



Water-Data Report 2006

**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 mi<sup>2</sup>.

**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 from wells above Woodcliff Lake probably reduces flow past this station. Prior to 1989, water was diverted from Saddle River to Musquapsink Brook that then enters Pascack Brook 500 feet upstream of gage. Several measurements of water temperature were made during the year. Satellite/radio gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 09	0500	958	4.27
Oct 13	0145	*1,600	*5.33
Oct 14	2115	872	4.10
Nov 30	0645	681	3.71
Dec 16	1230	917	4.19
Jan 03	0745	635	3.61
Jan 18	1745	715	3.78
May 12	0430	531	3.42
Jun 03	0030	735	3.82
Jun 07	1930	847	4.05
Jun 28	1330	1,150	4.63
Sep 01	1615	585	3.52
Sep 03	0515	624	3.59
Sep 15	1230	424	3.20

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**01377500 PASCACK BROOK AT WESTWOOD, NJ—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**  
**DAILY MEAN VALUES**

<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>1</b>	25	31	71	45	47	33	30	26	21	47	45	202
<b>2</b>	24	33	47	52	47	35	29	29	120	22	44	117
<b>3</b>	27	30	39	371	123	36	33	27	318	19	46	317
<b>4</b>	29	30	39	134	75	34	61	27	88	19	46	59
<b>5</b>	28	30	37	83	116	33	40	26	36	29	43	38
<b>6</b>	28	30	36	77	63	32	39	26	26	28	41	36
<b>7</b>	29	31	33	59	51	32	39	26	170	20	42	28
<b>8</b>	231	29	31	52	47	31	59	26	125	18	31	24
<b>9</b>	446	42	36	50	44	31	45	26	110	17	24	23
<b>10</b>	87	35	35	46	43	32	40	26	114	21	26	22
<b>11</b>	61	29	33	50	42	31	38	25	64	30	32	22
<b>12</b>	690	29	33	116	51	37	34	170	24	44	23	22
<b>13</b>	968	28	31	77	44	40	34	84	23	65	14	22
<b>14</b>	616	29	29	136	43	34	36	43	22	50	13	37
<b>15</b>	325	31	29	218	45	31	37	43	22	55	34	214
<b>16</b>	110	55	459	76	54	27	34	59	21	53	29	154
<b>17</b>	99	151	117	79	71	24	33	54	20	53	22	44
<b>18</b>	94	48	59	305	62	24	32	28	20	53	18	33
<b>19</b>	90	40	49	145	43	24	27	45	19	49	16	29
<b>20</b>	65	39	43	77	39	24	27	41	19	25	11	26
<b>21</b>	26	46	39	66	37	23	26	39	19	47	11	23
<b>22</b>	35	133	37	57	35	24	34	33	18	76	11	23
<b>23</b>	79	87	36	113	36	22	185	23	19	56	11	23
<b>24</b>	75	47	36	96	36	22	113	23	123	24	11	22
<b>25</b>	290	45	55	69	33	26	59	23	98	22	40	22
<b>26</b>	118	43	189	57	35	25	45	23	53	22	26	21
<b>27</b>	58	36	63	50	33	26	36	23	47	22	48	21
<b>28</b>	47	26	46	51	33	30	32	22	362	35	114	21
<b>29</b>	41	28	68	52	---	29	26	22	106	23	152	28
<b>30</b>	34	295	70	58	---	28	25	22	81	20	118	21
<b>31</b>	31	---	47	52	---	28	---	21	---	21	98	---
<b>Total</b>	4,906	1,586	1,972	2,969	1,428	908	1,328	1,131	2,308	1,085	1,240	1,694
<b>Mean</b>	158	52.9	63.6	95.8	51.0	29.3	44.3	36.5	76.9	35.0	40.0	56.5
<b>Max</b>	968	295	459	371	123	40	185	170	362	76	152	317
<b>Min</b>	24	26	29	45	33	22	25	21	18	17	11	21

