300 m³/s). Flood of Mar. 1, 1902, reached a stage of 14.8 ft or 4.511 m (discharge, 98,000 ft³/s or 2,780 m³/s).

REMARKS.--Records good except those below 1,000 ft³/s (28.3 m³/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 WRD-PA 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 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,570	2,280	1,260	5,830	4,080	3,110	11,000	2,060	1,700	1,650	965	1,120
2	1,610	1,910	1,030	5,180	3,580	3,210	8,310	1,920	2,120	2,280	777	1,360
3	1,980	1,660	929	4,460	3,370	2,900	7,320	2,090	2,050	1,890	1,030	2,700
4	1,530	1,420	862	6,170	3,010	2,760	8,130	2,410	1,680	1,500	1,810	5,530
5	1,310	1,280	1,750	5,380	2,570	2,610	12,500	2,060	1,450	1,480	3,950	3,400
6	1,140	1,240	6,610	4,240	2,240	2,470	12,200	1,870	1,300	1,320	1,920	2,150
7	1,050	1,130	4,520	3,910	2,290	2,330	9,150	1,950	1,200	1,250	1,220	3,260
8	997	1,080	3,220	3,630	2,290	2,200	7,530	1,900	1,180	1,100	981	3,450
9	1,010	1,040	5,290	3,210	2,030	3,110	13,700	1,860	1,200	954	917	2,410
10	968	972	9,620	3,260	1,810	5,370	9,870	2,990	1,140	858	1,390	1,890
11	999	963	6,630	5,260	1,770	5,130	7,080	2,930	1,090	790	1,070	1,610
12	996	909	4,970	6,380	1,730	4,330	5,990	2,780	996	812	927	1,550
13	916	915	3,970	4,300	1,650	3,860	7,690	11,500	965	777	763	1,410
14	907	904	6,080	3,160	1,690	3,370	8,540	7,040	933	729	653	2,270
15	858	845	5,610	3,010	1,620	3,000	8,660	4,780	883	615	632	2,970
16	804	840	4,210	3,150	1,880	3,230	7,850	3,860	2,010	586	557	2,060
17	783	764	3,850	3,100	1,760	6,290	5,970	3,200	2,990	554	547	1,670
18	740	789	3,400	3,050	1,760	4,640	5,120	2,810	1,640	507	2,460	1,440
19	738	785	2,820	3,000	1,800	3,550	4,630	2,610	1,230	553	1,560	1,280
20	739	791	2,850	3,000	2,500	3,250	4,460	2,320	1,010	523	1,000	1,170
21	728	763	37,400	4,000	3,120	5,170	4,000	2,100	1,150	540	743	1,160
22	723	734	26,400	5,700	2,510	9,370	3,640	1,960	1,520	503	626	1,310
23	726	708	13,600	9,000	4,060	5,890	3,640	2,630	2,260	461	2,980	1,280
24	742	713	9,190	8,100	4,760	5,010	3,330	2,560	2,650	787	1,160	1,090
25	708	756	6,800	7,200	3,950	4,400	2,920	2,080	2,470	936	870	957
26	684	831	10,800	6,000	3,600	3,760	2,650	1,820	1,850	822	663	859
27	668	897	22,000	6,200	3,110	3,410	2,490	1,700	1,540	687	974	793
28	630	1,130	12,000	6,000	3,010	3,060	2,330	1,670	1,480	610	777	1,200
29	1,730	1,920	9,190	6,500	-----	2,940	2,270	1,640	1,880	550	701	8,540
30	3,760	1,940	7,530	5,900	-----	5,000	2,200	1,700	1,770	1,030	961	2,610
31	3,760	-----	6,220	5,300	-----	18,600	-----	1,680	-----	1,080	1,110	-----
TOTAL	36,504	32,909	240,611	152,580	73,550	137,330	195,170	86,480	47,337	28,734	36,694	64,499
MEAN	1,178	1,097	7,762	4,922	2,627	4,430	6,506	2,790	1,578	927	1,184	2,150
MAX	3,760	2,280	37,400	9,000	4,760	18,600	13,700	11,500	2,990	2,280	3,950	8,540
MIN	630	708	862	3,000	1,620	2,200	2,200	1,640	883	461	547	793
(f)	268	258	257	260	251	251	248	263	280	331	308	275
MEAN#	1,446	1,355	8,019	5,182	2,878	4,681	6,754	3,053	1,858	1,258	1,492	2,425
CFSM#	.76	.71	4.24	2.74	1.52	2.47	3.57	1.61	.98	.66	.79	1.28
IN.#	.88	.78	4.87	3.15	1.58	2.84	3.97	1.86	1.09	.76	.91	1.43

CAL YR 1973 TOTAL 1,443,906 MEAN 3,956 MAX 37,400 MIN 562 MEAN# 4,226 CFSM# 2.23 IN.# 30.30
WTR YR 1974 TOTAL 1,132,398 MEAN 3,102 MAX 37,400 MIN 461 MEAN# 3,374 CFSM# 1.78 IN.# 24.19

PEAK DISCHARGE (BASE, 18,000 CFS)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-21	1600	11.47	51,300	3-31	0745	9.14	23,800
12-27	0215	9.93	32,000	4-9	1315	8.61	18,800

Diversion, equivalent in cubic feet per second, for municipal water supply; furnished by city of Philadelphia.
Adjusted for diversion.

DELAWARE RIVER BASIN

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 mi² (15.67 km²).

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.--34 years, 11.3 ft³/s (0.320 m³/s), 25.36 in/yr (644 mm/yr).

EXTREMES.--Current year: Maximum discharge, 83 ft³/s (2.35 m³/s) Dec. 21 (gage height, 1.56 ft or 0.475 m); minimum, 4.6 ft³/s (0.13 m³/s) July 23, 25-30 (gage height, 1.03 ft or 0.314 m).

Period of record: Maximum discharge, about 4,200 ft³/s (119 m³/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 ft³/s (0.071 m³/s) for several days in July 1966 (gage height, 0.93 ft or 0.283 m).

REMARKS.--Records good.

REVISIONS.--WRD-NJ 1971: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	11	9.7	18	8.0	8.2	16	8.4	7.6	7.9	5.9	8.2
2	11	10	9.2	11	8.0	8.3	10	8.2	12	7.9	6.0	8.2
3	18	10	9.2	11	8.0	8.3	9.8	19	14	7.8	6.7	9.0
4	10	10	9.7	19	8.0	8.3	11	12	9.0	7.6	6.5	18
5	9.0	11	11	12	8.0	8.3	12	9.0	8.5	7.6	10	10
6	9.0	11	11	10	8.0	8.0	10	8.7	8.2	23	7.5	9.0
7	9.0	10	9.9	9.5	8.4	7.9	9.3	9.7	7.9	9.8	10	23
8	9.2	10	9.8	9.9	8.8	7.9	9.3	8.6	7.9	8.1	8.9	14
9	9.2	12	26	12	8.7	8.8	24	8.5	7.9	7.8	8.7	10
10	9.3	11	17	17	8.0	8.8	15	14	8.2	7.6	10	9.5
11	9.2	10	12	24	7.8	7.7	9.2	11	7.9	7.4	7.9	9.0
12	9.2	9.9	11	22	8.2	7.5	9.0	10	7.9	6.7	7.6	9.0
13	9.5	9.8	11	12	8.0	6.7	11	14	7.9	6.7	7.6	9.0
14	9.2	9.8	17	11	8.3	6.7	12	11	7.6	6.7	7.6	9.0
15	9.2	9.9	12	10	8.4	6.7	9.7	10	7.6	6.6	7.6	9.0
16	9.5	9.9	11	10	8.2	12	9.3	9.5	7.6	5.9	7.4	9.0
17	9.2	9.8	13	10	8.3	20	9.0	9.0	8.2	5.9	6.9	9.0
18	9.3	9.6	11	9.4	8.3	9.0	9.6	9.5	8.2	5.8	7.6	9.0
19	9.8	9.7	11	9.7	8.3	8.5	9.2	8.5	7.9	5.2	7.2	9.0
20	9.8	9.8	12	9.5	8.2	8.3	9.0	8.2	7.6	5.2	6.7	9.0
21	9.8	11	66	14	8.0	24	9.0	9.5	7.9	5.2	6.7	9.0
22	11	11	24	14	8.0	22	9.0	8.2	9.0	5.2	19	9.5
23	15	9.8	15	10	8.2	8.7	12	10	19	5.6	44	9.0
24	11	9.8	12	9.5	8.0	8.5	10	10	12	9.3	15	8.5
25	9.9	9.9	12	10	8.1	8.5	9.5	10	8.5	6.9	10	8.5
26	9.9	10	15	9.6	8.3	8.5	9.4	9.0	8.2	4.7	9.0	8.5
27	10	10	20	11	8.1	8.3	9.0	8.5	7.9	4.7	9.0	8.5
28	12	12	12	10	8.0	8.2	8.5	8.5	7.9	4.7	8.5	11
29	30	12	9.7	9.9	-----	8.3	8.5	9.5	8.5	4.7	8.2	18
30	23	10	9.8	8.7	-----	15	8.5	8.5	7.9	7.0	8.2	11
31	14	-----	10	8.0	-----	34	-----	8.2	-----	5.9	8.2	-----
TOTAL	352.4	309.7	449.0	371.7	228.6	329.9	316.8	306.7	266.4	221.1	300.1	310.4
MEAN	11.4	10.3	14.5	12.0	8.16	10.6	10.6	9.89	8.88	7.13	9.68	10.3
MAX	30	12	66	24	8.8	34	24	19	19	23	44	23
MIN	9.0	9.6	9.2	8.0	7.8	6.7	8.5	8.2	7.6	4.7	5.9	8.2
CFSM	1.88	1.70	2.40	1.98	1.35	1.75	1.75	1.63	1.47	1.18	1.60	1.70
IN.	2.17	1.90	2.76	2.29	1.41	2.03	1.95	1.89	1.64	1.36	1.85	1.91

CAL YR 1973 TOTAL 5,272.7 MEAN 14.4 MAX 69 MIN 5.8 CFSM 2.38 IN 32.42
WTR YR 1974 TOTAL 3,762.8 MEAN 10.3 MAX 66 MIN 4.7 CFSM 1.70 IN 23.14

PEAK DISCHARGE (BASE, 50 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	1000	1.56	83
8-23	0100	1.53	77

DELAWARE RIVER BASIN

125

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 mi² (77.4 km²).

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.--8 years, 43.6 ft³/s (1.235 m³/s), 19.80 in/yr (503 mm/yr).

EXTREMES.--Current year: Maximum discharge, 366 ft³/s (10.4 m³/s) Dec. 21 (elevation, 10.88 ft or 3.316 m); minimum, 13 ft³/s (0.37 m³/s) July 23 (elevation, 6.85 ft or 2.088 m).
Period of record: Maximum discharge, 3,530 ft³/s (100 m³/s) Aug. 10, 1967 (elevation, 17.44 ft or 5.316 m) present datum; minimum daily, 2.9 ft³/s (0.082 m³/s) July 14, Aug. 27, 28, Sept. 10, 1966.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	21	16	61	33	43	98	30	26	26	15	16
2	18	18	16	44	34	38	77	24	38	23	15	16
3	40	19	16	40	37	35	68	55	43	20	16	19
4	21	18	16	70	36	33	88	45	31	20	15	44
5	17	20	18	52	34	31	91	38	25	18	19	24
6	16	21	20	52	32	29	73	36	23	38	18	19
7	15	19	19	63	43	29	54	41	22	33	28	64
8	15	19	17	68	43	28	54	34	24	23	25	35
9	14	23	69	72	40	33	174	33	23	19	25	23
10	14	18	56	79	38	36	90	59	22	19	31	19
11	14	19	29	104	36	31	64	48	20	17	19	18
12	14	19	25	100	34	29	59	45	19	16	17	18
13	14	19	25	55	38	29	68	68	19	16	16	17
14	14	18	55	43	45	28	73	44	19	16	17	19
15	14	17	30	43	39	27	60	38	19	16	20	17
16	14	16	27	44	36	50	50	34	21	15	18	16
17	14	17	35	44	41	100	47	30	25	15	17	16
18	14	17	27	39	36	49	45	31	22	14	17	16
19	15	17	24	39	35	40	43	29	19	14	16	16
20	15	17	31	39	36	36	43	26	19	14	15	16
21	15	17	296	53	33	109	41	24	20	14	15	17
22	16	17	116	56	35	114	40	24	31	14	18	19
23	16	16	53	43	37	56	54	40	126	13	68	16
24	16	16	43	40	32	47	46	48	50	18	36	15
25	16	16	40	40	35	42	40	46	31	19	22	15
26	16	17	53	38	36	40	37	33	27	16	19	15
27	15	16	79	42	34	40	35	29	24	16	17	15
28	15	21	47	40	37	38	34	28	25	16	17	20
29	54	22	41	41	-----	39	33	26	29	15	18	42
30	38	18	40	37	-----	92	32	26	24	18	16	21
31	22	-----	36	35	-----	211	-----	25	-----	16	16	-----
TOTAL	565	548	1,415	1,616	1,025	1,582	1,811	1,137	866	567	641	643
MEAN	18.2	18.3	45.6	52.1	36.6	51.0	60.4	36.7	28.9	18.3	20.7	21.4
MAX	54	23	296	104	45	211	174	68	126	38	68	64
MIN	14	16	16	35	32	27	32	24	19	13	15	15
CFSM	.61	.61	1.53	1.74	1.22	1.71	2.02	1.23	.97	.61	.69	.72
IN.	.70	.68	1.76	2.01	1.28	1.97	2.25	1.41	1.08	.71	.80	.80

CAL YR 1973 TOTAL 18,958 MEAN 51.9 MAX 435 MIN 12 CFSM 1.74 IN 23.59
WTR YR 1974 TOTAL 12,416 MEAN 34.0 MAX 296 MIN 13 CFSM 1.14 IN 15.45

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.H.	DISCHARGE
12-21	1230	10.88	366

DELAWARE RIVER 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 mi² (37.8 km²).

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.--32 years (1942-74), 18.7 ft³/s (0.530 m³/s), 17.39 in/yr (442 mm/yr).

