

Water-Data Report 2010

**01382385 PEQUANNOCK RIVER AT GREEN POND JUNCTION, NJ**

PASSAIC RIVER BASIN

LOCATION.--Lat 41°01'29", long 74°24'30" referenced to North American Datum of 1983, West Milford Township, Passaic County, NJ, Hydrologic Unit 02030103, on left bank 15 ft downstream from culvert under southbound lane of State Route 23, 900 ft upstream of Macopin Reservoir, 0.5 mi southeast of Green Pond Junction, and 0.8 mi east of Charlotteburg Reservoir.

DRAINAGE AREA.--57.1 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Continuous-record gaging station, April 2010 to current year.

GAGE.--Water-stage recorder, water-quality monitor, and crest-stage gage. Datum of gage is 610 ft NAVD 1988 (from topographic map).

REMARKS.--Records fair. Flow regulated by Canistear Reservoir (see 01382100), Oak Ridge Reservoir (see 01382200), Charlotteburg Reservoir (see 01382380), and other small upstream lakes and ponds. Several measurements of water temperature were made during the water year. Satellite telemetry at station.

## 01382385 PEQUANNOCK RIVER AT GREEN POND JUNCTION, NJ—Continued

**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	---	---	---	---	---	---	---	89	17	15	7.2	4.7
2	---	---	---	---	---	---	---	74	16	14	7.2	5.8
3	---	---	---	---	---	---	---	129	16	14	7.2	5.9
4	---	---	---	---	---	---	---	160	15	14	7.3	5.9
5	---	---	---	---	---	---	---	113	15	14	7.3	5.9
6	---	---	---	---	---	---	---	70	15	14	11	6.0
7	---	---	---	---	---	---	---	49	15	14	13	6.0
8	---	---	---	---	---	---	156	30	15	14	7.3	6.0
9	---	---	---	---	---	---	179	23	17	14	7.2	6.0
10	---	---	---	---	---	---	164	13	16	16	7.2	6.0
11	---	---	---	---	---	---	112	13	16	13	7.2	6.0
12	---	---	---	---	---	---	94	21	16	13	7.2	6.2
13	---	---	---	---	---	---	78	22	16	16	7.1	6.9
14	---	---	---	---	---	---	70	28	16	15	7.0	6.3
15	---	---	---	---	---	---	63	25	16	14	7.1	6.2
16	---	---	---	---	---	---	54	20	17	13	7.3	6.3
17	---	---	---	---	---	---	64	19	17	13	7.0	6.3
18	---	---	---	---	---	---	64	23	16	13	6.9	6.3
19	---	---	---	---	---	---	59	51	15	14	5.3	6.3
20	---	---	---	---	---	---	54	77	15	14	13	6.3
21	---	---	---	---	---	---	43	47	15	14	18	6.3
22	---	---	---	---	---	---	40	26	16	14	18	5.6
23	---	---	---	---	---	---	43	19	15	14	13	4.3
24	---	---	---	---	---	---	25	19	15	14	2.1	4.2
25	---	---	---	---	---	---	79	18	15	16	3.6	4.2
26	---	---	---	---	---	---	281	17	15	10	2.1	4.2
27	---	---	---	---	---	---	361	19	15	7.5	2.2	4.5
28	---	---	---	---	---	---	253	18	15	8.5	3.3	4.6
29	---	---	---	---	---	---	157	17	15	7.1	3.2	4.4
30	---	---	---	---	---	---	109	17	15	7.0	8.5	8.2
31	---	---	---	---	---	---	---	17	---	7.0	7.6	---
<b>Total</b>	---	---	---	---	---	---	---	1,283	468	400.1	238.6	171.8
<b>Mean</b>	---	---	---	---	---	---	---	41.4	15.6	12.9	7.70	5.73
<b>Max</b>	---	---	---	---	---	---	---	160	17	16	18	8.2
<b>Min</b>	---	---	---	---	---	---	---	13	15	7.0	2.1	4.2

