

01410150 EAST BRANCH BASS RIVER NEAR NEW GREтна, NJ

MULLICA RIVER BASIN

LOCATION.--Lat 39°37'23", long 74°26'29" referenced to North American Datum of 1983, Bass River Township, Burlington County, NJ, Hydrologic Unit 02040301, on left bank about 100 ft upstream from bridge on Stage Road, 0.7 mi west of Lake Absegami, 2.2 mi north of New Greтна, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--8.11 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969 to 1974. January 1978 to current year.

REVISED RECORDS.--WDR NJ-81-1:1978-80(P). WDR NJ-92-1:1978, 1979, 1989, 1991(P).

GAGE.--Water-stage recorder. Datum of gage is 1.10 ft above NGVD of 1929.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Occasional regulation by Lake Absegami. 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 65 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug 28	1630	*61	*5.05

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	17	12	13	12	15	18	18	16	14	14	14	15
2	17	12	14	14	21	17	18	15	13	13	14	13
3	14	11	13	15	24	16	16	15	13	14	14	13
4	15	14	12	14	20	15	15	19	13	15	15	13
5	17	16	12	13	18	15	15	23	13	14	15	13
6	16	14	11	13	19	17	15	19	13	14	14	13
7	13	13	11	13	18	27	14	17	13	14	14	14
8	12	12	11	13	18	25	15	16	13	15	14	14
9	12	12	11	13	17	20	19	15	13	26	14	13
10	12	12	11	13	17	19	17	15	14	20	15	13
11	12	12	11	13	16	29	16	15	13	16	14	14
12	12	12	12	14	e16	28	15	15	13	14	14	16
13	12	12	14	14	e16	22	17	14	13	14	14	16
14	12	12	12	13	16	18	17	15	13	14	14	14
15	13	12	12	13	16	17	15	17	13	14	15	12
16	12	12	11	13	16	20	e16	17	13	14	15	12
17	12	13	11	13	16	21	e27	17	14	14	15	12
18	12	13	11	19	16	18	26	18	14	14	14	12
19	12	12	11	23	16	17	21	22	13	14	14	12
20	13	12	11	20	15	16	19	19	13	14	14	12
21	12	12	12	18	15	18	18	17	13	14	14	12
22	12	11	12	17	16	19	17	16	13	14	14	12
23	12	11	12	16	15	18	18	17	13	14	14	15
24	11	11	12	15	15	21	19	17	14	14	14	17
25	11	11	12	15	20	19	21	16	13	17	14	15
26	11	11	12	16	22	17	19	15	13	16	16	13
27	12	11	13	19	19	16	18	15	13	14	17	12
28	13	11	12	18	17	16	17	14	14	14	51	12
29	13	11	12	17	---	16	17	14	16	15	45	e13
30	12	11	12	16	---	15	16	14	15	15	26	e13
31	12	---	12	15	---	16	---	14	---	15	18	---
Total	398	361	368	470	485	586	531	508	401	463	529	400
Mean	12.8	12.0	11.9	15.2	17.3	18.9	17.7	16.4	13.4	14.9	17.1	13.3
Max	17	16	14	23	24	29	27	23	16	26	51	17
Min	11	11	11	12	15	15	14	14	13	13	14	12
Cfsm	1.58	1.48	1.46	1.87	2.14	2.33	2.18	2.02	1.65	1.84	2.10	1.64
In.	1.83	1.66	1.69	2.16	2.22	2.69	2.44	2.33	1.84	2.12	2.43	1.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2011, BY WATER YEAR (WY)

