



Water-Data Report 2007

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 Cruser 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 recorder, crest-stage gage, and concrete parking-block control. 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. Rain gage and gage-height radio telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 11	2215	449	6.29
Oct 28	1030	522	6.64
Nov 8	1515	1,040	8.69
Jan 1	1130	407	6.08
Mar 2	1015	488	6.48
Apr 12	1345	380	5.94
Apr 15	1830	*1,110	*8.95
Apr 16	0930	610	7.03
Apr 27	0745	638	7.15

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[*e*, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.9	5.1	7.0	114	2.4	6.4	4.2	5.3	1.1	0.83	0.46	0.21
2	1.8	8.2	10	19	2.4	167	5.4	28	1.0	0.72	0.39	0.19
3	1.4	5.7	5.8	10	e3.0	19	4.6	7.4	1.2	0.66	0.34	0.19
4	1.3	4.4	5.1	8.2	e2.0	11	33	5.4	11	0.63	0.28	0.18
5	27	3.9	4.7	7.6	e1.5	7.8	15	4.5	3.1	2.1	0.24	0.17
6	4.2	3.5	3.9	11	1.7	e5.0	8.3	4.1	1.9	9.8	0.23	0.16
7	3.1	3.3	3.9	7.2	1.6	e4.5	6.2	3.9	1.4	3.2	0.23	0.16
8	2.4	341	3.5	117	1.7	e3.5	5.1	3.3	1.2	1.1	0.21	0.16
9	2.0	33	3.3	18	1.6	e3.0	4.6	2.9	1.1	0.70	0.21	0.13
10	1.7	12	3.3	10	1.6	3.0	4.3	2.7	0.98	0.48	0.44	0.13
11	67	8.6	3.3	7.5	1.5	4.7	4.1	2.5	0.91	0.67	0.41	2.9
12	62	8.6	3.1	7.1	1.5	4.0	85	2.2	0.86	0.56	0.30	0.50
13	8.0	26	3.3	6.7	1.5	4.0	17	2.6	0.87	0.37	0.24	0.26
14	5.1	24	3.8	8.6	e1.5	4.6	10	2.0	0.85	0.32	0.19	0.21
15	3.8	11	3.3	8.2	e1.6	5.4	529	1.9	0.85	0.29	0.19	0.19
16	3.1	29	3.2	7.1	e1.5	15	347	3.2	0.84	0.27	0.16	0.17
17	23	32	2.8	5.2	e1.5	12	24	4.4	0.78	0.25	4.5	0.15
18	35	10	2.8	4.8	e1.6	12	13	2.1	0.71	0.35	1.9	0.13
19	8.3	7.8	2.7	5.2	e1.3	13	11	1.8	0.66	0.58	0.54	0.12
20	35	6.5	2.6	4.9	1.8	54	9.2	1.8	3.7	0.38	1.1	0.12
21	12	5.5	2.6	e4.0	4.3	23	7.9	1.8	1.9	0.32	13	0.10
22	6.8	4.9	3.2	3.9	7.1	30	6.5	1.5	4.1	0.27	6.9	0.12
23	5.2	56	75	3.9	4.7	39	6.0	1.4	1.2	8.0	2.3	0.14
24	4.1	30	12	3.8	4.4	21	5.1	1.2	0.86	2.7	1.0	0.11
25	3.4	11	18	3.6	2.1	12	4.6	1.2	0.73	0.84	0.66	0.09
26	2.9	8.5	44	e3.0	2.9	9.1	5.0	1.1	0.70	0.58	0.51	0.08
27	2.7	7.2	11	2.6	14	7.8	181	1.6	0.62	0.50	0.40	0.08
28	192	6.3	7.7	2.7	7.7	6.3	18	2.5	4.0	0.65	0.35	0.08
29	16	5.7	6.5	2.7	---	5.0	9.3	1.4	1.5	1.5	0.28	0.08
30	8.1	5.4	5.7	e2.5	---	4.6	6.7	1.2	1.1	1.1	0.24	0.08
31	6.1	---	5.2	2.5	---	4.5	---	1.0	---	0.60	0.22	---
Total	556.4	724.1	272.3	422.5	82.0	521.2	1,390.1	107.9	51.72	41.32	38.42	7.39
Mean	17.9	24.1	8.78	13.6	2.93	16.8	46.3	3.48	1.72	1.33	1.24	0.25
Max	192	341	75	117	14	167	529	28	11	9.8	13	2.9
Min	1.3	3.3	2.6	2.5	1.3	3.0	4.1	1.0	0.62	0.25	0.16	0.08
Cfsm	3.35	4.50	1.64	2.54	0.55	3.14	8.64	0.65	0.32	0.25	0.23	0.05
In.	3.86	5.03	1.89	2.93	0.57	3.62	9.65	0.75	0.36	0.29	0.27	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	7.18	8.90	11.6	13.2	12.3	14.1	13.5	8.12	5.74	5.94	3.03	4.76
Max	41.9	24.1	35.5	43.3	27.5	38.8	46.3	26.2	31.4	26.1	9.94	56.9
(WY)	(2006)	(2007)	(1997)	(1996)	(1994)	(1994)	(2007)	(1989)	(2003)	(1984)	(1990)	(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 2006	Water Year 2007	Water Years 1980 - 2007
Annual total	3,397.75	4,215.35	
Annual mean	9.31	11.5	9.06
Highest annual mean			14.3
Lowest annual mean			3.32
Highest daily mean	341 Nov 8	529 Apr 15	1,590 Sep 16, 1999
Lowest daily mean	0.19 Aug 24	0.08 Sep 26	0.00 Aug 20, 1980
Annual seven-day minimum	0.20 Aug 19	0.09 Sep 24	0.00 Aug 20, 1980
Maximum peak flow		1,110 Apr 15	^a 4,120 Sep 16, 1999
Maximum peak stage		8.95 Apr 15	^b 13.61 Sep 16, 1999
Instantaneous low flow		0.08 Sep 25	0.00 Aug 20, 1980
Annual runoff (cfsm)	1.74	2.15	1.69
Annual runoff (inches)	23.58	29.26	22.96
10 percent exceeds	19	18	16
50 percent exceeds	3.3	3.2	2.7
90 percent exceeds	1.2	0.24	0.29

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

^b From high-water mark in gage, maximum stage since at least 1810.

