

POTOWOMUT RIVER BASIN

01117000 HUNT RIVER NEAR EAST GREENWICH, RI

LOCATION.--Lat 41°38'28", long 71°26'45", Washington County, Hydrologic Unit 01090004, on right bank 45 ft upstream from Old Forge Dam in North Kingstown, 1.5 mi south of East Greenwich, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--22.9 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: August 1940 to current year. Prior to October 1977, published as "Potowomut River." Water-quality records: Water years 1977-81.

REVISED RECORDS.--WSP 1621: 1957-58; 1995.

GAGE.--Water-stage recorder. Datum of gage is 5.42 ft above sea level.

REMARKS.--Records good. Flow affected by diversions for supply of East Greenwich, North Kingstown, Warwick, and Quonset Point (formerly U.S. Naval establishments).

AVERAGE DISCHARGE.--62 years, 46.9 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft<sup>3</sup>/s, June 6, 1982, gage height, 3.73 ft, from rating curve extended above 440 ft<sup>3</sup>/s; maximum gage height of 6.78 ft, Aug. 31, 1954 (backwater from hurricane tidal wave); no flow at times in water years 1948, 1960, 1971, 1975-77, 1983, 1986-87, caused by closing of gate at Old Forge Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1915, about 8.5 ft Sept. 21, 1938 (backwater from hurricane tidal wave).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 836 ft<sup>3</sup>/s, Mar. 22, gage height, 3.43 ft; minimum, 6.0 ft<sup>3</sup>/s, Oct. 30, Sept. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MEAN VALUES

Table with columns for DAY, OCT, NOV, DEC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP and rows of daily discharge data. Includes summary statistics for TOTAL, MEAN, MAX, and MIN for each month and overall.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2001, BY WATER YEAR (WY)

Table with columns for MEAN, MAX (WY), and MIN (WY) and rows for monthly statistics from 1940 to 2001.

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1940 - 2001

Table with columns for 2000 CALENDAR YEAR, 2001 WATER YEAR, and WATER YEARS 1940 - 2001 and rows of summary statistics such as ANNUAL TOTAL, HIGHEST ANNUAL MEAN, and 10 PERCENT EXCEEDS.



PAWCATUCK RIVER BASIN

011173545 QUEEN RIVER, 1,400 FT UPSTREAM OF WILLIAMS REYNOLD ROAD, AT EXETER, RI

LOCATION.--Lat 41°33'57", long 71°32'51", Washington County, Hydrologic Unit 01090005, on left bank 1,400 ft upstream of William Reynolds Road, 0.7 mi upstream from Fisherville Brook, and 0.9 mi south of Exeter.

DRAINAGE AREA.--3.69 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1999 to December 2001 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 155 ft above sea level, from topographic map.

REMARKS.--Records good except those greater than 100 ft<sup>3</sup>/s and those for estimated daily discharge, which are poor. Flow occasionally affected by upstream withdrawals, October to November 2000 and April to November 2001.

AVERAGE DISCHARGE.--2 years, 8.36 ft<sup>3</sup>/s, 30.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 277 ft<sup>3</sup>/s, Mar. 22, 2001, gage height, 3.55 ft, minimum, 0.22 ft<sup>3</sup>/s, Sept. 20, 2001.

EXTREMES FOR THE PERIOD OCTOBER 2000 TO DECEMBER 2001.--Maximum discharge, 277 ft<sup>3</sup>/s, Mar. 22, gage height, 3.55 ft, minimum, 0.22 ft<sup>3</sup>/s, Sept. 20.

REVISIONS. --Maximum discharge, 107 ft<sup>3</sup>/s, Apr. 22, 2000, gage height 2.99 ft, supersedes that published in 2000 Annual Water Data Report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.2	3.9	6.5	11	e8.9	38	6.4	6.3	4.9	1.8	0.97
2	1.6	1.4	3.2	6.2	9.0	8.3	32	6.5	22	5.3	1.6	.89
3	1.5	1.2	2.9	6.0	7.7	7.8	28	6.1	19	4.5	1.4	.50
4	1.3	1.6	e2.8	5.9	6.5	7.4	25	5.3	e12	4.7	2.3	.54
5	1.4	.86	e2.7	5.7	7.8	10	23	5.7	8.7	5.8	3.2	.43
6	1.7	.70	2.6	6.3	12	13	23	5.4	7.5	4.8	2.3	.57
7	1.6	.75	2.5	6.0	9.5	10	24	4.7	6.7	3.9	1.3	.57
8	1.4	.84	2.5	5.6	7.9	8.4	26	4.5	5.8	3.4	1.5	.39
9	1.3	.87	2.4	5.8	7.8	8.4	25	4.8	5.0	4.2	1.7	.41
10	1.2	8.9	2.3	5.4	21	9.2	23	4.2	5.2	3.6	.88	.47
11	1.2	7.5	2.7	5.1	e14	10	19	4.3	5.8	4.7	1.6	.40
12	1.1	3.4	2.9	e4.9	9.6	11	23	3.7	50	5.8	2.0	.38
13	.64	2.5	2.6	4.7	8.9	33	24	4.0	18	4.4	6.4	.36
14	1.1	3.3	5.7	4.6	8.8	25	19	3.7	12	3.7	3.6	.40
15	1.0	5.8	5.4	6.8	10	21	17	3.7	9.5	3.3	2.6	.37
16	.95	3.3	3.9	7.8	10	21	15	3.6	7.9	2.8	2.1	.34
17	1.0	2.6	29	6.4	12	21	14	3.2	28	2.5	1.8	.33
18	1.1	2.3	33	5.6	e9.4	20	15	3.7	51	3.2	1.6	.29
19	1.3	2.1	16	8.9	8.1	18	13	3.7	20	3.0	.96	.26
20	1.3	2.0	17	12	7.9	16	12	3.4	15	2.4	4.0	.25
21	1.2	1.8	13	8.0	8.2	19	12	3.1	12	1.7	5.3	1.6
22	1.2	1.7	11	6.3	7.4	159	11	5.6	11	2.2	3.2	16
23	1.1	1.6	10	5.7	7.3	68	10	10	14	1.9	2.3	4.8
24	1.1	1.6	9.1	5.5	6.8	44	9.9	33	12	1.2	2.1	2.4
25	1.1	1.5	8.4	5.3	12	36	9.3	28	10	1.7	1.7	2.1
26	.99	9.1	7.7	5.1	21	31	8.8	14	8.3	8.1	1.0	1.8
27	1.0	13	7.5	5.0	13	29	8.3	17	6.9	6.8	1.5	1.4
28	1.1	5.6	7.3	4.8	10	27	8.0	13	6.1	3.6	1.6	1.3
29	.79	4.0	6.9	4.6	---	24	7.4	10	5.3	2.8	1.3	1.2
30	.81	4.0	7.2	13	---	85	6.8	8.1	5.3	2.2	1.0	1.2
31	1.0	---	7.0	17	---	68	---	6.9	---	1.4	.62	---
TOTAL	36.68	97.02	241.1	206.5	284.6	877.4	529.5	239.3	406.3	114.5	66.26	42.92
MEAN	1.18	3.23	7.78	6.66	10.2	28.3	17.6	7.72	13.5	3.69	2.14	1.43
MAX	1.7	13	33	17	21	159	38	33	51	8.1	6.4	16
MIN	.64	.70	2.3	4.6	6.5	7.4	6.8	3.1	5.0	1.2	.62	.25
MED	1.1	2.0	5.7	5.8	9.2	20	16	5.3	9.8	3.6	1.7	.52
AC-FT	73	192	478	410	565	1740	1050	475	806	227	131	85
CFSM	.32	.88	2.11	1.81	2.75	7.67	4.78	2.09	3.67	1.00	.58	.39
IN.	.37	.98	2.43	2.08	2.87	8.85	5.34	2.41	4.10	1.15	.67	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2001, BY WATER YEAR (WY)

	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
MEAN	2.83	4.72	6.87	7.04	10.2	22.3	18.2	9.62	11.4	2.92	2.47	1.98
MAX	4.47	6.20	7.78	7.41	10.2	28.3	18.8	11.5	13.5	3.69	2.80	2.52
(WY)	2000	2000	2001	2000	2000	2001	2000	2000	2001	2001	2000	2000
MIN	1.18	3.23	5.97	6.66	10.2	16.4	17.6	7.72	9.16	2.14	2.14	1.43
(WY)	2001	2001	2000	2001	2001	2000	2001	2001	2000	2000	2001	2001

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 2000 - 2001
ANNUAL TOTAL	2833.86	3142.08	
ANNUAL MEAN	7.74	8.61	8.36
HIGHEST ANNUAL MEAN			8.61
LOWEST ANNUAL MEAN			8.11
HIGHEST DAILY MEAN	83	Apr 22	159
LOWEST DAILY MEAN	.64	Oct 13	.25
ANNUAL SEVEN-DAY MINIMUM	.97	Oct 25	.32
MAXIMUM PEAK FLOW		277	277
MAXIMUM PEAK STAGE		3.55	3.55
INSTANTANEOUS LOW FLOW		.22	.22
ANNUAL RUNOFF (AC-FT)	5620	6230	6060
ANNUAL RUNOFF (CFSM)	2.10	2.33	2.27
ANNUAL RUNOFF (INCHES)	28.57	31.68	30.78
10 PERCENT EXCEEDS	16	21	18
50 PERCENT EXCEEDS	5.1	5.3	5.3
90 PERCENT EXCEEDS	1.3	1.0	1.3

e Estimated

PAWCATUCK RIVER BASIN

011173545 QUEEN RIVER, 1,400 FT UPSTREAM OF WILLIAMS REYNOLD ROAD, AT EXETER, RI--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	0.85	1.1	---	---	---	---	---	---	---	---	---
2	2.4	.85	1.0	---	---	---	---	---	---	---	---	---
3	1.7	.84	.93	---	---	---	---	---	---	---	---	---
4	1.4	.76	.91	---	---	---	---	---	---	---	---	---
5	1.3	.83	e.92	---	---	---	---	---	---	---	---	---
6	1.5	.79	---	---	---	---	---	---	---	---	---	---
7	1.3	.78	---	---	---	---	---	---	---	---	---	---
8	1.1	.66	---	---	---	---	---	---	---	---	---	---
9	.98	.31	---	---	---	---	---	---	---	---	---	---
10	1.0	.40	---	---	---	---	---	---	---	---	---	---
11	1.1	.66	---	---	---	---	---	---	---	---	---	---
12	.87	.61	---	---	---	---	---	---	---	---	---	---
13	.82	e.39	---	---	---	---	---	---	---	---	---	---
14	.96	.39	---	---	---	---	---	---	---	---	---	---
15	.98	.63	---	---	---	---	---	---	---	---	---	---
16	.95	.61	---	---	---	---	---	---	---	---	---	---
17	1.5	.56	---	---	---	---	---	---	---	---	---	---
18	1.3	.59	---	---	---	---	---	---	---	---	---	---
19	1.2	.64	---	---	---	---	---	---	---	---	---	---
20	1.2	.72	---	---	---	---	---	---	---	---	---	---
21	1.2	.65	---	---	---	---	---	---	---	---	---	---
22	.97	.65	---	---	---	---	---	---	---	---	---	---
23	1.0	.64	---	---	---	---	---	---	---	---	---	---
24	1.1	.67	---	---	---	---	---	---	---	---	---	---
25	1.2	.82	---	---	---	---	---	---	---	---	---	---
26	.93	1.7	---	---	---	---	---	---	---	---	---	---
27	.84	1.4	---	---	---	---	---	---	---	---	---	---
28	.88	1.2	---	---	---	---	---	---	---	---	---	---
29	.89	1.1	---	---	---	---	---	---	---	---	---	---
30	.74	1.1	---	---	---	---	---	---	---	---	---	---
31	.73	---	---	---	---	---	---	---	---	---	---	---
TOTAL	36.84	22.80	---	---	---	---	---	---	---	---	---	---
MEAN	1.19	.76	---	---	---	---	---	---	---	---	---	---
MAX	2.8	1.7	---	---	---	---	---	---	---	---	---	---
MIN	.73	.31	---	---	---	---	---	---	---	---	---	---
MED	1.1	.67	---	---	---	---	---	---	---	---	---	---
AC-FT	.73	.45	---	---	---	---	---	---	---	---	---	---
CFSM	.32	.21	---	---	---	---	---	---	---	---	---	---
IN.	.37	.23	---	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
MEAN	2.28	3.42	7.01	7.04	10.2	22.3	18.2	9.62	11.4	2.92	2.47	1.98
MAX	4.47	6.20	8.04	7.41	10.2	28.3	18.8	11.5	13.5	3.69	2.80	2.52
(WY)	2000	2000	2001	2000	2000	2001	2000	2000	2001	2001	2000	2000
MIN	1.18	.76	5.97	6.66	10.2	16.4	17.6	7.72	9.16	2.14	2.14	1.43
(WY)	2001	2002	2000	2001	2001	2000	2001	2001	2000	2000	2001	2001

SUMMARY STATISTICS

WATER YEARS 2000 - 2002

ANNUAL MEAN	8.37
HIGHEST ANNUAL MEAN	8.64
LOWEST ANNUAL MEAN	8.11
HIGHEST DAILY MEAN	159
LOWEST DAILY MEAN	.25
ANNUAL SEVEN-DAY MINIMUM	.32
ANNUAL RUNOFF (AC-FT)	6070
ANNUAL RUNOFF (CFSM)	2.27
ANNUAL RUNOFF (INCHES)	30.83
10 PERCENT EXCEEDS	17
50 PERCENT EXCEEDS	4.9
90 PERCENT EXCEEDS	1.0

e Estimated

PAWCATUCK RIVER BASIN

01117370 QUEEN RIVER AT LIBERTY ROAD AT LIBERTY, RI

LOCATION.--Lat 41°32'20", long 71°34'09", Washington County, Hydrologic Unit 01090005, on left bank 2ft downstream from bridge on Liberty Road, at Liberty, RI.