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2006, BY WATER YEAR (WY)**

	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Mean</b>	40.9	48.5	52.7	54.4	57.2	76.9	76.5	60.2	50.9	45.9	42.4	43.4
<b>Max</b>	158	131	129	151	135	197	198	155	175	180	127	196
<b>(WY)</b>	(2006)	(1978)	(1984)	(1979)	(1973)	(1953)	(1983)	(1989)	(1972)	(1945)	(1971)	(1999)
<b>Min</b>	10.2	9.83	15.8	10.8	15.7	29.3	28.9	21.2	18.2	14.2	10.0	9.45
<b>(WY)</b>	(1942)	(1950)	(1940)	(1954)	(1954)	(2006)	(1991)	(1992)	(1939)	(1944)	(1935)	(1939)

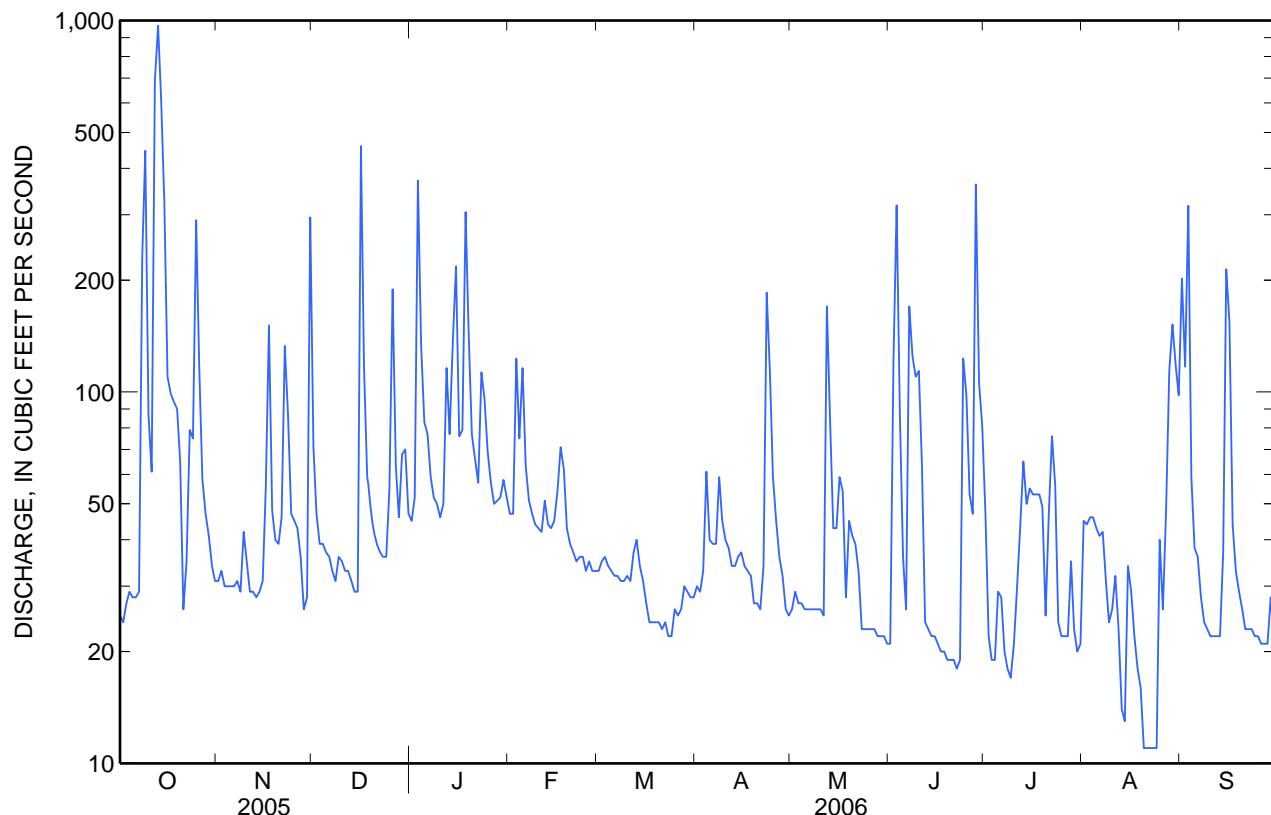
**SUMMARY STATISTICS**

	Calendar Year 2005		Water Year 2006		Water Years 1935 - 2006	
<b>Annual total</b>	21,492.2		22,555			
<b>Annual mean</b>	58.9		61.8		54.1	
<b>Highest annual mean</b>					88.6	1952
<b>Lowest annual mean</b>					27.6	1965
<b>Highest daily mean</b>	968	Oct 13	968	Oct 13	1,770	Aug 28, 1971
<b>Lowest daily mean</b>	9.2	Aug 28	11	Aug 20 - 24	0.45	Apr 26, 1991
<b>Annual seven-day minimum</b>	11	Aug 25	13	Aug 18	6.3	Oct 19, 1949
<b>Maximum peak flow</b>			1,600	Oct 13	<sup>a</sup> 9,630	Sep 16, 1999
<b>Maximum peak stage</b>			5.33	Oct 13	<sup>b</sup> 12.22	Sep 16, 1999
<b>Instantaneous low flow</b>			8.1	Aug 24	<sup>c</sup> 0.05	Apr 23, 1991
<b>10 percent exceeds</b>	96		116		96	
<b>50 percent exceeds</b>	35		36		39	
<b>90 percent exceeds</b>	19		22		19	

<sup>a</sup> From rating curve extended above 2,400 ft<sup>3</sup>/s on basis of contracted-opening computation of peak flow.

<sup>b</sup> From floodmark.

<sup>c</sup> Also occurred Sep 28, 1993.



**01377500 PASCACK BROOK AT WESTWOOD, NJ—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1959-76, 1979-80, 1998, 2000, 2006.

REMARKS.--

COOPERATIVE NETWORK SITE DESCRIPTOR: Trace Element Assessment (303d) special study site.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the New Jersey Department of Environmental Protection.

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 3

[Remark codes: &lt;, less than; E, estimated.]

