01097300 NASHOBA BROOK NEAR ACTON, MA

CONCORD RIVER BASIN, ASSABET RIVER SUBBASIN

LOCATION.--Lat 42°30′45″, long 71°24′17″ referenced to North American Datum of 1927, Middlesex County, Hydrologic Unit 01070005, on right bank 500 ft downstream from dam at North Acton, 2.2 mi northeast of Acton, and 5 mi upstream from mouth. Prior to Jan. 8, 1997, lat. 42°30′39″, long 71°24′25″, on right bank 1,500 ft downstream from dam at North Acton.

DRAINAGE AREA.--12.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: July 1963 to current year.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 155 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 8, 1997, at site 1,000 ft downstream, at same datum.

COOPERATION.--Massachusetts Department of Environmental Protection, Office of Watershed Management; Massachusetts Department of Conservation and Recreation, Water Resources Commission.

REMARKS.--Records poor (backwater from beaver dam). Occasional regulation since 1967 by pond upstream.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	20	7.4	37	25	23	25	102	40	31	12	1.7	3.2
2	11	6.6	50	27	23	26	111	40	29	13	3.1	3.2
3	14	4.4	41	27	22	e22	189	34	26	9.2	4.8	2.5
4	9.5	1.8	30	37	22	e21	161	30	23	7.1	5.2	1.8
5	6.6	8.2	26	44	23	e20	101	27	21	6.2	4.5	1.5
6	5.4	18	23	34	23	22	77	24	18	6.5	3.4	1.2
7	4.5	12	23	32	23	23	64	28	17	9.1	2.3	1.1
8	4.6	8.4	40	33	23	29	61	51	17	9.6	1.7	1.1
9	4.8	6.5	49	29	23	e28	58	40	35	53	1.5	1.3
10	4.5	5.0	39	29	e24	38	49	31	35	56	1.3	1.2
11	5.7	4.1	58	28	e25	29	43	27	23	25	1.4	1.1
12	4.2	3.4	62	27	e27	27	38	24	19	14	1.4	1.2
13	3.2	5.7	43	31	e29	27	37	21	17	9.8	1.3	1.1
14	3.7	6.7	34	67	34	29	37	20	15	7.8	1.4	1.2
15	4.1	8.1	28	137	43	29	33	20	14	6.8	1.4	1.4
16	13	11	24	84	73	29	31	22	14	6.1	1.4	1.4
17	19	12	25	54	91	30	30	23	17	5.7	1.7	1.2
18	13	12	22	42	73	30	29	21	19	5.5	1.7	1.2
19	11	11	21	33	49	31	27	21	16	5.5	1.6	1.2
20	12	9.0	21	29	40	33	26	20	13	5.4	1.4	1.2
21	10	8.2	19	28	34	37	27	19	12	5.1	1.3	1.1
22	8.3	8.6	18	26	33	38	27	22	10	4.4	1.1	1.1
23	7.6	10	20	26	32	42	26	24	9.8	3.9	1.0	1.1
24	7.5	8.9	57	26	29	40	51	34	8.6	3.2	0.93	0.98
25	7.3	18	55	27	29	40	64	80	7.6	2.8	0.90	0.88
26	6.7	21	35	27	27	43	43	128	6.6	2.4	0.87	0.98
27	5.9	16	27	26	29	44	34	114	9.4	1.9	0.80	1.0
28	5.5	16	26	26	e25	72	40	67	8.1	1.7	0.79	1.1
29	6.0	52	24	26	---	234	36	47	7.8	1.8	0.81	1.0
30	5.6	51	24	25	---	220	31	38	11	1.7	1.2	1.1
31	6.9	---	23	24	---	133	---	34	---	1.5	1.7	---
Total	251.1	371.0	1,024	1,136	951	1,491	1,683	1,171	509.9	303.7	55.60	40.64
Mean	8.10	12.4	33.0	36.6	34.0	48.1	56.1	37.8	17.0	9.80	1.79	1.35
Max	20	52	62	137	91	234	189	128	35	56	5.2	3.2
Min	3.2	1.8	18	24	22	20	26	19	6.6	1.5	0.79	0.88
Cfsm	0.63	0.97	2.58	2.86	2.65	3.76	4.38	2.95	1.33	0.77	0.14	0.11
In.	0.73	1.08	2.98	3.30	2.76	4.33	4.89	3.40	1.48	0.88	0.16	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2005, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	9.61	16.8	22.8	24.7	27.8	44.8	42.1	24.4	15.6	5.92	4.27	4.15
Max	64.0	47.3	55.2	101	88.7	96.9	93.6	57.0	72.5	19.2	19.2	15.7
(WY)	(1997)	(1976)	(1987)	(1979)	(1976)	(1977)	(1987)	(1978)	(1982)	(1982)	(1991)	(1991)
Min	0.60	0.93	2.34	2.58	6.30	15.1	12.7	8.59	1.37	0.52	0.08	0.27
(WY)	(1998)	(2002)	(1966)	(1966)	(1980)	(1989)	(1966)	(1965)	(1999)	(1999)	(1999)	(1965)