DRAINAGE AREA.--19.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: October 1998 to current year..

GAGE.--Water-stage recorder. Datum of gage is 120 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharge and those for discharges greater than 500 ft<sup>3</sup>/s, which are poor.

AVERAGE DISCHARGE.--3 years, 35.9 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 779 ft<sup>3</sup>/s, Mar. 22, 2001, gage height, 5.55 ft<sup>3</sup>/s; mininum, 1.6 ft<sup>3</sup>/s, Aug. 4, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 779 ft<sup>3</sup>/s, Mar. 22, gage height, 5.55 ft; minimum, 3.1 ft<sup>3</sup>/s, Sept. 19, 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	9.5	19	29	53	46	221	36	30	29	13	8.0
2	8.2	8.8	16	27	44	43	156	36	61	30	12	7.5
3	7.4	7.7	14	25	38	40	134	34	89	28	11	6.8
4	6.9	7.2	13	25	33	38	121	32	56	28	14	5.9
5	6.6	7.6	12	24	34	46	111	31	43	32	19	5.8
6	8.9	5.9	11	26	52	64	106	29	37	29	15	5.3
7	8.8	5.3	11	26	46	57	113	29	33	26	12	5.4
8	8.5	6.1	10	24	39	47	114	27	30	24	11	5.1
9	7.6	6.3	9.5	25	36	45	118	27	27	26	10	4.5
10	7.1	25	9.4	23	61	48	110	26	26	24	9.6	4.3
11	6.9	49	11	21	63	50	97	25	26	26	11	4.0
12	6.9	27	13	20	e40	52	101	24	141	33	13	3.7
13	6.4	18	12	20	42	101	112	23	99	28	34	3.7
14	6.2	16	19	19	40	123	95	22	55	24	27	4.0
15	6.5	28	26	25	45	101	83	22	44	22	18	4.8
16	8.1	23	20	32	46	95	76	22	38	20	15	4.1
17	6.8	17	69	28	51	92	71	21	56	19	13	4.2
18	7.0	13	122	24	45	90	71	22	192	21	12	3.6
19	9.2	11	78	28	39	82	66	21	115	20	10	3.3
20	9.7	10	69	48	39	75	61	20	71	18	19	3.2
21	9.3	9.9	59	38	39	76	58	19	57	16	33	12
22	8.2	9.1	50	30	36	355	57	27	52	15	22	58
23	7.6	7.9	45	26	36	477	55	42	56	15	16	35
24	7.4	7.3	40	25	34	234	52	95	52	14	14	18
25	6.7	6.6	37	23	39	168	48	110	49	13	12	14
26	6.1	20	34	22	92	141	46	71	43	34	10	14
27	5.9	58	33	22	69	132	43	70	38	42	10	12
28	5.1	34	32	21	53	138	42	60	34	24	10	9.9
29	4.7	22	29	20	---	117	39	49	31	19	9.7	8.7
30	6.6	19	30	30	---	191	38	40	31	16	8.9	8.0
31	8.9	---	32	66	---	399	---	33	---	13	8.0	---
TOTAL	228.6	495.2	984.9	842	1284	3763	2615	1145	1712	728	452.2	286.8
MEAN	7.37	16.5	31.8	27.2	45.9	121	87.2	36.9	57.1	23.5	14.6	9.56
MAX	9.7	58	122	66	92	477	221	110	192	42	34	58
MIN	4.7	5.3	9.4	19	33	38	38	19	26	13	8.0	3.2
CFSM	.39	.86	1.66	1.42	2.40	6.36	4.56	1.93	2.99	1.23	.76	.50
IN.	.45	.96	1.92	1.64	2.50	7.33	5.09	2.23	3.33	1.42	.88	.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2001, BY WATER YEAR (WY)

	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001
MEAN	14.9	21.5	24.3	38.9	55.6	91.4	67.1	40.6	38.4	14.8	11.6	13.6
MAX	25.5	32.8	31.8	54.3	73.2	121	87.2	51.0	57.1	23.5	16.5	18.0
(WY)	2000	2000	2001	1999	1999	2001	2001	2000	2001	2001	2000	1999
MIN	7.37	15.1	10.2	27.2	45.9	73.2	38.8	33.9	16.0	5.70	3.78	9.56
(WY)	2001	1999	1999	2001	2001	2000	1999	1999	1999	1999	1999	2001

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1999 - 2001

ANNUAL TOTAL	12951.3	14536.7	
ANNUAL MEAN	35.4	39.8	35.9
HIGHEST ANNUAL MEAN			39.8
LOWEST ANNUAL MEAN			29.8
HIGHEST DAILY MEAN	165	Apr 23	477
LOWEST DAILY MEAN	4.7	Oct 29	3.2
ANNUAL SEVEN-DAY MINIMUM	6.1	Oct 24	3.9
MAXIMUM PEAK FLOW			779
MAXIMUM PEAK STAGE			5.55
INSTANTANEOUS LOW FLOW			3.1
ANNUAL RUNOFF (CFSM)	1.85		2.09
ANNUAL RUNOFF (INCHES)	25.22		28.31
10 PERCENT EXCEEDS	70		75
50 PERCENT EXCEEDS	27		26
90 PERCENT EXCEEDS	8.1		6.9

e Estimated

PAWCATUCK RIVER BASIN

01117410 USQUEPAUG RIVER AT RT. 138, AT USQUEPAUG, RI

LOCATION.--Lat 41°30'09", long 71°36'30", Washington County, Hydrologic Unit 01090005, on right bank on upstream side of bridge on State Route 138, 700 ft downstream from Glen Rock Reservoir, and 0.1 mi south of Usquepaug.

DRAINAGE AREA.--32.8 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1999 to September 2000.

GAGE.--Water-stage recorder. Datum of gage is 110 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharge, which are poor. Flow occasionally affected by upstream withdrawals.

EXTREMES FOR THE PERIOD JULY 1999 TO SEPTEMBER 2000.--Maximum discharge, 370 ft<sup>3</sup>/s, Apr. 23, 2000, gage height, 5.79 ft, minimum, 4.2 ft<sup>3</sup>/s, Aug. 5, 1999.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	17	43	54	94	81	370	71	67	53	23	17
2	14	16	38	51	77	73	266	70	132	54	22	15
3	14	15	35	48	68	69	232	67	188	49	21	15
4	13	14	32	48	59	65	214	63	136	48	27	14
5	13	14	31	46	60	73	200	62	97	58	30	13
6	14	14	31	50	90	105	192	59	80	52	27	13
7	15	13	29	50	84	102	202	57	71	45	25	13
8	14	13	29	47	71	84	206	54	64	43	20	13
9	13	13	28	48	65	77	210	53	58	44	18	13
10	13	45	27	46	97	81	201	51	56	40	18	12
11	13	77	30	43	110	86	183	48	56	42	19	12
12	13	49	33	42	80	88	183	47	206	55	23	11
13	13	35	31	40	73	177	200	45	209	49	69	10
14	13	35	47	39	70	230	183	44	126	42	53	11
15	13	52	56	47	77	188	158	42	94	38	35	13
16	13	43	46	60	78	167	146	41	93	34	27	12
17	13	35	139	54	85	159	139	40	122	33	24	11
18	14	31	229	48	77	152	137	40	280	35	23	11
19	17	28	167	53	66	139	132	39	238	33	20	9.9
20	16	27	131	84	65	124	122	38	155	31	32	10
21	16	25	109	70	65	123	115	36	117	28	54	20
22	15	24	92	57	61	463	112	50	99	26	39	94
23	14	23	81	51	60	540	107	78	109	26	29	74
24	14	21	73	48	57	381	102	167	104	24	27	35
25	14	21	68	45	67	273	94	218	94	23	23	28
26	14	47	60	e43	168	235	89	158	80	57	21	26
27	14	103	60	42	130	222	84	190	70	81	20	22
28	13	69	58	41	96	210	82	151	63	46	20	19
29	13	47	55	39	---	209	78	118	59	34	19	17
30	13	44	56	55	---	314	75	95	55	30	17	16
31	16	---	59	109	---	465	---	76	---	26	16	---
TOTAL	432	1010	2003	1598	2250	5755	4814	2368	3378	1279	841	599.9
MEAN	13.9	33.7	64.6	51.5	80.4	186	160	76.4	113	41.3	27.1	20.0
MAX	17	103	229	109	168	540	370	218	280	81	69	94
MIN	13	13	27	39	57	65	75	36	55	23	16	9.9
CFSM	.43	1.03	1.97	1.57	2.45	5.67	4.90	2.33	3.44	1.26	.83	.61
IN.	.49	1.15	2.28	1.82	2.56	6.54	5.47	2.69	3.84	1.45	.96	.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2001, BY WATER YEAR (WY)

	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001
MEAN	30.3	45.2	59.3	55.1	81.3	156	147	80.7	92.8	34.1	21.8	26.0
MAX	46.6	56.8	64.6	58.6	82.2	186	160	85.1	113	41.3	30.7	32.4
(WY)	2000	2000	2001	2000	2000	2001	2001	2000	2001	2001	2000	1999
MIN	13.9	33.7	54.0	51.5	80.4	127	133	76.4	73.0	27.0	7.62	20.0
(WY)	2001	2001	2000	2001	2001	2000	2000	2001	2000	2000	1999	2001

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1999 - 2001

ANNUAL TOTAL	22962	26327.9	
ANNUAL MEAN	62.7	72.1	69.3
HIGHEST ANNUAL MEAN			72.1
LOWEST ANNUAL MEAN			66.5
HIGHEST DAILY MEAN	354	Apr 23	540
LOWEST DAILY MEAN	13	Oct 4	9.9
ANNUAL SEVEN-DAY MINIMUM	13	Oct 9	11
MAXIMUM PEAK FLOW			584
MAXIMUM PEAK STAGE			6.71
INSTANTANEOUS LOW FLOW			9.4
ANNUAL RUNOFF (CFSM)	1.92	2.20	2.12
ANNUAL RUNOFF (INCHES)	26.08	29.91	28.76
10 PERCENT EXCEEDS	120	167	136
50 PERCENT EXCEEDS	47	50	47
90 PERCENT EXCEEDS	15	14	13

e Estimated

## PAWCATUCK RIVER BASIN

01117410 USQUEPAUG RIVER AT RT. 138, AT USQUEPAUG, RI--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	12	13	---	---	---	---	---	---	---	---	---
2	31	13	12	---	---	---	---	---	---	---	---	---
3	23	13	11	---	---	---	---	---	---	---	---	---
4	20	13	11	---	---	---	---	---	---	---	---	---
5	17	13	e11	---	---	---	---	---	---	---	---	---
6	16	13	---	---	---	---	---	---	---	---	---	---
7	15	12	---	---	---	---	---	---	---	---	---	---
8	14	12	---	---	---	---	---	---	---	---	---	---
9	14	12	---	---	---	---	---	---	---	---	---	---
10	14	11	---	---	---	---	---	---	---	---	---	---
11	14	12	---	---	---	---	---	---	---	---	---	---
12	14	12	---	---	---	---	---	---	---	---	---	---
13	14	11	---	---	---	---	---	---	---	---	---	---
14	13	11	---	---	---	---	---	---	---	---	---	---
15	15	11	---	---	---	---	---	---	---	---	---	---
16	15	11	---	---	---	---	---	---	---	---	---	---
17	19	11	---	---	---	---	---	---	---	---	---	---
18	18	10	---	---	---	---	---	---	---	---	---	---
19	16	11	---	---	---	---	---	---	---	---	---	---
20	17	11	---	---	---	---	---	---	---	---	---	---
21	15	11	---	---	---	---	---	---	---	---	---	---
22	15	11	---	---	---	---	---	---	---	---	---	---
23	15	10	---	---	---	---	---	---	---	---	---	---
24	15	10	---	---	---	---	---	---	---	---	---	---
25	14	11	---	---	---	---	---	---	---	---	---	---
26	14	18	---	---	---	---	---	---	---	---	---	---
27	14	16	---	---	---	---	---	---	---	---	---	---
28	13	14	---	---	---	---	---	---	---	---	---	---
29	13	13	---	---	---	---	---	---	---	---	---	---
30	13	13	---	---	---	---	---	---	---	---	---	---
31	12	---	---	---	---	---	---	---	---	---	---	---
TOTAL	502	362	---	---	---	---	---	---	---	---	---	---
MEAN	16.2	12.1	---	---	---	---	---	---	---	---	---	---
MAX	31	18	---	---	---	---	---	---	---	---	---	---
MIN	12	10	---	---	---	---	---	---	---	---	---	---
CFSM	.49	.37	---	---	---	---	---	---	---	---	---	---
IN.	.57	.41	---	---	---	---	---	---	---	---	---	---

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	1999	2000	2001	2002	1999	2000	2001	2002	1999	2000	2001	2002
MEAN	25.7	34.4	59.3	55.1	81.3	156	147	80.7	92.8	34.1	21.8	26.0
MAX	46.6	56.8	64.6	58.6	82.2	186	160	85.1	113	41.3	30.7	32.4
(WY)	2000	2000	2001	2000	2000	2001	2001	2000	2001	2001	2000	1999
MIN	14.2	12.1	54.0	51.5	80.4	127	133	76.4	73.0	27.0	7.62	20.0
(WY)	2001	2002	2000	2001	2001	2000	2000	2001	2000	2000	1999	2001

## SUMMARY STATISTICS

## WATER YEARS 1999 - 2002

ANNUAL MEAN	69.3
HIGHEST ANNUAL MEAN	72.2
LOWEST ANNUAL MEAN	66.5
HIGHEST DAILY MEAN	540
LOWEST DAILY MEAN	4.4
ANNUAL SEVEN-DAY MINIMUM	4.8
MAXIMUM PEAK FLOW	370
MAXIMUM PEAK STAGE	5.79
INSTANTANEOUS LOW FLOW	4.2
ANNUAL RUNOFF (CFSM)	2.12
ANNUAL RUNOFF (INCHES)	28.77
10 PERCENT EXCEEDS	130
50 PERCENT EXCEEDS	44
90 PERCENT EXCEEDS	12

e Estimated

## PAWCATUCK RIVER BASIN

187

01117420 USQUEPAUG RIVER NEAR USQUEPAUG, RI

LOCATION.--Lat 41°28'36", long 71°36'19", Washington County, Hydrologic Unit 01090005, on left bank at upstream side of Heaton Orchard Bridge on State Highway 2 in South Kingstown, 1.2 mi upstream from Chickasheen Brook, 1.8 mi south of Usquepaug, and 2.6 mi west of West Kingston.

