01388500 POMPTON RIVER AT POMPTON PLAINS, NJ

PASSAIC RIVER BASIN

LOCATION.--Lat 40°58′11″, long 74°16′55″ referenced to North American Datum of 1983, Wayne Township, Passaic County, NJ, Hydrologic Unit 02030103, on left bank just upstream of the Passaic Valley Water Commission pumping station, 800 ft downstream of confluence of Pequannock and Ramapo Rivers, 140 ft upstream from bridge on Jackson Avenue (Pompton Plains Cross Road), and 0.7 mi east of Pompton Plains.

DRAINAGE AREA.--355 mi².

SURFACE-WATER RECORDS

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

REVISED RECORDS.--WSP 1202: 1945(M). WDR-US-08: 1963(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 160.00 ft above NGVD of 1929. March 1903 to December 1904, non-recording gage on main spillway of dam 2,000 ft upstream at different datum. May 1940 to September 1964 two water-stage recorders, each above a concrete dam about 2,000 ft upstream at datum 14.46 ft higher.

REMARKS.--Records good. Former Pompton feeder canal located about 2,000 ft upstream diverted an average of about 43 cfs to Morris canal prior to 1924. Water diverted from reservoirs on Pequannock (see 01382370) and Wanaque (see 01386980) Rivers, from Pompton River to Point View Reservoir (see 01388490), and from Ramapo River to Wanaque Reservoir (see 01387990) and Oradell Reservoir (from February 1985, see 01388981) for municipal supply. Discharges for water years 1965-68 have been adjusted in USGS databases in water year 2004 to reflect only flow over weir only. Previously published discharges for water years 1965-68 included flow over the weir, plus pumpage to, or minus releases from Point View Reservoir through Passaic Valley Water Commission's Jackson Avenue Pumping Station. All published discharges, since water year 1969, have included only flow over the weir. Flow regulated by Canistear (see 01382100), Oak Ridge (see 01382200), Clinton (see 01382300), Charlotteburg (see 01382380), and Echo Lake (see 01382400) Reservoirs on Pequannock River and by Greenwood Lake (see 01383000), Monksville (see 01384002), and Wanaque (see 01386990) Reservoirs on Wanaque River. Several measurements of water temperature were made during the year. Beginning in 2007, stage and discharge fluctuations occur at the location during high flow probably due to the operation of automatic flood gates on the Ramapo River at Pompton Lakes Dam. Satellite telemetry at station.

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	134	335	201	1,060	585	544	5,870	575	137	74	64	79
2	124	312	232	896	513	587	3,780	490	138	72	63	78
3	125	259	1,190	671	487	632	2,720	930	139	67	60	73
4	128	222	1,310	581	455	690	2,200	995	127	66	59	68
5	177	213	977	520	411	699	1,830	654	116	66	58	63
6	125	209	898	463	390	672	1,580	485	110	65	57	67
7	140	196	688	423	350	687	1,340	410	110	63	58	64
8	109	186	567	403	320	860	1,050	344	108	62	55	67
9	86	181	1,230	381	305	1,180	1,100	344	117	70	52	68
10	92	178	1,860	337	345	1,460	1,010	281	172	103	52	68
11	81	173	1,440	322	381	1,580	706	244	149	84	52	67
12	78	162	953	307	336	1,900	591	318	131	82	55	69
13	78	156	921	287	302	4,530	503	323	124	122	55	74
14	76	188	1,730	274	282	16,900	450	298	127	177	51	80
15	95	267	1,600	261	265	15,100	416	277	120	130	53	75
16	109	274	1,400	261	270	9,620	380	256	109	95	76	82
17	99	242	1,120	286	283	6,060	381	225	127	81	70	85
18	95	243	833	418	267	4,130	384	274	114	75	62	77
19	89	211	678	428	251	3,090	357	437	101	91	57	79
20	85	427	672	376	245	2,320	331	416	97	128	54	76
21	82	447	615	328	244	1,910	311	323	92	90	63	70
22	77	369	519	298	242	1,820	293	257	94	74	283	68
23	73	318	451	274	320	5,510	288	224	130	128	1,230	67
24	169	289	416	253	761	5,170	262	208	109	154	486	64
25	560	270	381	1,670	851	3,120	511	202	98	157	324	94
26	348	263	700	4,480	1,020	2,470	1,310	186	91	157	276	78
27	241	251	4,500	2,780	810	2,130	1,840	178	85	108	181	82
28	610	235	3,830	1,800	627	1,770	1,550	186	89	84	141	97
29	715	212	2,270	1,350	---	3,910	1,050	162	85	80	117	99
30	444	202	1,510	922	---	6,150	706	154	78	72	97	340
31	325	---	1,240	693	---	8,550	---	144	---	67	93	---
Total	5,769	7,490	36,932	23,803	11,918	115,751	35,100	10,800	3,424	2,944	4,454	2,518
Mean	186	250	1,191	768	426	3,734	1,170	348	114	95.0	144	83.9
Max	715	447	4,500	4,480	1,020	16,900	5,870	995	172	177	1,230	340
Min	73	156	201	253	242	544	262	144	78	62	51	63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	317	431	588	548	563	971	966	594	401	232	214	237
Max	2,369	1,495	2,464	1,994	1,654	3,734	2,995	2,778	2,177	1,530	1,520	1,067
(WY)	(1904)	(2007)	(2004)	(2006)	(1973)	(2010)	(1983)	(1989)	(1972)	(1945)	(1955)	(1999)
Min	40.2	52.3	34.8	39.2	43.1	79.9	62.7	104	62.8	34.2	36.3	46.7
(WY)	(1981)	(1981)	(1981)	(1981)	(2002)	(2002)	(1985)	(1965)	(1965)	(1965)	(1985)	(1980)