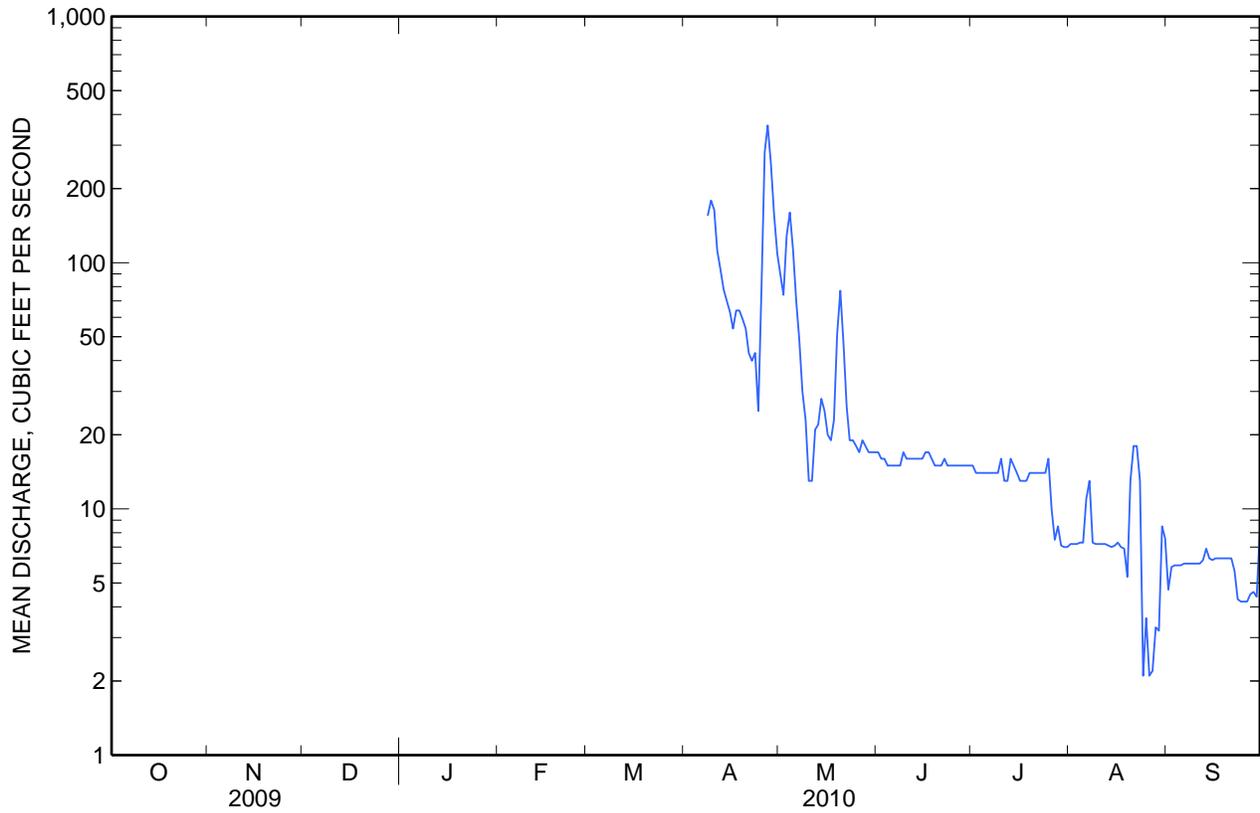
**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2010 - 2010, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	---	---	---	---	---	---	---	41.4	15.6	12.9	7.70	5.73
<b>Max</b>	---	---	---	---	---	---	---	41.4	15.6	12.9	7.70	5.73
<b>(WY)</b>	(---	(---	(---	(---	(---	(---	(---	(2010)	(2010)	(2010)	(2010)	(2010)
<b>Min</b>	---	---	---	---	---	---	---	41.4	15.6	12.9	7.70	5.73
<b>(WY)</b>	(---	(---	(---	(---	(---	(---	(---	(2010)	(2010)	(2010)	(2010)	(2010)

01382385 PEQUANNOCK RIVER AT GREEN POND JUNCTION, NJ—Continued

SUMMARY STATISTICS

	Apr 8 – Sep 30		Water Year 2010	
Highest daily mean	361	Apr 27	361	Apr 27, 2011
Lowest daily mean	2.1	Aug 24, 26	2.1	Aug 24, 26, 2011
Maximum peak flow	381	Apr 27	381	Apr 27, 2011
Maximum peak stage	5.98	Apr 27	5.98	Apr 27, 2011
Instantaneous low flow	1.4	Aug 27	1.4	Aug 27, 2011



## 01382385 PEQUANNOCK RIVER AT GREEN POND JUNCTION, NJ—Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April to September 2010.