DRAINAGE AREA.--36.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: February 1958 to July 1960 in Rhode Island Water Resources Board Geologic Bulletin 13. December 1974 to current year.

Water-quality records: Water years 1975-83.

GAGE.--Water-stage recorder. Datum of gage is 81.28 ft above sea level (State of Rhode Island benchmark).

REMARKS.--Records fair except those for estimated daily discharge, which are poor. Flow affected at times by irrigation upstream.

AVERAGE DISCHARGE.--27 years (water years 1959, 1976 to current year), 77.0 ft<sup>3</sup>/s, 28.97 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft<sup>3</sup>/s, June 6, 1982, gage height, 9.23 ft; no flow part of Sept. 13, 1995. Instantaneous maximum and minimum discharges not available prior to Dec. 5, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 820 ft<sup>3</sup>/s, Mar. 23, gage height, 7.79 ft; minimum, 5.6 ft<sup>3</sup>/s, Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	24	55	66	119	98	574	84	78	58	30	22
2	20	21	48	61	95	82	380	81	106	59	29	19
3	20	18	41	e58	78	75	297	78	197	53	27	18
4	19	16	35	55	65	69	263	73	185	52	33	16
5	18	16	32	e51	63	74	242	71	133	63	36	15
6	21	15	31	55	94	106	228	68	99	59	35	13
7	22	14	28	55	99	123	233	65	84	51	32	13
8	20	13	26	52	83	104	237	63	74	48	28	13
9	19	14	25	53	72	89	250	61	66	49	25	12
10	19	41	23	51	99	89	240	59	63	45	25	12
11	19	95	28	46	124	95	223	56	61	46	28	11
12	19	68	35	44	101	99	211	54	143	58	31	8.7
13	19	48	29	e37	84	161	228	53	242	54	71	7.9
14	19	42	47	37	77	272	222	51	189	47	66	8.8
15	20	65	67	46	82	245	196	50	124	42	45	11
16	20	56	56	66	85	210	175	48	106	39	38	10
17	21	47	110	61	91	194	164	48	109	38	34	8.7
18	20	38	221	53	87	185	160	47	255	40	33	8.2
19	23	31	237	56	73	174	154	46	311	38	30	6.5
20	22	28	186	92	68	159	145	46	224	36	39	7.1
21	21	25	153	82	69	148	136	43	156	34	61	15
22	21	22	127	e69	64	427	130	52	123	32	50	85
23	19	19	107	e58	61	783	125	82	118	32	39	96
24	19	16	93	52	59	605	120	135	119	31	36	31
25	20	15	84	48	67	388	113	232	112	29	32	24
26	19	36	73	45	151	300	106	216	96	51	29	23
27	18	112	71	41	175	269	100	203	81	93	26	20
28	18	96	68	39	132	250	97	197	71	56	27	16
29	17	63	64	34	---	246	92	155	65	42	25	15
30	17	55	65	51	---	312	88	121	60	37	21	14
31	22	---	69	118	---	625	---	94	---	33	21	---
TOTAL	613	1169	2334	1732	2517	7056	5929	2732	3850	1445	1082	579.9
MEAN	19.8	39.0	75.3	55.9	89.9	228	198	88.1	128	46.6	34.9	19.3
MAX	23	112	237	118	175	783	574	232	311	93	71	96
MIN	17	13	23	34	59	69	88	43	60	29	21	6.5
CFSM	.55	1.08	2.09	1.55	2.49	6.31	5.47	2.44	3.55	1.29	.97	.54
IN.	.63	1.20	2.41	1.78	2.59	7.27	6.11	2.82	3.97	1.49	1.11	.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2001, BY WATER YEAR (WY)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	36.3	59.5	85.2	103	109	137	137	95.2	71.9	35.9	30.0	26.4																																
MAX	85.7	150	212	266	180	250	335	179	276	80.1	56.1	75.7																																
(WY)	1990	1990	1987	1979	1982	1998	1983	1978	1982	1998	1979	1985																																
MIN	12.1	20.8	21.1	16.9	39.1	56.2	46.3	45.5	30.4	13.3	10.6	7.40																																
(WY)	1995	1981	1981	1981	1980	1981	1985	1981	1994	1994	1999	1980																																

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1958 - 2001

ANNUAL TOTAL	25445	31038.9	
ANNUAL MEAN	69.5	85.0	77.0
HIGHEST ANNUAL MEAN			110
LOWEST ANNUAL MEAN			30.6
HIGHEST DAILY MEAN	373	Apr 23	783
LOWEST DAILY MEAN	13	Nov 8	6.5
ANNUAL SEVEN-DAY MINIMUM	15	Nov 3	8.6
MAXIMUM PEAK FLOW			820
MAXIMUM PEAK STAGE			7.79
INSTANTANEOUS LOW FLOW			5.6
ANNUAL RUNOFF (CFSM)	1.93		2.36
ANNUAL RUNOFF (INCHES)	26.22		31.98
10 PERCENT EXCEEDS	134		199
50 PERCENT EXCEEDS	54		56
90 PERCENT EXCEEDS	20		19

e Estimated



## PAWCATUCK RIVER BASIN

01117468 BEAVER RIVER NEAR USQUEPAUG, RI

LOCATION.--Lat 41°29'33", long 71°37'43", Washington County, Hydrologic Unit 01090005, on right bank 10 ft downstream from Beaver River Bridge on State Highway 138 in Richmond, 1.2 mi southwest of Usquepaug, 3.3 mi north of Kenyon, and 3.6 mi upstream from mouth.

DRAINAGE AREA.--8.87 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: December 1974 to current year.

Water-quality records: Water years 1979-83.

REVISED RECORDS.--WDR MA-RI-79-1: 1978. WDR MA-RI-81-1: 1978-80 (P).

GAGE.--Water-stage recorder. Datum of gage is 107.68 ft above sea level.

REMARKS.--Records good except those for estimated daily discharge, which are fair.

AVERAGE DISCHARGE.--26 years (water years 1976 to current year), 21.4 ft<sup>3</sup>/s, 32.74 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 370 ft<sup>3</sup>/s, June 6, 1982, gage height, 3.83 ft; minimum, 1.1 ft<sup>3</sup>/s, Sept. 7, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 238 ft<sup>3</sup>/s, Mar. 22, gage height, 3.42 ft; minimum, 3.1 ft<sup>3</sup>/s, Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.4	13	20	27	27	97	24	34	21	7.8	5.9
2	5.6	5.2	11	e17	24	25	83	23	60	23	7.2	5.5
3	5.5	5.0	11	e16	22	24	75	22	70	19	6.8	5.2
4	5.3	4.9	10	e16	19	23	68	21	46	18	8.5	5.1
5	5.2	4.7	9.6	e16	20	25	62	20	39	21	9.3	4.8
6	5.5	4.6	9.5	18	28	35	60	19	35	20	10	4.6
7	5.6	4.4	9.1	17	26	32	63	19	32	17	9.0	4.5
8	5.3	4.4	8.8	16	22	27	64	18	30	16	7.8	4.4
9	5.3	4.4	8.7	16	21	26	63	18	28	15	7.1	4.2
10	5.3	13	e8.4	16	30	27	59	18	26	14	6.9	4.1
11	4.9	14	9.2	e15	30	28	52	17	25	15	7.1	3.9
12	4.9	11	9.9	14	e25	28	55	17	86	16	7.7	3.8
13	4.7	8.9	9.1	e13	23	57	57	16	51	16	25	3.7
14	4.8	9.9	15	13	23	62	48	15	38	16	16	3.9
15	4.6	14	17	17	26	50	44	15	33	14	12	4.1
16	4.7	11	14	19	26	48	43	14	30	12	9.6	3.9
17	4.7	9.4	45	18	29	47	40	14	42	12	8.2	3.8
18	4.9	8.2	67	16	25	44	39	14	78	11	7.3	3.7
19	5.6	7.4	44	18	22	41	37	14	47	11	6.8	3.6
20	5.5	7.0	43	26	22	39	35	13	40	10	10	3.6
21	5.6	6.7	35	e21	22	41	33	13	39	9.6	16	7.3
22	5.4	6.5	31	e18	21	177	33	17	36	8.9	13	24
23	5.1	6.2	29	e16	20	128	32	24	39	8.4	9.8	13
24	4.9	6.1	26	16	20	95	30	48	36	8.2	8.8	8.9
25	4.7	6.0	25	15	25	82	29	50	32	7.8	7.6	7.6
26	4.6	15	e22	15	55	73	28	34	28	20	7.0	7.1
27	4.6	29	22	14	37	70	27	103	26	18	6.8	6.3
28	4.5	18	21	13	31	65	26	64	26	13	6.6	5.6
29	4.3	14	19	13	---	59	25	49	23	11	6.5	5.3
30	4.2	14	20	19	---	117	24	41	22	9.6	5.9	5.4
31	5.0	---	21	32	---	150	---	36	---	8.5	5.8	---
TOTAL	156.5	278.3	643.3	529	721	1772	1431	830	1177	440.0	283.9	176.8
MEAN	5.05	9.28	20.8	17.1	25.8	57.2	47.7	26.8	39.2	14.2	9.16	5.89
MAX	5.7	29	67	32	55	177	97	103	86	23	25	24
MIN	4.2	4.4	8.4	13	19	23	24	13	22	7.8	5.8	3.6
CFSM	.57	1.05	2.34	1.92	2.90	6.44	5.38	3.02	4.42	1.60	1.03	.66
IN.	.66	1.17	2.70	2.22	3.02	7.43	6.00	3.48	4.94	1.85	1.19	.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2001, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
MEAN	8.87	16.4	24.2	1990	28.5	43.5	60.8	1990	29.0	46.2	62.9	1982	37.1	48.3	62.9	1983
MAX	25.5	43.5	60.8	1990	74.0	103	139	1990	37.7	48.3	62.9	1983	37.7	48.3	62.9	1983
(WY)	1990	1990	1987	1979	1982	1983	1983	1979	1982	1982	1998	1989	1982	1982	1998	1985
MIN	3.01	4.59	4.43	1995	3.17	11.5	18.9	1981	13.9	13.7	9.02	3.70	2.21	3.70	2.21	1.90
(WY)	1995	1981	1981	1981	1985	1981	1985	1981	1985	1981	1994	1993	1980	1994	1993	1980

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1975 - 2001
ANNUAL TOTAL	7294.1	8438.8	
ANNUAL MEAN	19.9	23.1	21.4
HIGHEST ANNUAL MEAN			30.4
LOWEST ANNUAL MEAN			8.67
HIGHEST DAILY MEAN	98	Apr 22	324
LOWEST DAILY MEAN	4.2	Oct 30	1.2
ANNUAL SEVEN-DAY MINIMUM	4.5	Oct 24	1.3
MAXIMUM PEAK FLOW		238	370
MAXIMUM PEAK STAGE		3.42	3.83
INSTANTANEOUS LOW FLOW		3.1	1.1
ANNUAL RUNOFF (CFSM)	2.25	2.61	2.41
ANNUAL RUNOFF (INCHES)	30.59	35.39	32.74
10 PERCENT EXCEEDS	38	49	43
50 PERCENT EXCEEDS	15	17	17
90 PERCENT EXCEEDS	5.5	4.9	4.3

e Estimated

01117500 PAWCATUCK RIVER AT WOOD RIVER JUNCTION, RI

LOCATION.--Lat 41°26'42", long 71°40'53", Washington County, Hydrologic Unit 01090005, on right bank 10 ft downstream from bridge on Alton-Carolina road, 0.8 mi northeast of Wood River Junction, 1.5 mi southwest of Carolina, and 2.9 mi upstream from Wood River.

DRAINAGE AREA.--100 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1940 to current year. October and November 1940, monthly discharge only, published in WSP 1301. Prior to October 1943, published as Charles River at Wood River Junction.

REVISED RECORDS.--WSP 1051: Drainage area. WSP 1201: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 43.86 ft above sea level. Prior to June 19, 1984, at site 10 ft upstream at same datum. Satellite gage-height telemeter at station.