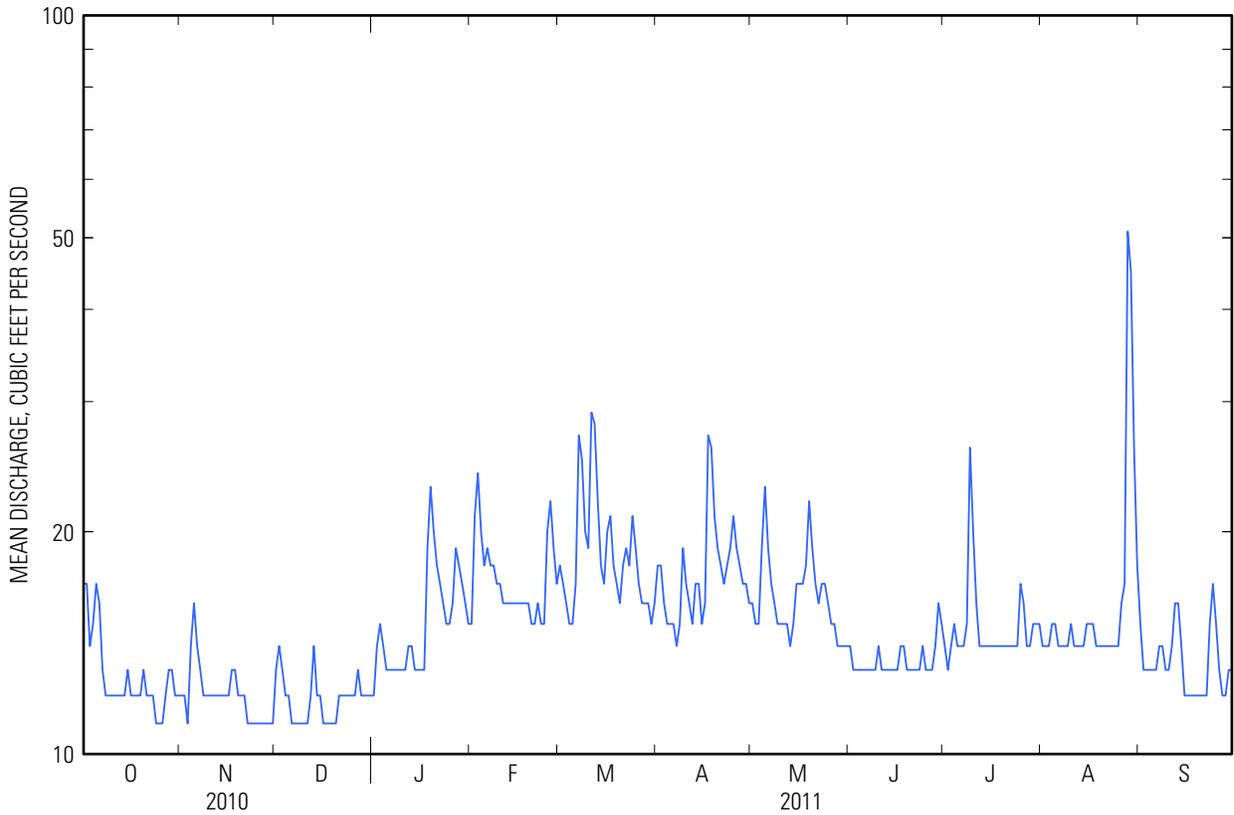
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	12.9	14.6	16.9	19.0	18.8	21.2	21.1	18.5	15.6	13.6	14.5	12.8
Max	24.2	27.5	43.2	35.0	34.3	47.0	38.6	41.5	35.2	25.8	43.7	23.2
(WY)	(1990)	(2007)	(2010)	(1978)	(1998)	(2010)	(1984)	(1998)	(1998)	(1978)	(1997)	(2000)
Min	8.13	8.75	9.78	9.28	9.19	10.4	9.06	8.95	8.11	7.80	6.54	6.77
(WY)	(1983)	(1982)	(1986)	(1981)	(2002)	(2002)	(1985)	(1985)	(1986)	(1985)	(1995)	(1995)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1978 - 2011	
Annual total	7,722.5		5,500			
Annual mean	21.2		15.1		16.4	
Highest annual mean					25.7	2010
Lowest annual mean					9.60	1985
Highest daily mean	94	Mar 30	51	Aug 28	^a 533 Aug 21, 1997	
Lowest daily mean	9.2	Sep 26	11	Many days	4.8	Sep 15, 1995
Annual seven-day minimum	9.4	Sep 21	11	Nov 22	5.0	Sep 10, 1995
Maximum peak flow			61	Aug 28	^a 1,130 Aug 21, 1997	
Maximum peak stage			5.05	Aug 28	7.28	Aug 21, 1997
Instantaneous low flow			11	Many days	4.7	Sep 15, 1995
Annual runoff (cfsm)	2.61		1.86		2.03	
Annual runoff (inches)	35.42		25.23		27.52	
10 percent exceeds	40		19		26	
50 percent exceeds	14		14		14	
90 percent exceeds	9.9		12		9.1	