INSTRUMENTATION.--Electronic data logger with integral water temperature probe since April 2009. Water temperature measurements, in degrees Celsius, recorded at 15-minute intervals.

REMARKS.--The accuracy of continuous water-quality data is routinely verified through inspections for fouling and calibration drift. The New Jersey Water Science Center requires that either constant or prorated adjustments be made to the continuous water-quality record when the difference between a sensor's response and a known value exceeds the following criteria: Water Temperature, 0.2 degrees Celsius (+ or -). If the difference between a sensor's response and a known value is within specified criteria, the data are considered to be reliable and are not adjusted. Data from the following periods were adjusted - Jul 07 - Sep 30.

COOPERATION.--Continuous records collected in cooperation with the City of Newark.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22.4°C, July 25.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

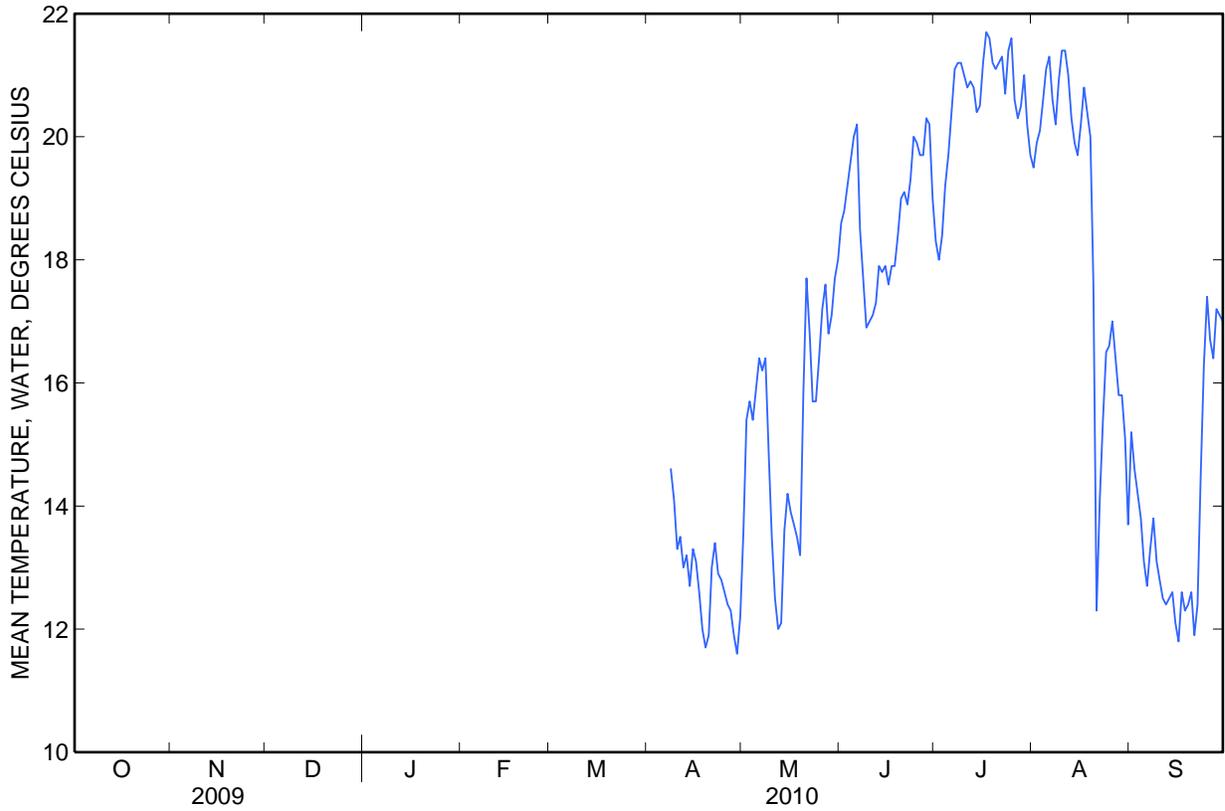
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	15.1	12.7	13.6
2	---	---	---	---	---	---	---	---	---	16.6	14.5	15.4
3	---	---	---	---	---	---	---	---	---	16.5	15.4	15.7
4	---	---	---	---	---	---	---	---	---	15.8	15.0	15.4
5	---	---	---	---	---	---	---	---	---	16.7	15.3	15.9
6	---	---	---	---	---	---	---	---	---	16.8	16.0	16.4
7	---	---	---	---	---	---	---	---	---	16.7	15.7	16.2
