Water-Data Report 2011

01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ

PASSAIC RIVER BASIN

LOCATION.--Lat 40°53′49″, long 74°23′41″ referenced to North American Datum of 1983, Boonton Town, Morris County, NJ, Hydrologic Unit 02030103, on right bank 2,000 ft downstream from Boonton Reservoir Dam at Boonton, and 0.4 mi upstream from bridge on Greenbank Road.

DRAINAGE AREA.--119 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Gage-height only, March 1903 to February 1904. Monthly discharges only, November 1911 to May 1912 and November 1912 to December 1912. Daily discharges, January 1906 to October 1911, June 1912 to October 1912, and January 1913 to current year. Published as "near Boonton" 1903-4, and as "at Boonton" 1906-37.

REVISED RECORDS.--WSP 1902: 1951-54. WDR NJ-79-1: 1949(M), 1952(M), 1968(M), 1970-74(M), 1977(M). WDR US-2010: 2009 Sewage effluent.

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1936. Datum of gage is 195.68 ft above NGVD of 1929 (levels from New Jersey Geological Survey benchmark). Mar. 15, 1903 to Feb. 2, 1904, non-recording gage at site 1.9 mi downstream at different datum. Jan. 1, 1906 to Mar. 2, 1918, non-recording gage on Boonton Reservoir Dam 2,000 ft upstream at datum 305.25 ft above NGVD of 1929 (levels from New Jersey Geological Survey benchmark). Records for Mar. 3, 1918 to Sept. 30, 1924 are based on a recording gage at present site operated by Jersey City Water Department and staff gage readings at Boonton Reservoir Dam by Jersey City Water Department.

REMARKS.--Records good, except for estimated daily discharges which are fair. Records represent flow in river only. Sewage effluent enters river about 600 ft below station (records given herein supplied by Rockaway Valley Regional Sewerage Authority). Flow regulated by Boonton Reservoir (see 01380900) 2,000 ft upstream from station, and by Splitrock Reservoir (see 01379990) 16.5 mi above station. Water diverted from Boonton Reservoir for municipal supply of Jersey City (see 01380800). Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Oct 10, 1903 had a maximum mean daily flow of 7,560 ft^3/s with a mean daily gage height of 7.8 ft, site and datum then in use.

