



Water-Data Report 2009

01401650 PIKE RUN AT BELLE MEAD, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°28'05", long 74°38'56" referenced to North American Datum of 1983, Hillsborough Township, Somerset County, NJ, Hydrologic Unit 02030105, on right bank 20 ft upstream from bridge on Township Line Road, 0.7 mi east of Belle Mead, 0.8 mi upstream from Crusier Brook, and 1.0 mi downstream from bridge on U.S. Route 206.

DRAINAGE AREA.--5.36 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1980 to current year.

REVISED RECORDS.--WDR NJ-01-1: 1994(M), 1996(M), 1997(P), 1999(P).

GAGE.--Water-stage and precipitation recorder and crest-stage gage. Datum of gage is 58.85 ft above NGVD of 1929.

REMARKS.--Records fair, except for estimated daily discharges and daily discharges below 0.5 ft³/s, which are poor. Several measurements of water temperature were made during the year. Some regulation during summer months, possibly from irrigation. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s, revised, and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 12	0200	764	7.66
Jul 29	1715	439	6.24
Aug 2	1630	571	6.86
Aug 22	0500	*1,100	*8.89
Aug 28	1400	549	6.76

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	e8.0	5.3	19	4.0	4.8	2.1	2.3	4.4	1.8	2.4	9.1	3.7
2	e4.0	4.2	7.9	3.2	5.1	2.0	3.7	9.5	2.6	3.0	118	2.9
3	e2.2	3.6	5.3	3.0	4.8	1.7	18	11	4.5	1.9	15	2.4
4	e1.3	3.3	4.3	2.6	3.1	1.6	8.9	38	22	1.5	7.4	1.9
5	e0.90	2.9	3.7	2.7	e1.9	1.6	4.6	26	31	1.2	5.2	1.7
6	e0.80	5.6	3.0	2.8	e1.8	3.2	5.8	40	22	1.1	3.7	1.4
7	e0.60	5.0	2.8	79	2.0	5.1	6.4	157	7.7	0.98	2.8	1.3
8	e0.60	4.3	2.2	20	12	4.5	3.6	21	4.9	0.92	2.3	1.3
9	e0.60	4.5	2.1	9.7	6.2	4.1	2.7	11	12	0.78	2.0	1.2
10	e0.60	3.9	5.6	7.3	4.8	3.9	2.3	7.2	7.2	0.70	2.0	1.1
11	e0.50	3.4	83	7.1	7.2	3.7	6.9	5.4	9.6	0.70	1.7	2.3
12	e0.40	3.1	269	5.8	9.8	3.4	6.4	4.5	13	7.7	1.5	3.2
13	e0.40	6.0	15	4.6	6.4	2.9	3.6	3.8	68	1.6	2.7	3.3
14	e0.40	11	9.6	4.1	4.4	2.9	3.2	3.7	44	1.0	2.5	1.9
15	e0.40	26	7.9	3.2	3.6	2.9	9.0	3.8	10	0.74	1.5	1.5
16	e0.30	23	7.8	e2.5	3.0	2.7	5.7	3.2	7.4	0.62	1.3	1.3
17	e0.30	8.5	27	2.2	2.5	2.7	3.9	4.4	5.5	0.55	1.1	1.2
18	e0.30	5.5	14	2.4	2.4	2.5	3.2	3.1	15	0.98	1.1	1.1
19	e0.30	3.9	20	2.5	5.4	2.5	2.8	2.7	12	0.57	3.3	1.0
20	e0.40	3.2	23	2.5	3.4	2.5	2.8	2.5	14	0.50	1.3	1.1
21	e0.40	2.7	15	2.2	2.3	2.4	7.9	2.5	19	7.3	9.5	0.90
22	e0.40	2.2	9.8	1.9	2.2	2.4	16	2.6	23	2.2	330	1.1
23	e0.40	2.1	6.1	2.0	2.1	2.4	6.7	2.8	9.3	23	69	0.92
24	e0.50	1.9	20	2.1	1.7	2.2	4.6	4.3	8.1	7.7	9.4	0.99
25	e1.9	13	68	1.7	1.5	2.2	3.8	6.1	5.6	2.8	5.5	0.90
26	5.5	6.7	13	1.4	1.5	2.4	3.3	2.2	4.3	1.9	3.6	0.75
27	1.9	4.5	12	1.4	1.6	4.5	3.1	1.9	3.7	7.3	2.7	4.4
28	114	3.5	11	5.1	2.4	3.6	3.1	1.9	2.7	11	117	2.3
29	20	2.9	8.1	9.7	---	7.7	2.9	9.2	2.1	101	18	1.7
30	8.7	15	6.5	3.8	---	11	2.9	3.8	2.1	17	9.0	1.3
31	6.4	---	5.5	e2.0	---	4.0	---	2.3	---	11	5.4	---
Total	183.40	190.7	707.2	204.5	109.9	103.3	160.1	401.8	394.1	221.64	764.6	52.06
Mean	5.92	6.36	22.8	6.60	3.92	3.33	5.34	13.0	13.1	7.15	24.7	1.74
Max	114	26	269	79	12	11	18	157	68	101	330	4.4
Min	0.30	1.9	2.1	1.4	1.5	1.6	2.3	1.9	1.8	0.50	1.1	0.75
Cfsm	1.10	1.19	4.26	1.23	0.73	0.62	1.00	2.42	2.45	1.33	4.60	0.32
In.	1.27	1.32	4.91	1.42	0.76	0.72	1.11	2.79	2.74	1.54	5.31	0.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	6.97	8.58	12.1	12.8	12.4	13.9	12.9	8.27	5.88	5.88	3.66	4.85
Max	41.9	24.1	35.5	43.3	27.5	38.8	46.3	26.2	31.4	26.1	24.7	56.9
(WY)	(2006)	(2007)	(1997)	(1996)	(1994)	(1994)	(2007)	(1989)	(2003)	(1984)	(2009)	(1999)
Min	0.40	0.28	0.12	0.04	1.97	2.59	2.18	1.54	0.37	0.00	0.17	0.02
(WY)	(2002)	(1999)	(1999)	(1981)	(2002)	(2006)	(1985)	(2005)	(1995)	(1999)	(1980)	(2005)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1980 - 2009	
Annual total	3,409.50		3,493.30			
Annual mean	9.32		9.57		9.03	
Highest annual mean					14.3	1984
Lowest annual mean					3.32	2002
Highest daily mean	269	Dec 12	330	Aug 22	1,590	Sep 16, 1999
Lowest daily mean	0.08	Sep 3	^a 0.30	Oct 16-19	0.00	Aug 20, 1980
Annual seven-day minimum	0.12	Aug 30	0.34	Oct 13	0.00	Aug 20, 1980
Maximum peak flow			1,100	Aug 22	^b 4,120	Sep 16, 1999
Maximum peak stage			8.89	Aug 22	^c 13.61	Sep 16, 1999
Instantaneous low flow			^d Unknown		0.00	Many days
Annual runoff (cfsm)	1.74		1.79		1.69	
Annual runoff (inches)	23.66		24.24		22.90	
10 percent exceeds	18		15		16	
50 percent exceeds	3.3		3.3		2.7	
90 percent exceeds	0.40		1.00		0.30	

^a Estimated.

^b From rating curve extended above 790 ft³/s on basis of step-backwater computation.

^c From high-water mark in gage, highest gage height since 1810.

^d Occurred during period of estimated record.