8	---	---	---	---	---	---	16.5	13.1	14.6	16.6	16.1	16.4
9	---	---	---	---	---	---	15.4	13.2	14.1	16.1	14.3	14.9
10	---	---	---	---	---	---	13.7	12.8	13.3	14.3	13.0	13.5
11	---	---	---	---	---	---	14.7	12.7	13.5	13.4	12.1	12.5
12	---	---	---	---	---	---	13.8	12.4	13.0	12.6	11.9	12.0
13	---	---	---	---	---	---	13.8	12.9	13.2	13.0	11.5	12.1
14	---	---	---	---	---	---	13.3	12.0	12.7	14.6	13.0	13.6
15	---	---	---	---	---	---	14.0	12.8	13.3	14.6	13.8	14.2
16	---	---	---	---	---	---	13.9	12.5	13.1	14.3	13.5	13.9
17	---	---	---	---	---	---	13.2	12.1	12.6	14.1	13.3	13.7
18	---	---	---	---	---	---	12.2	11.7	12.0	14.0	12.9	13.5
19	---	---	---	---	---	---	12.1	11.4	11.7	14.0	12.8	13.2
20	---	---	---	---	---	---	12.8	11.3	11.9	18.6	14.0	15.8
21	---	---	---	---	---	---	13.5	12.5	13.0	18.7	16.5	17.7
22	---	---	---	---	---	---	13.9	12.9	13.4	18.1	16.3	16.8
23	---	---	---	---	---	---	13.7	12.4	12.9	16.5	15.4	15.7
24	---	---	---	---	---	---	13.8	12.1	12.8	16.3	15.4	15.7
25	---	---	---	---	---	---	13.6	11.9	12.6	17.1	15.8	16.4
26	---	---	---	---	---	---	12.6	11.8	12.4	18.2	16.3	17.2
27	---	---	---	---	---	---	12.6	12.0	12.3	17.9	17.0	17.6
28	---	---	---	---	---	---	12.2	11.5	11.9	17.2	16.3	16.8
29	---	---	---	---	---	---	12.0	11.2	11.6	17.8	16.5	17.1
30	---	---	---	---	---	---	13.2	11.5	12.2	18.4	17.1	17.7
31	---	---	---	---	---	---	---	---	---	18.9	17.2	18.0
Month	---	---	---	---	---	---	---	---	---	18.9	11.5	15.3

