

01405400 MANALAPAN BROOK AT SPOTSWOOD, NJ

LOCATION.--Lat 40°23'22", long 74°23'26", Middlesex County, Hydrologic Unit 02030105, on right bank of DeVoe Lake Dam in Spotswood, 0.1 mi upstream from Cedar Brook, and 0.6 mi upstream from confluence with Matchaponix Brook.

DRAINAGE AREA.--40.7 mi².

PERIOD OF RECORD.--January 1957 to current year.

REVISED RECORDS.--WSP 1722: 1957-60, WDR-NJ-2005-1:1989 (M).

GAGE.--Water-stage recorder above concrete dam. Datum of gage is NGVD of 1929 (levels by Duhermal Water System). January 1957 to September 1966 at datum 17.72 ft higher.

REMARKS.--Records fair. Discharge given herein includes flow through sluice gate when open. Gate open many days throughout the year. Some regulation by Lake Manalapan, Helmetta Pond, and DeVoe Lake. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

REVISIONS.--The maximum gage height for water year 1989 has been revised to 19.97 ft, Sept. 20, 1989, discharge 1,700 ft³/s This figure supersedes the gage height published in the annual data reports for 1989 to 2004.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	37	140	55	50	69	90	219	30	55	32	22
2	86	37	170	54	50	70	160	245	30	78	30	21
3	67	36	103	51	50	66	260	110	31	103	30	19
4	55	48	66	57	56	60	250	73	78	58	30	18
5	48	164	69	64	65	60	107	62	70	43	29	18
6	42	144	65	130	71	60	88	56	47	44	27	18
7	39	81	88	135	74	66	73	54	47	60	29	18
8	37	59	170	106	77	108	183	54	39	140	76	18
9	37	51	134	124	83	107	248	50	32	140	62	18
10	36	45	179	92	115	78	130	48	30	111	48	17
11	32	43	238	76	140	71	86	48	26	61	40	16
12	32	52	164	103	99	81	70	45	25	47	36	16
13	32	164	102	106	78	77	64	41	25	52	31	16
14	36	200	82	142	78	65	60	38	24	87	28	16
15	47	103	69	235	219	60	56	37	22	64	36	17
16	33	64	63	146	260	60	54	36	21	48	32	22
17	39	50	60	91	149	56	54	35	24	500	29	22
18	34	44	60	70	102	54	53	34	21	1,010	27	19
19	54	43	60	55	76	53	52	31	21	190	29	18
20	74	40	55	58	65	53	52	52	21	93	31	18
21	60	45	48	54	67	61	49	87	21	63	30	18
22	73	43	48	48	77	59	48	66	21	52	27	17
23	67	40	65	50	95	66	50	54	21	44	27	16
24	54	40	133	53	81	139	54	50	21	37	24	18
25	46	50	100	55	72	121	54	52	20	35	22	16
26	43	50	70	57	70	82	49	67	18	34	21	17
27	40	45	60	55	65	67	53	64	65	32	21	18
28	37	131	52	50	65	130	59	52	223	33	21	18
29	37	273	55	51	---	340	51	44	159	32	23	18
30	40	180	54	52	---	380	55	37	71	32	23	18
31	39	---	54	54	---	100	---	32	---	32	23	---
TOTAL	1,656	2,402	2,876	2,529	2,549	2,919	2,712	1,973	1,304	3,410	974	541
MEAN	53.4	80.1	92.8	81.6	91.0	94.2	90.4	63.6	43.5	110	31.4	18.0
MAX	260	273	238	235	260	380	260	245	223	1,010	76	22
MIN	32	36	48	48	50	53	48	31	18	32	21	16
CFSM	1.31	1.97	2.28	2.00	2.24	2.31	2.22	1.56	1.07	2.70	0.77	0.44
IN.	1.51	2.20	2.63	2.31	2.33	2.67	2.48	1.80	1.19	3.12	0.89	0.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2005, BY WATER YEAR (WY)

	MEAN	40.2	56.7	74.0	77.7	77.0	91.1	83.9	65.7	47.9	43.4	41.7	40.8
MAX	95.2	154	156	186	139	164	154	148	150	141	128	138	
(WY)	(1990)	(1978)	(1984)	(1978)	(1979)	(1958)	(1983)	(1984)	(2003)	(1975)	(1990)	(1989)	
MIN	13.7	14.2	21.4	21.1	23.6	36.3	31.1	26.5	14.8	4.40	5.56	11.6	
(WY)	(1983)	(2002)	(1999)	(1981)	(2002)	(2000)	(1985)	(1977)	(1999)	(1966)	(1966)	(1965)	

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1957 - 2005	
ANNUAL TOTAL	24,792		25,845		61.8	
ANNUAL MEAN	67.7		70.8		101	
HIGHEST ANNUAL MEAN					26.5	
LOWEST ANNUAL MEAN					1,390	
HIGHEST DAILY MEAN	760	Sep 29	1,010	Jul 18	26.5	May 30, 1968
LOWEST DAILY MEAN	12	Sep 21	16	Sep 11	0.00	Jun 16, 1957
ANNUAL SEVEN-DAY MINIMUM	15	Sep 20	17	Sep 9	0.64	Sep 24, 1999
MAXIMUM PEAK FLOW			2,550b	Jul 18	2,550b	Jul 18, 2005
MAXIMUM PEAK STAGE			20.42	Jul 18	20.42	Jul 18, 2005
INSTANTANEOUS LOW FLOW			0.15	Jul 7	0.00a	Jun 16, 1957
ANNUAL RUNOFF (CFSM)	1.66		1.74		1.52	
ANNUAL RUNOFF (INCHES)	22.66		23.62		20.65	
10 PERCENT EXCEEDS	130		139		117	
50 PERCENT EXCEEDS	47		54		44	
90 PERCENT EXCEEDS	22		21		18	

a Zero flow recorded on June 16, 1957 and many days since

b Flow through sluice gates added

r Revised