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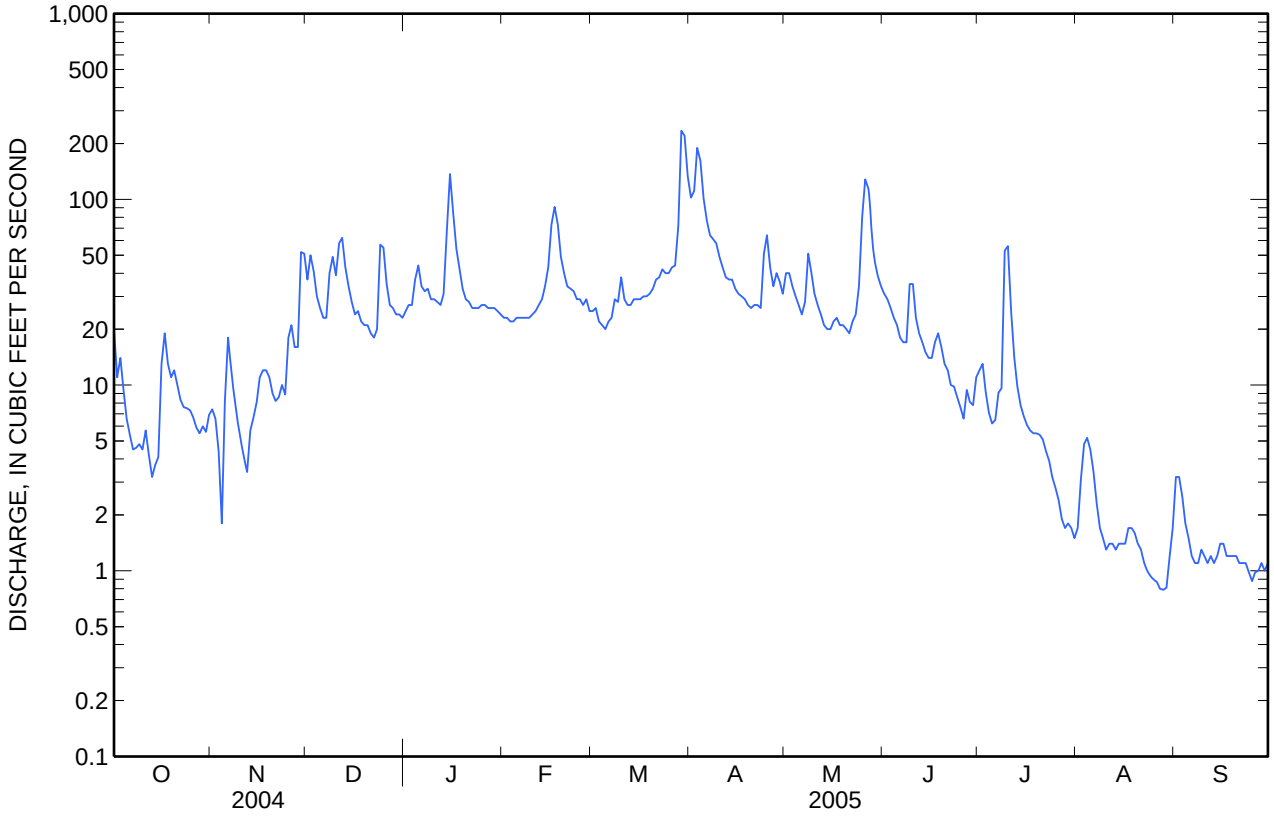
SUMMARY STATISTICS

	Calendar Year 2004		Water Year 2005		Water Years 1963 - 2005	
Annual total	6,556.29		8,987.94			
Annual mean	17.9		24.6		20.2	
Highest annual mean					36.1	1978
Lowest annual mean					7.09	1965
Highest daily mean	259	Apr 2	234	Mar 29	560	Jan 26, 1979
Lowest daily mean	0.34	Aug 8	0.79	Aug 28	0.01	Sep 8, 1995
Annual seven-day minimum	0.44	Aug 6	0.87	Aug 23	0.02	Sep 3, 1995
Maximum peak flow			326	Mar 29	679	Jan 26, 1979
Maximum peak stage			7.09	Mar 29	7.10	Mar 23, 2001
Instantaneous low flow			0.72	Aug 28	0.01	Sep 4, 1995[a]
Annual runoff (cfsm)	1.40		1.92		1.58	
Annual runoff (inches)	19.05		26.12		21.45	
10 percent exceeds	40		49		49	
50 percent exceeds	9.4		21		11	
90 percent exceeds	1.7		1.4		1.3	

[a] Also occurred on Sept. 7, 8, 12, and 13, 1995, and Sept. 3, 1999.