Date	Time	Sample type	Turbidity white light, det ang 90+/-30 corrctd	Baro- metric pres- sure,	Dis- solved oxygen, oxygen,	Dis- solved percent of sat- uration	pH, water, unfltrd field, std	Specif. conduc- tance, wat unf uS/cm	Temper- ature, air, deg C	Temper- ature, water, deg C	Hard- ness, water, mg/L as CaCO <sub>3</sub>	Calcium water, fltrd, mg/L
		NTRU (63676)	mm Hg (00025)	mg/L (00300)	(00301)	(00400)	25 degC (00095)	(00020)	(00010)	CaCO <sub>3</sub> (00900)	(00915)	
<b>Jun</b>												
08...	0745	Field Blank	--	--	--	--	--	--	--	--	<.02	
08...	0830	Environmental	4.4	755	6.4	68	7.5	596	18.0	17.5	140	41.8

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 3

[Remark codes: &lt;, less than; E, estimated.]

Date	Magnes- ium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd, ug/L (01002)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd, ug/L (01027)	Chrom- ium, water, recover able, ug/L (01030)	Chrom- ium, unfltrd recover able, ug/L (01034)	Copper, water, unfltrd recover able, ug/L (01040)	Copper, water, unfltrd recover able, ug/L (01042)	Lead, water, unfltrd recover able, ug/L (01049)	Lead, water, unfltrd recover able, ug/L (01051)	Mercury water, unfltrd recover able, ug/L (71900)
<b>Jun</b>												
08...	E.004	<.12	--	<.04	--	<.04	--	<.4	--	<.08	--	<.010
08...	7.82	1.0	1.1	<.04	<.04	.19	.39	3.9	3.2	.41	1.06	<.010

**01377500 PASCACK BROOK AT WESTWOOD, NJ—Continued**

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 3 of 3

[Remark codes: &lt;, less than; E, estimated.]

Date	Nickel, water, unfltrd recover filtrd, ug/L (01065)	Selen- ium, water, -able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, unfltrd recover filtrd, ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01075)	Zinc, water, filtrd, ug/L (01077)	Zinc, water, recover -able, ug/L (01090)	Zinc, water, unfltrd ug/L (01092)
<b>Jun</b>								
<b>08...</b>	<.06	--	<.08	--	<.2	--	<.6	--
<b>08...</b>	0.9	1.06	.13	.13	<.2	<.16	3.4	3