01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ—Continued

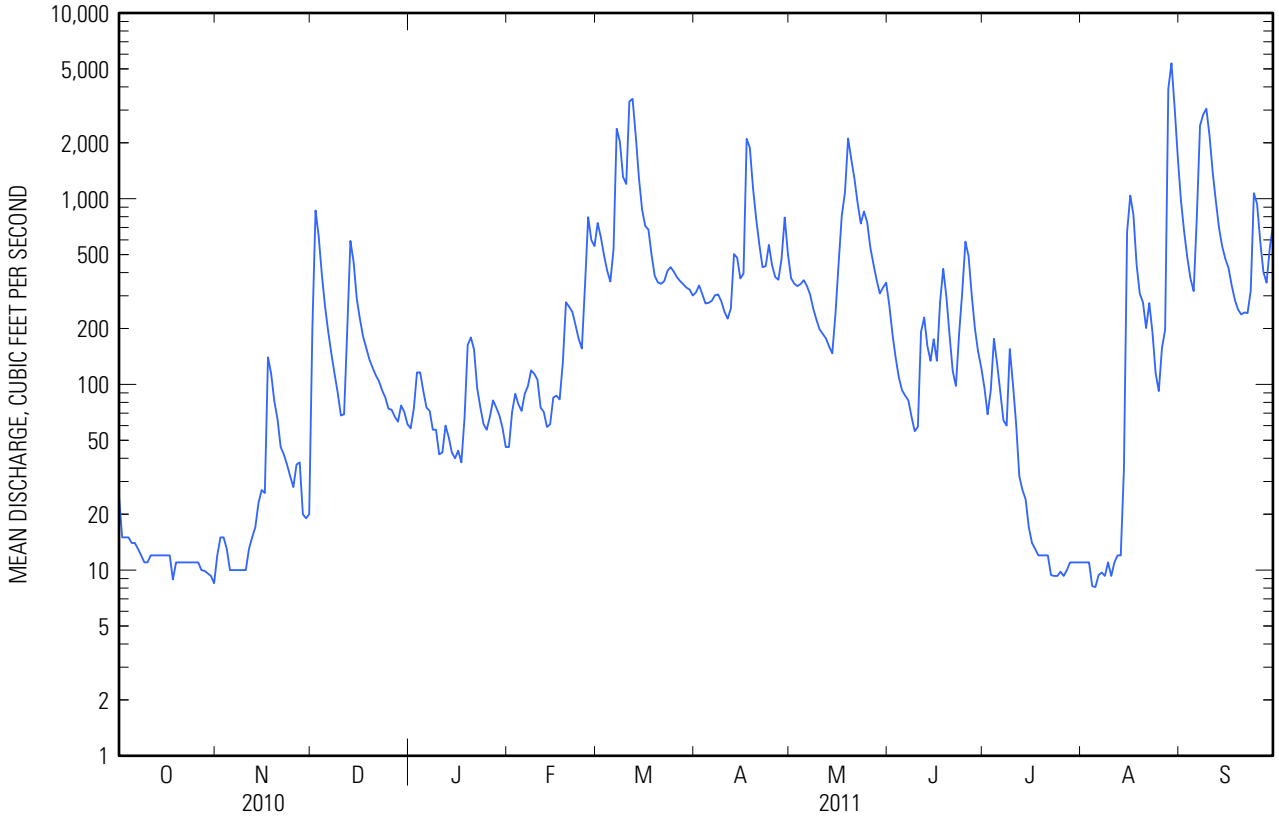
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	25	12	200	58	46	740	313	373	266	96	11	974
2	15	15	865	74	71	620	341	349	186	69	11	664
3	15	15	625	116	89	496	306	338	139	93	11	481
4	15	13	388	116	78	409	273	347	109	176	8.2	371
5	14	10	263	92	72	358	275	364	93	129	8.1	318
6	14	10	192	75	89	534	282	339	87	91	9.4	796
7	13	10	146	72	98	2,380	302	305	82	64	9.7	2,470
8	12	10	114	57	119	2,030	305	256	67	60	9.3	2,840
9	11	10	90	57	114	1,310	280	223	56	155	11	3,050
10	11	10	68	42	106	1,200	246	198	59	100	9.3	2,190
11	12	13	69	43	75	3,340	226	187	192	61	11	1,390
12	12	15	197	60	71	3,450	256	177	229	32	12	970
13	12	17	592	52	59	2,190	503	160	161	27	12	695
14	12	23	457	43	61	1,300	481	147	134	e24	35	554
15	12	27	290	40	85	875	372	239	175	e17	661	474
16	12	26	225	44	87	713	395	448	134	e14	1,040	423
17	12	140	181	38	83	682	2,100	811	277	e13	818	341
18	8.9	114	157	66	131	498	1,880	1,080	419	e12	441	285
19	11	81	136	163	277	384	1,140	2,110	296	e12	308	253
20	11	65	123	179	262	354	778	1,630	184	12	277	238
21	11	46	112	154	246	348	565	1,280	118	12	201	244
22	11	42	104	95	209	360	428	946	98	9.4	274	242
23	11	37	93	75	176	408	433	735	186	9.3	191	320
24	11	32	85	61	156	428	564	853	315	9.3	115	1,070
25	11	28	74	57	341	405	439	749	587	9.8	92	938
26	11	37	73	67	795	378	379	547	490	9.3	157	590
27	10	38	67	82	598	360	366	443	301	10	197	402
28	9.9	20	63	75	556	346	474	365	200	11	3,910	353
29	9.6	19	77	68	---	332	792	309	150	11	5,360	541
30	9.3	20	71	58	---	324	506	332	123	11	3,090	712
31	8.5	---	61	46	---	301	---	353	---	11	1,660	---
Total	373.2	955	6,258	2,325	5,150	27,853	16,000	16,993	5,913	1,370.1	18,960.0	25,189
Mean	12.0	31.8	202	75.0	184	898	533	548	197	44.2	612	840
Max	25	140	865	179	795	3,450	2,100	2,110	587	176	5,360	3,050
Min	8.5	10	61	38	46	301	226	147	56	9.3	8.1	238
Sewage effluent (cubic feet per second), from plant at Rockaway Valley Regional Sewerage Authority												
	14.1	13.0	14.1	12.3	13.6	21.7	19.3	19.8	15.3	13.5	19.6	23.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	54.2	112	165	177	182	317	301	185	101	57.5	56.5	55.3
Max	459	743	802	692	625	1,023	978	873	770	445	612	840
(WY)	(1908)	(1908)	(1997)	(1979)	(2008)	(2010)	(1983)	(1989)	(2003)	(1984)	(2011)	(2011)
Min	0.00	0.00	0.00	0.00	0.62	1.94	8.83	6.01	0.00	0.00	0.00	0.00
(WY)	(1915)	(1917)	(1917)	(1918)	(1954)	(1931)	(2002)	(1941)	(1912)	(1912)	(1912)	(1912)

01381000 ROCKAWAY RIVER BELOW RESERVOIR, AT BOONTON, NJ—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1906 - 2011	
Annual total	75,699.3		127,339.3			
Annual mean	207		349		146	
Sewerage effluent	15.1		16.7			
Highest annual mean					399	1908
Lowest annual mean					7.19	1965
Highest daily mean	3,910	Mar 15	5,360	Aug 29	5,360	Aug 29, 2011
Lowest daily mean	8.5	Oct 31	8.1	Aug 5	0.00	Many days
Annual seven-day minimum	9.2	Aug 8	9.3	Aug 4	0.00	Many days
Maximum peak flow			7,390	Aug 28	7,390	Aug 28, 2011
Maximum peak stage			9.73	Aug 28	9.73	Aug 28, 2011
Instantaneous low flow			2.2	Jul 20	0.00	Many days
10 percent exceeds	533		795		386	
50 percent exceeds	63		146		53	
90 percent exceeds	9.7		11		0.50