01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°42′30″, long 74°38′10″ referenced to North American Datum of 1983, Far Hills Borough, Somerset County, NJ, Hydrologic Unit 02030105, on left bank 75 ft upstream from Ravine Lake Dam, 1.3 mi southeast of Peapack, 1.6 mi north of Far Hills, and 2.3 mi upstream from Peapack Brook.

DRAINAGE AREA.--26.2 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1921 to September 1975, October 1977 to current year. Operated as crest-stage gage, water years 1976-77. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922-23, 1924-25(M), 1935(M). WSP 1902: 1954.

GAGE.--Water-stage recorder and crest-stage gage above masonry dam. Datum of gage is 224.49 ft above NGVD of 1929 (New Jersey Geological Survey benchmark). Prior to June 18, 1925, non-recording gage in stilling box at left end of dam at same datum.

REMARKS.--Records fair. Records formerly included diversion by small turbine at dam (average discharge, 3.0 ft^3/s) which returned to river 1,000 ft downstream from Ravine Lake Dam. Turbine is no longer operated. Flow regulated occasionally by operation of waste gate in dam. 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 700 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 12	0300	1,360	4.10
May 7	0600	1,010	3.73
Jul 2	0730	1,350	4.09
Aug 2	1515	*2,030	*4.70

01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ—Continued

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	16	28	77	62	33	32	34	28	26	41	63	17
2	14	26	38	61	37	34	70	35	27	391	378	16
3	12	24	30	58	40	28	140	32	44	121	134	16
4	12	23	26	54	35	29	96	38	144	88	80	15
5	14	23	26	54	27	29	47	45	64	65	57	15
6	15	32	23	52	30	33	49	61	77	49	55	14
7	13	35	23	123	31	44	52	285	44	46	50	13
8	14	29	20	88	71	49	40	93	36	52	43	13
9	14	27	21	58	63	49	36	96	127	44	47	14
10	14	25	48	51	49	42	36	64	57	42	47	13
11	13	25	157	52	63	37	41	50	61	43	39	15
12	13	25	632	46	79	34	40	46	69	78	35	33
13	14	29	108	44	56	31	36	43	58	36	66	30
14	14	89	79	42	44	30	36	44	91	30	66	19
15	14	122	68	39	40	30	54	52	58	27	44	16
16	14	110	79	29	37	29	39	44	59	21	40	16
17	14	41	105	35	34	28	36	68	45	22	35	15
18	14	32	87	46	34	27	36	45	205	58	29	14
19	14	26	81	46	53	30	34	40	109	26	18	13
20	14	24	72	41	44	34	35	37	99	22	17	12
21	15	22	65	37	34	29	60	36	111	30	24	13
22	14	21	52	35	34	28	58	35	78	30	135	13
23	14	19	46	36	33	27	42	33	59	26	64	14
24	15	20	109	37	28	26	36	33	55	24	32	16
25	20	56	210	31	28	26	35	34	50	23	23	15
26	96	37	85	30	30	28	33	31	50	23	24	14
27	29	27	77	31	30	43	32	33	48	30	41	37
28	179	24	148	46	37	34	31	34	41	25	40	26
29	99	22	106	102	---	40	28	57	36	34	37	19
30	48	25	83	39	---	62	27	39	37	55	25	16
31	33	---	75	33	---	37	---	31	---	47	19	---
Total	838	1,068	2,856	1,538	1,154	1,059	1,369	1,642	2,065	1,649	1,807	512
Mean	27.0	35.6	92.1	49.6	41.2	34.2	45.6	53.0	68.8	53.2	58.3	17.1
Max	179	122	632	123	79	62	140	285	205	391	378	37
Min	12	19	20	29	27	26	27	28	26	21	17	12
Cfsm	1.03	1.36	3.52	1.89	1.57	1.30	1.74	2.02	2.63	2.03	2.22	0.65
In.	1.19	1.52	4.06	2.18	1.64	1.50	1.94	2.33	2.93	2.34	2.57	0.73

