



Water-Data Report 2010

01377500 PASCACK BROOK AT WESTWOOD, NJ

HACKENSACK RIVER BASIN

LOCATION.--Lat 40°59'34", long 74°01'16" referenced to North American Datum of 1983, Westwood Borough, Bergen County, NJ, Hydrologic Unit 02030103, on right bank 75 ft upstream from bridge on Harrington Avenue in Westwood, 500 ft downstream from Musquapsink Brook, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--29.6 mi².

SURFACE-WATER RECORDS

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

REVISED RECORDS.--WDR NJ-87-1:1984 (P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 28.62 ft above NGVD of 1929.

COOPERATION.--Gage-height record collected in cooperation with United Water New Jersey.

REMARKS.--Records fair. Flow regulated by Woodcliff Lake 3.0 mi above station (see 01377450). Water diverted for municipal supply by United Water New York (formerly Spring Valley Water Company), by pumpage from well fields in headwater area of Pascack Brook, in vicinity of Spring Valley, NY, and by Park Ridge Water Department by pumping water from wells above Woodcliff Lake, possibly reduces flow past this station. Since water year 1966, water has been periodically been diverted from Saddle River to Musquapsink Brook (see 01390520) that then entered Pascack Brook 500 feet upstream of gage. United Water New Jersey pumps water from wells into the Pascack Brook at three locations upstream of the gage, probably increasing flow past this gage. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s (revised) and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 25	0245	691	3.73
Dec 9	1700	648	3.64
Dec 27	0600	979	4.31
Jan 25	1730	1,010	4.37
Mar 14	0115	1,140	4.71
Mar 23	0615	987	4.45
Mar 29	0815	952	4.39
Mar 30	1500	1,070	4.59
Aug 22	2215	819	4.15
Aug 23	0345	*1,330	*5.02

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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	33	37	22	43	35	72	134	31	87	13	36	25
2	27	32	21	43	34	93	110	32	86	12	29	25
3	28	35	207	37	33	102	97	137	58	13	22	25
4	23	39	55	35	32	101	87	46	32	17	23	23
5	22	28	43	34	31	89	79	37	29	25	24	21
6	26	22	57	34	30	73	80	34	27	30	21	19
7	37	20	37	33	29	72	74	33	20	48	20	21
8	27	20	40	33	28	76	69	33	18	49	19	21
9	26	24	338	32	28	76	82	30	28	32	21	19
10	34	29	149	32	33	72	69	29	51	15	20	19
11	26	29	48	32	34	73	60	29	47	15	19	18
12	25	29	26	31	31	104	58	44	34	15	22	19
13	25	29	107	31	30	351	58	31	24	30	23	24
14	24	37	138	30	29	779	55	44	26	83	24	25
15	41	32	57	30	28	250	53	87	25	35	25	20
16	41	29	42	30	31	173	52	42	24	24	44	39
17	28	28	32	35	32	130	54	42	41	24	32	35
18	29	28	31	42	31	124	50	70	29	25	26	21
19	27	28	57	34	33	119	50	57	26	62	24	21
20	26	61	32	33	35	114	49	57	25	50	24	21
21	26	42	28	32	34	110	48	55	23	25	19	19
22	23	33	28	31	36	123	39	31	22	25	164	22
23	23	28	28	31	100	501	30	26	27	25	599	25
24	83	26	28	31	210	140	28	25	19	29	118	21
25	251	26	34	385	180	93	125	26	17	59	75	20
26	49	25	78	166	176	70	180	30	16	57	36	19
27	45	21	514	70	103	71	160	42	16	35	31	34
28	277	22	92	61	57	68	69	46	23	25	28	33
29	103	23	55	38	---	541	51	53	18	24	58	56
30	50	24	44	36	---	662	43	52	15	24	81	299
31	38	---	43	36	---	256	---	64	---	34	26	---
Total	1,543	886	2,511	1,601	1,523	5,678	2,193	1,395	933	979	1,733	1,009
Mean	49.8	29.5	81.0	51.6	54.4	183	73.1	45.0	31.1	31.6	55.9	33.6
Max	277	61	514	385	210	779	180	137	87	83	599	299
Min	22	20	21	30	28	68	28	25	15	12	19	18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	41.3	48.5	53.4	54.2	57.3	78.1	77.2	59.5	50.8	45.8	43.1	43.4
Max	158	131	129	151	135	197	198	155	175	180	127	196
(WY)	(2006)	(1978)	(1984)	(1979)	(1973)	(1953)	(1983)	(1989)	(1972)	(1945)	(1971)	(1999)
Min	10.2	9.83	15.8	10.8	15.7	29.3	28.9	21.2	18.2	14.2	10.0	9.45
(WY)	(1942)	(1950)	(1940)	(1954)	(1954)	(2006)	(1991)	(1992)	(1939)	(1944)	(1935)	(1939)

SUMMARY STATISTICS

	Calendar Year 2009	Water Year 2010		Water Years 1935 - 2010	
Annual total	17,835	21,984			
Annual mean	48.9	60.2		54.4	
Highest annual mean				88.6	1952
Lowest annual mean				27.6	1965
Highest daily mean	514	Dec 27	779	Mar 14	1,950 Apr 16, 2007
Lowest daily mean	20	Sep 6	12	Jul 2	0.45 Apr 26, 1991
Annual seven-day minimum	21	Sep 3	16	Jun 27	6.3 Oct 19, 1949
Maximum peak flow			1,330	Aug 23	^a 9,630 Sep 16, 1999
Maximum peak stage			5.02	Aug 23	^b 12.22 Sep 16, 1999
Instantaneous low flow			11	Jul 2, 3	^c 0.05 Apr 23, 1991
10 percent exceeds	101		110		96
50 percent exceeds	34		33		39
90 percent exceeds	24		21		19

^a From rating curve extended above 3,000 ft³/s on basis of contracted-opening computation of peak flow.

^b From floodmark.

^c Also occurred Sep 28, 1993.