EXTREMES.--Current year: Maximum discharge, 358 ft³/s (10.1 m³/s) Aug. 23 (gage height, 1.83 ft or 0.558 m); minimum daily, 1.5 ft³/s (0.042 m³/s) July 16, 17.
Period of record: Maximum discharge, 22,000 ft³/s (623 m³/s) Sept. 1, 1940 (gage height, 7.98 ft or 2.432 m, from floodmark in recorder shelter) from rating curve extended above 220 ft³/s (6.23 m³/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. Records of water quality for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1432: 1951(M). WSP 1702: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	9.8	8.6	42	14	25	50	9.1	9.9	8.5	4.5	5.4
2	8.6	8.8	8.4	20	14	17	33	8.5	12	8.5	5.4	5.4
3	30	7.7	8.4	19	18	16	29	39	15	7.0	7.4	6.4
4	11	7.4	8.4	57	15	15	41	26	15	5.9	7.4	32
5	7.9	8.2	10	25	13	14	42	13	13	4.5	11	13
6	7.4	9.2	15	18	12	13	33	13	13	65	8.5	8.5
7	7.3	8.4	10	16	20	13	23	14	13	18	8.5	44
8	7.4	8.4	8.9	13	25	13	22	11	13	16	14	20
9	7.4	11	35	17	17	15	119	12	13	14	8.5	9.6
10	7.9	11	27	32	14	18	45	26	12	11	7.4	8.5
11	7.4	8.9	12	67	15	15	26	20	12	4.5	5.4	7.4
12	7.4	8.4	9.8	55	14	14	22	17	11	2.1	5.4	7.4
13	7.4	8.3	11	23	18	13	35	29	9.6	2.1	5.4	7.4
14	7.2	8.2	39	16	28	12	39	15	8.2	2.1	5.4	7.4
15	5.7	8.4	16	16	20	13	24	12	7.4	1.5	6.4	8.5
16	5.6	7.9	13	18	15	31	17	10	7.4	1.5	6.4	7.4
17	5.3	7.6	19	18	20	80	16	9.6	7.4	1.5	6.4	6.4
18	5.3	8.0	13	15	16	24	16	13	7.4	6.4	6.4	6.4
19	5.3	8.4	9.9	15	15	19	15	11	8.3	5.4	6.4	6.4
20	5.7	8.4	14	15	17	17	16	8.9	7.4	4.5	5.4	6.4
21	6.1	8.5	238	21	14	92	15	8.5	7.4	3.7	5.4	5.4
22	6.4	8.5	52	33	16	68	14	8.5	7.4	3.7	11	6.4
23	6.4	9.0	20	20	19	25	24	11	7.9	3.7	140	6.4
24	6.8	9.6	15	17	13	20	19	20	10	3.7	32	4.5
25	6.6	9.8	12	19	15	17	14	12	10	4.5	9.6	4.5
26	6.4	9.0	17	19	15	16	13	9.7	8.9	3.7	7.4	4.5
27	6.4	9.2	46	20	14	15	12	9.6	8.3	3.7	6.4	4.5
28	5.9	11	20	19	16	14	11	9.6	7.4	3.7	5.4	6.4
29	15	15	15	18	-----	15	11	9.6	7.9	3.7	6.4	7.4
30	22	10	14	16	-----	55	11	9.6	8.5	4.5	5.4	6.4
31	10	-----	14	15	-----	154	-----	9.6	-----	3.7	5.4	-----
TOTAL	262.6	272.0	759.4	734	462	888	807	434.8	298.7	232.3	376.0	280.3
MEAN	8.47	9.07	24.5	23.7	16.5	28.6	26.9	14.0	9.96	7.49	12.1	9.34
MAX	30	15	238	67	28	154	119	39	15	65	140	44
MIN	5.3	7.4	8.4	13	12	12	11	8.5	7.4	1.5	4.5	4.5
CFSM	.58	.62	1.68	1.62	1.13	1.96	1.84	.96	.68	.51	.83	.64
IN.	.67	.69	1.93	1.87	1.18	2.26	2.06	1.11	.76	.59	.96	.71

CAL YR 1973 TOTAL 8,740.10 MEAN 23.9 MAX 373 MIN 0 CFSM 1.64 IN 22.27

WTR YR 1974 TOTAL 5,807.10 MEAN 15.9 MAX 238 MIN 1.5 CFSM 1.09 IN 14.80

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.H.	DISCHARGE
8-23	1500	1.83	358

Reservoirs in Delaware River basin

01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, N.Y., near release chamber at Downsview Dam on East Branch Delaware River, 1.6 mi (2.6 km) east of Downsview, N.Y. Drainage area, 371 mi² (961 km²). Period of record, September 1954 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Board of Water Supply, City of New York). Extremes for current year: Maximum contents observed, 152,025 mil gal (575.4 hm³) Apr. 15 (elevation 1,281.20 ft or 390.510 m); minimum observed 98,185 mil gal (371.6 hm³) Dec. 5 (elevation, 1,248.65 ft or 380.589 m). Extremes for period of record: Maximum contents observed, 154,027 mil gal (583.0 hm³) Apr. 5, 1960 (elevation, 1,282.27 ft or 390.836 m); minimum observed (after first filling), 9,575 mil gal (36.24 hm³) Dec. 26, 1964 (elevation, 1,151.92 ft or 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 hm³) between minimum operating level (elevation, 1,152.0 ft or 351.13 m) and crest of spillway (elevation 1,280.0 ft or 390.14 m). Capacity, at crest of spillway 149,700 mil gal (566.6 hm³); at minimum operating level, 9,609 mil gal (36.37 hm³); at sill of diversion tunnel (elevation 1,143.0 ft or 348.39 m), 6,098 mil gal (23.08 hm³); in dead storage below release outlet (elevation, 1,126.50 ft or 343.357 m), 1,898 mil gal (7.184 hm³). 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 CANNONVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, N.Y., in emergency gate tower at Cannonville dam on West Branch Delaware River, 1.8 mi (2.9 km) southeast of Stilesville, N.Y. Drainage area 454 mi² (1,176 km²). 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, 102,513 mil gal (388.0 hm³) Apr. 16 (elevation, 1,152.42 ft or 351.258 m); minimum observed, 53,933 mil gal (204.1 hm³) Dec. 5 (elevation, 1,116.70 ft or 340.370 m). Extremes for period of record: Maximum contents observed, 107,348 mil gal (406.3 hm³) Apr. 21, 1972 (elevation, 1,155.40 ft or 352.166 m); minimum observed (after first filling), 11,901 mil gal (45.05 hm³) Nov. 7, 1968 (elevation, 1,066.24 ft or 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 hm³) between minimum operating level (elevation, 1,040.0 ft or 316.99 m) and crest of spillway (elevation, 1,150.0 ft or 350.52 m). Capacity, at crest of spillway, 98,618 mil gal (373.3 hm³); at minimum operating level, 2,912 mil gal (11.02 hm³); at mouth of inlet channel to diversion tunnel (elevation, 1,035.0 ft or 315.47 m), 1,892 mil gal (7.161 hm³); in dead storage below release outlet (elevation, 1,020.5 ft or 311.05 m), 328 mil gal (1.241 hm³). 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-NY 1972: 1966.

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, Pa., 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 Aken Creek. Drainage area, 59.6 mi² (154 km²). Period of record, December 1960 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Extremes for current year: Maximum contents, 5,480 acre-ft (6.76 hm³) Apr. 5 (elevation, 1,131.60 ft or 344.912 m); minimum, 3,530 acre-ft (4.35 hm³) June 14 (elevation, 1,125.40 ft or 343.022 m). Extremes for period of record: Maximum contents, 8,170 acre-ft (10.1 hm³) June 29, 1973 (elevation, 1,138.40 ft or 346.984 m); minimum (after first filling), 2,920 acre-ft (3.60 hm³) Sept. 27, 1964 (elevation, 1,123.20 ft or 342.351 m).

Reservoir formed by an earth and rockfill dam with ungated bedrock 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 hm³). Ordinary minimum (conservation) pool elevation, 1,125.00 ft or 342.900 m (capacity, 3,420 acre-ft or 4.22 hm³). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15'55", Wayne County, Pa., at dam on Dyberry Creek, 0.45 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 mi² (167.1 km²). 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, 2,200 acre-ft (2.71 hm³) Dec. 21 (elevation, 1,001.50 ft or 305.257 m); minimum, no storage many times. Extremes for period of record: Maximum contents, 6,520 acre-ft (8.04 hm³) 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 hm³). Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, Pa., at dam on Wallenpaupack Creek at Wilsonville, 1.2 mi (1.9 km) south of Hawley and 1.5 mi (2.4 km) upstream from mouth. Drainage area, 228 mi² (591 km²). 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, 139,930 acre-ft (173 hm³) Dec. 28, 29 (elevation, 1,186.90 ft or 361.767 m); minimum, 86,480 acre-ft (107 hm³) Oct. 13-29 (elevation, 1,176.20 ft or 358.506 m). Extremes for period of record: Maximum contents, 178,200 acre-ft (220 hm³) Aug. 19-21, 1955 (elevation, 1,193.45 ft or 363.764 m); minimum (after first filling), 12,280 acre-ft (15.1 hm³) 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 hm³), of which 157,800 acre-ft (195 hm³) is controlled storage above elevation, 1,160.00 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.

DELAWARE RIVER BASIN

Reservoirs in Delaware River basin--Continued

01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, N.Y., at dam on Mangaup River, 1.8 mi (2.9 km) northwest of Fowlersville, N.Y. Drainage area, 118 mi² or 306 km² (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 or 308 m). Extremes for current year: Maximum contents, 1,424.2 mil ft³ (40.3 hm³) Sept. 2 (elevation, 1,070.9 ft or 326.41 m); minimum, 847.5 mil ft³ (24.0 hm³) Feb. 21 (elevation, 1,055.1 ft or 321.59 m). Extremes for period of record: Maximum contents, 1,457.4 mil ft³ (41.3 hm³) Mar. 18, 1936, Oct. 15, 1955 and June 29, 1973 (elevation, 1,071.7 ft or 326.65 m); minimum (after first filling), -141.4 mil ft³ (-4.00 hm³) Dec. 2, 1938 (elevation, 987.5 ft or 300.99 m).

Reservoir is formed by an earth-fill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft³ (40.7 hm³) between elevations 1,010.0 ft or 307.85 m (minimum operating pool) and 1,071.2 ft or 326.50 m (top of flashboards). Capacity below elevation, 1,010.0 ft or 307.85 m (minimum operating pool) about 212.7 mil ft³ (6.02 hm³). 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, N.Y., at dam on Black Lake Creek, 2.5 mi (4.0 km) southeast of village of Black Lake, N.Y. Drainage area, 23.2 mi² (60.1 km²). 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 or 355.09 m). Extremes for current year: Maximum contents observed, 1,123.4 mil ft³ (31.81 hm³) May 15 (elevation, 1,220.7 ft or 372.07 m); minimum observed 182.3 mil ft³ (5.16 hm³) Nov. 26 (elevation, 1,183.2 ft or 360.64 m). Extremes for period of record: Maximum contents observed 1,171.2 mil ft³ (33.2 hm³) July 20, 1945 (elevation, 1,222.0 ft or 372.47 m); minimum observed (after first filling), -26.8 mil ft³ (-0.759 hm³) Nov. 15, 1928 (elevation, 1,144.5 ft or 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 ft³ (31.1 hm³) between elevations 1,165.0 ft or 355.09 m (minimum operating pool) and 1,220.0 ft or 371.86 m (top of permanent flashboards). Capacity below elevation 1,165.0 ft or 355.09 m (minimum operating pool) about 26.8 mil ft³ (0.759 hm³). 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, N.Y., at dam on Black Lake Creek, 2.5 mi (4.0 km) northwest of Fowlersville, N.Y. Drainage area, 6.46 mi² or 16.7 km² (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 or 318.00 m). Extremes for current year: Maximum contents observed 136.9 mil ft³ (3.877 hm³) Dec. 28 (elevation, 1,072.1 ft or 326.78 m); minimum observed 3.77 mil ft³ (1.068 hm³) Feb. 22 (elevation, 1,056.5 ft or 322.02 m). Extremes for period of record: Maximum contents observed, 145.44 mil ft³ (4.12 hm³) July 30, 31, 1945 (elevation, 1,073.1 ft or 327.08 m); minimum observed (after first filling), about -6.54 mil ft³ (-0.185 hm³) Mar. 16, 1963 (elevation, 1,038.0 ft or 316.38 m).

Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft³ (3.85 hm³) between elevations 1,043.3 ft or 318.00 m (minimum operating pool) and 1,072.0 ft or 326.75 m (top of permanent flashboards). Capacity below elevation 1,043.3 ft or 318.00 m (minimum operating pool) about 6.54 mil ft³ (0.185 hm³). 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, N.Y., at a gatehouse at Neversink River, 2 mi (3 km) southwest of Neversink, N.Y. Drainage area, 91.8 mi² (237.8 km²). 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, 37,579 mil gal (142.2 hm³) Apr. 15 (elevation, 1,440.87 ft or 439.177 m); minimum observed, 15,864 mil gal (60.05 hm³) Nov. 28 (elevation, 1,386.29 ft or 422.541 m). Extremes for period of record: Maximum contents observed, 37,978 mil gal (143.7 hm³) Apr. 25, 1961 (elevation, 1,441.67 ft or 439.421 m); minimum observed (after first filling), 1,985 mil gal (7.513 hm³) Nov. 25, 1964 (elevation, 1,316.98 ft or 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 hm³) between minimum operating level (elevation, 1,319.0 ft or 402 m) and crest of spillway (elevation, 1,440.0 ft or 438.9 m). Capacity at crest of spillway 37,146 mil gal (140.6 hm³); at minimum operating level 2,205 mil gal (8.35 hm³); dead storage below diversion sill and outlet sill (elevation, 1,314.0 ft or 400.5 m), 1,680 mil gal (6.36 hm³). 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 RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, Pa., at dam on Lehigh River, 2,200 ft (670 m) downstream from Bear Creek and 5 mi (8 km) northwest of White Haven. Drainage area, 289 mi² (749 km²). 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, 25,760 acre-ft (31.8 hm³) Dec. 23 (elevation, 1,376.90 ft or 419.679 m); minimum, 1,920 acre-ft (2.37 hm³) Oct. 3 (elevation, 1,297.23 or 395.396 m). Extremes for period of record: Maximum contents, 42,600 acre-ft (52.5 hm³) June 26, 1972 (elevation, 1,398.20 ft or 426.171 m); minimum (after establishment of conservation pool), 1,510 acre-ft (1.86 hm³) 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 hm³) of which 108,700 acre-ft (134 hm³) is controlled storage above elevation 1,300.0 ft or 396.24 m (conservation pool). Dead storage is 2,000 acre-ft (2.47 hm³). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow regulated by three gates and low flow by-pass system. Records furnished by Corps of Engineers.