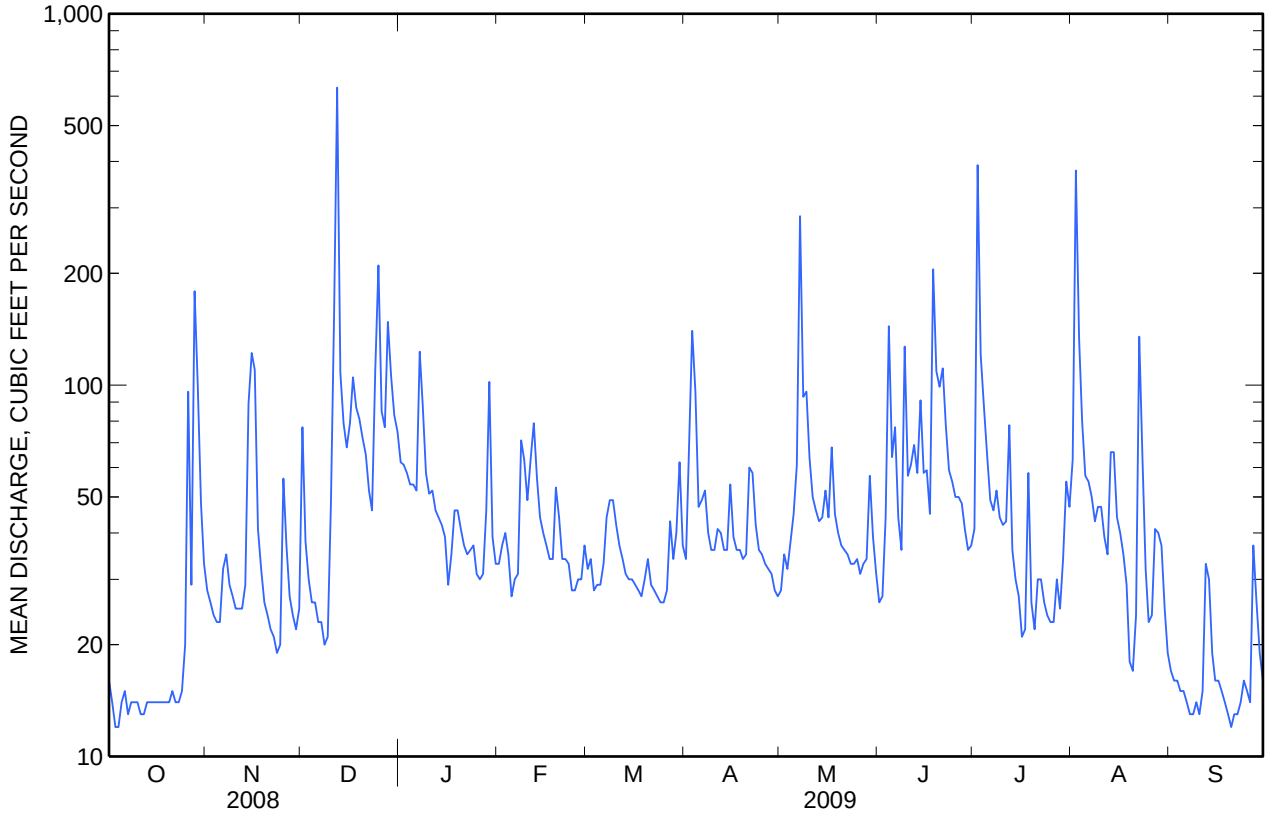
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	27.8	43.2	51.4	55.2	59.1	80.7	81.1	57.9	39.6	30.6	27.7	27.0
Max	120	170	146	182	134	207	226	178	190	132	153	134
(WY)	(1997)	(1928)	(2004)	(1979)	(2008)	(1936)	(1983)	(1989)	(1972)	(1984)	(1942)	(1971)
Min	6.29	8.15	7.93	6.76	11.6	22.8	26.8	20.0	10.5	4.41	4.55	3.61
(WY)	(1954)	(2002)	(1999)	(1981)	(2002)	(1981)	(1985)	(1965)	(1965)	(1966)	(1965)	(1964)

01398500 NORTH BRANCH RARITAN RIVER NEAR FAR HILLS, NJ—Continued

SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1922 - 2009	
Annual total	20,919.5		17,557			
Annual mean	57.2		48.1		48.4	
Highest annual mean					89.7	1928
Lowest annual mean					17.7	1965
Highest daily mean	705	Feb 13	632	Dec 12	1,770	Oct 19, 1996
Lowest daily mean	7.0	Sep 5	12	Many days	0.20	Oct 22, 1953
Annual seven-day minimum	7.5	Aug 23	13	Oct 2	0.20	Oct 22, 1953
Maximum peak flow			2,030	Aug 2	[a]6,390	Aug 28, 1971
Maximum peak stage			4.70	Aug 2	7.28	Aug 28, 1971
Instantaneous low flow			12	Many days	[b]0.00	Jan 1, 2006
Annual runoff (cfsm)	2.18		1.84		1.85	
Annual runoff (inches)	29.70		24.93		25.09	
10 percent exceeds	119		86		95	
50 percent exceeds	35		36		33	
90 percent exceeds	12		15		10	

[a] From rating curve extended above 2,000 ft³/s on basis of flow over dam computation of peak flow.

[b] Several times when lake was filling.