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Water-Data Report 2009

**01377000 HACKENSACK RIVER AT RIVERVALE, NJ**

HACKENSACK RIVER BASIN

LOCATION.--Lat 40°59'57", long 73°59'21" referenced to North American Datum of 1983, River Vale Township, Bergen County, NJ, Hydrologic Unit 02030103, on upstream right bank at bridge on Westwood Avenue in Rivervale, 1.5 mi upstream from Pascack Brook, 4.1 mi downstream of Lake Tappan, and 4.6 mi upstream from Oradell Dam.

DRAINAGE AREA.--58.0 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WDR NJ-80-1: 1968-79(M).

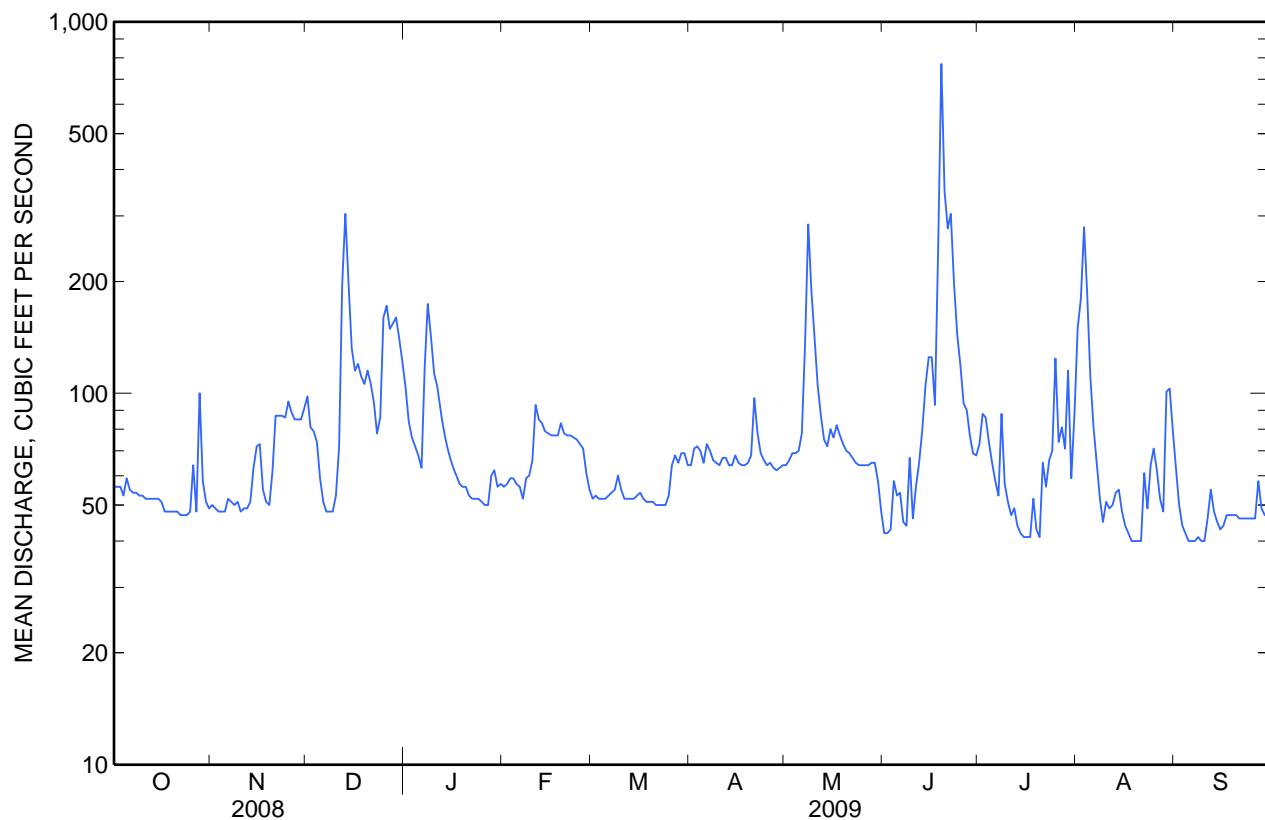
GAGE.--Water-stage recorder, crest-stage gages, and concrete control. Datum of gage is 22.51 ft above NGVD of 1929.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Flow regulated by DeForest Lake (since 1956, see 01376700) and Lake Tappan (since 1965, see 01376950). Diversions from DeForest Lake (see 01376699) and West Nyack, NY (see 01376810), for municipal water supply. Several measurements of water temperature were made during the year. Satellite telemetry at station.



**01377000 HACKENSACK RIVER AT RIVERVALE, NJ—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2008</b>	<b>Water Year 2009</b>		<b>Water Years 1942 - 2009</b>	
<b>Annual total</b>	29,065.3	27,528			
<b>Annual mean</b>	79.4	75.4		87.0	
<b>Highest annual mean</b>				156	1952
<b>Lowest annual mean</b>				30.9	1981
<b>Highest daily mean</b>	1,160	Mar 9	770	Jun 19	4,380 Apr 16, 2007
<b>Lowest daily mean</b>	9.7	Jan 3	40	Many days	4.4 Oct 10, 1995
<b>Annual seven-day minimum</b>	10	Jan 3	40	Sep 4	5.0 Oct 7, 1995
<b>Maximum peak flow</b>			885	Jun 19	4,620 Apr 16, 2007
<b>Maximum peak stage</b>			3.99	Jun 19	12.19 Apr 16, 2007
<b>Instantaneous low flow</b>			40	Many days	0.00 Jan 16, 1970
<b>10 percent exceeds</b>	124		115		165
<b>50 percent exceeds</b>	59		63		60
<b>90 percent exceeds</b>	33		46		21





**01377000 HACKENSACK RIVER AT RIVERVALE, NJ—Continued**
**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 3

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

Date	Sulfate water, filrd, mg/L (00945)	Ammonia + org-N, water, filrd, mg/L (as N) (00623)	Ammonia water, filrd, mg/L (as N) (00608)	Nitrate nitrite water, filrd, mg/L (as N) (00631)	Ortho-phosphate, water, filrd, mg/L (as P) (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, filrd, mg/L (as P) (00666)	Phosphorus, water, unfilrd, mg/L (as P) (00665)	Total nitrogen, water, filrd, mg/L (00602)	Total nitrogen, water, unfilrd, mg/L (00600)	Organic carbon, suspnd sedimnt, total, mg/L (00689)	Organic carbon, water, filrd, mg/L (00681)
<b>Nov</b>												
25...	12.1	.68	.171	.38	E.009	.16	.024	.053	1.1	1.2	1.11	5.0
<b>Feb</b>												
18...	16.9	.38	.078	.58	<.010	.11	.009	.026	.96	1.1	.61	3.9
<b>May</b>												
05...	13.7	1.6	.013	.27	.015	.14	.024	.059	1.8	2.0	.99	4.2
<b>Aug</b>												
05...	8.34	.57	.120	.26	.012	.28	.022	.078	.83	1.1	1.84	5.4