REMARKS.--Records good except those for estimated daily discharge, which are fair. Occasional regulation by fish hatchery on White Brook. Prior to 1972, occasional regulation at low flow by powerplant and mills upstream; regulation greater prior to 1969. Annual mean discharge for period of record shown in summary statistics does not include the 1941 water year.

AVERAGE DISCHARGE.--60 years, 196 ft<sup>3</sup>/s, 26.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft<sup>3</sup>/s, June 7, 1982, gage height, 8.75 ft; minimum, 7.4 ft<sup>3</sup>/s, Oct. 10, 1947; minimum daily, 15 ft<sup>3</sup>/s, Oct. 11, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft<sup>3</sup>/s, Apr. 1, gage height, 5.99 ft; minimum, 40 ft<sup>3</sup>/s, Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	58	138	177	293	308	1100	232	305	168	90	64
2	84	58	129	170	280	272	1060	225	340	166	83	61
3	82	58	119	157	251	251	945	220	439	156	80	58
4	80	57	113	157	224	237	826	211	460	148	82	58
5	77	55	111	150	211	240	723	204	418	162	90	56
6	76	55	109	160	250	288	641	195	359	161	88	52
7	75	55	105	161	283	346	609	187	306	148	82	51
8	73	54	101	158	278	346	604	178	270	139	77	50
9	70	54	100	160	258	332	619	174	241	136	73	50
10	68	95	95	158	282	316	618	170	220	131	e67	50
11	66	145	103	148	308	313	584	165	204	138	e80	48
12	64	155	110	145	279	317	556	158	267	143	e102	44
13	63	127	106	136	267	449	555	154	359	141	e212	44
14	63	112	135	135	251	646	539	148	390	131	e191	46
15	62	122	171	147	251	667	506	146	347	124	119	49
16	61	123	166	173	250	630	464	140	277	114	97	47
17	61	113	224	179	262	566	428	136	279	108	89	45
18	61	101	372	172	249	515	412	137	419	107	84	43
19	65	93	426	175	231	470	395	135	499	105	77	42
20	64	88	444	227	222	432	377	132	508	101	101	42
21	63	86	395	229	218	406	363	129	425	95	114	58
22	62	83	353	204	205	687	351	150	349	93	117	134
23	60	80	309	193	196	983	339	194	306	88	98	162
24	59	75	266	188	194	1060	326	321	291	84	91	140
25	58	73	240	176	206	1010	307	443	279	82	83	96
26	57	104	209	167	340	901	291	492	261	126	77	83
27	57	176	198	161	373	784	277	578	234	177	74	74
28	56	199	190	156	355	684	264	566	209	167	73	71
29	53	174	181	150	---	605	252	497	189	129	70	65
30	53	147	178	173	---	701	242	417	175	110	67	62
31	57	---	184	263	---	1010	---	356	---	98	64	---
TOTAL	2037	2975	6080	5305	7267	16772	15573	7590	9625	3976	2892	1945
MEAN	65.7	99.2	196	171	260	541	519	245	321	128	93.3	64.8
MAX	87	199	444	263	373	1060	1100	578	508	177	212	162
MIN	53	54	95	135	194	237	242	129	175	82	64	42
CFSM	.66	.99	1.96	1.71	2.60	5.41	5.19	2.45	3.21	1.28	.93	.65
IN.	.76	1.11	2.26	1.97	2.70	6.24	5.79	2.82	3.58	1.48	1.08	.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2001, BY WATER YEAR (WY)

	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	88.2	143	208	245	275	351	339	254	184	99.9	85.1	78.9																																																	
MAX	332	471	543	655	453	598	908	464	718	249	275	374																																																	
(WY)	1956	1956	1987	1979	1970	1953	1983	1983	1982	1984	1946	1954																																																	
MIN	31.1	42.2	49.8	51.8	104	145	124	130	82.3	38.2	28.8	29.5																																																	
(WY)	1950	1966	1966	1981	1944	1981	1985	1981	1957	1957	1999	1980																																																	

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1941 - 2001
ANNUAL TOTAL	73301	82037	
ANNUAL MEAN	200	225	196
HIGHEST ANNUAL MEAN			311
LOWEST ANNUAL MEAN			84.4
HIGHEST DAILY MEAN	928	Apr 24	1830
LOWEST DAILY MEAN	53	Oct 29	15
ANNUAL SEVEN-DAY MINIMUM	55	Nov 3	20
MAXIMUM PEAK FLOW			1860
MAXIMUM PEAK STAGE		5.99	8.75
INSTANTANEOUS LOW FLOW		40	7.4
ANNUAL RUNOFF (CFSM)	2.00	2.25	1.96
ANNUAL RUNOFF (INCHES)	27.27	30.52	26.66
10 PERCENT EXCEEDS	382	479	397
50 PERCENT EXCEEDS	146	161	155
90 PERCENT EXCEEDS	72	60	50

e Estimated

PAWCATUCK RIVER BASIN

01117800 WOOD RIVER NEAR ARCADIA, RI

LOCATION.--Lat 41°34'26", long 71°43'16", Washington County, Hydrologic Unit 01090005, on left bank at upstream side of bridge on Ten Rod Road, 1.8 mi northwest of Arcadia, and 4.5 mi north of Hope Valley.

DRAINAGE AREA.--35.2 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: January 1964 to September 1981, October 1982 to current year.  
Water-quality records: Water years 1967-74.

GAGE.--Water-stage recorder. Datum of gage is 118.20 ft above sea level (Rhode Island State Board of Public Roads bench-mark). Prior to Oct. 1, 1985, datum erroneously published as 137.97 ft above sea level.

REMARKS.--Records good.

AVERAGE DISCHARGE.--36 years (water years 1965-81, 1983-current year), 76.5 ft<sup>3</sup>/s, 29.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 896 ft<sup>3</sup>/s, Mar. 18, 1968, gage height, 8.64 ft; minimum, 4.1 ft<sup>3</sup>/s, Sept. 1, 1995.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 6, 1982, reached a discharge of 1,010 ft<sup>3</sup>/s, gage height, 8.97 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 482 ft<sup>3</sup>/s, Mar. 30, gage height, 6.56 ft; minimum, 10 ft<sup>3</sup>/s, Oct. 16, 18, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	14	42	53	90	92	349	74	76	72	30	25
2	15	14	38	50	89	84	258	71	140	69	28	26
3	15	14	33	48	85	78	210	68	171	65	29	22
4	14	13	31	48	76	74	185	65	135	66	45	20
5	15	13	29	47	75	77	170	62	116	73	43	19
6	17	13	27	51	82	90	162	59	101	76	37	18
7	17	13	27	49	76	80	170	57	90	68	31	17
8	15	12	30	47	70	74	176	56	81	65	29	17
9	14	12	28	48	67	74	176	56	74	64	26	17
10	14	31	26	45	89	78	172	54	68	60	27	17
11	14	38	27	45	93	80	154	51	66	70	29	15
12	14	31	28	44	87	82	160	49	239	72	37	14
13	14	28	27	42	83	136	164	47	155	61	80	14
14	13	40	35	41	78	158	146	44	125	55	62	15
15	13	58	41	49	83	150	133	43	110	52	46	17
16	13	42	36	56	84	152	126	43	97	46	38	16
17	14	36	130	54	95	156	120	43	162	47	33	14
18	11	31	230	53	87	159	122	42	383	47	31	14
19	21	27	182	58	80	149	115	44	298	44	29	13
20	18	25	160	75	77	140	110	41	203	41	51	12
21	16	23	127	69	78	140	107	40	158	39	85	23
22	17	24	110	64	73	395	105	53	137	37	60	29
23	15	20	96	59	71	406	100	74	131	35	45	25
24	14	20	84	57	68	293	97	111	121	34	40	20
25	13	18	72	53	73	224	92	128	114	32	34	23
26	16	35	67	50	111	192	87	109	104	47	31	27
27	11	70	63	48	108	180	84	224	94	50	29	23
28	12	54	60	47	102	165	81	153	86	39	30	26
29	12	46	56	44	---	153	78	123	80	35	27	29
30	12	45	57	59	---	281	76	102	76	33	25	24
31	14	---	57	95	---	446	---	85	---	31	23	---
TOTAL	449	860	2056	1648	2330	5038	4285	2271	3991	1625	1190	591
MEAN	14.5	28.7	66.3	53.2	83.2	163	143	73.3	133	52.4	38.4	19.7
MAX	21	70	230	95	111	446	349	224	383	76	85	29
MIN	11	12	26	41	67	74	76	40	66	31	23	12
CFSM	.41	.81	1.88	1.51	2.36	4.62	4.06	2.08	3.78	1.49	1.09	.56
IN.	.47	.91	2.17	1.74	2.46	5.32	4.53	2.40	4.22	1.72	1.26	.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2001, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	36.1	64.2	96.3	102	109	137	132	91.6	62.3	33.2	29.3	23.8
MAX	112	163	229	310	187	256	320	153	182	89.3	90.0	55.1
(WY)	1990	1973	1973	1979	1970	1972	1983	1979	1998	1998	1979	1979
MIN	11.6	11.2	15.5	19.0	43.6	76.3	44.2	48.7	25.4	11.4	8.86	7.05
(WY)	1998	1966	1966	1966	1980	1985	1966	1986	1999	1999	1995	1980

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1964 - 2001
ANNUAL TOTAL	24263	26334	
ANNUAL MEAN	66.3	72.1	76.5
HIGHEST ANNUAL MEAN			114
LOWEST ANNUAL MEAN			33.3
HIGHEST DAILY MEAN	294	446	826
LOWEST DAILY MEAN	11	11	4.2
ANNUAL SEVEN-DAY MINIMUM	13	13	4.2
MAXIMUM PEAK FLOW		482	896
MAXIMUM PEAK STAGE		6.56	8.64
INSTANTANEOUS LOW FLOW		10	4.1
ANNUAL RUNOFF (CFSM)	1.88	2.05	2.17
ANNUAL RUNOFF (INCHES)	25.64	27.83	29.52
10 PERCENT EXCEEDS	130	154	157
50 PERCENT EXCEEDS	55	54	58
90 PERCENT EXCEEDS	15	15	15

## PAWCATUCK RIVER BASIN

01118000 WOOD RIVER AT HOPE VALLEY, RI

LOCATION.--Lat 41°29'53", long 71°43'01", Washington County, Hydrologic Unit 01090005, on right bank 0.2 mi downstream from highway bridge at Hope Valley and 6.6 mi upstream from mouth.

DRAINAGE AREA.--72.4 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: August to December 1909 (gage heights only), March 1941 to current year. Records of daily discharge for August to December 1909, published in WSP 261, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1201: 1948(P). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 61.11 ft above sea level. August to December 1909, nonrecording gage at site 1,000 ft upstream at different datum.

REMARKS.--Records excellent except those for estimated daily discharge, which are poor. Some seasonal regulation by Locustville Pond on Brushy Brook since 1968. Some regulation at low flow by mills and ponds upstream until 1952; regulation greater prior to 1948.

AVERAGE DISCHARGE.--60 years, 156 ft<sup>3</sup>/s, 29.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,390 ft<sup>3</sup>/s, June 6, 1982, gage height, 10.26 ft; minimum, 4.0 ft<sup>3</sup>/s, Sept. 9, 1987; minimum daily, 10 ft<sup>3</sup>/s, Oct. 13, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1711, at least 12.4 ft in February 1886. Flood in November 1927 reached a stage of 11.7 ft, and flood in March 1936 reached a discharge of 1,540 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,230 ft<sup>3</sup>/s, Mar. 31, gage height, 6.94 ft; minimum, 26 ft<sup>3</sup>/s, Sept. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	35	117	126	214	204	1050	147	189	131	57	45
2	43	34	111	119	200	188	e940	132	364	127	54	47
3	42	34	104	110	190	175	e810	139	588	116	52	50
4	40	33	95	102	167	165	e690	137	389	115	79	45
5	39	31	88	99	172	176	e590	132	289	132	84	40
6	41	31	85	107	194	221	e500	125	242	131	74	36
7	45	31	80	106	187	204	e460	119	203	119	63	34
8	42	31	73	102	169	179	e450	118	178	113	56	33
9	45	31	74	103	158	175	e440	116	165	113	50	33
10	40	67	68	100	200	183	e430	114	150	104	47	33
11	43	123	65	93	227	189	e390	109	141	104	51	32
12	51	100	59	94	185	194	370	104	645	133	60	30
13	50	82	58	90	180	371	426	98	527	114	155	29
14	46	88	90	90	168	504	378	92	315	98	140	30
15	40	133	115	102	177	413	311	89	255	91	98	32
16	44	122	103	122	183	390	284	89	222	85	77	33
17	67	100	300	123	204	386	265	88	319	82	66	30
18	68	87	680	119	190	393	268	88	906	86	61	28
19	78	80	489	127	171	365	256	90	727	81	57	27
20	78	71	403	175	166	324	239	85	491	76	86	26
21	72	57	312	168	166	317	231	81	360	70	190	46
22	64	58	251	144	157	968	219	106	288	61	136	86
23	54	68	216	135	154	e1080	205	165	274	59	94	65
24	41	63	191	129	147	e1050	197	292	255	58	83	52
25	34	50	172	122	164	e900	190	364	230	58	70	62
26	32	81	148	114	307	e750	181	296	201	105	62	72
27	32	185	143	110	269	e650	173	702	182	127	58	57
28	29	152	136	104	230	e560	175	529	163	89	58	41
29	29	123	132	98	---	e510	164	348	148	74	55	45
30	28	115	133	124	---	e980	156	266	138	64	50	43
31	32	---	132	225	---	1150	---	215	---	59	47	---
TOTAL	1430	2296	5223	3682	5296	14314	11438	5575	9544	2975	2370	1262
MEAN	46.1	76.5	168	119	189	462	381	180	318	96.0	76.5	42.1
MAX	78	185	680	225	307	1150	1050	702	906	133	190	86
MIN	28	31	58	90	147	165	156	81	138	58	47	26
CFSM	.64	1.06	2.33	1.64	2.61	6.38	5.27	2.48	4.39	1.33	1.06	.58
IN.	.73	1.18	2.68	1.89	2.72	7.35	5.88	2.86	4.90	1.53	1.22	.65

