



Water-Data Report 2010

**01411500 MAURICE RIVER AT NORMA, NJ**

MAURICE RIVER BASIN

LOCATION.--Lat 39°29'44", long 75°04'37" referenced to North American Datum of 1983, Pittsgrove Township, Salem County, NJ, Hydrologic Unit 02040206, on right bank just upstream from bridge on Almond Road (County Route 540), 0.6 mi east of Norma, 0.8 mi downstream from Blackwater Branch, and 2.9 mi west of Vineland.

DRAINAGE AREA.--112 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--July 1932 to current year. Monthly discharge only for December 1933, published in WSP 1302.

REVISED RECORDS.--WSP 1382: 1933. WDR NJ-79-1: 1967(P). WDR NJ-82-2: Drainage area. WDR US-2007: 2000, 2003.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Dec 27, 1937. Datum of gage is 46.94 ft above NGVD of 1929.

REMARKS.--Records fair. Occasional regulation by lakes and ponds upstream. 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 380 ft<sup>3</sup>/s and (or) maximum (\*):

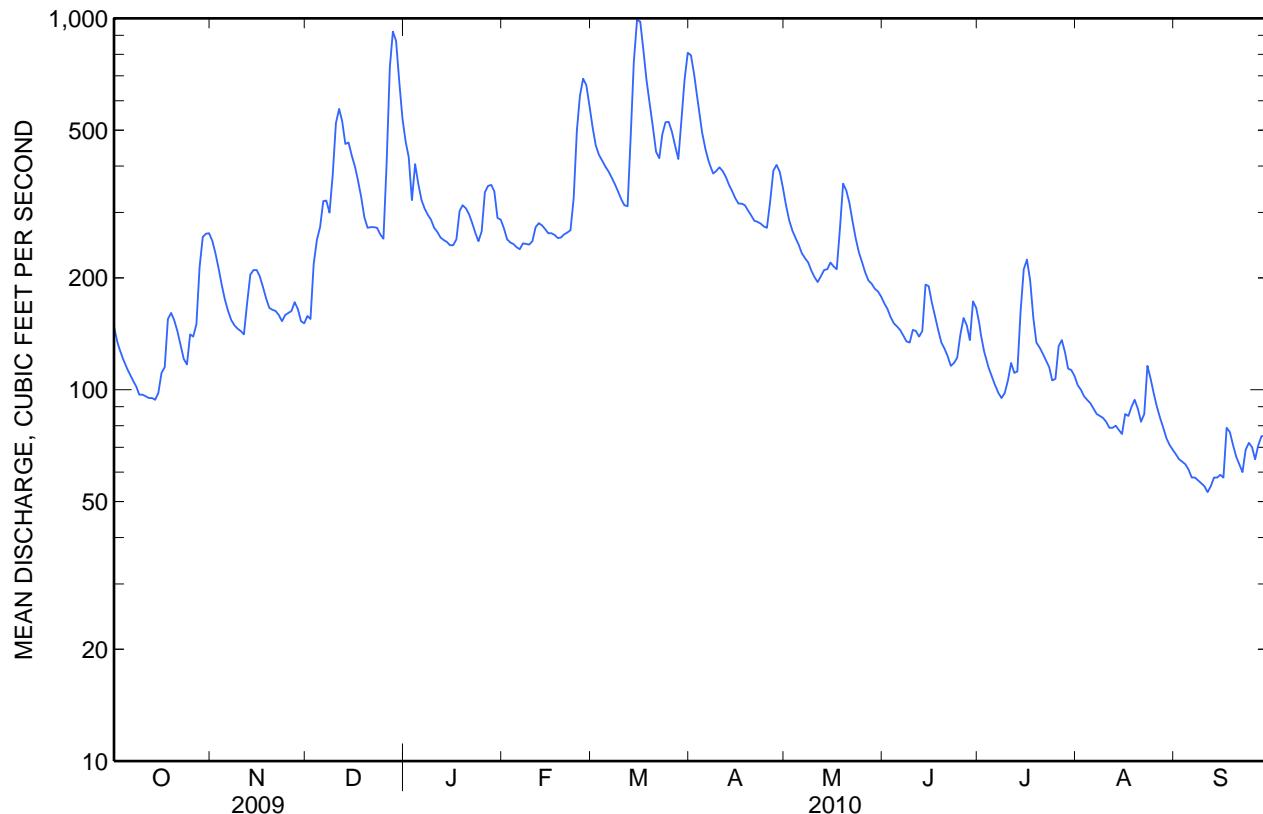
Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 11	0345	572	3.79
Dec 28	1645	954	4.73
Feb 26	1245	695	4.09
Mar 15	1845	*1,050	*5.17
Mar 31	1415	819	4.40
Apr 27	2215	403	3.47