Reservoirs in Delaware River basin--Continued

- 01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, Pa., at dam on Wild Creek near Hatchery, Pa., 0.7 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 mi² (42.7 km²). 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, 20,470 acre-ft (25.2 hm³) Dec. 22 (elevation, 1,000.84 ft or 305.056 m); minimum, 18,260 acre-ft (22.5 hm³) Sept. 5 (elevation, 996.18 ft or 303.656 m). Extremes for period of record: Maximum contents, 20,470 acre-ft (25.2 hm³) Dec. 22, 1973 (elevation, 1,000.84 ft or 305.056 m); minimum, 176 acre-ft (0.217 hm³) 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 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.
- 01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, Pa., at dam on Wild Creek near Hatchery, Pa., 1.6 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 mi² (57.5 km²). Period of record, January 1941 to current year. Nonrecording gage. Datum of gage is at mean sea level (levels by city of Bethlehem). Extremes for current year: Maximum contents, 12,260 acre-ft (15.1 hm³) Dec. 23 (elevation, 820.86 ft or 250.198 m); minimum, 9,060 acre-ft (11.2 hm³) Aug. 17 (elevation, 808.87 ft or 246.544 m). Extremes for period of record: Maximum contents, 12,880 acre-ft (15.9 hm³) May 23, 1942 (elevation, 822.93 ft or 250.829 m); minimum (after first filling), 2,680 acre-ft (3.30 hm³) 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 hm³) of which 12,000 acre-ft (15 hm³) is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplished by valves on pipe through dam. Records furnished by city of Bethlehem. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin.
- 01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, Pa., 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 mi² (249.4 km²). 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 47,200 acre-ft (58.2 hm³) Dec. 23 (elevation, 634.00 ft or 193.243 m); minimum, 35,420 acre-ft (43.7 hm³) Oct. 29 (elevation, 621.50 ft or 189.433 m). Extremes for period of record: Maximum contents, 48,410 acre-ft (59.7 hm³) July 4, 1973 (elevation 635.10 ft or 193.578 m); minimum, 136 acre-ft (0.168 hm³) 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 hm³). Ordinary minimum (conservation) pool elevation, 628.00 ft or 191.414 m (capacity, 41,250 acre-ft or 50.9 hm³). Dead storage is 1,390 acre-ft (1.71 hm³). 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 mi² (66.3 km²). 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, about 7,700,000,000 gal (29.14 hm³) about June 30 (gage height unknown); minimum, about 5,700,000,000 gal (21.57 hm³) about Feb. 28 (gage height unknown). Extremes for period of record: Maximum contents, 8,532,000,000 gal (32.29 hm³) June 24, 1972 (gage height 10.27 ft or 3.130 m); minimum, 1,525,000,000 gal (5.77 hm³) 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 (0.034 m) in 1925. Usable capacity, 7,459,000,000 gal (28.23 hm³) between (gage height -2.6 ft or -0.792 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), also by one 24-inch (0.610 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 hm³). Figures given herein represent usable capacity. Lake used for recreation.
- 01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, Pa., at dam on Still Creek, 1 mi (1.6 km) upstream from mouth and 2.3 mi (3.7 km) north of Hometown, Pa. Drainage area, 8.5 mi² (22.0 km²). 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, 8,440 acre-ft (10.4 hm³) Dec. 21 (elevation, 1,182.50 ft or 360.426 m); minimum, 8,070 acre-ft (9.95 hm³) Aug. 22 (elevation, 1,181.25 ft or 360.045 m). Extremes for period of record: Maximum contents, 8,570 acre-ft (10.6 hm³) Oct. 15, 1955 (elevation, 1,182.92 ft or 360.554 m), but may have been greater during 1950 and 1951 water years; minimum (after initial filling), 588 acre-ft (0.725 hm³) Dec. 8, 1944 (elevation, 1,136.70 ft or 346.466 m). Reservoir formed by earth fill 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 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Panther Valley Water Co.
- 01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, Pa., at dam on Perkiomen Creek at Green Lane, Pa., 0.4 mi (0.6 km) west of Green Lane and 2.1 mi (3.4 km) upstream from Unami Creek. Drainage area, 70.9 mi² (183.6 km²). 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, 14,890 acre-ft (18.4 hm³) Dec. 20 (elevation, 287.65 ft or 87.676 m); minimum, 10,810 acre-ft (13.3 hm³) Dec. 3 (elevation, 282.68 ft or 86.161 m). Extremes for period of record: Maximum contents, 17,030 acre-ft (21.0 hm³) June 23, 1972 (elevation, 290.05 ft or 88.407 m); minimum (after first filling), 1,270 acre-ft (1.57 hm³) 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 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

DELAWARE RIVER BASIN

Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in cfs)
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	01416900	Pepacton Reservoir		01424997	Cannonsville Reservoir	
Sept. 30.....	1,263.11	120,468	-	1,138.07	81,120	-
Oct. 31.....	1,255.17	107,900	-627	1,127.50	67,072	-701
Nov. 30.....	1,249.06	98,770	-470	1,116.87	54,131	-667
Dec. 31.....	1,273.84	138,686	+1,992	1,151.40	100,871	+2,330
CAL YR 1973.....	-	-	+54.2	-	-	+1.2
Jan. 31.....	1,277.82	145,808	+355	1,151.93	101,724	+42.6
Feb. 28.....	1,280.15	150,076	+236	1,151.31	100,726	-51.1
Mar. 31.....	1,280.24	150,243	+8.34	1,151.19	100,533	-9.63
Apr. 30.....	1,279.95	149,707	-27.6	1,150.76	99,841	-35.7
May 31.....	1,279.27	148,457	-62.4	1,150.50	99,422	-20.9
June 30.....	1,276.36	143,172	-273	1,148.24	95,941	-180
July 31.....	1,272.81	136,877	-314	1,144.49	90,275	-283
Aug. 31.....	1,268.52	129,477	-369	1,143.44	88,758	-75.7
Sept. 30.....	1,269.49	131,132	+85.4	1,151.50	101,032	+633
WTR YR 1974.....	-	-	+45.2	-	-	+84.4
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	Elevation (feet)†	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)†	Contents (acre- feet)	Change in contents (equivalent in cfs)
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	01428900	Prompton Reservoir		01429400	General Edgar Jadwin Reservoir	
Sept. 30.....	1,125.55	3,570	-	975.20	0	-
Oct. 31.....	1,125.85	3,570	+1.5	975.52	0	0
Nov. 30.....	1,126.68	3,890	+3.9	976.85	0	0
Dec. 31.....	1,129.41	4,750	+14.0	978.90	18	+3
CAL YR. 1973.....	-	-	+6	-	-	-3
Jan. 30.....	1,128.80	4,560	-3.1	980.03	51	+5
Feb. 28.....	1,126.88	3,950	-11.0	976.91	0	-9
Mar. 31.....	1,126.85	3,940	-2	978.41	8	+1
Apr. 30.....	1,126.00	3,700	-4.0	976.65	0	-1
May 31.....	1,125.62	3,590	-1.8	975.99	0	0
June 30.....	1,126.32	3,790	+3.4	976.10	0	0
July 31.....	1,126.58	3,860	+1.1	976.35	0	0
Aug. 31.....	1,125.65	3,600	-4.2	975.80	0	0
Sept. 30.....	1,128.30	4,400	+13.4	977.13	0	0
WTR YR 1974.....	-	-	+1.1	-	-	0
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	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)
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	01431700	Lake Wallenpaupack		01433000	Swinging Bridge Reservoir	
Sept. 30.....	1,178.60	94,040	-	1,064.3	1,165	-
Oct. 31.....	1,176.90	84,870	-149	1,064.3	1,165	0
Nov. 30.....	1,178.50	93,500	+145	1,068.3	1,319	+59.4
Dec. 31.....	1,186.20	136,940	+706	1,068.5	1,327	+3.0
CAL YR 1973.....	-	-	+26.9	-	-	+1.2
Jan. 31.....	1,182.80	116,900	-326	1,066.5	1,249	-29.1
Feb. 28.....	1,178.40	92,960	-431	1,059.4	990	-107
Mar. 31.....	1,176.80	84,340	-140	1,067.9	1,303	+117
Apr. 30.....	1,182.50	115,250	+519	1,065.4	1,206	-37.4
May 31.....	1,186.20	136,940	+353	1,063.0	1,117	-33.2
June 30.....	1,185.30	130,880	-102	1,065.9	1,226	+42.0
July 31.....	1,184.10	124,160	-109	1,070.7	1,416	+70.9
Aug. 31.....	1,182.00	112,500	-190	1,068.4	1,323	-34.7
Sept. 30.....	1,178.70	94,580	-301	1,066.3	1,241	-31.6
WTR YR 1974.....	-	-	+7	-	-	+2.4

Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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.....	1,201.0	541	-	1,069.1	113	-
Oct. 31.....	1,189.0	280	-97.4	1,067.3	99.3	-5.1
Nov. 30.....	1,183.9	194	-33.2	1,068.8	110	+4.1
Dec. 31.....	1,198.7	485	+109	1,071.9	135	+9.3
CAL YR 1973.....	-	-	-6.3	-	-	-14.3
Jan. 31.....	1,205.8	666	+67.6	1,066.5	93.7	-15.4
Feb. 28.....	1,209.2	758	+38.0	1,059.6	51.9	-17.3
Mar. 31.....	1,214.7	920	+60.5	1,069.0	112	+22.4
Apr. 30.....	1,220.3	1,109	+72.9	1,068.4	107	-1.9
May 31.....	1,220.2	1,105	-1.5	1,065.2	85.0	-8.2
June 30.....	1,216.0	961	-55.6	1,071.4	131	+17.7
July 31.....	1,210.3	789	-64.2	1,070.4	123	-3.0
Aug. 31.....	1,204.8	639	-56.0	1,070.0	120	-1.1
Sept. 30.....	1,205.5	658	+7.3	1,069.7	117	-1.2
WTR YR 1974.....	-	-	+3.7	-	-	+1

	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in cfs)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in cfs)
01435900 Neversink Reservoir				01447780 Francis E. Walter Reservoir		
Sept. 30.....	1,410.33	24,151	-	1,300.83	2,080	-
Oct. 31.....	1,396.03	18,977	-258	1,311.07	3,220	+18.5
Nov. 30.....	1,387.24	16,153	-146	1,301.78	2,180	-17.5
Dec. 31.....	1,419.86	27,984	+591	1,336.40	7,870	+92.5
CAL YR 1973.....	-	-	-14.3	-	-	+8.3
Jan. 31.....	1,423.95	29,720	+86.6	1,304.85	2,490	-87.5
Feb. 28.....	1,426.56	30,859	+62.9	1,303.05	2,300	-3.4
Mar. 31.....	1,433.40	33,971	+155	1,301.08	2,110	-3.1
Apr. 30.....	1,439.57	36,934	+153	1,301.81	2,180	+1.2
May 31.....	1,438.10	36,213	-36.0	1,302.61	2,260	+1.3
June 30.....	1,438.08	36,203	-52	1,300.65	2,060	-3.4
July 31.....	1,426.87	30,996	-260	1,301.90	2,190	+2.1
Aug. 31.....	1,411.08	24,441	-327	1,306.80	2,710	+8.5
Sept. 30.....	1,403.46	21,578	-148	1,304.55	2,460	-4.2
WTR YR 1974.....	-	-	-10.9	-	-	+5

	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.....	1,000.17	20,080	-	817.18	11,300	-
Oct. 31.....	1,000.31	30,160	+1.3	814.28	10,500	-13.0
Nov. 30.....	1,000.19	20,090	-1.2	812.98	10,140	-6.1
Dec. 31.....	1,000.47	20,250	+2.6	820.52	12,160	+32.9
CAL YR 1973.....	-	-	0	-	-	+1
Jan. 31.....	1,000.37	20,190	-1.0	820.40	12,120	-7
Feb. 28.....	1,000.26	20,130	-1.1	820.26	12,080	-7
Mar. 31.....	1,000.35	20,180	+8	820.39	12,120	+7
Apr. 30.....	1,000.20	20,090	-1.5	820.08	12,020	-1.7
May 31.....	1,000.16	20,070	-3	820.01	12,000	-3
June 30.....	1,000.08	20,020	-8	817.64	11,430	-9.6
July 31.....	1,000.13	20,050	+5	812.08	9,890	-25.0
Aug. 31.....	996.04	18,200	-30.1	815.14	10,740	+13.8
Sept. 30.....	996.56	18,430	+3.9	816.69	11,170	+7.2
WTR YR 1974.....	-	-	-2.3	-	-	-2

DELAWARE RIVER BASIN

Reservoirs in Delaware River basin--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

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.....	8.37	6,938	-	1,182.08	8,310	-
Oct. 31.....	8.86	7,343	+20.2	1,182.04	8,300	-2.2
Nov. 30.....	a7.06	5,881	-75.4	1,182.02	8,290	-2.2
Dec. 31.....	8.56	7,095	+60.6	1,182.21	8,350	+1.0
CAL YR 1973.....	-	-	+2.3	-	-	0
Jan. 31.....	a7.00	5,834	-63.0	1,182.17	8,340	-2.2
Feb. 28.....	6.90	5,756	-4.3	1,182.08	8,310	-5.5
Mar. 31.....	a8.64	7,161	+70.1	1,182.12	8,320	+2.2
Apr. 30.....	a9.24	7,661	+25.8	1,182.06	8,300	-3.3
May 31.....	9.20	7,627	-1.7	1,182.08	8,310	+2.2
June 30.....	a9.26	7,677	+2.6	1,181.75	8,210	-1.7
July 31.....	a8.80	7,293	-19.2	1,181.50	8,140	-1.1
Aug. 31.....	a9.06	7,509	+10.8	1,181.83	8,240	+1.6
Sept. 30.....	a8.86	7,343	-8.6	1,182.06	8,300	+1.0
WTR YR 1974.....	-	-	+2.0	-	-	0
01472200 Green Lane Reservoir				01449790 Beltzville Lake		
Sept. 30.....	285.82	13,270	-	628.30	41,540	-
Oct. 31.....	285.55	13,030	-3.9	622.60	36,360	-84.2
Nov. 30.....	282.75	10,860	-36.5	622.60	36,360	0
Dec. 31.....	286.10	13,520	+43.3	628.30	41,540	+84.2
CAL YR 1973.....	-	-	-2.2	-	-	0
Jan. 31.....	286.06	13,490	-5.5	629.00	42,200	+10.7
Feb. 28.....	286.03	13,460	-5.5	629.00	42,200	0
Mar. 31.....	286.40	13,780	+5.2	628.00	41,250	-15.5
Apr. 30.....	286.05	13,480	-5.0	627.50	40,780	-7.9
May 31.....	286.10	13,520	+7.7	628.10	41,540	+9.1
June 30.....	286.02	13,450	-1.2	628.00	41,250	-1.5
July 31.....	285.06	12,600	-13.8	628.00	41,250	0
Aug. 31.....	285.98	13,420	+13.3	629.50	42,700	+23.6
Sept. 30.....	286.15	13,560	+2.4	628.20	41,440	-21.2
WTR YR 1974.....	-	-	+4.4	-	-	-1.1

† 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 Hazelton 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 sta 01460500).
- 01467480 Diversion from Mud Run, tributary to Schuylkill River by Mahanoy 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 1973 TO SEPTEMBER 1974

Month	Pepacton Reservoir	Cannonsville Reservoir	Neversink Reservoir
October.....	697	0.40	312
November.....	696	266	302
December.....	552	297	246
CAL YR 1973.....	625	86.4	286
January.....	650	0	203
February.....	697	22.3	218
March.....	697	294	236
April.....	478	43.3	234
May.....	628	130	302
June.....	588	281	232
July.....	696	0	386
August.....	695	0	398
September.....	698	.5	390
WTR YR 1974.....	648	112	289

Miscellaneous withdrawals from basin

	East Pond Reservoir	Bear Swamp Reservoir	Bear Creek	Hazle Creek	Delaware & Raritan Canal	Mud Run
October.....	.5	.3	0	3.9	98.3	.5
November.....	.5	.3	0	3.9	101	.5
December.....	.5	.3	0	3.9	104	.8
CAL YR 1973.....	.50	.30	.98	3.9	93.4	.5
January.....	.5	.3	0	3.9	102	.8
February.....	.5	.3	0	3.9	99.1	.8
March.....	.5	.3	0	3.9	103	.8
April.....	.5	.3	4.5	3.9	104	.8
May.....	.5	.3	2.0	3.9	90.7	.8
June.....	.5	.3	0	3.9	78.8	.8
July.....	.5	.3	0	3.9	87.3	.5
August.....	.5	.3	0	3.9	89.2	.5
September.....	.5	.3	0	3.9	95.7	.5
WTR YR 1974.....	.5	.3	.54	3.9	96.2	.7