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2001, BY WATER YEAR (WY)

	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	75.9	129	185	203	220	282	265	191	134	70.2	62.1	59.4																																																	
MAX	341	386	477	666	398	465	664	365	540	178	183	311																																																	
(WY)	1956	1956	1987	1979	1970	1972	1983	1979	1982	1998	1979	1954																																																	
MIN	22.6	24.9	35.1	36.8	87.6	147	89.4	91.9	48.3	23.8	19.9	17.4																																																	
(WY)	1958	1966	1966	1981	1980	1981	1966	1986	1957	1999	1999	1957																																																	

## SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1941 - 2001

ANNUAL TOTAL	53117	65405					
ANNUAL MEAN	145	179					
HIGHEST ANNUAL MEAN		235					
LOWEST ANNUAL MEAN		71.2					
HIGHEST DAILY MEAN	774	Apr 23	1150	Mar 31	2200	Jun 6	1982
LOWEST DAILY MEAN	28	Oct 30	26	Sep 20	10	Oct 13	1941
ANNUAL SEVEN-DAY MINIMUM	31	Oct 25	29	Sep 14	13	Aug 1	1999
MAXIMUM PEAK FLOW			1230	Mar 31	2390	Jun 6	1982
MAXIMUM PEAK STAGE			6.94	Mar 31	10.26	Jun 6	1982
INSTANTANEOUS LOW FLOW			26	Sep 20	4.0	Sep 9	1987
ANNUAL RUNOFF (CFSM)	2.00	2.48					
ANNUAL RUNOFF (INCHES)	27.29	33.61					
10 PERCENT EXCEEDS	274	390	316				
50 PERCENT EXCEEDS	116	117	120				
90 PERCENT EXCEEDS	42	41	35				

e Estimated

PAWCATUCK RIVER BASIN

01118000 WOOD RIVER AT HOPE VALLEY, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1977 to current year.  
 WATER TEMPERATURE: October 1977 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1977.

REMARKS.--Temperature records good; Specific Conductance records fair, except those for estimated values, which are poor. Interruptions in the record are due to malfunctions of the instrument. Extremes for period of daily record and current year are for those values reported.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 298  $\mu$ S/cm, Feb. 12, 1988; minimum, 21  $\mu$ S/cm, Jan. 23, 1979.  
 WATER TEMPERATURE: Maximum recorded, 29.5°C, July 24, 1987, July 26, 27, 28, 1989; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 182  $\mu$ S/cm, Jan. 15; minimum, 53  $\mu$ S/cm, Apr. 11.  
 WATER TEMPERATURE: Maximum recorded, 26.2°C, Aug. 9; minimum, 0.1°C, Jan. 23.

SPECIFIC CONDUCTANCE ( $\mu$ S/CM AT 25°C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	111	93	105	142	129	135	79	77	77	91	84	86
2	110	107	109	129	122	124	81	79	79	89	84	86
3	117	110	113	122	120	121	85	81	83	93	85	89
4	117	114	115	125	121	123	89	83	86	95	88	91
5	117	114	115	124	118	121	92	88	90	105	85	90
6	116	109	e112	118	114	115	91	88	89	177	90	e132
7	114	110	112	115	114	114	91	87	88	101	90	94
8	111	107	109	115	114	114	114	91	95	102	89	92
9	107	97	103	115	113	114	93	88	91	121	97	106
10	102	97	98	115	106	e112	92	85	89	97	89	92
11	110	98	104	109	97	101	109	92	103	95	87	90
12	109	94	98	102	98	99	110	107	109	94	87	91
13	100	96	98	105	102	104	107	103	106	92	85	88
14	106	99	102	108	98	e103	178	101	e131	93	86	90
15	111	105	107	108	94	99	104	97	101	182	90	e122
16	118	111	115	94	92	93	97	93	95	115	99	107
17	119	114	117	95	93	95	105	72	88	99	95	97
18	148	118	e133	96	95	95	74	58	66	97	93	96
19	---	---	---	95	94	95	58	56	57	120	97	105
20	---	---	---	96	94	95	61	56	58	111	98	102
21	---	---	---	103	96	100	60	57	58	115	90	102
22	---	---	---	104	100	102	77	60	64	102	85	91
23	169	165	167	102	99	100	64	61	63	93	88	91
24	167	164	166	99	98	99	66	63	65	97	89	92
25	168	163	166	100	96	98	68	65	66	96	89	92
26	168	165	e166	116	99	104	75	67	70	97	89	93
27	165	158	e162	105	89	94	76	72	75	98	93	96
28	158	148	152	89	87	88	77	75	76	100	94	96
29	148	146	147	87	77	e83	79	75	77	98	92	95
30	149	146	148	82	76	78	156	78	95	180	93	115
31	149	142	e147	---	---	---	129	86	96	108	93	100
MONTH	---	---	---	142	76	104	178	56	83	182	84	97

## PAWCATUCK RIVER BASIN

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01118000 WOOD RIVER AT HOPE VALLEY, RI--Continued

SPECIFIC CONDUCTANCE ( $\mu\text{S}/\text{CM}$  AT  $25^\circ\text{C}$ ), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	93	88	90	90	88	89	68	65	66	111	105	107
2	90	86	89	91	89	90	72	68	70	112	110	112
3	96	84	88	92	90	91	75	71	73	112	110	111
4	88	82	85	94	91	92	78	75	76	114	111	113
5	170	80	99	152	93	126	82	78	80	115	113	e114
6	154	107	135	148	127	135	97	82	85	117	113	115
7	107	97	101	137	105	116	88	84	86	117	113	114
8	100	95	96	108	101	104	88	83	85	114	112	113
9	99	95	97	133	102	109	86	83	84	116	112	113
10	103	98	100	128	113	116	89	84	86	115	112	114
11	98	84	91	114	106	108	86	53	85	116	114	115
12	88	82	85	108	104	106	87	85	86	118	115	117
13	96	84	89	137	104	112	87	84	85	119	116	e117
14	90	86	88	106	88	94	94	85	88	118	116	e117
15	93	90	91	88	88	88	97	93	95	119	114	116
16	106	89	91	88	85	87	95	92	93	119	114	117
17	108	88	93	85	84	84	95	92	94	116	112	114
18	89	85	87	85	82	83	96	93	94	115	114	115
19	90	84	87	86	84	85	96	93	95	116	113	114
20	91	90	90	88	86	86	98	94	96	116	114	115
21	93	91	92	88	85	86	101	98	99	115	113	114
22	93	91	93	88	66	81	103	100	102	---	---	---
23	116	91	104	66	60	61	102	99	100	---	---	---
24	98	95	97	68	61	64	101	99	100	115	95	e106
25	161	97	124	75	68	72	102	100	101	100	90	95
26	153	99	110	81	75	77	103	100	101	91	78	89
27	99	92	94	77	73	75	103	99	101	92	79	e84
28	92	89	90	78	75	76	104	99	101	81	77	79
29	---	---	---	78	75	77	109	102	106	82	79	80
30	---	---	---	92	78	85	107	105	106	83	82	82
31	---	---	---	79	65	69	---	---	---	91	83	86
MONTH	170	80	96	152	60	91	109	53	91	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	89	87	88	92	91	e92	117	112	114	118	114	e115
2	89	81	e85	94	92	93	117	114	e115	119	116	117
3	81	72	74	94	93	94	118	114	e116	118	112	114
4	76	74	75	95	93	e94	116	111	e114	113	109	110
5	79	76	77	95	92	94	112	110	111	111	108	110
6	83	79	81	96	94	94	113	111	e111	114	111	111
7	91	83	85	109	93	94	---	---	---	116	113	114
8	91	88	89	96	93	e94	---	---	---	118	115	117
9	91	89	90	97	95	e96	---	---	---	120	118	118
10	94	91	92	99	95	98	---	---	---	---	---	---
11	96	90	e95	99	96	e97	---	---	---	---	---	---
12	91	76	e82	97	87	e92	---	---	---	124	123	e123
13	76	73	74	97	88	93	116	97	e109	127	123	e125
14	77	75	76	99	97	98	109	102	e104	---	---	---
15	81	77	79	100	98	99	109	105	107	127	124	126
16	84	81	82	103	99	100	119	108	110	127	123	125
17	88	71	e82	104	100	e102	112	108	110	124	122	123
18	77	57	64	104	103	103	114	111	113	123	122	122
19	57	56	56	105	102	104	116	113	114	123	122	123
20	60	56	58	107	104	105	---	---	---	124	123	123
21	66	60	63	109	104	106	112	97	102	127	114	e121
22	71	65	68	112	108	110	104	97	101	129	113	e121
23	75	71	73	113	110	e111	105	102	104	124	116	120
24	79	74	e76	---	---	---	107	104	106	127	115	e124
25	84	78	80	---	---	---	108	106	107	---	---	---
26	97	81	83	---	---	---	111	106	108	124	115	119
27	85	83	84	119	108	110	111	109	110	126	114	116
28	87	85	85	113	108	110	114	110	112	134	126	130
29	88	85	87	117	112	114	113	109	111	133	127	130
30	101	88	90	117	115	116	114	111	113	128	118	123
31	---	---	---	116	112	114	117	114	114	---	---	---
MONTH	101	56	79	---	---	---	---	---	---	---	---	---

