



Water-Data Report 2009

**01383500 WANAQUE RIVER AT AWOSTING, NJ**

PASSAIC RIVER BASIN

LOCATION.--Lat 41°09'37", long 74°20'01" referenced to North American Datum of 1983, West Milford Township, Passaic County, NJ, Hydrologic Unit 02030103, on right bank 700 ft downstream from dam at outlet of Greenwood Lake at Awosting, and 3.7 mi northeast of West Milford.

DRAINAGE AREA.--27.1 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--May 1919 to current year. Prior to October 1940, published as "at Greenwood Lake".

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922(M), 1928(M), 1936. WDR NJ-79-1: 1933(M), 1936(M), 1945(M), 1948(P), 1951(P), 1952(P), 1953(M), 1955(P), 1956(M), 1957(M), 1958(M), 1960(P), 1961(M), 1968(P), 1969(P). WDR NJ-80-1: 1960(P).

GAGE.--Water-stage recorder. Concrete control since Oct 31, 1938. Datum of gage is 601.32 ft above NGVD of 1929 (levels from New Jersey Geological Survey benchmark). Prior to Apr 1, 1926, non-recording gage, and Apr 1, 1926 to Oct 31, 1938, water-stage recorder at site 100 ft upstream at same datum.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Flow occasionally regulated by gates in dam on Greenwood Lake (see 01393000). Water diverted into basin above gage from Upper Greenwood Lake (Hudson River basin) by North Jersey District Water Supply Commission since 1968. 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 200 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 12	1730	*426	*3.77
No other peak greater than base discharge			

**01383500 WANAQUE RIVER AT AWOSTING, NJ—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
**DAILY MEAN VALUES**  
[*e*, estimated]

<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>	e38	e88	67	88	36	40	36	27	9.3	101	46	35
<b>2</b>	e31	e76	73	96	35	48	42	33	8.2	e140	54	28
<b>3</b>	28	e55	70	88	36	45	50	31	8.4	163	79	25
<b>4</b>	24	e54	66	77	37	41	70	31	12	146	69	23
<b>5</b>	e25	e47	64	71	34	38	72	33	18	119	62	21
<b>6</b>	e24	e49	57	66	32	36	70	40	29	97	55	18
<b>7</b>	e20	e51	58	e76	30	37	75	e88	29	84	44	14
<b>8</b>	e17	e48	53	85	31	40	69	103	27	88	35	14
<b>9</b>	e15	48	49	79	34	52	64	107	52	74	29	13
<b>10</b>	e14	43	60	73	35	60	60	102	59	63	49	11
<b>11</b>	e13	38	87	74	38	61	60	85	63	52	70	15
<b>12</b>	e12	33	354	68	54	60	56	74	78	55	63	15
<b>13</b>	e11	33	389	61	e66	55	44	62	77	45	73	16
<b>14</b>	e11	44	304	56	e68	51	40	55	77	38	78	14
<b>15</b>	e11	57	241	51	e71	47	42	66	79	31	70	13
<b>16</b>	e11	81	206	46	e69	44	39	60	101	28	60	13
<b>17</b>	e11	80	e183	41	e62	40	37	82	93	28	51	11
<b>18</b>	e8.5	78	153	39	58	36	34	75	122	36	41	9.9
<b>19</b>	e8.7	68	142	39	62	38	32	64	184	31	36	9.5
<b>20</b>	e7.1	59	140	37	59	37	31	56	172	27	30	8.0
<b>21</b>	e7.6	54	123	34	54	33	45	48	182	30	28	7.3
<b>22</b>	e7.4	48	111	32	53	32	55	43	176	32	41	7.1
<b>23</b>	e7.2	41	94	31	51	31	58	39	146	30	76	7.0
<b>24</b>	e7.1	39	86	30	46	25	50	34	122	26	74	7.6
<b>25</b>	e9.7	49	117	28	42	20	46	30	102	23	62	8.4
<b>26</b>	e37	50	119	27	40	20	46	23	93	23	51	6.2
<b>27</b>	e46	47	115	26	40	26	40	20	87	27	43	7.3
<b>28</b>	e89	45	117	36	43	26	38	20	75	25	38	8.4
<b>29</b>	e138	43	129	45	---	31	37	22	63	25	52	7.8
<b>30</b>	e134	47	127	42	---	44	27	23	68	38	50	7.7
<b>31</b>	e108	---	121	39	---	39	---	16	---	42	43	---
<b>Total</b>	931.3	1,593	4,075	1,681	1,316	1,233	1,465	1,592	2,411.9	1,767	1,652	401.2
<b>Mean</b>	30.0	53.1	131	54.2	47.0	39.8	48.8	51.4	80.4	57.0	53.3	13.4
<b>Max</b>	138	88	389	96	71	61	75	107	184	163	79	35
<b>Min</b>	7.1	33	49	26	30	20	27	16	8.2	23	28	6.2
<b>Cfsm</b>	1.11	1.96	4.85	2.00	1.73	1.47	1.80	1.90	2.97	2.10	1.97	0.49
<b>In.</b>	1.28	2.19	5.59	2.31	1.81	1.69	2.01	2.19	3.31	2.43	2.27	0.55

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2009, 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>	32.3	58.0	68.3	65.0	62.4	99.7	93.5	59.1	38.9	25.9	26.0	29.9
<b>Max</b>	231	210	197	221	168	271	333	233	178	132	208	231
(WY)	(2006)	(2007)	(1974)	(1979)	(1981)	(1980)	(1984)	(1989)	(1972)	(1938)	(1955)	(1927)
<b>Min</b>	0.20	0.18	1.88	3.00	3.04	5.32	6.02	13.4	4.37	2.76	0.01	0.06
(WY)	(1932)	(1932)	(1985)	(1922)	(1922)	(2007)	(2002)	(1941)	(1957)	(1981)	(1929)	(1929)

**01383500 WANAQUE RIVER AT AWOSTING, NJ—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2008</b>		<b>Water Year 2009</b>		<b>Water Years 1919 - 2009</b>	
<b>Annual total</b>	23,519.6		20,118.4			
<b>Annual mean</b>	64.3		55.1		54.8	
<b>Highest annual mean</b>					105	1984
<b>Lowest annual mean</b>					19.2	2002
<b>Highest daily mean</b>	463	Mar 9	389	Dec 13	2,350	Apr 6, 1984
<b>Lowest daily mean</b>	5.9	Sep 2	6.2	Sep 26	0.00	Oct 15, 1928
<b>Annual seven-day minimum</b>	6.2	Aug 28	7.3	Sep 21	0.00	Jul 27, 1929
<b>Maximum peak flow</b>			426	Dec 12	<sup>a</sup> 2,800	Apr 5, 1984
<b>Maximum peak stage</b>			3.77	Dec 12	6.65	Apr 5, 1984
<b>Instantaneous low flow</b>			6.1	Sep 26, 27	0.00	Many days <sup>b</sup>
<b>Annual runoff (cfsm)</b>	2.37		2.03		2.02	
<b>Annual runoff (inches)</b>	32.29		27.62		27.47	
<b>10 percent exceeds</b>	138		101		126	
<b>50 percent exceeds</b>	47		45		33	
<b>90 percent exceeds</b>	7.0		13		5.1	

<sup>a</sup> From rating curve extended above 750 ft<sup>3</sup>/s based on theoretical weir formula.

<sup>b</sup> No flow at times when gates at Greenwood Lake were closed and no water passed over spillway.