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ—Continued

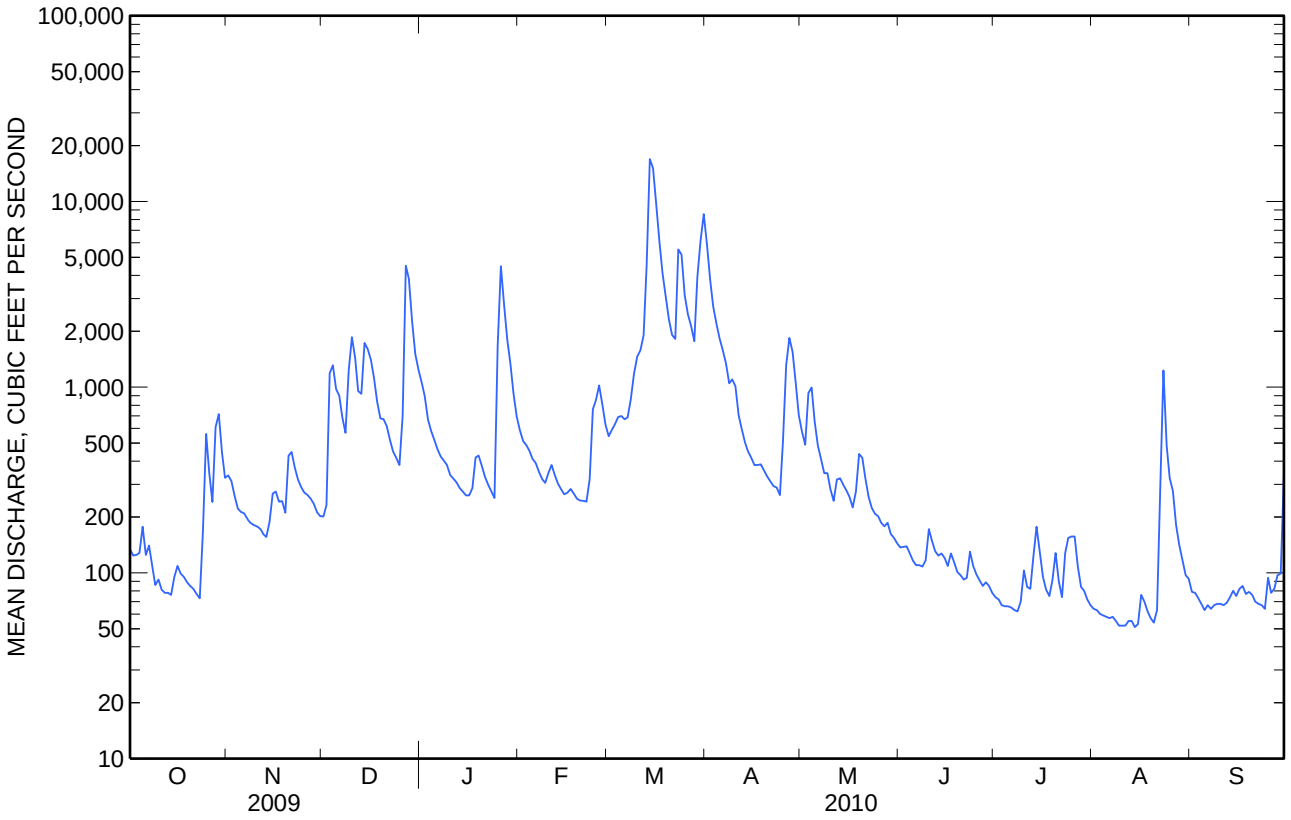
SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1903 - 2010	
Annual total	160,020		260,903			
Annual mean	438		715		503	
Highest annual mean					906	1952
Lowest annual mean					108	1965
Highest daily mean	4,500	Dec 27	16,900	Mar 14	28,300	Oct 10, 1903
Lowest daily mean	73	Oct 23	51	Aug 14	0.00	Aug 18, 1904
Annual seven-day minimum	84	Oct 9	53	Aug 9	1.7	Aug 14, 1904
Maximum peak flow			18,900	Mar 14	[a]28,300	Oct 10, 1903
Maximum peak stage			22.77	Mar 14	[b,c]24.47	Apr 6, 1984
Instantaneous low flow			50	Many days	0.00	Aug 18, 1904
10 percent exceeds	897		1,590		1,180	
50 percent exceeds	287		262		250	
90 percent exceeds	148		68		72	