DELAWARE RIVER BASIN

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 1973 TO SEPTEMBER 1974

Month	Withdrawal Borough of Morrisville	Withdrawal City of Trenton	Schuylkill River		Withdrawal City of Philadelphia
			Belmont	Queen Lane	Torresdale
			Delaware River		
October.....	4.7	58.1	107	166	339
November.....	4.8	55.5	102	156	323
December.....	4.9	52.5	99	158	326
CAL YR 1973.....	4.8	54.6	106	164	348
January.....	5.2	53.4	102	158	331
February.....	5.3	51.8	90	161	336
March.....	5.6	51.1	90	161	326
April.....	5.7	53.4	88	159	325
May.....	5.9	58.0	104	159	340
June.....	5.7	60.2	108	172	365
July.....	5.7	63.8	124	207	401
August.....	5.7	59.8	114	193	373
September.....	5.9	57.7	107	169	346
WTR YR 1974.....	5.4	56.3	103	168	344

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 1973 TO SEPTEMBER 1974

Month	Morris Lake	Octoraro Creek	
		Octoraro Water Co.	Chester Water Authority
		Delaware River	
October.....	1.38	1.84	46.7
November.....	1.36	2.00	43.9
December.....	1.39	1.96	42.4
CAL YR 1973.....	1.45	2.04	43.2
January.....	1.44	1.96	42.8
February.....	1.55	1.95	42.1
March.....	1.48	2.06	41.9
April.....	1.41	2.13	43.2
May.....	1.53	2.18	44.2
June.....	1.58	2.03	45.0
July.....	1.62	2.04	46.9
August.....	1.55	2.04	47.8
September.....	1.59	1.84	45.9
WTR YR 1974.....	1.49	2.00	44.4

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 number	Station name	Location	Drainage area (mi ²)	Period of record	Measurements Date	Discharge (ft ³ /s)
Hackensack River basin						
*01377475	Musquapsink Brook near Westwood, N. J.	Lat 40°59'41", long 74°03'42", Bergen County, at culvert on Pascack Road in Washington Borough, 1.5 mi (2.4 km) west of Westwood and 5.3 mi (8.5 km) upstream from mouth.	2.16 (5.59 km ²)	1964-72	-	-
*01378350	Tenakill Brook at Cresskill, N. J.	Lat 40°56'30", long 74°57'52", Bergen County, at bridge on Madison Avenue in Cresskill, 0.15 mi (.24 km) west of Erie Lackawanna Railroad station and 3.3 mi (5.3 km) upstream from Oradell Reservoir.	3.01 (7.80 km ²)	1964-72	-	-
*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 mi (1.1 km) upstream from mouth.	8.56 (22.17 km ²)	1964-72	-	-
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 mi (0.3 km) upstream from mouth.	4.23 (10.96 km ²)	1973-74	4-18-74 9-19-74	7.8 1.3
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 mi (1.6 km) east of Harrington Park, 1.5 mi (2.4 km) upstream from Oradell Reservoir.	2.03 (5.26 km ²)	1973-74	4-18-74 9-19-74	2.2 .75
*01378590	Metzler Brook at Englewood, N. J.	Lat 40°54'29", long 73°59'13", Bergen County, at bridge on Lantana Avenue in Englewood, 1.6 mi (2.6 km) upstream from mouth.	1.54 (3.99 km ²)	1964-72	-	-
*01378615	Wolf Creek at Ridgefield, N. J.	Lat 40°49'45", long 74°00'14", Bergen County, at bridge on Clark Avenue in Ridgefield, 0.9 mi (1.4 km) upstream from mouth.	1.18 (3.06 km ²)	1964-72	-	-
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 (30 m) above mouth, and 2.0 mi (3.2 km) south of Millington.	20.8 (53.9 km ²)	1962-67, 1973-74	7-10-74 8-14-74 8-21-74	2.9 4.3 4.1
*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 mi (0.8 km) east of Pine Brook, and 1.3 mi (2.1 km) downstream from Rockaway River.	349 (904 km ²)	1963-69	-	-

See footnotes at end of table, p. 142.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi ²)	Period of record	Measurements Date	Discharge (ft ³ /s)
Passaic River basin--Continued						
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 mi (4.5 km) upstream from mouth.	5.44 (14.09 km ²)	1973-74	4-18-74 9-18-74	12 3.4
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 (46 m) upstream from mouth, 3.9 mi (6.3 km) west of Hewitt.	.61 (1.58 km ²)	1973-74	9-17-74	.38
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 (46 m) downstream from Pinecliff Lake Dam, 0.4 mi (0.6 km) from West Milford, 1.6 mi (2.6 km) from mouth.	7.27 (18.83 km ²)	1973-74	4-18-74 9-17-74	16 4.4
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 mi (0.6 km) upstream from mouth, 0.9 mi (1.4 km) northeast of West Milford.	1.31 (3.39 km ²)	1973-74	4-18-74 9-17-74	2.2 .30
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 mi (0.6 km) upstream from mouth, 1.6 mi (2.6 km) north of West Milford.	1.47 (3.81 km ²)	1973-74	4-18-74 9-17-74	4.5 1.4
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 mi (0.2 km) upstream from mouth, 1.8 mi (2.9 km) north of West Milford.	1.34 (3.47 km ²)	1973-74	4-18-74 9-17-74	5.6 1.2
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 (46 m) upstream from mouth.	4.18 (10.83 km ²)	1963-64, 1973-74	4-18-74 9-19-74	6.0 1.9
*01390450	Saddle River at Upper Saddle River, N. J.	Lat 41°03'32", long 74°05'44", Bergen County, at culvert on Lake Street in Upper Saddle River, 1.3 mi (2.1 km) downstream from Pine Brook.	10.9 (28.2 km ²)	1964-72	-	-
*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 mi (1.4 km) upstream from mouth.	5.56 (14.40 km ²)	1964-73	-	-
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 (90 m) upstream from mouth, 0.6 mi (1.0 km) north of community of Budd Lake.	.70 (1.81 km ²)	1973-74	4-26-74 8-18-74	2.3 1.4
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 (90 m) upstream from mouth, 0.3 mi (0.5 km) north of community of Budd Lake.	.21 (0.54 km ²)	1973-74	4-26-74 9-18-74	.18 .36
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, 200 ft (60 m) northwest of U.S. Route 46, and 0.5 mi (0.8 km) downstream from Budd Lake dam.	5.03 (13.03 km ²)	1964, 1973-74	4-26-74 9-18-74	15 13

See footnotes at end of table, p. 142.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
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 mi (2.1 km) northwest of High Bridge.	13.1 (33.9 km ²)	1973-74	4-18-74 9-17-74	42 13
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 mi (0.3 km) south of Van Syckel, 2.7 mi (4.3 km) upstream from mouth.	11.8 (30.6 km ²)	1973-74	4-18-74 9-17-74	30 9.2
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 mi (0.6 km) upstream from mouth.	2.76 (7.15 km ²)	1973-74	4-18-74 9-17-74	8.1 2.4
01400580	Millstone River at Hightstown, N.J.	Lat 40°17'25", long 74°31'21", Mercer County, at bridge on U.S. Highway 130, 1.3 mi (2.1 km) upstream from Rocky Brook, and 1.4 mi (2.3 km) north of Hightstown.	19.7 (51.0 km ²)	1960-62, 1964,1967, 1969, 1971-72, 1974	5-22-74	11
*01400850	Woodsville Brook at Woodsville, N. J.	Lat 40°22'37", long 74°49'33", Mercer County, at bridge on secondary road, 0.3 mi (.5 km) southeast of Woodsville, and 0.8 mi (1.3 km) upstream from mouth.	1.78 (4.61 km ²)	1957, 1965-73	-	-
*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 mi (1.3 km) north of Pennington, 0.9 mi (1.4 km) above Baldwin Lake dam, and 1.2 mi (1.9 km) upstream from mouth.	1.99 (5.15 km ²)	1957-58, 1963, 1965-69, 1972	-	-
*01400947	Stony Brook at Pennington, N. J.	Lat 40°19'50", long 74°46'05", Mercer County, 25 ft (8 m) upstream from dam on Stony Brook at Oldmill Road, 1.3 mi (2.1 km) east of Pennington, and 1.4 mi (2.3 km) downstream from Baldwin Creek.	26.5 (68.6 km ²)	1965-69, 1971-72	-	-
*01401520	Beden Brook near Hopewell, N. J.	Lat 40°23'02", long 74°44'28", Mercer County, at bridge on Aunt Molly Road, 1.1 mi (1.8 km) southeast of Hopewell, and 2.6 mi (4.2 km) southwest of Blawenburg.	6.07 (15.72 km ²)	1965-72	-	-
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 mi (1.0 km) upstream from Oakeys Brook.	12.2 (31.6 km ²)	1973-74	4-18-74 9-18-74	18 7.1
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 mi (0.8 km) upstream from mouth, 1.2 mi (1.9 km) east of Patricks Corner.	4.75 (12.30 km ²)	1973-74	4-18-74 9-18-74	3.6 1.2
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 (120 m) upstream from mouth, 0.5 mi (0.8 km) southwest of Patricks Corner.	6.52 (16.89 km ²)	1973-74	4-18-74 9-18-74	6.4 2.3
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 mi (1.3 km) upstream from mouth, 1.2 mi (1.9 km) east of Patricks Corner.	1.51 (3.91 km ²)	1973-74	4-18-74 9-18-74	1.2 .52

See footnotes at end of table, p. 142 .

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi ²)	Period of record	Measurements Date	Discharge (ft ³ /s)
Raritan River basin--Continued						
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 (120 m) below DeVoe Lake Dam.	43.9 (113.7 km ²)	1973-74	4-19-74 9-18-74	68 43
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, 0.6 mi (1.0 km) from mouth, 1.4 mi (2.3 km) south of Old Bridge.	2.29 (5.93 km ²)	1973-74	4-19-74 9-18-74	3.0 .53
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 mi (0.8 km) east of South Street in Holmdel and 1.7 mi (2.7 km) downstream from Big Brook.	5.72 (14.81 km ²)	1969-74	10-09-73 4-18-74	4.2 13
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 mi (3.1 km) upstream from Hop Brook.	6.88 (17.82 km ²)	1969-74	10-09-73 4-18-74	4.3 16
01407300	Big Brook at Vanderburg, N.J.	Lat 40°19'32", long 74°11'19", Monmouth County, at bridge on State Route 34 at intersection with Conover Road, 0.8 mi (1.3 km) north of Vanderburg and 1.8 mi (2.9 km) upstream from Hop Brook.	8.41 (21.78 km ²)	1969-74	10-09-73 4-18-74	4.7 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 mi (0.5 km) upstream from Mine Brook, and 0.7 mi (1.1 km) north of Colts Neck.	9.71 (25.15 km ²)	1969-74	10-09-73 4-18-74	5.8 22
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 mi (0.6 km) northeast of Colts Neck and 0.5 mi (0.8 km) upstream from Yellow Brook.	5.48 (14.19 km ²)	1969-74	10-09-73 4-18-74	2.4 11
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 mi (1.4 km) downstream from Hockhockson Brook.	12.1 (31.3 km ²)	1969-74	10-09-73 4-18-74	5.0 21
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 mi (1.4 km) southwest of State Route 524, and 1.3 mi (2.1 km) southwest of Adelphia.	10.6 (27.5 km ²)	1966, 1969-74	4-18-74	21
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 mi (0.6 km) west of Adelphia and 0.9 mi (1.4 km) upstream from mouth.	7.21 (18.67 km ²)	1966, 1969-74	10-10-73 3-07-74 4-18-74	8.2 14 19
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 mi (0.5 km) upstream from mouth and 0.8 mi (1.3 km) north of West Farms.	3.57 (9.25 km ²)	1966, 1969-74	10-10-73 4-18-74	2.1 8.8
*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 mi (0.3 km) northeast of State Route 547.	6.22 (16.11 km ²)	1969-74	10-10-73 4-18-74	3.2 15
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 mi (0.8 km) upstream from mouth.	10.7 (27.7 km ²)	1966, 1969-74	10-10-73 3-07-74 4-18-74	4.4 19 21

See footnotes at end of table, p. 142.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi ²)	Period of record	Measurements Date	Discharge (ft ³ /s)
Manasquan River basin--Continued						
*01408030	Manasquan River at Allenwood, N.J.	Lat 40°08'35", long 74°07'03", Monmouth County, at bridge on Hospital Road, 0.9 mi (1.4 km) west of Allenwood and 1.5 mi (2.4 km) downstream from Mill Run.	63.9 (165.5 km ²)	1956-57, 1966, 1969-72, 1974	10-10-73 4-19-74	47 131
Cedar Creek basin						
01408800	Webbs Mill Branch near Whiting, N.J.	Lat 39°53'16", long 74°22'49", Ocean County, at bridge on Warren Grove-Whiting road, 3.3 mi (5.3 km) upstream from Chamberlain Branch, 4.5 mi (7.2 km) south of Whiting.	2.92 (7.56 km ²)	1973-74	10-10-73 4-19-74 9-18-74	4.5 5.3 3.7
01408810	Webbs Mill Branch tributary near Whiting, N.J.	Lat 39°53'29", long 74°22'52", Ocean County, at bridge on Warren Grove-Whiting road, 0.4 mi (0.6 km) upstream from mouth, 4.3 mi (6.9 km) south of Whiting.	.53 (1.37 km ²)	1973-74	10-10-73 4-19-74 9-18-74	.06 .27 .11
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 (3.32 km ²)	1968-74	10-10-73 4-19-74	2.9 4.2
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 mi (0.3 km) south of Stafford Forge and at mile marker 60.3.	16.0 (41.4 km ²)	1969-74	10-10-73	28
Mullica River basin						
01409403	Hays Mill Creek near Chesilhurst, N.J.	Lat 39°45'02", long 74°50'27", Camden County, at bridge on Tremont Avenue in Wharton State Forest, 2 mi (3.2 km) northeast of Chesilhurst and 0.3 mi (0.5 km) northeast of Burnt Mill Road.	7.13 (18.47 km ²)	1974	9-19-74	12
01409407	Pump Branch near Blue Anchor, N.J.	Lat 39°42'22", long 74°53'03", Camden County, at highway bridge, 0.4 mi (0.6 km) upstream from Hobb Lake, 1.2 mi (1.9 km) west from Bates Mill, and 1.3 mi (2.1 km) north of Blue Anchor.	6.18 (16.01 km ²)	1974	9-19-74	3.8
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 mi (3.5 km) north of New Gretna and 5.3 mi (8.5 km) upstream from mouth.	8.11 (21.00 km ²)	1969-74	10-10-73 4-19-74	14 22
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 mi (1.0 km) upstream from mouth and 2.2 mi (3.5 km) north of New Gretna.	6.54 (16.94 km ²)	1969-74	10-10-73 4-19-74	6.1 15
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 mi (13.2 km) upstream from Fourmile Branch.	1.88 (4.87 km ²)	1964-74	10-16-73	.51
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 mi (2.4 km) northeast of Sicklerville.	20.6 (53.4 km ²)	1971-74	10-16-73 4-19-74 5-22-74 8-21-74 9-19-74 9-28-74	4.8 20 11 5.1 6.9 5.7
01410803	Fourmile Branch at Winslow Crossing, N.J.	Lat 39°42'07", long 74°58'11", Camden County, 1.0 mi (1.6 km) south of Sicklerville and 2.0 mi (3.2 km) upstream from mouth.	6.24 (16.16 km ²)	1972-74	10-16-73 4-19-74 6-07-74 6-08-74 9-19-74	3.3 8.9 5.9 6.8 4.5