e Estimated

## PAWCATUCK RIVER BASIN

01118000 WOOD RIVER AT HOPE VALLEY, RI--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.0	11.2	12.6	8.6	7.7	8.2	4.4	3.5	4.0	1.1	0.4	0.7
2	14.5	12.0	13.2	9.1	7.4	8.4	3.5	2.3	3.1	1.0	.3	.6
3	15.7	13.2	14.4	9.2	8.1	8.8	2.6	1.6	2.1	.9	.2	.4
4	15.3	13.5	14.5	9.8	8.3	9.1	2.5	1.3	1.8	1.0	.1	.5
5	15.0	14.4	14.6	9.5	8.7	9.0	2.6	1.3	1.9	.9	.1	.5
6	15.3	14.5	14.8	9.1	7.9	8.6	2.3	1.5	1.9	1.2	.6	.9
7	15.2	13.7	14.6	9.0	7.7	8.5	2.5	1.5	2.0	1.4	.6	.9
8	14.6	12.7	13.5	9.2	7.9	8.7	1.6	1.4	1.5	1.4	.8	1.1
9	13.3	11.4	12.3	9.5	8.3	9.0	1.7	.9	1.4	1.6	1.0	1.3
10	12.1	10.2	11.2	9.6	9.3	9.5	1.8	.7	1.3	1.2	.5	.9
11	12.7	9.7	11.2	9.8	9.4	9.6	1.9	1.7	1.8	1.4	.3	.7
12	12.6	10.3	11.5	10.5	9.4	9.9	3.2	1.3	2.3	1.3	.3	.8
13	12.9	10.4	11.6	9.8	9.4	9.6	2.0	.9	1.5	1.3	.2	.6
14	13.1	11.2	12.2	9.8	9.4	9.6	2.9	1.8	2.3	1.3	.3	.8
15	13.8	11.6	12.7	9.4	8.1	8.6	2.7	1.9	2.2	1.3	.8	1.1
16	13.0	11.7	12.2	8.2	7.5	7.8	3.4	2.2	2.6	2.0	1.1	1.5
17	12.5	11.1	11.8	8.4	7.0	7.7	6.0	3.4	4.7	2.3	1.4	1.8
18	12.8	11.8	12.3	7.3	6.4	6.8	6.0	4.0	5.0	2.1	1.1	1.6
19	13.7	12.1	12.8	6.9	5.8	6.5	4.0	3.2	3.4	2.0	1.7	1.8
20	13.3	11.4	12.2	6.1	4.9	5.5	3.3	2.4	3.0	1.9	1.4	1.7
21	13.2	11.1	12.0	5.5	4.0	4.7	2.4	1.6	1.9	1.4	.3	.9
22	12.7	11.2	11.9	4.3	3.1	3.7	1.9	1.4	1.7	1.1	.1	.5
23	12.0	10.0	11.0	3.6	2.6	3.1	1.5	.8	1.1	1.0	.1	.5
24	11.4	9.2	10.4	2.8	1.9	2.4	1.4	.6	1.0	1.3	.1	.6
25	11.6	9.6	10.7	2.7	1.2	2.0	1.0	.4	.7	1.4	.4	.8
26	11.9	10.3	11.2	3.6	2.0	2.7	1.0	.3	.6	1.5	.3	.8
27	12.2	10.9	11.6	3.9	2.9	3.4	1.2	.5	.8	1.5	.7	1.0
28	12.2	10.6	11.8	4.9	3.8	4.4	1.1	.6	.7	1.8	.7	1.1
29	10.6	8.3	9.0	7.8	4.4	4.9	1.3	.5	.8	1.7	.5	1.0
30	8.3	7.5	7.9	4.9	4.2	4.7	1.0	.6	.9	1.6	.6	1.1
31	8.4	7.7	8.0	---	---	---	1.1	.5	.8	2.1	1.0	1.5
MONTH	15.7	7.5	12.0	10.5	1.2	6.8	6.0	.3	2.0	2.3	.1	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.3	1.3	1.7	3.0	1.9	2.3	5.4	5.0	5.2	16.1	13.4	14.6
2	2.5	1.5	1.9	2.4	1.7	2.0	5.3	4.6	5.0	18.1	13.9	15.7
3	2.2	1.0	1.5	2.5	1.8	2.1	5.9	4.7	5.4	19.8	16.0	17.5
4	1.6	.5	1.0	2.5	1.9	2.1	6.9	5.6	6.2	21.1	17.6	19.1
5	1.2	.3	.7	2.0	.6	1.5	8.2	5.9	7.0	20.3	18.4	19.5
6	1.6	.5	.9	1.2	.8	.9	8.2	7.5	7.7	18.8	16.0	17.6
7	2.3	1.0	1.5	1.7	1.0	1.3	8.8	7.3	8.0	17.2	13.9	15.3
8	2.2	1.2	1.6	2.4	1.0	1.7	8.5	7.2	7.9	16.5	13.1	14.6
9	2.5	1.6	2.0	2.5	1.7	2.0	10.1	7.1	8.5	17.2	13.7	15.2
10	3.9	2.4	3.1	3.5	1.9	2.6	12.4	10.1	11.2	18.6	14.6	16.3
11	2.6	.5	1.6	4.2	2.3	3.1	11.5	7.2	10.9	19.6	15.8	17.5
12	1.6	.3	.8	4.8	2.7	3.6	10.3	9.9	10.0	20.7	17.1	18.5
13	2.2	.8	1.4	3.7	3.1	3.5	10.7	9.9	10.2	20.4	17.8	18.8
14	2.6	1.2	1.9	3.1	2.5	2.8	11.8	9.9	10.8	18.3	16.5	17.4
15	3.1	2.3	2.7	3.7	2.5	3.1	12.6	10.5	11.5	16.6	15.0	15.6
16	2.9	2.2	2.5	5.2	3.6	4.4	12.8	11.3	11.8	15.0	13.3	14.1
17	3.3	2.0	2.6	6.3	4.9	5.5	11.6	10.4	11.1	14.4	12.7	13.5
18	2.4	1.1	1.6	5.9	4.8	5.5	10.6	9.6	10.1	14.1	13.0	13.4
19	2.4	.8	1.5	5.8	4.2	5.0	11.0	8.7	9.7	16.7	13.3	14.8
20	3.3	1.6	2.3	6.4	4.7	5.5	11.6	9.1	10.3	18.1	14.6	16.1
21	4.4	2.5	3.2	5.7	5.1	5.4	12.8	10.7	11.6	17.3	15.4	16.3
22	2.7	1.3	2.1	5.7	5.1	5.3	15.2	12.1	13.6	16.6	15.4	15.9
23	2.6	1.2	1.7	5.2	4.8	5.0	17.1	14.6	15.6	15.4	14.7	14.9
24	2.9	1.2	2.0	5.5	4.3	5.0	17.7	15.1	16.3	15.2	14.6	14.8
25	2.5	1.8	2.1	5.9	4.6	5.4	16.6	14.3	15.6	15.2	14.5	14.8
26	3.5	2.4	2.8	5.6	4.6	5.1	15.1	12.8	13.7	16.2	14.7	15.4
27	3.2	2.1	2.7	5.2	3.7	4.5	15.1	11.9	13.3	17.1	15.8	16.3
28	3.6	2.3	2.8	6.1	4.2	5.1	15.5	12.7	13.9	17.1	16.4	16.7
29	---	---	---	6.0	5.1	5.6	15.4	12.2	13.6	16.7	15.6	16.3
30	---	---	---	5.6	5.0	5.4	15.5	11.9	13.5	17.4	16.0	16.6
31	---	---	---	5.3	4.5	5.0	---	---	---	16.6	15.0	15.7
MONTH	4.4	.3	1.9	6.4	.6	3.8	17.7	4.6	10.6	21.1	12.7	16.1





PAWCATUCK RIVER BASIN

01118500 PAWCATUCK RIVER AT WESTERLY, RI

LOCATION.--Lat 41°23'01", long 71°50'01", Washington County, Hydrologic Unit 01090005, on left bank at Westerly, 2.1 mi downstream from Shunock River.

DRAINAGE AREA.--295 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1940 to current year.

REVISED RECORDS.--WSP 1051: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1.76 ft below sea level.

REMARKS.--Records good, many days are adjusted for tidal backwater, which lasts as much as 4 hours during times of high tide. Diurnal fluctuation at low flow prior to 1962 by mills upstream; regulation much greater prior to 1958. Diversion upstream for municipal supply of Westerly.

AVERAGE DISCHARGE.--60 years (water years 1942--current year), 578 ft<sup>3</sup>/s, 26.64 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,070 ft<sup>3</sup>/s, June 6, 1982, gage height, 12.86 ft; minimum daily, 25 ft<sup>3</sup>/s, Aug. 17, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a discharge of 3,150 ft<sup>3</sup>/s, by computation of flow over dam 1.5 mi upstream. Maximum discharge since 1886 occurred in November 1927 and was possibly more than twice that in March 1936. Maximum stage since at least 1635, 15.0 ft Sept. 21, 1938, due to hurricane tidal wave.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,380 ft<sup>3</sup>/s, Mar. 31, gage height, 8.54 ft; minimum, 86 ft<sup>3</sup>/s, Sept. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	109	470	519	899	883	3270	571	978	496	252	158
2	187	111	428	483	846	786	3080	550	1170	489	232	152
3	179	114	386	458	770	713	2780	528	1730	462	217	146
4	174	117	353	432	686	659	2410	516	1730	430	216	145
5	168	120	329	415	637	656	2080	505	1500	464	254	138
6	168	134	313	426	743	808	1830	485	1220	485	260	125
7	166	136	299	441	806	888	1730	465	1000	453	239	117
8	162	129	287	428	772	848	1680	447	850	418	211	116
9	155	108	276	427	713	811	1720	435	741	406	191	115
10	152	169	261	424	776	819	1750	428	664	388	175	118
11	146	373	271	402	897	835	1650	417	614	382	180	112
12	147	402	283	383	818	842	1540	401	859	405	199	103
13	151	352	280	371	743	1290	1540	386	1270	408	447	96
14	150	328	338	361	705	1880	1480	369	1280	380	546	93
15	150	483	512	390	689	1830	1370	355	1080	345	460	101
16	145	461	519	497	698	1710	1260	350	908	324	341	102
17	142	402	787	511	732	1580	1130	344	995	302	275	98
18	168	350	1610	490	724	1440	1070	340	2120	301	244	93
19	192	301	1640	497	658	1330	1020	344	2070	296	218	89
20	193	273	1550	680	619	1220	957	337	1910	281	259	86
21	186	252	1380	710	605	1150	902	322	1620	266	368	100
22	174	228	1170	620	580	2370	869	363	1280	249	433	234
23	164	223	973	568	553	2920	830	529	1040	241	368	311
24	151	217	839	539	535	2890	782	857	920	230	301	284
25	140	205	740	507	561	2710	739	1210	861	225	266	246
26	133	262	639	478	1020	2460	705	1300	788	316	232	221
27	125	590	623	454	1140	2160	667	2100	700	499	209	195
28	122	638	562	435	1000	1900	640	2200	625	472	201	164
29	115	561	527	411	---	1660	618	1950	562	386	190	137
30	108	491	511	459	---	2100	591	1560	521	318	173	135
31	108	---	525	803	---	3310	---	1210	---	275	162	---
TOTAL	4819	8639	19681	15019	20925	47458	42690	22174	33606	11392	8319	4330
MEAN	155	288	635	484	747	1531	1423	715	1120	367	268	144
MAX	198	638	1640	803	1140	3310	3270	2200	2120	499	546	311
MIN	108	108	261	361	535	656	591	322	521	225	162	86
CFSM	.53	.98	2.15	1.64	2.53	5.19	4.82	2.42	3.80	1.25	.91	.49
IN.	.61	1.09	2.48	1.89	2.64	5.98	5.38	2.80	4.24	1.44	1.05	.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2001, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)
MEAN	258	447	656	752
MAX	1186	1450	1789	2151
(WY)	1956	1956	1987	1979
MIN	87.2	93.2	115	131
(WY)	1950	1966	1966	1981

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR
ANNUAL TOTAL	208174	239052				
ANNUAL MEAN	569	655				
HIGHEST ANNUAL MEAN					578	871
LOWEST ANNUAL MEAN						251
HIGHEST DAILY MEAN	2490	3310	Apr 24	Mar 31	6220	Jun 6 1982
LOWEST DAILY MEAN	108	86	Oct 30	Sep 20	25	Aug 17 1941
ANNUAL SEVEN-DAY MINIMUM	112	95	Oct 29	Sep 14	47	Sep 2 1995
MAXIMUM PEAK FLOW		3380		Mar 31	7070	Jun 6 1982
MAXIMUM PEAK STAGE		8.54		Mar 31	12.86	Jun 6 1982
INSTANTANEOUS LOW FLOW		86		Sep 20		
ANNUAL RUNOFF (CFSM)	1.93	2.22			1.96	
ANNUAL RUNOFF (INCHES)	26.25	30.14			26.64	
10 PERCENT EXCEEDS	1150	1570			1200	
50 PERCENT EXCEEDS	438	459			450	
90 PERCENT EXCEEDS	166	144			127	





PAWCATUCK RIVER BASIN

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHENOLS TOTAL (UG/L) (32730)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)
NOV 20...	0.39	<1.0	4	0.08	11	<16	3	2.2	81	--	--
MAR 15...	.24	<1.0	4	.03	6.6	E8	5	25	46	--	--
JUN 27...	.35	<.2	4	.08	9.6	--	8	15	93	--	--
AUG 13...	.09	<.2	2	.04	6.8	--	12	16	72	--	--
SEP 19...	--	--	--	--	--	--	--	--	--	<0.2	<3

DATE	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	METH- OXY- CHLOR, TOT. IN BOTTOM MATH. (UG/KG) (39481)
NOV 20...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 19...	<0.2	<0.2	<0.2	<0.2	<0.2	<5	<50	<0.2	<0.5	<0.2	<0.5	<2

K Results based on colony count outside the acceptance range (non-ideal colony count).

## CONNECTICUT RIVER BASIN

01162000 MILLERS RIVER NEAR WINCHENDON, MA

LOCATION.--Lat 42°41'03", long 72°05'02", Worcester County, Hydrologic Unit 01080202, on right bank 10 ft downstream from Nolan Bridge, 0.3 mi downstream from Tarbell Brook, 2 mi west of Winchendon, and at mile 32.8.

DRAINAGE AREA.--81.8 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: June 1916 to current year. March to May 1917, monthly discharge only, published in WSP 1301.

Water-quality records: Water years 1957, 1965-66, 1994-95.

REVISED RECORDS.--WSP 451: 1916. WSP 1051: 1919, 1920-21(M), 1922-24, 1928(M), 1933-34.  
WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Oct. 6, 1933. Datum of gage is 826.66 ft above sea level. Prior to July 27, 1916, nonrecording gage at bridge at same datum.

REMARKS.--Records poor except those for the period April 29 to July 21, which are fair. Flow affected for most of year by backwater from beaver dam located approximately 0.5 mi downstream from gage. Flow regulated by powerplant and by Lake Monomonac and other reservoirs upstream, by waste-water treatment plant 500 ft upstream, and infrequent backwater from U. S. Army Corps of Engineers Flood-Control Project at Birch Hill Dam.

AVERAGE DISCHARGE.--85 years, 145 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,500 ft<sup>3</sup>/s, Sept. 22, 1938, gage height, 21.55 ft, from floodmarks, from rating curve extended above 2,000 ft<sup>3</sup>/s, on basis of computation of peak flow over dam; practically no flow because of regulation Sept. 20, 1918, Jan. 14, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft<sup>3</sup>/s (estimated), Apr. 14; gage height, unknown, maximum gage height, 11.06 ft, Apr. 17 (backwater from Birch Hill Dam); minimum, 10 ft<sup>3</sup>/s, Aug. 28.