**01411500 MAURICE RIVER AT NORMA, NJ—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2009</b>	<b>Water Year 2010</b>			<b>Water Years 1933 - 2010</b>	
<b>Annual total</b>	62,485		88,898			
<b>Annual mean</b>	171		244		164	
<b>Highest annual mean</b>					253	1973
<b>Lowest annual mean</b>					67.4	1966
<b>Highest daily mean</b>	921	Dec 28	990	Mar 15	5,260	Sep 2, 1940
<b>Lowest daily mean</b>	74	Jul 11	53	Sep 11	20	Aug 16, 2002
<b>Annual seven-day minimum</b>	78	Jul 6	56	Sep 6	20	Aug 16, 2002
<b>Maximum peak flow</b>			1,050	Mar 15	<sup>a</sup> 7,360	Sep 2, 1940
<b>Maximum peak stage</b>			5.17	Mar 15	8.72	Sep 2, 1940
<b>Instantaneous low flow</b>			52	Sep 11, 12	20	Aug 15, 2002
<b>Annual runoff (cfsm)</b>	1.53		2.17		1.46	
<b>Annual runoff (inches)</b>	20.75		29.53		19.84	
<b>10 percent exceeds</b>	261		461		280	
<b>50 percent exceeds</b>	148		207		143	
<b>90 percent exceeds</b>	103		79		67	

<sup>a</sup> From rating curve extended above 3,000 ft<sup>3</sup>/s by logarithmic plotting, peak was highest since at least 1867, when Union Lake Dam was built in Millville.



**01411500 MAURICE RIVER AT NORMA, NJ—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1953, 1962-63, 1965 to September 1997, December 1998 to current year.

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: August and September 2007.

DISSOLVED OXYGEN PERCENT OF SATURATION: August and September 2007.

PH: November 1992 to April 1994, August and September 2007.

SPECIFIC CONDUCTANCE: January 1980 to November 1986, November 1992 to September 1994, August and September 2007.

WATER TEMPERATURE: January 1980 to November 1986, November 1992 to September 1994, August and September 2007.

REMARKS.--Cooperative Network Site Descriptor: Watershed Integrator, NJ Department of Environmental Protection Watershed Management Area 17.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Part 1 of 5

[%; percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; ft<sup>3</sup>/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Tempera ture, air, °C (00020)	Absorbance, UV, organic constituents, UV, 254 nm, 1 cm path length, water, filtered, units per centimeter (50624)		Discharge, instantane ous, ft <sup>3</sup> /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)
				cm path length, water, filtered, units per centimeter (61726)	280 nm, 1 cm path length, water, filtered, units per centimeter (61726)				
12-10-2009	0900	751	4.0	.680	.531	512	8.8	73	5.6
03-09-2010	0830	761	4.5	.287	.219	342	9.5	79	6.1
05-26-2010	0830	760	18.5	.738	.586	210	6.6	73	6.4
09-14-2010	0800	759	15.0	.096	.076	59	7.7	81	6.6



**01411500 MAURICE RIVER AT NORMA, NJ—Continued**

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Part 4 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; ft<sup>3</sup>/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophos phate, water, filtered, mg/L as P (00671)	Particulate nitrogen, suspended in water, mg/L (49570)	Phosphoru s, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, filtered, mg/L (00602)	Total nitrogen, water, unfiltered, mg/L (00600)	Organic carbon, suspended sediment, total, mg/L (00689)
12-10-2009	.021	.77	E .006	.07	.014	.045	1.3	1.4	.97
03-09-2010	< .010	1.65	E .006	E .03	E .004	.011	2.0	E 2.0	.36
05-26-2010	.053	1.24	--	.10	.019	.034	1.8	1.9	1.01
09-14-2010	.022	2.32	--	.07	E .007	.013	2.5	2.6	.65

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER  
2009 TO SEPTEMBER  
2010**

Part 5 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; ft<sup>3</sup>/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Organic carbon, water, filtered, mg/L (00681)
12-10-2009	12.8
03-09-2010	6.2
05-26-2010	11.3
09-14-2010	2.0