See footnotes at end of table, p. 142.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi ²)	Period of record	Measurements Date	Discharge (ft ³ /s)
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 mi (1.9 km) upstream from mouth, 3.3 mi (5.3 km) northwest of Millville.	15.1 (39.1 km ²)	1973-74	10-02-73 4-19-74 9-19-74	9.1 16 8.9
01411880	Maurice River at Sharp (revised) Street at Millville, N.J.	Lat 39°24'01", long 75°03'15", Cumberland County, at bridge on Sharp (revised) Street, 200 ft (60 m) downstream from Union Lake, 0.9 mi (1.4 km) northwest of Millville.	218 (565 km ²)	1973-74	4-18-74 9-19-74	218 201
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 mi (1.0 km) above Long Branch Run and 3.0 mi (4.8 km) northwest of Shiloh.	8.04 (20.82 km ²)	1966-74	10-11-73 4-19-74	11 12
Delaware River basin						
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 mi (3.9 km) northwest of Newton.	69.0 (178.7 km ²)	1973-74	4-19-74 9-18-74	206 66
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 (90 m) downstream from Paulins Kill Lake, 0.45 mi (0.72 km) southwest of Paulins Kill.	72.9 (188.8 km ²)	1973-74	7-19-73 9-27-73 4-19-74 9-18-74	62 (revised) 45 (revised) 221 75
*01445000	Pequest River at Huntsville, N.J.	Lat 40°58'49", long 74°46'38", Sussex County, on right bank 20 ft (6 m) upstream from highway bridge in Huntsville, 0.4 mi (0.6 km) downstream from East Branch.	31.4 (81.3 km ²)	1940-62†, 1963-74	(a)	b5.1
*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 mi (3.9 km) upstream from mouth, and 3.2 mi (5.1 km) north of Washington.	d4 (10 km ²)	1965-69, 1971-72	-	-
*01446000	Beaver Brook near Belvidere, N.J.	Lat 40°50'40", long 75°02'48", Warren County, on right bank, 2,000 ft (610 m) upstream from mouth and 2.0 mi (3.2 km) east of Belvidere.	36.2 (93.8 km ²)	1922-61†, 1963-74	(c)	b6.3
01455370	Weldon Brook at Hurdstown, N.J.	Lat 40°58'10", long 74°35'56", Morris County, at bridge on Union Turnpike at Hurdstown, 500 ft (150 m) downstream from Lake Shawnee Dam.	8.10 (20.98 km ²)	1973-74	4-18-74 9-19-74	22 4.8
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.	29.7 (76.9 km ²)	1973-74	6-05-73 7-19-73 9-28-73 4-18-74 9-19-74	86 (revised) 15 (revised) 24 (revised) 88 58
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 mi (1.1 km) upstream from North Run and 1.2 mi (1.9 km) east of Cookstown.	21.3 (55.2 km ²)	1966, 1969-70, 1972-74	10-11-73 9-18-74	14 17
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 (18.23 km ²)	1966, 1971-74	10-11-73	4.2
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 mi (1.6 km) west of Hornerstown.	21.4 (55.4 km ²)	1966, 1969-74	10-11-74	11

See footnotes at end of table, p. 142

Discharge measurements made at low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi ²)	Period of record	Measurements Date	Discharge (ft ³ /s)
Delaware River basin--Continued						
01464480	Miry Run at Holmes Mills, N.J.	Lat 40°08'02", long 74°32'35", Monmouth County, at bridge on Allentown-New Egypt Road, at Holmes Mills and 1.0 mi (1.6 km) west of Cream Ridge.	3.15 (8.16 km ²)	1966, 1969-74	10-11-73	1.2
*01464515	Doctors Creek at Allentown, N.J.	Lat 40°10'37", long 74°35'57", Monmouth County, at bridge on Breza Road in Allentown, 0.8 mi (1.3 km) downstream from dam at Conines Millpond.	17.2 (44.5 km ²)	1966, 1968-72, 1974	10-10-73	6.4
01464590	Assiscunk Creek near Burlington, N.J.	Lat 40°04'19", long 74°47'57", Burlington County, at bridge on Old York Road, 3.3 mi (5.3 km) east of Burlington and 4.3 mi (6.9 km) upstream from mouth.	37.2 (96.3 km ²)	1966-72, 1974	10-11-73	5.7
*01467130	Cooper River at Kirkwood, N. J.	Lat 39°50'11", long 75°00'06", Camden County, 5 ft (2 m) upstream from dam at Kirkwood Lake in Kirkwood, 1.0 mi (1.6 km) north of Laurel Springs.	5.14 (13.31 km ²)	1964-72	-	-
*01467160	North Branch Cooper River near Marlton, N. J.	Lat 39°53'20", long 74°58'08", Camden County, at bridge on blacktop road to Springdale, 2.5 mi (4.0 km) west of Marlton.	5.33 (13.80 km ²)	1964-69, 1971-72	-	-
*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 mi (.6 km) south of Ellisburg, and 0.9 mi (1.4 km) upstream from confluence with Cooper River.	10.4 (26.9 km ²)	1964-69, 1971-72	-	-
*01467305	Newton Creek at Collingswood, N. J.	Lat 39°54'30", long 75°03'13", Camden County, at bridge on Park Avenue, 0.3 mi (.5 km) east of Collingswood Borough line.	1.32 (3.42 km ²)	1964-72	-	-
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.	.52 (1.35 km ²)	1968-74	10-11-73 4-18-74 9-18-74	.29 .39 .17
*01467330	South Branch Big Timber Creek at Blackwood, N. J.	Lat 39°48'17", long 75°04'33", Camden County, at bridge on Lower Landing Road in Blackwood, 3.0 mi (4.8 km) upstream from mouth.	d19 (49 km ²)	1964-72	-	-
01474950	Mantua Creek at Glassboro, N.J.	Lat 39°42'52", long 75°05'32", Gloucester County, at bridge at downstream end of Lake Oberst, and 1.5 mi (2.4 km) northeast of Glassboro.	1.20 (3.11 km ²)	1965-66, 1972, 1974	10-11-73 4-18-74 9-19-74	.55 1.7 1.0
01474970	Mantua Creek at Greentree Road at Glassboro, N.J.	Lat 39°43'31", long 75°06'06", Gloucester County, at bridge on Greentree Road, 1.1 mi (1.8 km) upstream from Kressy Lake dam, and 1.3 mi (2.1 km) east of Pitman.	2.78 (7.20 km ²)	1965-66, 1972, 1974	10-11-73 4-18-74 9-19-74	3.3 8.6 3.0
01482510	Nichomus Run near Woodstown, N. J.	Lat 39°38'22", long 75°20'59", Salem County, at bridge on State Route 45, 1.4 mi (2.3 km) southwest of Woodstown, and 1.7 mi (2.7 km) upstream from mouth.	d3.9 (10.1 km ²)	1966-72, 1974	9-21-74	*.50

See footnotes at end of table, p. 142.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations--Continued

Station number	Station name	Location	Drainage area (mi ²)	Period of record	Measurements Date	Discharge (ft ³ /s)
Delaware River basin--Continued						
01482520	Salem River at Sharptown, N. J.	Lat 39°39'09", long 75°22'05", Salem County, at bridge on Kings Highway (Salem-Sharptown Road) 0.2 mi (0.3 km) south of Sharptown, and 1.0 mi (1.6 km) upstream from Major Run.	d27 (70 km ²)	1966-72 1974	9-21-74	*9.7
01482530	Major Run at Sharptown, N. J.	Lat 39°38'56", long 75°22'29", Salem County, at bridge on Kings Highway (Salem-Sharptown Road), 0.4 mi (0.6 km) upstream from mouth, and 0.7 mi (1.1 km) southwest of Sharptown.	3.04 (7.87 km ²)	1966-72 1974	9-21-74	*.87

* Also a crest-stage partial-record station.

† Operated as a continuous-record gaging station.

a Occurred during period Oct. 4 to Dec. 26, 1973.

b Minimum recorded during year; computed from minimum gage reading and rating. Discharge may have been lower at some time during year when gage was not operating.

c Occurred during period July 25 to Sept. 17, 1974.

d Estimated.

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 (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Hackensack River basin							
*01377475	Musquapsink Brook near Westwood, N. J.	Lat 40°59'41", long 74°03'42", Bergen County, at bridge on Pascack Road in Washington Borough, 1.5 mi (2.4 km) west of Westwood, and 5.3 mi (8.5 km) above mouth.	2.16 (5.59 km ²)	1965-72, 1974	9-04-74	b2.93	†
01377490	Musquapsink Brook at Westwood, N. J.	Lat 40°59'11", long 74°02'03", Bergen County, at footbridge at Bogert Pond, 8 ft (2 m) upstream from dam near intersection of Mill Street and First Avenue in Westwood.	6.53 (16.9 km ²)	1966-74	9-04-74	1.11	165
*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 mi (0.24 km) west of Erie Lackawanna Railroad Station, and 3.3 mi (5.3 km) upstream from Oradell Reservoir. Datum of gage is 32.38 ft (9.87 m) above mean sea level.	3.01 (7.80 km ²)	1966-74	12-21-73	b3.47	158
*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 mi (1.1 km) upstream from mouth.	8.56 (22.2 km ²)	1965-74	12-21-73	b4.35	660
*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 (2.6 km) upstream from mouth.	1.54 (3.99 km ²)	1965-74	4-09-74	b2.21	168
*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 mi (1.4 km) upstream from mouth.	1.18 (3.06 km ²)	1965-74	9-04-74	b5.63	288
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 mi (0.8 km) east of Pine Brook, and 1.3 mi (2.1 km) downstream from Rockaway River. Datum of gage is 159.26 ft (48.54 m) above mean sea level.	349 (904 km ²)	1966-74	12-23-73	unknown	unknown
01389900	Fleischer Brook at Market Street, Elmwood Park, N. J.	Lat 40°53'57", long 74°19'19", Bergen County, at culvert on Market Street in Elmwood Park, and 2.0 mi (3.2 km) upstream from mouth. Datum of gage is 35.31 ft (10.76 m) above mean sea level.	1.37 (3.55 km ²)	1967-74	12-21-73 9-04-74	3.20	†
*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 mi (2.1 km) downstream from Pine Brook.	10.9 (28.2 km ²)	1965-74	12-21-73	b3.38	1,350

See footnotes at end of table, p. 146 .

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual maximum	
						Gage height (feet)	Discharge (cfs)
Passaic River basin-Continued							
01390810	Hohokus Brook at Allendale, N. J.	Lat 41°01'37", long 74°08'44", Bergen County, at bridge on Brookside Avenue in Allendale, and 0.2 mi (0.3 km) downstream from Valentine Brook.	a9 (23.3 km ²)	1969-74	12-21-73	6.05	540
*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, and 0.9 mi (1.4 km) upstream from mouth. Datum of gage is 33.25 ft (10.13 m) above mean sea level.	5.56 (14.4 km ²)	1965-71, 1974	12-21-73	b4.78	370
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 (20.88 m) above mean sea level.	4.45 (11.5 km ²)	1937-62†, 1963-74	12-21-73	3.61	526
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 (91 m) downstream from Franklin Avenue, and 1,100 ft (335 m) downstream from Hendricks Pond dam. Datum of gage is 62.6 ft (19.1 m) mean sea level.	11.6 (30.0 km ²)	1936-61†, 1963-74	12-21-73	unknown	unknown
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 mi (1.9 km) northwest of Flemington, and 2.3 mi (3.7 km) upstream from mouth. Datum of gage is 267.33 ft (81.48 m) above mean sea level.	2.24 (5.80 km ²)	1936-61†, 1965-74	12-21-73	2.90	400
*01400850	Woodsville Brook at Woodsville, N. J.	Lat 40°22'37", long 74°49'33", Mercer County, at bridge on secondary road, 0.3 mi (0.5 km) southeast of Woodsville, and 0.8 mi (1.3 km) upstream from mouth.	1.78 (4.61 km ²)	1957-58, 1964-74	12-21-73	2.95	250
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 (61 m) east of tracks of Reading Railroad, at Glenmoore, and 2.0 mi (3.2 km) southwest of Hopewell.	17.0 (44.0 km ²)	1957-74	12-21-73	b7.23	2,300
*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 mi (1.3 km) north of Pennington, and 0.9 mi (1.4 km) upstream from Baldwin Lake dam.	1.99 (5.15 km ²)	1957, 1960-74	8-03-74	5.80	293
*01400947	Stony Brook at Pennington, N. J.	Lat 40°19'50", long 74°46'05", Mercer County, 25 ft (7.6 m) upstream from dam on Stony Brook at Oldmill Road, 1.3 mi (2.1 km) east of Pennington, and 1.4 mi (2.3 km) downstream from Baldwin Creek. Datum of gage is 139.26 ft (42.45 m) above mean sea level.	26.5 (68.6 km ²)	1965-74	12-21-73	2.76	†

See footnotes at end of table, p. 147.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Raritan River basin--Continued							
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 mi (1.6 km) upstream from mouth, and 1.7 mi (2.7 km) southeast of Pennington.	40.8 (2.07 km ²)	1968-74	12-21-73	4.55	135
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 mi (1.0 km) northeast of Centerville, 1.4 mi (2.3 km) southwest of Mount Rose, and 2.5 mi (4.0 km) northeast of Pennington.	41.5 (3.88 km ²)	1968-74	12-21-73	3.78	†
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 mi (0.3 km) upstream from mouth, 1.2 mi (1.9 km) west of Rosedale, and 2.0 mi (3.2 km) south of Mount Rose.	3.83 (9.92 km ²)	1967-74	12-21-73	8.04	920
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 mi (0.8 km) upstream from Delaware and Raritan Canal, and 0.9 mi (1.4 km) northeast of Clarksville. Datum of gage is 54.14 ft (16.50 m) above mean sea level.	5.21 (13.5 km ²)	1965-74	12-21-73	3.86	170
*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 mi (1.3 km) upstream from Province Line Road (revised), 1.1 mi (1.8 km) southeast of Hopewell, and 2.6 mi (4.2 km) southwest of Blawenburg. Datum of gage is 116.43 ft (35.49 m) above mean sea level.	6.07 (15.7 km ²)	1967-74	12-21-73	5.98	940
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 mi (1.1 km) upstream from mouth, 1.0 mi (1.6 km) northeast of Blawenburg, and 2.8 mi (4.5 km) northwest of Rocky Hill. Datum of gage is 63.45 ft (19.34 m) above mean sea level.	9.03 (23.4 km ²)	1967-74	12-21-73	6.32	1,280
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 mi (1.1 km) upstream from Pike Run, 1.2 mi (1.9 km) northwest of Rocky Hill, and 4.6 mi (7.4 km) north of Princeton. Datum of gage is 38.09 ft (11.61 m) above mean sea level	27.6 (71.5 km ²)	1967-74	12-21-73	10.09	3,300
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 mi (2.6 km) upstream from mouth, and 2.1 mi (3.4 km) south of Middlebush.	10.7 (27.7 km ²)	1966-74	12-21-73	unknown	unknown
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 mi (0.8 km) upstream from Debois Creek.	10.6 (27.5 km ²)	1969-74	12-21-73	9.78	240