REVISIONS.--For 1996 water year: Maximum discharge, 1,840 ft<sup>3</sup>/s, Jan. 29, 1996, gage height, 10.13 ft, maximum gage height, 12.06 ft (backwater from Birch Hill Dam); daily mean discharges for the period Apr. 16-27, 1996, monthly total and mean discharge and maximum daily mean discharge for April 1996, and 1996 water year total and mean discharge are given below. These figures supersede those published in the report for 1996.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

APR 16	e660	APR 18	e680	APR 20	e360	APR 22	e290	APR 24	e310	APR 26	e260
17	e910	19	e500	21	e310	23	e300	25	e280	27	e250

TOTAL	10330	MEAN	344	MAX	910
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## SUMMARY STATISTICS

ANNUAL TOTAL	74546	ANNUAL MEAN	204
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DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e45	e70	e125	e130	146	e70	e260	294	62	92	e20	e17
2	e43	e66	e120	e125	142	e66	e230	218	123	241	e19	e15
3	e42	e62	e115	e120	129	e64	e220	178	307	197	e22	e14
4	e40	e60	e110	e115	e110	e66	e230	144	385	168	e30	e13
5	e36	e62	e100	e110	e100	72	e250	120	345	167	e45	e14
6	e100	e64	e95	e105	e110	e90	e280	99	282	212	e40	e13
7	e150	e70	e90	e100	e120	e110	e310	89	189	150	e35	e12
8	e160	e70	e85	e96	e110	e95	e350	77	132	117	e30	e14
9	e140	e80	e80	e92	e100	e85	e460	68	98	111	e26	e16
10	e120	e100	e75	e88	e110	e80	e550	65	75	92	e22	e15
11	e100	e150	e72	e84	e120	e75	e650	56	68	74	e21	e14
12	e90	e130	e68	e82	e110	e70	e850	47	112	65	e20	e13
13	e80	e120	e64	e78	e105	e68	e1200	45	116	57	e19	e14
14	e75	e150	e62	e76	e95	e75	e1250	45	90	51	e18	e14
15	e70	e170	e62	e74	e105	e80	e1100	42	71	49	e17	e14
16	e65	e160	e60	e72	e100	e90	e990	41	61	44	e16	e13
17	e80	e150	235	e70	e95	e100	e900	43	119	46	e15	e12
18	e100	e130	452	e68	e90	e110	e800	42	209	47	e17	e11
19	e170	e120	391	e66	e85	e130	e750	38	165	43	e17	e10
20	e200	e110	355	e65	e80	142	e720	36	126	42	e15	e20
21	e180	e100	340	e64	e76	158	e720	34	105	40	e18	e40
22	e160	e98	292	e62	e72	e200	e760	39	102	e38	e17	e52
23	e140	e96	e260	e61	e70	e270	e800	48	96	e34	e15	e45
24	e120	e94	e240	e60	e68	e380	e730	57	101	e30	e13	e40
25	e110	e90	e220	e60	e70	e390	e600	57	89	e25	e12	e38
26	e95	e80	e200	e58	e90	e340	e550	50	72	e30	e12	e70
27	e85	e120	e180	e56	e80	e320	e500	51	61	e33	e11	e64
28	e76	e140	e170	e54	e75	e290	e450	60	52	e30	e10	e60
29	e72	e135	e160	e52	---	e280	388	83	43	e28	e10	e50
30	e70	e130	e150	e60	---	e260	338	78	37	e30	e11	e40
31	e74	---	e140	106	---	e250	---	68	---	e23	e10	---
TOTAL	3088	3177	5168	2509	2763	4876	18186	2412	3893	2406	603	777
MEAN	99.6	106	167	80.9	98.7	157	606	77.8	130	77.6	19.5	25.9
MAX	200	170	452	130	146	390	1250	294	385	241	45	70
MIN	36	60	60	52	68	64	220	34	37	23	10	10

CONNECTICUT RIVER BASIN

01162000 MILLERS RIVER NEAR WINCHENDON, MA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2001, BY WATER YEAR (WY)

MEAN	95.9	119	142	141	137	261	377	180	114	61.5	51.7	65.9
MAX	520	416	500	385	400	931	788	412	515	261	249	752
(WY)	1956	1956	1997	1996	1976	1936	1960	1967	1984	1938	1928	1938
MIN	11.6	15.7	30.7	13.3	24.4	39.0	83.3	44.7	14.1	8.17	8.24	5.75
(WY)	1948	1979	1979	1981	1980	1965	1999	1999	1964	1965	1965	1964

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1916 - 2001	
ANNUAL TOTAL	61560		49858			
ANNUAL MEAN	168		137		145	
HIGHEST ANNUAL MEAN					238	
LOWEST ANNUAL MEAN					38.5	
HIGHEST DAILY MEAN	614	Apr 24	1250	Apr 14	6130	Sep 22 1938
LOWEST DAILY MEAN	18	Sep 12	10	Aug 28	3.1	Oct 4 1930
ANNUAL SEVEN-DAY MINIMUM	22	Sep 8	11	Aug 25	4.5	Sep 24 1939
MAXIMUM PEAK FLOW			e1280	Apr 14	8500	Sep 22 1938
MAXIMUM PEAK STAGE			11.06	Apr 17	21.55	Sep 22 1938
INSTANTANEOUS LOW FLOW			10	Aug 28	.00	Sep 20 1918
10 PERCENT EXCEEDS	391		293		336	
50 PERCENT EXCEEDS	126		80		89	
90 PERCENT EXCEEDS	37		18		19	

e Estimated







CONNECTICUT RIVER BASIN

01166500 MILLERS RIVER AT ERVING, MA

LOCATION.--Lat 42°35'51", long 72°26'19", Franklin County, Hydrologic Unit 01080202, on right bank 75 ft downstream from bridge at Farley, 0.6 mi upstream from Mormon Hollow Brook, 2.4 mi downstream from Erving, and 5.5 mi upstream from mouth.

DRAINAGE AREA.--372 mi².

PERIOD OF RECORD.--Discharge: August 1914 to June 1915 (twice-daily gage heights and corresponding discharge), July 1915 to current year.

Water-quality records: Water years 1953, 1965-66, 1994.

REVISED RECORDS.--WSP 641: 1920(M). WSP 781: 1928(M), 1933(M). WSP 1301: 1915(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 380 ft above sea level, from topographic map. Prior to June 30, 1915, nonrecording gage, June 30, 1915, to Sept. 20, 1938, water-stage recorder, and Sept. 21 to Dec. 31, 1938, non-recording gage, at site 2.2 mi upstream at different datum. Jan. 1 to Mar. 29, 1939, nonrecording gage, and Mar. 30, 1939, to Sept. 12, 1941, water-stage recorder, at site 0.4 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharge, which are poor. Flow regulated by powerplants and by Lake Monomac and other reservoirs; high flow regulated by Birch Hill Reservoir 22 mi upstream since 1941 and Tully Lake since 1948. Greater regulation by powerplants prior to 1966.

AVERAGE DISCHARGE.--86 years, 640 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft³/s, Sept. 22, 1938, gage height, 13.37 ft, from floodmarks, site and datum then in use, mean of two slope-area measurements; practically no flow at times during 1915 and 1916 because of regulations; minimum daily, 8 ft³/s, Sept. 6, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,520 ft³/s, Apr. 10, gage height, 6.34 ft; minimum daily, 61 ft³/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MEAN VALUES

Table with columns: DAY, OCT, NOV, DEC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP. Rows include daily mean values from 1 to 31, and summary statistics (TOTAL, MEAN, MAX, MIN).

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2001, BY WATER YEAR (WY)

Table with columns: MEAN, MAX, (WY), MIN, (WY). Rows show monthly mean statistics for years 1916, 1917, 1918, 1919, 1920.

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR, FOR 2001 WATER YEAR, WATER YEARS 1916 - 2001

Table with columns: ANNUAL TOTAL, ANNUAL MEAN, HIGHEST ANNUAL MEAN, LOWEST ANNUAL MEAN, HIGHEST DAILY MEAN, LOWEST DAILY MEAN, ANNUAL SEVEN-DAY MINIMUM, MAXIMUM PEAK FLOW, MAXIMUM PEAK STAGE, INSTANTANEOUS LOW FLOW, 10 PERCENT EXCEEDS, 50 PERCENT EXCEEDS, 90 PERCENT EXCEEDS.

e Estimated

CONNECTICUT RIVER BASIN

01168500 DEERFIELD RIVER AT CHARLEMONT, MA

LOCATION.--Lat 42°37'33", long 72°51'20", Franklin County, Hydrologic Unit 01080203, on left bank 0.8 mi east of Charlemont, 2.5 mi downstream from Chickley River, and at mile 24.5.

DRAINAGE AREA.--361 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: June 1913 to current year.  
Water-quality records: Water years 1954-55, 1958, 1967-69, 1995.

REVISED RECORDS.--WSP 781: 1915(M). WSP 1301: 1918(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 517.36 ft above sea level.

REMARKS--Records good except those for estimated daily discharge, discharges between Jan. 26 and Apr. 5, and those above 1,000 ft<sup>3</sup>/s, which are fair. Flow regulated by Somerset Reservoir, since 1924 by Harriman Reservoir, and by several powerplants upstream. Telephone and satellite gage-height telemeter at station. Measurements of water temperature and air temperature were made during the year.

AVERAGE DISCHARGE.--88 years, 902 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,300 ft<sup>3</sup>/s, Sept. 21, 1938, gage height, 20.17 ft, from floodmarks, from rating curve extended above 31,000 ft<sup>3</sup>/s on basis of slope-area and contracted-opening measurements at gage heights 17.75 ft and 20.17 ft; minimum daily, 5 ft<sup>3</sup>/s, June 17, 1921.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,870 ft<sup>3</sup>/s, Dec. 17, gage height, 7.83 ft; minimum daily, 103 ft<sup>3</sup>/s, Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	320	658	840	818	830	735	632	1900	884	1050	225	268
2	265	715	1090	1320	902	410	589	2100	2330	793	363	238
3	276	480	499	1340	847	516	495	1930	5010	536	515	103
4	448	459	600	1180	1050	473	587	1550	4490	421	337	223
5	395	410	643	1150	849	824	693	1410	2570	602	248	280
6	743	384	817	925	1020	744	901	979	1550	627	472	209
7	683	607	1100	394	774	782	893	476	884	349	509	229
8	680	e650	1140	1030	787	649	1680	513	637	305	591	215
9	333	e760	1020	718	1110	806	2150	561	627	690	618	220
10	780	947	710	1120	1130	545	3010	560	454	576	603	247
11	785	903	803	1090	926	799	2650	503	576	533	383	227
12	782	556	517	877	818	758	2910	393	1000	359	271	212
13	666	508	906	1070	976	806	3290	320	997	269	381	259
14	362	870	818	701	876	733	3240	202	610	293	366	227
15	314	1250	735	744	1140	299	2550	294	591	271	239	213
16	455	1050	517	808	1210	270	2380	268	639	441	286	210
17	e1050	1070	3730	663	1210	237	2060	248	1030	383	278	229
18	e1200	1180	3130	732	775	386	1980	268	1100	450	325	246
19	e1350	867	1540	905	690	812	1880	278	1080	329	275	222
20	950	920	1060	745	728	913	2130	271	864	262	220	279
21	741	900	941	496	621	593	2640	211	710	252	269	321
22	471	858	1110	835	854	1110	4400	301	429	311	217	244
23	486	662	1030	778	1050	1020	4770	504	458	551	237	132
24	461	455	877	972	811	834	5090	1300	350	531	216	193
25	485	614	993	844	589	683	4660	1380	314	523	270	1130
26	643	715	1430	995	812	680	3100	843	548	505	237	665
27	829	603	816	602	1020	667	2800	1820	411	584	226	322
28	475	843	1210	291	852	695	2570	1890	472	311	175	266
29	445	605	695	440	---	746	2180	1510	492	260	233	271
30	747	717	977	473	---	869	1830	1160	720	222	214	254
31	795	---	902	753	---	607	---	801	---	205	252	---
TOTAL	19415	22216	33196	25809	25257	21001	70740	26744	32827	13794	10051	8354
MEAN	626	741	1071	833	902	677	2358	863	1094	445	324	278
MAX	1350	1250	3730	1340	1210	1110	5090	2100	5010	1050	618	1130
MIN	265	384	499	291	589	237	495	202	314	205	175	103

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2001, BY WATER YEAR (WY)

	606	838	991	995	989	1375	1857	1127	659	453	459	480
MEAN	606	838	991	995	989	1375	1857	1127	659	453	459	480
MAX	2766	2123	2026	2092	2450	3642	4106	2889	1820	1611	1886	2404
(WY)	1956	1956	1928	1978	1981	1921	1914	1943	1998	1915	1976	1938
MIN	90.8	177	133	363	268	429	529	280	188	78.1	131	74.0
(WY)	1915	1915	1915	1914	1919	1931	1995	1995	1941	1962	1964	1953

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1913 - 2001

ANNUAL TOTAL	404264	309404	
ANNUAL MEAN	1105	848	902
HIGHEST ANNUAL MEAN			1364
LOWEST ANNUAL MEAN			455
HIGHEST DAILY MEAN	10800	Jul 16	31100
LOWEST DAILY MEAN	220	Sep 25	5.0
ANNUAL SEVEN-DAY MINIMUM	278	Sep 25	34
MAXIMUM PEAK FLOW			8870
MAXIMUM PEAK STAGE		7.83	Dec 17
INSTANTANEOUS LOW FLOW		95	Aug 26
10 PERCENT EXCEEDS	1670	1540	1690
50 PERCENT EXCEEDS	990	680	686
90 PERCENT EXCEEDS	474	248	189

e Estimated



CONNECTICUT RIVER BASIN

01169900 SOUTH RIVER NEAR CONWAY, MA

LOCATION.--Lat 42°32'31", long 72°41'39", Franklin County, Hydrologic Unit 01080203, on left bank at upstream side of Reeds Bridge just off Bardwell Road, 2.2 mi north of Conway, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--24.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: June 1966 to current year.  
Water-quality records: Water years 1967-69, 1994-95.

REVISED RECORDS.--WDR MA-NH-RI-VT-73-1: 1968-70(P), 1971(M), 1972(P). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 460 ft above sea level, from topographic map. Prior to Oct. 7, 1970, at downstream side of bridge at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation by small power-plant upstream since April 1982.