## 01382385 PEQUANNOCK RIVER AT GREEN POND JUNCTION, NJ—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

<b>Day</b>	<b>Max</b>	<b>Min</b>	<b>Mean</b>	<b>Max</b>	<b>Min</b>	<b>Mean</b>	<b>Max</b>	<b>Min</b>	<b>Mean</b>	<b>Max</b>	<b>Min</b>	<b>Mean</b>
	<b>June</b>			<b>July</b>			<b>August</b>			<b>September</b>		
<b>1</b>	19.4	17.8	18.6	18.8	17.6	18.3	20.0	19.0	19.5	15.3	14.9	15.2
<b>2</b>	19.5	18.0	18.8	18.7	17.3	18.0	20.6	19.2	19.9	15.0	14.0	14.6
<b>3</b>	20.1	18.4	19.2	19.4	17.4	18.4	20.6	19.6	20.1	14.8	13.8	14.2
<b>4</b>	20.2	18.9	19.6	20.3	18.3	19.2	21.4	20.0	20.6	14.1	13.4	13.8
<b>5</b>	20.7	19.4	20.0	20.6	18.8	19.7	21.7	20.6	21.1	13.7	12.6	13.1
<b>6</b>	20.6	19.6	20.2	21.4	19.6	20.4	21.6	20.9	21.3	13.2	11.9	12.7
<b>7</b>	19.6	18.0	18.5	21.9	20.2	21.1	21.3	19.8	20.6	14.0	12.6	13.3
<b>8</b>	18.2	17.1	17.7	21.6	20.8	21.2	21.0	19.3	20.2	14.2	13.2	13.8
<b>9</b>	17.6	16.6	16.9	21.7	20.7	21.2	21.6	20.2	20.9	13.9	12.8	13.1
<b>10</b>	17.8	16.5	17.0	21.4	20.7	21.0	21.8	21.0	21.4	13.1	12.4	12.8
<b>11</b>	17.5	16.5	17.1	21.6	20.1	20.8	22.0	20.8	21.4	13.0	11.9	12.5
<b>12</b>	18.1	16.7	17.3	21.6	20.2	20.9	21.8	20.5	21.0	12.8	12.3	12.4
<b>13</b>	18.1	17.6	17.9	21.1	20.5	20.8	20.7	19.9	20.3	13.3	12.0	12.5
<b>14</b>	18.3	17.4	17.8	20.7	20.2	20.4	20.3	19.4	19.9	13.0	12.0	12.6
<b>15</b>	18.6	17.2	17.9	21.2	19.9	20.5	20.0	19.4	19.7	12.6	11.6	12.1
<b>16</b>	18.0	17.2	17.6	22.3	20.4	21.2	21.0	19.7	20.2	12.3	11.2	11.8
<b>17</b>	18.3	17.7	17.9	22.3	21.1	21.7	21.3	20.3	20.8	13.0	12.3	12.6
<b>18</b>	18.8	17.0	17.9	22.2	21.0	21.6	20.9	19.8	20.4	12.7	11.8	12.3
<b>19</b>	19.3	17.4	18.4	21.9	20.5	21.2	20.6	19.2	20.0	13.0	11.8	12.4
<b>20</b>	19.7	18.4	19.0	21.5	20.6	21.1	20.2	12.9	17.6	12.9	12.2	12.6
<b>21</b>	19.8	18.4	19.1	22.0	20.5	21.2	13.0	11.4	12.3	12.4	11.2	11.9
<b>22</b>	19.5	18.4	18.9	21.8	20.7	21.3	17.0	12.5	14.1	13.5	11.8	12.4
<b>23</b>	20.2	18.5	19.3	21.2	20.4	20.7	16.9	13.5	15.4	15.7	13.5	14.5
<b>24</b>	20.9	19.3	20.0	22.2	20.8	21.4	16.7	16.3	16.5	17.3	15.7	16.3
<b>25</b>	20.4	19.3	19.9	22.4	21.2	21.6	16.9	16.4	16.6	17.8	17.0	17.4
<b>26</b>	20.3	19.0	19.7	21.2	19.9	20.6	17.4	16.6	17.0	17.3	16.2	16.7
<b>27</b>	20.5	19.1	19.7	21.2	19.4	20.3	17.1	15.9	16.4	16.7	16.2	16.4
<b>28</b>	20.8	19.8	20.3	21.3	19.7	20.5	16.4	15.1	15.8	17.7	16.6	17.2
<b>29</b>	20.5	19.8	20.2	21.6	20.6	21.0	16.5	15.1	15.8	17.6	16.6	17.1
<b>30</b>	19.9	18.3	19.0	21.0	19.5	20.2	16.3	13.5	15.1	17.5	16.7	17.0
<b>31</b>	---	---	---	20.4	18.9	19.7	15.2	12.5	13.7	---	---	---
<b>Month</b>	20.9	16.5	18.7	22.4	17.3	20.6	22.0	11.4	18.6	17.8	11.2	13.9

01382385 PEQUANNOCK RIVER AT GREEN POND JUNCTION, NJ—Continued



CROSS-SECTIONAL WATER-QUALITY MEASUREMENTS WITH RECORDED MONITOR VALUES, AT NOTED TIME, ON OCTOBER 4, 2010.

[Cross sectional measurements were made to document river variability and verify that recorded monitor values were representative of river conditions. Water-quality measurements acquired at increments of 3 feet.]