See footnotes at end of table, p. 147.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Manasquan River basin--Continued							
*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 mi (4.8 km) upstream from mouth.	6.22 (16.1 km ²)	1969-74	12-21-73	4.46	123
*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 mi (2.4 km) downstream from Mill Run.	63.9 (166 km ²)	1969-74	12-21-73	7.74	1,580
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 (4.6 m) upstream from county bridge, Highway 31, at Seeley, 450 ft (137 m) upstream from mouth and 4.1 mi (6.6 km) northwest of Bridgeton. Datum of gage is 42.23 ft (12.87 m) above mean sea level.	2.16 (5.59 km ²)	1952-67†, 1968-74	12-23-73	unknown	unknown
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 (6.1 m) upstream from highway bridge in Huntsville, and 0.4 mi (0.6 km) downstream from East Branch. Datum of gage is 553.81 ft (168.80 m) above mean sea level.	31.4 (81.3 km ²)	1940-62†, 1963-74	12-21-73	4.81	512
*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 mi (3.9 km) upstream from mouth, and 3.2 mi (5.1 km) north of Washington.	a4 (10.4 km ²)	1966-74	9-04-74	b4.05	†
*01446000	Beaver Brook near Belvidere, N. J.	Lat 40°50'40", long 75°02'48", Warren County, on right bank, 2,000 ft (610 m) upstream from mouth, and 2 mi (3 km) east of Belvidere. Datum of gage is 303.36 ft (92.46 m) above mean sea level.	36.2 (93.8 km ²)	1922-61†, 1963-74	12-21-73	4.97	1,100
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 mi (0.6 km) southeast of New Village, and 4.3 mi (6.9 km) upstream from Merrill Creek. Datum of gage is 310.82 ft (94.74 m) above mean sea level.	33.4 (86.5 km ²)	1960-69†, 1972-74	12-21-73	5.31	1,040
01457500	Delaware River at Riegelsville, N. J.	Lat 40°35'36", long 75°11'17", Warren County, at suspension bridge at Riegelsville, 600 ft (183 m) 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 (38.14 m) above mean sea level, datum of 1929. National Ocean Survey.	6,328 (16,390 km ²)	1906-71†, 1972-74	12-22-73	unknown	unknown
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 (91 m) downstream from Oakford Lake dam. Datum of gage is 43.46 ft (13.25 m) above mean sea level.	a38 (98.4 km ²)	1968-74	12-21-73	22.48	1,750

See footnotes at end of table, p. 147.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Delaware River basin--Continued							
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 mi (0.5 km) upstream from Doctors Creek, 0.5 mi (0.8 km) northwest of Groveville, and 0.6 mi (1.0 km) southwest of Yardville. Datum of gage is 2.15 ft (0.66 m) below mean sea level.	a94.5 (245 km ²)	1968-74	12-21-73	b13.14	†
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 mi (1.1 km) southeast of Yardville, and 1.5 mi (2.4 km) upstream of mouth. Datum of gage is 14.23 ft (4.34 m) above mean sea level.	a24.7 (64.0 km ²)	1968-74	12-21-73	b8.17	980
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 (6.1 m) upstream from bridge on North Branch Road, and 5.1 mi (8.2 km) southeast of Browns Mills. Datum of gage is 99.71 ft (30.39 m) above mean sea level.	2.73 (7.07 km ²)	1952-65†, 1967-74	4-10-74	1.71	6.10
*01467130	Cooper River at Kirkwood, N. J.	Lat 39°50'11", long 75°00'06", Camden County, 5 ft (1.5 m) upstream from dam at Kirkwood Lake in Kirkwood, and 1.0 mi (1.6 km) north of Laurel Springs. Datum of gage is 57.82 ft (17.62 m) above mean sea level.	5.14 (13.3 km ²)	1964-74	12-21-73	1.16	69
*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 mi (4.0 km) west of Marlton. Datum of gage is 36.36 ft (11.08 m) above mean sea level.	5.33 (13.8 km ²)	1964-74	12-21-73	b3.10	190
*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 mi (0.6 km) south of Ellisburg, and 0.9 mi (1.4 km) upstream from confluence with Cooper River. Datum of gage is 9.80 ft (2.99 m) above mean sea level.	10.4 (26.9 km ²)	1964-74	12-21-73	b4.35	410
*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 mi (0.5 km) east of Cuthbert Avenue. Datum of gage is 18.74 ft (5.71 m) above mean sea level.	1.32 (3.42 km ²)	1964-74	12-21-73	2.76	120
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 mi (4.2 km) south of Collingswood. Datum of gage is 23.34 ft (7.11 m) above mean sea level.	.63 (1.63 km ²)	1964-74	10-30-73	2.10	11
*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 mi (4.8 km) upstream from mouth. Datum of gage is 8.41 ft (2.56 m) above mean sea level.	a19 (49.2 km ²)	1964-74	12-21-73	b4.02	320

* Also a low-flow partial-record station.

† Discharge not determined.

‡ Operated as a continuous-record gaging station.

a Estimated.

b Downstream side of bridge.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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 1974

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Passaic River basin						
01379100 Dead River	Passaic River	Lat 40°39'15", long 74°34'35". Somerset County, at bridge on Martinsville Road, 0.2 mi (0.3 km) upstream from Harrison's Brook, and 0.7 mi (1.1 km) south of Liberty Corner.	-	-	8-14-74 8-21-74	*0.56 *.54
01379102 Dead River	Passaic River	Lat 40°39'19", long 74°34'30". Somerset County, 0.1 mi (0.2 km) upstream from Harrison's Brook, and 0.6 mi (1.0 km) south of Liberty Corner.	-	-	8-14-74	*1.3
01379170 Harrisons Brook	Dead River	Lat 40°39'23", long 74°34'22". Somerset County, at mouth, 0.6 mi (1.0 km) south of Liberty Corner.	-	-	7-10-74 8-21-74	*.99 *1.3
01379180 Dead River	Passaic River	Lat 40°39'06", long 74°32'47". Somerset County, at bridge on Dead River Road, 1.4 mi (2.3 km) upstream from mouth, and 2.3 mi (3.7 km) southwest of Millington.	-	-	7-10-74 8-14-74 8-21-74	*1.5 *3.1 *2.9
01379195 Dead River tributary	Dead River	Lat 40°38'53", long 74°31'39". Somerset County, at mouth, 1.0 mi (1.6 km) northwest of Mount Bethel.	-	-	7-10-74 8-14-74	*.23 *.28
Manasquan River basin						
01407821 Manasquan River	Atlantic Ocean	Lat 40°12'42", long 74°14'46". Monmouth County, at bridge on Georgia Road, 1.4 mi (2.3 km) upstream from Debois Creek, and 1.8 mi (2.9 km) northwest of Georgia.	6.94 (17.97 km ²)	-	3-07-74 4-20-74	*9.4 *11
01407828 Manasquan River tributary No. 11	Manasquan River	Lat 40°13'15", long 74°16'48". Monmouth County, at State Route 524, 0.8 mi (1.3 km) upstream from mouth, and 1.2 mi (1.9 km) west of Adelphia.	1.26 (3.26 km ²)	-	3-07-74	*1.4
01407832 Debois Creek	Manasquan River	Lat 40°15'26", long 74°15'30". Monmouth County, at culvert on Center Street, 0.2 mi (0.3 km) east of Freehold Borough boundary and 2.3 mi (3.7 km) upstream from Applegates Creek.	-	-	3-07-74	*3.9
01407833 Debois Creek tributary No. 2	Debois Creek	Lat 40°15'25", long 74°15'28". Monmouth County, at culvert on Center Street 0.1 mi (0.2 km) upstream from mouth, and 0.2 mi (0.3 km) east of Freehold Borough boundary.	-	-	3-07-74	*.90
01407836 Debois Creek	Manasquan River	Lat 40°13'52", long 74°15'35". Monmouth County, at bridge on Three Brooks Road, 0.4 mi (0.6 km) upstream from Applegates Creek, and 2.1 mi (3.4 km) southeast of Freehold.	2.63 (6.81 km ²)	-	3-07-74	*8.8

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1974--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Manasquan River basin--Continued						
01407842 Debois Creek tributary	Debois Creek	Lat 40°13'55", long 74°15'52", Monmouth County, at bridge on Three Brooks Road, 0.5 mi (0.8 km) upstream from mouth, and 2.0 mi (3.2 km) southeast of Freehold.	.79 (2.05 km ²)	-	3-07-74	*2.5
01407849 Applegates Creek	Debois Creek	Lat 40°13'51", long 74°15'15", Monmouth County, at bridge on Three Brooks Road, 0.5 mi (0.8 km) upstream from mouth, and 0.9 mi (1.4 km) north of Adelphia.	1.69 (4.38 km ²)	-	3-07-74	*1.8
01407862 Debois Creek	Manasquan River	Lat 40°12'33", long 74°16'08", Monmouth County, at bridge on light-duty road, 0.2 mi (0.3 km) upstream from mouth, and 0.8 mi (1.3 km) northwest of Wycoff Mills.	7.67 (19.87 km ²)	-	4-09-74 4-09-74 5-13-74 5-22-74	175 77 16 *11
01407871 Manasquan River	Atlantic Ocean	Lat 40°12'15", long 74°15'24", Monmouth County, at bridge on U.S. Route 9 in Wycoff Mills, 1.1 mi (1.8 km) downstream from Debois Creek.	-	1966	3-07-74	*35
01407880 Manasquan River	Atlantic Ocean	Lat 40°12'03", long 74°12'46", Monmouth County, 0.3 mi (0.5 km) south of Fairfield, and 4.3 mi (6.9 km) upstream from Marsh Bog Brook.	28.3 (73.3 km ²)	-	3-07-74	*50
01407980 Marsh Bog Brook	Manasquan River	Lat 40°13'29", long 74°10'55", Monmouth County, at bridge on State Route 33, 0.7 mi (1.1 km) east of Shacks Corner, and 4.6 mi (7.4 km) upstream from mouth.	1.20 (3.11 km ²)	-	3-07-74	*2.6
01407992 Marsh Bog Brook	Manasquan River	Lat 40°11'57", long 74°10'40", Monmouth County, at bridge on State Route 524, 0.4 mi (0.6 km) west of Farmingdale, and 2.8 mi (4.5 km) upstream from mouth.	3.48 (9.01 km ²)	-	3-07-74	*4.0
01407997 Marsh Bog Brook	Manasquan River	Lat 40°10'00", long 74°09'34", Monmouth County, at Yellow Brook Road, 0.2 mi (0.3 km) upstream from mouth, and 0.3 mi (0.5 km) west of Squankum.	4.91 (12.72 km ²)	-	3-07-74	*6.7
01408009 Mingamahone Brook	Manasquan River	Lat 40°12'45", long 74°10'07", Monmouth County, at bridge on Cranberry Bog Road, 0.6 mi (1.0 km) upstream from Branch Mingamahone Brook, and 1.7 mi (2.7 km) west of Earle.	3.32 (8.60 km ²)	-	3-07-74	*7.2
Metedeconk River basin						
Hay Stack Brook tributary	Hay Stack Brook	Lat 40°09'03", long 74°12'21", Monmouth County, immediately upstream from sewage treatment plant, 0.2 mi (0.3 km) upstream from mouth, 1.4 mi (2.3 km) northeast of Southard.	-	-	7-30-74 9-19-74 9-23-74	*.19 *.18 *.33
01408109 Hay Stack Brook tributary	Hay Stack Brook	Lat 40°08'58", long 74°12'17", Monmouth County, immediately downstream from sewage treat- ment plant, 0.2 mi (0.3 km) upstream from mouth, 1.4 mi (2.3 km) northeast of Southard.	-	-	9-19-74 9-23-74	*.97 *.97

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1974--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements Date	Discharge (ft ³ /s)
Metedeconk River basin--Continued						
01408111 Hay Stack Brook	Muddy Ford Brook	Lat 40°08'22", long 74°11'41", Monmouth County, at bridge on Lanes Pond Road, 0.8 mi (1.3 km) upstream from Poly Pod Brook, and 1.6 mi (2.6 km) east of Southard.	-	-	7-30-74	*1.5
					9-19-74	*2.2
					9-23-74	*2.2
01408112 Poly Pod Brook	Hay Stack Brook	Lat 40°07'41", long 74°11'54", Monmouth County, at bridge on Lanes Pond Road at outlet of Lake Louise, and 1.5 mi (2.4 km) east of Southard.	-	-	9-19-74	*2.0
01408113 Hay Stack Brook	Muddy Ford Brook	Lat 40°07'24", long 74°11'21", Monmouth County, at bridge on Route 547, 0.4 mi (0.6 km) upstream from Dicks Brook, and 2.3 mi (3.7 km) north- east of Clifton Avenue School in Lakewood.	-	-	7-30-74	*4.4
					9-19-74	*4.5
					9-23-74	*5.9
01408115 Dicks Brook	Hay Stack Brook	Lat 40°07'07", long 74°11'37", Monmouth County, at culvert on Route 547, 0.3 mi (0.5 km) upstream from mouth, and 1.9 mi (3.1 km) northeast of Clifton Avenue School in Lakewood.	-	-	9-19-74	*.28
01408116 Hay Stack Brook	Muddy Ford Brook	Lat 40°06'58", long 74°10'56", Monmouth County, at bridge on Oak Glen Road, 0.8 mi (1.3 km) upstream from mouth, and 1.8 mi (2.9 km) northeast of Clifton Avenue School in Lakewood.	-	-	7-30-74	*4.2
					9-19-74	*5.1
					9-23-74	*6.0
Mullica River basin						
01409412 Hammonton Creek	Mullica River	Lat 39°37'51", long 74°46'17", Atlantic County, at bridge on Route 30, at outlet of Hammonton Lake, and 1.8 mi (2.9 km) east of intersection of Route 54 with Pennsylvania- Reading Seashore Railroad Lines in Hammonton.	-	-	6-19-74	*.60
					7-17-74	*1.1
					8-01-74	*.93
					8-28-74	*1.4
					9-14-74	2.9
01409414 Hammonton Creek	Mullica River	Lat 39°37'57", long 74°45'39", Atlantic County, at bridge on 8th Street, 0.6 mi (1.0 km) downstream from Hammonton Lake, and 2.4 mi (3.9 km) east of intersection of Route 54 with Pennsylvania- Reading Seashore Railroad Lines in Hammonton.	-	-	6-19-74	*4.3
					7-17-74	*4.1
					8-01-74	*4.0
					8-28-74	*4.5
					9-14-74	6.2
01409415 Hammonton Creek	Mullica River	Lat 39°38'09", long 74°44'30", Atlantic County, at bridge on dirt road, 2.6 mi (4.2 km) upstream from Norton Branch, and 3.4 mi (5.5 km) east of intersection of Route 54 with Pennsylvania-Reading Seashore Railroad Lines in Hammonton.	-	-	6-19-74	*5.2
					7-17-74	*5.8
					8-28-74	*7.8
					9-14-74	8.5
01409416 Hammonton Creek	Mullica River	Lat 39°38'02", long 74°43'05", Atlantic County, at bridge on Chestnut Road, 0.4 mi (0.6 km) southeast of Wescoatville and 1.6 mi (2.6 km) upstream from Norton Branch.	-	-	6-19-74	*8.6
					7-17-74	*6.7
					8-01-74	*5.2
					8-28-74	*11
					9-14-74	13
01409418 Hammonton Creek	Mullica River	Lat 39°37'40", long 74°41'38", Atlantic County, at bridge on Columbia Road, 0.2 mi (0.3 km) upstream from Norton Branch and 0.7 mi (1.1 km) south of Nesco.	-	-	6-19-74	*17
					8-01-74	*9.9
					9-14-74	27