[a] By computation of peak flow over dam, maximum observed, Pompton Lakes Dam and other dams failed upstream.

[b] Site and datum then in use.

[c] Maximum stage at former site and datum was 14.3 ft, Oct 10, 1903.



01388500 POMPTON RIVER AT POMPTON PLAINS, NJ—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-69, 1971-75, 1979-80, 1992, 1994, 1998 to current year.

REMARKS.--Cooperative Network Site Descriptor: Watershed Integrator, NJ Department of Environmental Protection Watershed Management Area 3.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 1 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO3, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO2, silicon dioxide; cm, centimeter; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Absorbance, UV, 254 nm, 1 cm path length, water, filtered, units per centimeter (50624)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, units per centimeter (61726)	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)
11-16-2009	1030	760	13.0	.094	.073	281	10.3	95	7.7
02-02-2010	1000	765	-1.5	.088	.068	513	14.3	101	7.5
06-23-2010	0930	757	26.0	.088	.067	128	6.6	77	7.5
08-05-2010	1130	752	31.0	.074	.055	60	7.4	92	7.4

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO3, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO2, silicon dioxide; cm, centimeter; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)	Dissolved solids, water, filtered, sum of constituents, milligrams per liter (70301)	Hardness, water, mg/L as CaCO3 (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)
11-16-2009	460	10.8	1.8	260	E 246	111	1	31.3	7.97
02-02-2010	313	1.2	1.8	195	E 165	62.0	2	17.3	4.55
06-23-2010	459	22.6	3.9	254	E 239	99.9	2	26.9	7.97
08-05-2010	472	25.4	2.5	265	247	106	< 1	28.7	8.33

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 3 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO3, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO2, silicon dioxide; cm, centimeter; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO3 (90410)	Carbon (inorganic plus organic), suspended sediment, total, mg/L (00694)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Inorganic carbon, suspended sediment, total, mg/L (00688)	Silica, water, filtered, mg/L as SiO2 (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)
11-16-2009	1.98	44.0	73	.43	86.5	E .07	< .06	7.7	17.5	.31
02-02-2010	1.12	30.2	39	.32	64.3	E .05	< .06	7.6	12.5	.20
06-23-2010	2.00	48.0	54	.34	96.8	E .04	< .06	4.6	16.5	.33
08-05-2010	2.34	47.3	60	.80	97.3	.10	< .06	5.4	17.9	.43

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 4 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO3, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO2, silicon dioxide; cm, centimeter; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophos-phate, water, filtered, mg/L as P (00671)	Particulate nitrogen, suspended in water, mg/L (49570)	Phosphorus, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, filtered, mg/L (00602)	Total nitrogen, water, unfiltered, mg/L (00600)	Organic carbon, suspended sediment, total, mg/L (00689)
11-16-2009	.021	1.09	.031	.07	.038	.067	1.4	1.5	.43
02-02-2010	.370	.69	.015	.06	.018	.032	.89	.95	.32
06-23-2010	< .010	.75	--	.05	.023	.058	1.1	1.1	.34
08-05-2010	.047	.85	--	.08	.041	.061	1.3	1.4	.80

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ—Continued

WATER-QUALITY DATA WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 5 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO3, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO2, silicon dioxide; cm, centimeter; ft^3/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Organic carbon, water, filtered, mg/L (00681)
11-16-2009	2.8
02-02-2010	2.6
06-23-2010	3.7
08-05-2010	2.8