^a From rating curve extended above 200 ft³/s.



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Cooperative Network Site Descriptor: Undeveloped Land Use Indicator, NJ Department of Environmental Protection Watershed Management Area 14.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Determination of concentrations of ammonia in filtered water was performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory (DHSS-ECL) except during the period May 12 through August 25, 2011 when the determination was performed by the National Water-Quality Laboratory. Determination of concentrations of suspended solids in unfiltered water was performed by the DHSS-ECL except during the period June 17 through August 25, 2011 when samples could not be accepted.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 1 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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)	Temperature, air, °C (00020)	Absorbance, UV, 254 nm, 1 cm path length, water, filtered, units per centimeter (50624)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, units per centimeter (61726)	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)
11-03-2010	1000	768	8.0	.158	.126	11	9.2	76	4.9
02-07-2011	1000	762	3.0	.223	.175	18	11.4	88	4.8
05-12-2011	1030	762	19.5	.186	.146	14	8.1	79	4.5
09-01-2011	1030	767	25.0	.526	.406	15	6.4	66	4.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 5

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Date	Sample start time	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)	Dissolved solids, water, filtered, sum of constituents, mg/L (70301)	Hardness, water, mg/L as CaCO ₃ (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)
11-03-2010	1000	44	6.8	.4	31	< 23	2.95	2	.383
02-07-2011	1000	48	4.2	.8	31	< 24	3.74	1	.504
05-12-2011	1030	45	13.5	.1	34	< 23	2.92	--	.399
09-01-2011	1030	52	16.6	.6	45	< 25	3.75	< 1	.509

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 3 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, fixed endpoint titration, laboratory, mg/L as CaCO ₃ (90410) (pH 4.5)	Carbon (inorganic plus organic), suspended sediment, total, mg/L (00694)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Inorganic carbon, suspended sediment, total, mg/L (00688)	Silica, water, filtered, mg/L as SiO ₂ (00955)
11-03-2010	1000	.483	.52	2.79	< 1.74	.09	5.37	< .04	< .03	8.79
02-07-2011	1000	.603	.59	3.54	< 1.74	.17	5.98	< .04	< .03	6.54
05-12-2011	1030	.468	.39	3.73	< 1.74	.21	6.96	< .04	< .03	6.20
09-01-2011	1030	.602	.59	3.47	< 1.74	.11	7.06	< .04	< .03	7.16

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 4 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Particulate nitrogen, suspended in water, mg/L (49570)	Phosphorus, 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)
11-03-2010	1000	4.10	.35	E .008	< .02	< .017	< .004	< .004	< .37	< .39
02-07-2011	1000	5.41	.19	E .007	.03	.019	< .004	< .004	.21	.23
05-12-2011	1030	3.76	.27	.018	.03	.026	< .004	< .004	.30	.32
09-01-2011	1030	3.97	.24	.018	.03	< .017	< .004	< .004	.27	< .29

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETN, NJ—Continued**WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER
2011**

Part 5 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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	Organic carbon, suspended sediment, total, mg/L (00689)	Organic carbon, water, filtered, mg/L (00681)
11-03-2010	1000	< .12	2.98
02-07-2011	1000	.17	4.55
05-12-2011	1030	.21	3.75
09-01-2011	1030	< .12	12.2