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1974--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Mullica River basin--Continued						
01409420 Hammoncton Creek	Mullica River	Lat 39°38'02", long 74°40'30", Atlantic County, at bridge on light-duty road, 0.8 mi (1.3 km) upstream from out- let of Nescochague Lake and 0.8 mi (1.3 km) southwest of Pleasant Mills.	-	-	6-19-74	*20
					8-01-74	*14
					9-14-74	29
01409575 Landing Creek	Mullica River	Lat 39°32'52", long 74°37'33", Atlantic County, at Phila- delphia Avenue, 0.1 mi (0.2 km) upstream from Union Creek 1.7 mi (2.7 km) north- east of intersection of Route 30 and Route 50 in Egg Harbor City, and 6.1 mi (9.8 km) up- stream from mouth.	-	-	8-02-74	*3.3
					8-13-74	*9.9
					8-17-74	*5.1
01409580 Union Creek	Landing Creek	Lat 39°32'03", long 74°37'55", Atlantic County, at Duerer Street in Egg Harbor City, 1.0 mi (1.6 km) upstream from mouth.	-	-	7-22-74	*.57
					8-02-74	*.65
					8-13-74	*2.4
					8-17-74	*1.4
					9-06-74	*1.0
01409582 Union Creek	Landing Creek	Lat 39°32'17", long 74°37'46", Atlantic County, 50 ft (15 m) upstream from sewage treat- ment plant in Egg Harbor City, and 0.7 mi (1.1 km) upstream from mouth.	-	-	9-06-74	1.4
01409584 Union Creek	Landing Creek	Lat 39°32'22", long 74°37'42", Atlantic County, 100 ft (30 m) downstream from sewage treatment plant in Egg Harbor City and 0.6 mi (1.0 km) upstream from mouth.	-	-	9-06-74	3.1
01409585 Union Creek	Landing Creek	Lat 39°32'39", long 74°37'40", Atlantic County, at Moss Mill Road, 0.3 mi (0.5 km) upstream from mouth, and 1.5 mi (2.4 km) northeast of intersection of Route 30 and Route 50 in Egg Harbor City.	-	-	7-22-74	*1.3
					8-02-74	*1.6
					8-13-74	*4.3
					8-17-74	*2.5
					9-06-74	2.7
01409590 Landing Creek	Mullica River	Lat 39°33'09", long 74°36'51", Atlantic County, 0.1 mi (.2 km) upstream from Elliots Creek, 2.5 mi (4.0 km) north- east of intersection of U.S. Route 30 and State Route 50 in Egg Harbor City, and 5.2 mi (8.4 km) upstream from mouth.	-	-	7-22-74	*5.8
					8-02-74	*5.1
					8-13-74	*15
					8-17-74	*8.5
					9-06-74	6.3
01409597 Elliots Creek	Landing Creek	Lat 39°32'40", long 74°36'25", Atlantic County, at Bremen Avenue, 0.7 mi (1.1 km) upstream from mouth, and 2.3 mi (3.7 km) northeast of intersection of U.S. Route 30 and State Route 50 in Egg Harbor City.	-	-	8-02-74	*1.7
					8-13-74	*4.0
					8-17-74	*2.8
01409600 Landing Creek	Mullica River	Lat 39°33'25", long 74°36'10", Atlantic County, at bridge on Indian Cabin Road, 0.1 mi (.2 km) upstream from Indian Cabin Creek, and 2.9 mi (4.7 km) northeast of inter- section of U.S. Route 30 and State Route 50 in Egg Harbor City.	-	-	7-22-74	*6.9
					8-02-74	*7.7
					8-13-74	*20
					8-17-74	*12
					9-06-74	16

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1974--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Measurements Discharge (ft ³ /s)
Great Egg Harbor River basin						
01410850 Squankum Branch	Great Egg Harbor River	Lat 39°40'52", long 74°59'02", Gloucester County, at culvert on Walnut Street, 0.8 mi (1.3 km) southeast of intersection of State Route 42 and New Freedom Road in Williamstown, and 2.6 mi (4.2 km) upstream from Hedges Branch.	-	-	8-05-74 9-10-74	.13 <.1
01410855 Squankum Branch	Great Egg Harbor River	Lat 39°40'39", long 74°58'34", Gloucester County, immediately upstream from sewage treatment plant, 1.2 mi (1.9 km) southeast of intersection of State Route 42 and New Freedom Road in Williamstown, and 2.1 mi (3.4 km) upstream from Hedges Branch.	-	-	8-05-74 9-10-74	.89 .50
01410860 Squankum Branch	Great Egg Harbor River	Lat 39°40'37", long 74°58'30", Gloucester County, immediately downstream from sewage treatment plant, 1.3 mi (2.1 km) southeast of intersection of State Route 42 and New Freedom Road in Williamstown, and 2.0 mi (3.2 km) upstream from Hedges Branch.	-	-	8-05-74	2.0
01410865 Squankum Branch	Great Egg Harbor River	Lat 39°40'04", long 74°57'39", Gloucester County, at bridge on Malaga Road, 1.0 mi (1.6 km) upstream from Hedges Branch, and 2.3 mi (3.7 km) southeast of intersection of State Route 42 and New Freedom Road in Williamstown.	-	-	8-05-74 9-10-74	2.7 2.5
Delaware River basin						
01443448 Paulins Kill tributary	Paulins Kill	Lat 41°04'47", long 74°46'44", Sussex County, at bridge on Lehigh and New England Railroad, 0.3 mi (0.5 km) upstream from mouth and 1.9 mi (3.1 km) northwest of intersection of State Route 206 and State Route 94 in Newton.	-	-	6-05-73	*a2.4
01444970 Pequest River	Delaware River	Lat 41°00'52", long 74°46'02", Sussex County, at bridge on State Route 206, 0.4 mi (0.6 km) south of Springdale, and 2.0 mi (3.2 km) downstream from Stickle Pond.	-	-	9-13-74 9-27-74	*19 *11
01444990 Pequest River tributary	Pequest River	Lat 40°59'07", long 74°45'54", Sussex County, at bridge on medium-duty road in Brighton, and 0.4 mi (0.6 km) upstream from mouth.	-	-	9-13-74 9-27-74	*25 *11
01445100 Pequest River	Delaware River	Lat 40°55'16", long 74°50'26", Warren County, at bridge on Quaker Church-Long Bridge Road 0.3 mi (0.5 km) downstream from Trout Brook.	-	1940-42	9-13-74 9-27-74	*74 *40
01445210 Bear Creek	Pequest River	Lat 40°55'49", long 74°53'07", Warren County, at bridge on light-duty road, 0.7 mi (1.1 km) southeast of Southtown, and 1.2 mi (1.9 km) upstream from mouth.	-	-	9-13-74 9-27-74	*16 *10

a. Measured during 1973 water year; not previously published.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1974--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Delaware River basin--Continued						
01445300 Pequest River	Delaware River	Lat 40°52'38", long 74°54'19", Warren County, at bridge on Alphano Road, 1.0 mi (1.6 km) northwest of Vienna, and 3.4 mi (5.5 km) downstream from Bear Creek.	-	-	9-13-74 9-27-74	*114 *65
01445495 Furnace Brook	Pequest River	Lat 40°49'21", long 74°59'06", Warren County, at bridge on dirt road, 0.7 mi (1.1 km) southwest of Pequest, and 0.7 mi (1.1 km) upstream from mouth.	-	-	9-13-74 9-27-74	*5.0 *4.6
01446400 Pequest River	Delaware River	Lat 40°49'45", long 75°04'44", Warren County, at bridge on Market Street in Belvidere, 0.3 mi (0.5 km) upstream from mouth.	-	1950, 1953, 1955	9-13-74 9-27-74	*247 *149
01460351 Delaware and Raritan Canal	Raritan River	Lat 40°21'49", long 74°56'43", Hunterdon County, 100 ft (30 m) downstream from Swan Creek in Lambertville.	-	-	5-17-74	90
01460355 Delaware and Raritan Canal	Raritan River	Lat 40°20'31", long 74°56'26", Hunterdon County, at Goat Hill, 1.6 mi (2.6 km) downstream from Swan Creek, and 1.6 mi (2.6 km) south of Lambertville.	-	-	5-17-74	81
01460360 Delaware and Raritan Canal	Raritan River	Lat 40°20'07", long 74°55'44", Mercer County, at bridge at Belle Mountain, 1.0 mi (1.6 km) upstream from Moore Creek.	-	-	5-17-74	82
01460365 Delaware and Raritan Canal	Raritan River	Lat 40°18'31", long 74°52'54", Mercer County, at bridge on medium-duty road in Titusville, 0.2 mi (.3 km) downstream from Fiddlers Creek.	-	-	5-17-74	68
01460380 Delaware and Raritan Canal	Raritan River	Lat 40°17'48", long 74°52'02", Mercer County, at bridge on State Route 546 in Washington Crossing, 1.4 mi (2.3 km) upstream from Jacobs Creek.	-	1943, 1945	5-17-74	67
01460390 Delaware and Raritan Canal	Raritan River	Lat 40°15'53", long 74°50'53", Mercer County, at bridge on road in Scudders Falls, 1.0 mi (1.6 km) downstream from Jacobs Creek.	-	-	5-17-74	67
01460395 Delaware and Raritan Canal	Raritan River	Lat 40°15'24", long 74°50'18", Mercer County, at bridge on West Upper Ferry Road, 1.2 mi (1.9 km) southwest of West Trenton, and 1.7 mi (2.7 km) downstream from Jacobs Creek.	-	-	5-17-74	75
01460400 Delaware and Raritan Canal	Raritan River	Lat 40°14'41", long 74°49'10", Mercer County, at bridge on Lower Ferry Road, 3.0 mi (4.8 km) downstream from Jacobs Creek and 2.9 mi (4.7 km) northwest from inter- section of State Route 29 and Calhoun Street in Trenton.	-	1954	5-17-74	68



FIGURE 6...LOCATION OF TIDAL GAGING STATIONS

RARITAN RIVER BASIN

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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 mi² (2,849 km²).

PERIOD OF RECORD.--January 1966 to September 1974 (discontinued). Prior to October 1970, published as "Raritan River at Perth Amboy" (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.

REMARKS.--Records poor.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974													
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	-	-	-	-	-	-	-	-	-	-	-	-
high tide	Date	-	-	-	-	-	-	-	-	-	-	-	-
Minimum	Elevation	-	-	-	-	-	-	-	-	-	-	-	-
low tide	Date	-	-	-	-	-	-	-	-	-	-	-	-
Mean high tide		-	-	-	-	-	-	-	-	-	-	-	-
Mean water level		-	-	-	-	-	-	-	-	-	-	-	-
Mean low tide		-	-	-	-	-	-	-	-	-	-	-	-

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 National Ocean Survey. 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.--Part or all of each month during the current year had no gage-height record. No summaries could be satisfactorily estimated.

LITTLE EGG HARBOR BAY

01409335 Shooting Thoroughfare 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 September 1974.

GAGE.--Water-stage recorder. Datum of gage is 13.91 ft (4.240 m) below mean sea level. Gage height converted to elevation above or below (-) mean sea level for publication.

REMARKS.--Records fair except those for periods of no gage-height records which are poor.

Summaries of tide elevations during current year are as follows:

		TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974											
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.03	3.78	5.50	4.42	4.47	4.29	-	-	-	-	-	-
high tide	Date	29	26	9	9	8	31	-	-	-	-	-	-
Minimum	Elevation	-1.54	-1.58	-1.57	-1.56	-1.43	-1.53	-	-	-	-	-	-
low tide	Date	15	2	18	8	1	5	-	-	-	-	-	-
Mean high tide		2.78	2.18	2.41	2.59	2.47	2.40	-	-	-	-	-	-
Mean water level		1.11	0.50	0.70	0.80	0.79	0.84	-	-	-	-	-	-
Mean low tide		-0.52	-1.12	-0.94	-0.90	-0.91	-1.00	-	-	-	-	-	-

NOTE.--Doubtful or no gage-height record Apr. 3 to Sept. 30.

GREAT BAY

157

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.--June 1971 to September 1974 (discontinued).

GAGE.--Water-stage recorder. Record expressed in gage height above or below (-) a datum not yet determined.

REMARKS.--Records poor. For periods noted with dash (-) line the data are either unreliable or unavailable and are not published.

Summaries of gage heights for current year are as follows:

		GAGE-HEIGHT, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974											
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Gage height	7.41	-	-	-	a6.49	6.35	5.94	6.08	6.43	-	-	a6.03
high tide	Date	29	-	-	-	8	31	9	23	23	-	-	7
Minimum	Gage height	0.81	-	-	-	a-0.50	-0.44	0.59	0.77	0.95	-	-	a0.84
low tide	Date	15	-	-	-	23	18	22	4	20	-	-	30
Mean high tide		5.00	-	-	-	a4.69	4.47	4.57	4.86	4.56	-	-	a5.04
Mean water level		3.38	-	-	-	a2.93	2.79	2.91	3.21	3.32	-	-	a3.40
Mean low tide		1.60	-	-	-	a1.40	1.22	1.24	1.94	1.82	-	-	a1.80

a- Elevations are for part of month only.

NOTE.--No gage-height record Nov. 8 to Dec. 6, Dec. 21 to Feb. 5, July 1 to Sept. 3.

MULLICA RIVER BASIN

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 mi² (190.6 km²).

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 8.6 ft (2.621 m) above mean sea level. Gage-height record converted to elevation above or below (-) mean sea level for publication.

REMARKS.--Records good except those for months with period of no gage-height record, which are fair. Data for months noted with dash (-) lines not available for enough of month to be significant.

