

RESERVOIRS IN HACKENSACK RIVER BASIN

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

DRAINAGE AREA.-- 27.5 mi²

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

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

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

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

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

01376950 LAKE TAPPAN.--Lat 41°01'06", long 74°00'04", Bergen County, NJ, Hydrologic Unit 02030103, at dam on Hackensack River, 0.5 mi north of Old Tappan.

DRAINAGE AREA.-- 49.0 mi²

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

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

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

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

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

01377450 WOODCLIFF LAKE.--Lat 41°00'46", long 74°02'57", Bergen County, NJ, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.7 mi north of Hillsdale.

DRAINAGE AREA.-- 19.4 mi²

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

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

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

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

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

01378480 ORADELL RESERVOIR.--Lat 40°57'23", long 74°01'46", Bergen County, NJ, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell.

DRAINAGE AREA.-- 113 mi²

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

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

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

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

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

HACKENSACK RIVER BASIN

RESERVOIRS IN HACKENSACK RIVER BASIN—Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2005

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01376700 DE FOREST LAKE				01376950 LAKE TAPPAN		
Sept. 30.....	85.21	5,791		55.32	3,968	
Oct. 31.....	84.90	5,638	-7.6	54.32	3,609	-17.9
Nov. 30.....	85.18	5,729	+4.7	55.26	3,946	+17.4
Dec. 31.....	85.03	5,680	-2.4	55.12	3,896	-2.5
CAL YR 2004			-1			+9
Jan. 31.....	84.97	5,661	-9	54.79	3,776	-6.0
Feb. 28.....	85.06	5,690	+1.6	55.09	3,884	+6.0
Mar. 31.....	85.18	5,731	+2.0	55.38	3,989	+5.2
Apr. 30.....	85.14	5,717	-7	55.35	3,978	-6
May 31.....	84.50	5,508	-10.4	53.73	3,404	-28.6
June 30.....	83.42	5,161	-17.9	49.56	2,077	-68.4
July 31.....	82.98	5,025	-6.8	50.73	2,424	+17.3
Aug. 31.....	80.96	4,405	-30.9	45.80	1,118	-65.2
Sept. 30.....	77.14	3,281	-58.0	41.50	353	-39.4
WTR YR 2005			-10.6			-15.3
Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01377450 WOODCLIFF LAKE				01378480 ORADELL RESERVOIR		
Sept. 30.....	92.54	735		22.64	3,367	
Oct. 31.....	91.01	653	-4.1	21.32	3,026	-17.0
Nov. 30.....	90.30	616	-1.9	22.12	3,230	+10.5
Dec. 31.....	86.91	450	-8.3	22.54	3,341	+5.5
CAL YR 2004			-6			+5
Jan. 31.....	91.10	658	+10.4	22.66	3,371	+1.5
Feb. 28.....	91.36	672	+8	22.68	3,376	+3
Mar. 31.....	90.57	630	-2.1	22.38	3,298	-3.9
Apr. 30.....	90.78	641	+6	23.09	3,489	+9.8
May 31.....	92.84	751	+5.5	20.03	2,709	-38.9
June 30.....	93.81	805	+2.8	20.75	2,882	+8.9
July 31.....	91.65	687	-5.9	18.81	2,423	-22.9
Aug. 31.....	90.86	645	-2.1	17.33	2,088	-16.7
Sept. 30.....	86.86	448	-10.2	15.81	1,761	-16.9
WTR YR 2005			-1.2			-6.8

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

DIVERSIONS IN HACKENSACK RIVER BASIN

01376272 United Water New Jersey, diverts water from Sparkill Creek (Hudson River basin) at foot of Danny Lane in Northvale, 300 ft south of New York-New Jersey state line and 0.6 mi upstream from Sparkill Brook. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records provided by United Water New Jersey.

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

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

01378478 United Water New Jersey, diverts water for municipal supply from Oradell Reservoir at Haworth pumping station (station 01378478) 2.0 mi upstream from gaging station on Hackensack River at New Milford and prior to May 1990 from Hackensack River, at New Milford pumping station (01378490) just upstream from gaging station on Hackensack River at New Milford, NJ (station 01378500). Diversion from the New Milford pumping station was discontinued in May 1990. Records provided by United Water New Jersey.

01378521 United Water New Jersey, diverts water from Hirshfeld Brook, a tributary of the Hackensack River, below the gaging station on Hackensack River at New Milford, NJ, for municipal supply. Records provided by United Water New Jersey (formerly Hackensack Water Company).

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

DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MONTH	<u>01376699</u> UNITED WATER NEW YORK.	<u>01376810</u> WEST NYACK, NY	<u>01378478</u> UNITED WATER NEW JERSEY
October	11.8	2.58	144
November	12.4	2.50	141
December	12.5	2.80	143
CAL YR 2004	14.3	2.49	150
January	13.0	2.34	146
February	14.3	2.46	145
March	13.0	2.46	140
April	12.6	2.52	141
May	13.5	2.75	156
June	19.6	2.89	183
July	19.2	2.88	187
August	22.6	3.05	207
September.....	21.0	2.99	185
WTR YR 2005	15.5	2.69	160

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

MONTH	<u>01376272</u> SPARKILL CREEK (HUDSON RIVER BASIN)	<u>01378521</u> HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	<u>01388981</u> POMPTON RIVER (PASSAIC RIVER BASIN)	<u>01390520</u> SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October	0	0	17.1	0	0.22
November	0	0	.02	0	.21
December	0	0	0	0	.28
CAL YR 2004	0	.03	6.20	0	.29
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	.16
May	0	0	10.3	0	.23
June.....	0	.86	28.7	.73	1.20
July .....	.81	2.23	44.7	5.99	2.30
August .....	.16	1.84	66.2	3.11	2.55
September.....	0	2.18	71.1	2.52	2.45
WTR YR 2005 .....	.08	.59	20.0	1.04	.81