Summaries of tide elevations during year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974													
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	4.64	3.22	a4.47	3.47	3.45	3.91	3.37	3.28	3.66	a2.86	3.38	3.45
high tide	Date	29	26	9	11	9	30	9	7	28	11	10	7
Minimum	Elevation	-0.18	-0.05	a0	0.67	0.40	0.26	0.26	0.19	0.07	a0.11	-0.06	0.05
low tide	Date	14,15	30	7	29,30	6	5,13	30	22	20	4	3	13
Mean high tide		2.65	2.42	-	2.62	2.30	2.37	2.50	*2.48	2.78	-	2.64	2.74
Mean water level		1.54	1.44	-	1.80	1.55	1.44	1.61	*1.50	1.78	-	1.57	1.76
Mean low tide		0.36	1.93	-	0.96	0.83	0.72	0.84	*0.47	0.60	-	0.47	0.67

Maximum elevation for period of record, 7.2 ft (2.19 m) Mar. 7, 1962; minimum elevation for water years 1967-72, 0.40 ft (0.12 m) below mean sea level, Oct. 18, 1970.

* Data not complete for the month but are considered representative of monthly summaries.

a- Elevations are for part of the month only.

NOTE.--No gage-height record Dec. 17 to Jan. 2, May 25 to June 3 and July 11 to Aug. 1.

LAKES BAY

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01410600 Lakes Bay at Pleasantville, N. J.

LOCATION.--Lat 39°22'54", long 74°31'08", Atlantic County, on bulkhead at the southeast corner of Municipal Yacht Basin, 0.3 mi (0.5 km) south of Pleasantville, N. J.

PERIOD OF RECORD.--October 1973 to September 1974 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 11.20 ft (3.414 m) below mean sea level. Gage-height record converted to elevation above or below (-) mean sea level for publication.

REMARKS.--Records good. Period of monthly summaries which are noted with dash (-) line are either unreliable or unavailable and are not published.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974													
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	-	-	a5.52	4.48	4.57	4.22	3.92	-	4.71	4.12	4.09	4.14
high tide	Date	-	-	9	9	8	31	9	-	23	20	17	7
Minimum	Elevation	-	-	a-1.55	-1.48	-1.46	-1.51	-1.48	-	-1.29	-1.35	-2.20	-1.47
low tide	Date	-	-	6	8	1,5,6	5	6	-	5,6,20	21	16,19,20	30
Mean high tide		-	-	a2.69	2.56	2.48	2.45	2.54	-	3.62	2.98	2.89	2.79
Mean water level		-	-	a1.13	0.80	0.38	0.90	0.60	-	1.57	1.05	0.89	1.11
Mean low tide		-	-	a-1.39	-1.16	-1.10	-0.86	-1.31	-	-0.87	-0.98	-1.38	-1.00

a- Elevations are for part of month only.

NOTE.--Gage-height record unreliable Oct. 1 to Dec. 6, May 4-30.

GREAT EGG HARBOR BAY

01411318 Crook Horn Creek at Ocean City, N. J.

LOCATION.--Lat 39°15'10", long 74°37'44", Cape May County, on piling on west bank of old bridge crossing
Roosevelt Boulevard, 800 ft (243.8 m) from Peck Bay, and 100 ft (30.5 m) from city boundary of Ocean City.

PERIOD OF RECORD.--May to September 1974.

GAGE.--Water-stage recorder. Datum of gage is 10.86 ft (3.310 m) below mean sea level. Gage-height record
converted to elevation above or below (-) mean sea level for publication.

REMARKS.--Records good.

Summaries of tide elevations during period are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974													
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation									4.62	4.02	3.98	4.16
high tide	Date									23	20	17	7
Minimum	Elevation									-1.91	-1.96	-1.68	-1.81
low tide	Date									20	19	4,17	30
Mean high tide										2.87	2.97	2.90	3.08
Mean water level										1.32	1.15	1.06	1.28
Mean low tide										-0.62	-0.82	-0.92	-0.70

GREAT EGG HARBOR BAY

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01411320 Great Egg Harbor Bay at Ocean City, N. J.

LOCATION.--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 mi (4.0 km) southeast of Sommers Point.

PERIOD OF RECORD.--Operated as tidal crest-stage gage 1965-73. October 1973 to September 1974.

GAGE.--Water-stage recorder. Datum of gage is 11.68 ft (3.560 m) below mean sea level. Gage-height record converted to elevation above or below (-) mean sea level for publication.

REMARKS.--Records poor. For periods noted with dash (-) line the data are either unreliable or unavailable and are not published.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974													
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	a5.37	4.16	5.65	4.66	-	-	-	a3.72	4.25	-	3.95	4.31
high tide	Date	26	26	9	9	-	-	-	31	2	-	10	7
Minimum	Elevation	-	-	-	-	-	-	-	-	-	-	-	-
low tide	Date	-	-	-	-	-	-	-	-	-	-	-	-
Mean high tide		3.28	2.51	2.77	2.93	-	-	-	-	-	-	2.87	3.18
Mean water level		-	-	-	-	-	-	-	-	-	-	-	-
Mean low tide		-	-	-	-	-	-	-	-	-	-	-	-

a- Elevations are for part of month only.

DELAWARE RIVER BASIN

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 mi² (17,793 km²).

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-height record converted to elevation above or below (-) mean sea level for publication.

REMARKS.--Records good except those for period of doubtful or no gage-height record, which are fair. For periods noted with dash (-) line the data are unreliable or missing and cannot be estimated. Records of water quality for the current year are published in Part 2 of this report.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974													
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	7.54	6.09	7.65	a6.90	6.68	6.99	6.72	6.80	6.81	-	-	6.62
high tide	Date	29	26	21	11	4	31	4	24	24	-	-	29
Minimum	Elevation	-3.31	-3.32	-3.32	a-3.30	-3.33	-3.33	-3.38	-3.31	-3.01	-	-	-3.16
low tide	Date	17	2-4	18	8	11	6,14	25	4	2	-	-	30
Mean high tide		5.40	4.76	5.60	-	5.27	5.24	5.70	5.76	5.73	-	-	5.58
Mean water level		1.94	1.57	2.61	-	1.70	1.78	2.35	2.22	2.41	-	-	2.45
Mean low tide		-2.44	-2.60	-1.22	-	-2.43	-2.37	-1.78	-2.29	-2.10	-	-	-1.86

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.

NOTE.--No gage-height record Jan. 11-28 and Sept. 1-4. Gage-height record unreliable July 5 to Aug 28.

a- Elevations are for part of month only.

DELAWARE RIVER BASIN

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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 mi² (18,544 km²).

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.

REMARKS.--Records good. Records of water quality for the current year at the Burlington-Bristol Bridge are published in Part 2 of this report.

REVISIONS.--The minimum low tide for the month of August, 1973, has been corrected to -3.30 ft and supersedes the figure published in WRD-NJ 1973.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	7.17	5.63	7.11	6.29	6.13	6.47	6.21	6.25	6.34	5.87	5.86	6.11
high tide	Date	29	28	21	11	3	31	5	24	24	19	17	29
Minimum	Elevation	-3.24	-4.26	-4.24	-3.38	-4.13	-4.14	-3.56	-3.86	-3.29	-3.94	-3.32	-3.34
low tide	Date	19	17	19	8	23	18	24	4	20	20	15	30
Mean high tide		5.01	4.26	5.03	5.03	4.70	4.61	5.17	5.23	5.23	4.91	4.90	5.12
Mean water level		1.51	0.76	1.63	1.53	1.20	1.28	1.54	1.54	1.56	1.20	1.26	1.55
Mean low tide		-2.21	-2.96	-1.95	-2.17	-2.50	-2.58	-2.27	-2.40	-2.41	-2.81	-2.68	-2.27

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.

DELAWARE RIVER BASIN

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 mi² (20,332 km²).

PERIOD OF RECORD.--December 1962 to current year. Tidal 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. Gage-height record converted to elevation above or below (-) mean sea level for publication.

REMARKS.--Records fair. During some periods of low tide the well would "bottom-out" (float rests on bottom) and record is unreliable. This is noted by a dash (-) line in the table. Records of elevation of minimum low tide were compared with those of Delaware River at Burlington and are considered reliable.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.86	5.33	6.65	5.91	5.75	6.15	5.78	5.86	5.96	5.56	5.55	5.73
high tide	Date	29	28	9	11	3	31	9	24	24	29	17	29
Minimum	Elevation	-3.07	-2.77	-2.37	-2.47	-2.62	-2.57	-2.52	-2.76	-2.67	-2.87	-2.82	-2.67
low tide	Date	19	17	19	8	23	18	24	4	20	20	15	30
Mean high tide		4.54	4.19	4.57	4.62	4.28	4.22	4.76	4.85	4.87	4.59	4.58	4.76
Mean water level		-	-	-	-	-	-	-	-	-	-	-	-
Mean low tide		-	-	-	-	-	-	-	-	-	-	-	-

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.

REVISION.--Some of the mean and low tide values for water year 1973 have been revised or corrected and supersede those published in WRD-NJ 1973. The values that could not be estimated appear in the table as a dash (-) line. The complete table of summaries with revised values for the water year 1973 tide elevations 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	-2.85	-3.10	-2.84	-3.20	-3.00	-2.95
low tide	Date	15	1	17	7	17	19	-	5	14	29	28	28
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	-	-	-	-	-	-
Mean low tide		-2.10	-1.53	-1.57	-2.02	-1.72	-1.69	-	-	-	-	-	-

DELAWARE RIVER BASIN

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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 m² (26.677 km²).

PERIOD OF RECORD.--October 1972 to current year. July 1967 to September 1973, 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.

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

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974													
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.31	4.66	5.89	5.12	4.92	5.02	4.94	5.19	5.38	5.50	5.00	5.04
high tide	Date	29	26	9	11	3	30	26	24	24	18	16	28
Minimum	Elevation	-2.53	-3.49	-3.48	-2.83	-3.79	-3.76	-2.79	-2.95	-2.53	-2.32	-2.26	-2.90
low tide	Date	19	17	19	8	23	18	24	4	20	20	5	30
Mean high tide		3.91	3.15	3.59	3.75	3.45	3.34	3.79	4.08	4.24	4.25	3.96	4.03
Mean water level		1.35	0.61	1.03	1.16	0.87	0.78	1.07	1.34	1.51	1.54	1.32	1.41
Mean low tide		-1.49	-2.23	-1.77	-1.70	-1.96	-2.05	-1.95	-1.72	-1.57	-1.51	-1.66	-1.56

DELAWARE RIVER BASIN

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 mi² (28,568 km²).

PERIOD OF RECORD.--July 1967 to current year. Tidal volumes published from July 1967 to September 1973.

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.

REMARKS.--Records good. Summaries for months with periods of no gage-height record have been estimated with negligible or no loss of accuracy unless otherwise noted. Records of water quality for the current year are published in Part 2 of this report.

Summaries of tide elevations during current year are as follows:

		TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974											
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.04	4.76	6.13	5.25	5.08	5.13	5.09	5.32	5.50	5.05	5.09	5.06
high tide	Date	25	26	9	11	3	30	26	24	24	18	16	28
Minimum	Elevation	-2.40	-3.25	-3.41	-2.79	-3.69	-3.73	-2.71	-2.83	-2.47	-2.64	-2.17	-2.78
low tide	Date	15	17	19	8	23	18	24	4	20	20	5	30
Mean high tide		3.82	3.26	3.61	3.83	3.67	3.44	3.86	4.18	4.34	4.06	4.00	4.07
Mean water level		1.21	0.63	0.94	1.12	0.92	0.74	0.98	1.30	1.50	1.27	1.28	1.39
Mean low tide		-1.55	-2.11	-1.78	-1.69	-1.93	-2.00	-1.96	-1.67	-1.48	-1.63	-1.55	-1.44

Maximum tide elevation known, 8.4 ft (2.6 m) above mean sea level Nov. 23, 1950, furnished by Corps of Engineers, U.S. Army; minimum tide elevation, 9.1 ft (2.8 m) below mean sea level Dec. 31, 1962.

NOTE.--No gage-height record Oct. 26 to Nov. 2 and Feb. 3 to Mar. 5.

TIDAL CREST-STAGE STATIONS

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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 mi (2.3 km) southeast of Laurelton, and 2.4 mi (3.9 km) upstream from mouth.	1969-74	12-09-73	4.51
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 mi (3.5 km) west of Seaside Heights, and 4.5 mi (7.2 km) east of Toms River.	1965-74	10-29-73	3.48
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 mi (0.56 km) southwest of Barnegat Lighthouse and 9.1 mi (14.6 km) northeast of Ship Bottom.	1965-74	10-29-73	4.49
01409145	Manahawkin Bay near Manahawkin, N. J.	Lat 39°40'13", long 74°12'54", Ocean County, at west end of State Route 72 bridge over Manahawkin Bay, 2.5 mi (4.0 km) northwest of Ship Bottom, and 3.1 mi (5.0 km) southeast of Manahawkin.	1965-74	10-29-73	3.91
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 mi (0.6 km) east of mouth of Tuckerton Creek, and 1.9 mi (3.1 km) south of Tuckerton.	1965-74	10-29-73	4.82
01409510	Batsto River at Pleasant Mills, N. J.	Lat 39°37'55", long 74°38'40", Ocean County, on right bank, 0.5 mi (0.8 km) upstream from mouth, and 1.0 mi (1.6 km) southeast of Pleasant Mills.	1958-74	10-29-73	4.64
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 mi (4.5 km) northeast of Port Republic, and 2.8 mi (4.5 km) south of New Gretna.	1965-74	10-29-73	4.64
01410500	Absecon Creek at Absecon, N. J.	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 mi (1.6 km) west of Absecon, and 3.4 mi (5.5 km) upstream from mouth.	1923-29, 1933-38, 1946-74	10-29-73	5.12
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 mi (0.2 km) west of south end of Route 9 bridge over Great Egg Harbor Bay, 0.7 mi (1.1 km) north of Beesleys Point, and 3.0 mi (4.8 km) west of Ocean City.	1963-74	12-09-73	c9.60

See footnotes at end of table, p. 168.

TIDAL CREST-STAGE STATIONS

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 mi (4.0 km) southeast of Sommers Point.	1965-74	12-09-73	5.65
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 mi (6.0 km) southeast of Cape May Court House, and 3.9 mi (6.3 km) southwest of Avalon.	1965-74	12-09-73	6.10
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 mi (1.9 km) northwest of Wildwood, and 2.9 mi (4.7 km) east of Rio Grande.	1965-74	12-09-73 12-22-72	unknown all.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 mi (1.1 km) southeast of east end of Cape May Canal.	1965-74	12-09-73	6.50
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 mi (0.8 km) from west end of Cape May Canal, and 0.8 mi (1.3 km) south of North Cape May.	1965-74	12-09-73	b10.13
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 mi (2.1 km) south of Port Norris.	1965-74	12-09-73	7.08
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 mi (2.1 km) south of mouth of Salem River, 2.4 mi (3.9 km) east of Reedy Point, Delaware, and 3.0 mi (4.8 km) southwest of Salem, New Jersey.	1965-74	12-09-73	a8.11

† Operated as a continuous-record gaging station.

a Gage datum; not to mean sea level datum.

b Furnished by National Ocean Survey.

c Furnished by Atlantic City Electric Co.

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