AVERAGE DISCHARGE.--35 years, 53.4 ft<sup>3</sup>/s, 30.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,750 ft<sup>3</sup>/s, Apr. 4, 1987, gage height, 10.16 ft, minimum, 2.1 ft<sup>3</sup>/s (estimated), Sept. 13, 1995, but may have been lower earlier in the month.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,390 ft<sup>3</sup>/s, Dec. 17, gage height, 7.51 ft; minimum, 2.5 ft<sup>3</sup>/s, Sept. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	41	e50	e46	e29	76	76	e40	39	e7.8	e20
2	15	17	35	e47	e40	e28	72	70	e254	33	e7.0	e9.0
3	15	16	e33	e45	e34	e27	74	65	e431	21	e7.0	e6.0
4	14	16	e33	e44	e32	e26	84	61	e174	19	e7.0	e5.0
5	17	15	e32	e43	e31	e26	99	56	109	29	e7.0	e4.4
6	88	15	e31	e42	e30	e28	110	49	93	47	e6.5	e4.0
7	41	15	e30	e40	e30	e35	144	48	79	23	e6.0	3.3
8	28	15	e29	e39	e29	e30	376	44	68	21	e5.4	3.2
9	24	14	e28	e37	e31	e28	379	41	58	53	e5.0	3.1
10	22	64	e27	e36	e34	e30	582	41	48	27	e6.0	4.4
11	21	60	e26	e35	e40	e29	477	37	54	31	e7.0	11
12	19	34	e25	e34	e50	e28	540	34	109	22	e8.0	5.1
13	18	27	e24	e34	e47	e31	599	31	58	18	e9.0	4.1
14	17	41	e23	e33	e44	e30	540	26	47	17	e7.0	7.1
15	16	71	e27	e33	e42	e31	457	25	41	15	e6.0	6.4
16	17	38	93	e32	e43	e33	391	25	37	14	e5.4	4.7
17	25	32	743	e32	e41	e33	319	25	90	19	e5.0	4.1
18	41	28	176	e31	e39	e35	275	24	59	20	e5.2	3.9
19	53	27	82	e31	e38	37	232	25	41	18	e5.0	3.7
20	30	25	68	e30	e37	41	227	22	34	14	e4.5	3.6
21	25	25	e60	e30	e35	45	284	20	32	12	e4.7	e6.0
22	22	24	e55	e29	e33	518	385	42	31	11	e4.4	e19
23	21	22	e50	e28	e31	217	298	e108	33	9.8	e4.0	e10
24	20	34	e48	e27	e29	130	214	e158	40	9.5	e3.8	e7.8
25	20	57	e46	e27	e29	106	151	e108	30	8.9	e3.5	e69
26	19	73	e44	e26	e31	89	127	e121	25	24	e3.5	e31
27	19	69	e43	e26	e30	79	111	e174	22	e16	e3.5	e15
28	18	44	e42	e25	e30	74	100	e113	19	e11	e3.4	e11
29	17	36	e42	e25	---	70	89	e77	18	e9.6	e3.2	e8.9
30	18	43	e44	e27	---	71	83	e57	20	e8.8	e3.0	e7.5
31	18	---	e45	e50	---	82	---	e48	---	e8.3	e3.0	---
TOTAL	754	1015	2125	1068	1006	2096	7895	1851	2194	628.9	166.8	301.3
MEAN	24.3	33.8	68.5	34.5	35.9	67.6	263	59.7	73.1	20.3	5.38	10.0
MAX	88	73	743	50	50	518	599	174	431	53	9.0	69
MIN	14	14	23	25	29	26	72	20	18	8.3	3.0	3.1
CFSM	1.01	1.40	2.84	1.43	1.49	2.81	10.9	2.48	3.03	.84	.22	.42
IN.	1.16	1.57	3.28	1.65	1.55	3.24	12.19	2.86	3.39	.97	.26	.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2001, BY WATER YEAR (WY)

MEAN	29.5	49.8	53.7	47.7	52.2	96.7	131	72.4	48.2	22.5	18.4	18.6
MAX	85.5	142	142	135	163	183	263	171	144	80.7	91.9	101
(WY)	1976	1996	1974	1996	1981	1999	2001	1984	1982	2000	2000	1999
MIN	6.22	11.0	12.6	7.27	14.1	32.3	32.6	23.5	12.6	5.92	4.45	4.17
(WY)	1983	1983	1999	1981	1980	1967	1985	1995	1985	1991	1999	1995

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1966 - 2001

ANNUAL TOTAL	25551	21101.0										
ANNUAL MEAN	69.8	57.8								53.4		
HIGHEST ANNUAL MEAN										82.6		1996
LOWEST ANNUAL MEAN										21.5		1985
HIGHEST DAILY MEAN	891	Jul 16	743	Dec 17	1570	Jun 6	1982					
LOWEST DAILY MEAN	11	Jul 14	3.0	Aug 30	1.6	Aug 8	1999					
ANNUAL SEVEN-DAY MINIMUM	14	Jul 9	3.3	Aug 25	2.0	Aug 5	1999					
MAXIMUM PEAK FLOW			2390	Dec 17	5750	Apr 4	1987					
MAXIMUM PEAK STAGE			7.51	Dec 17	10.16	Apr 4	1987					
ANNUAL RUNOFF (CFSM)	2.90		2.40		2.21							
ANNUAL RUNOFF (INCHES)	39.44		32.57		30.09							
10 PERCENT EXCEEDS	126		108		112							
50 PERCENT EXCEEDS	46		31		30							
90 PERCENT EXCEEDS	19		6.0		7.2							

e Estimated

CONNECTICUT RIVER BASIN

01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MA

LOCATION.--Lat 42°32'09", long 72°39'14", Franklin County, Hydrologic Unit 01080203, on right bank 0.4 mi downstream from South River, 1.2 mi west of West Deerfield, 2.5 mi west of Deerfield, and 9.2 mi upstream from mouth.

DRAINAGE AREA.--557 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: March to November 1904, January 1905, March to December 1905, October 1940 to current year, published as "at Deerfield" 1904-5.  
Water-quality records: June 1994.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area. WDR MA-RI-92-1: 1991.

GAGE.--Water-stage recorder. Elevation of gage is 155 ft above sea level, from topographic map. Prior to Dec. 16, 1905, nonrecording gage at site 1.5 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since 1913 by Somerset Reservoir, since 1924 by Harriman Reservoir, and by several powerplants upstream. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--61 years (water years 1941-2001), 1,318 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,700 ft<sup>3</sup>/s, Apr. 5, 1987, gage height, 17.71 ft; minimum daily, 28 ft<sup>3</sup>/s, July 29, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,900 ft<sup>3</sup>/s, Dec. 17, gage height, 9.43; minimum daily, 265 ft<sup>3</sup>/s, Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	402	e773	1090	1060	1140	1070	1090	2560	1290	1360	290	307
2	389	904	1510	1440	1260	721	1040	2800	3600	1580	380	316
3	377	630	762	1900	1110	706	924	2590	9270	754	506	304
4	543	662	936	2030	1410	571	1080	2180	6730	696	604	285
5	556	520	913	1770	1330	1010	1250	1890	3850	816	367	282
6	1350	516	1040	1580	1360	1010	1580	1540	2370	834	458	282
7	1150	615	1400	842	1070	1150	1900	780	1510	639	601	278
8	924	695	1360	1360	1100	979	3300	815	1140	452	690	279
9	620	717	1290	1240	1470	968	4170	813	971	850	767	278
10	943	1300	957	1340	1490	922	6430	821	941	826	688	286
11	987	1720	1030	1770	1220	971	5600	856	927	772	623	305
12	977	1030	881	1520	1200	981	6150	518	1670	683	320	294
13	937	848	1080	1640	1430	1110	6780	574	1520	372	457	289
14	498	1110	1050	1340	1260	1150	6960	481	1010	393	441	314
15	418	2080	1000	1140	1600	557	5460	424	887	357	365	341
16	582	1570	899	1340	1630	543	4910	422	922	506	357	324
17	955	1470	7450	860	1510	524	4160	465	1480	604	336	297
18	1040	1610	5670	979	1060	650	3850	402	1550	664	336	278
19	2160	1140	2520	1130	996	1090	3400	396	1420	521	377	265
20	1450	1260	1850	1030	1040	1330	3580	395	1080	335	345	286
21	1000	1220	1400	852	949	990	4500	403	1060	380	299	1120
22	744	1150	1620	1050	949	2900	7370	465	707	362	297	344
23	668	1060	1440	1250	1430	2160	8030	1200	667	682	295	321
24	647	679	1500	1380	1130	1760	7560	2140	708	679	293	301
25	723	848	1680	1070	970	1230	7170	2350	527	631	290	1620
26	733	1020	1980	1300	960	1290	4580	1560	637	698	286	1500
27	982	1210	1610	892	1310	1140	3950	2920	682	859	277	413
28	692	1340	1560	520	1180	1040	3690	2800	591	486	279	374
29	613	1090	1130	590	---	1280	3070	2350	582	349	272	404
30	851	1080	1170	719	---	1370	2640	1710	821	318	287	325
31	967	---	1220	1040	---	1160	---	1230	---	298	285	---
TOTAL	25878	31867	50998	37974	34564	34333	126174	40850	51120	19756	12468	12612
MEAN	835	1062	1645	1225	1234	1108	4206	1318	1704	637	402	420
MAX	2160	2080	7450	2030	1630	2900	8030	2920	9270	1580	767	1620
MIN	377	516	762	520	949	524	924	395	527	298	272	265

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2001, BY WATER YEAR (WY)

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	842	1216	1444	1414	1443	2118	2935	1704	975	587	570	608																																																																																						
MAX	4632	3302	3156	2801	3890	4771	5320	4094	2693	1955	2142	2112																																																																																						
(WY)	1956	1956	1997	1978	1981	1953	1993	1984	1998	2000	1976	1905																																																																																						
MIN	228	244	385	622	693	1083	928	484	307	119	167	94.5																																																																																						
(WY)	1983	1965	1965	1965	1944	1962	1995	1995	1964	1962	1964	1953																																																																																						

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1904 - 2001
ANNUAL TOTAL	609441	478594	
ANNUAL MEAN	1665	1311	1318
HIGHEST ANNUAL MEAN			1840
LOWEST ANNUAL MEAN			629
HIGHEST DAILY MEAN	11900	Jul 16	9270
LOWEST DAILY MEAN	377	Oct 3	265
ANNUAL SEVEN-DAY MINIMUM	416	Sep 27	281
MAXIMUM PEAK FLOW			19900
MAXIMUM PEAK STAGE		9.43	Dec 17
INSTANTANEOUS LOW FLOW		199	Oct 27
10 PERCENT EXCEEDS	2540	2430	2660
50 PERCENT EXCEEDS	1500	981	974
90 PERCENT EXCEEDS	707	325	270

e Estimated



CONNECTICUT RIVER BASIN

01170500 CONNECTICUT RIVER AT MONTAGUE CITY, MA

LOCATION.--Lat 42°34'43" (revised), long 72°34'30", Franklin County, Hydrologic Unit 01080201, on left bank 75 ft downstream from railroad bridge at Montague City, 1,000 ft downstream from Deerfield River, and at mile 119.0.

DRAINAGE AREA.--7,860 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: March 1904 to current year. Prior to October 1929, published as "at Sunderland." Records published for both sites October 1929 to September 1932. Water-quality records: Water years 1994-95.

REVISED RECORDS.--WSP 471: 1904-17. WSP 741: 1930-32. WSP 781: 1928(M). WSP 1051: 1905, 1909-10, 1912-14, 1920, 1922-23, 1925-26, 1928, drainage area at Sunderland. WSP 1301: 1905(M), 1914-19(M), 1930-31(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 99.87 ft above sea level. Prior to Oct. 1, 1917, nonrecording gage; Oct. 1, 1917, to Oct. 8, 1921, water-stage recorder used for low stages, nonrecording gage otherwise; and Oct. 9, 1921, to Sept. 30, 1932, water-stage recorder; all at site 9 mi downstream at datum 1.00 ft lower. Since Oct. 1, 1929, water-stage recorder at present site and datum.

REMARKS.--Records good except those for estimated daily discharge, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, and other reservoirs, combined usable capacity, about 43,400,000,000 ft<sup>3</sup>. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--97 years, 13,970 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 236,000 ft<sup>3</sup>/s, Mar. 19, 1936, gage height, 49.2 ft, from floodmarks; minimum daily, 215 ft<sup>3</sup>/s, Aug. 31, Sept. 1, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93,200 ft<sup>3</sup>/s, Apr. 24, gage height, 30.62 ft; minimum daily, 1,440 ft<sup>3</sup>/s, Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MEAN VALUES

Table with columns: DAY, OCT, NOV, DEC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP. Rows 1-31 and summary rows (TOTAL, MEAN, MAX, MIN).

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2001, BY WATER YEAR (WY). Table with columns for months and rows for MEAN, MAX, MIN.

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR, FOR 2001 WATER YEAR, WATER YEARS 1904 - 2001. Table with columns for statistics and rows for ANNUAL TOTAL, MEAN, HIGHEST ANNUAL MEAN, LOWEST ANNUAL MEAN, etc.

e Estimated

CONNECTICUT RIVER BASIN

01171500 MILL RIVER AT NORTHAMPTON, MA

LOCATION.--Lat 42°19'05", long 72°39'21", Hampshire County, Hydrologic Unit 01080201, on right bank at Northampton 3.5 mi upstream from mouth.

DRAINAGE AREA.--54.0 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: October 1938 to current year. October 1938 monthly discharge only, published in WSP 1301. Water-quality records: Water years 1957-59, 1971, 1973, 1994.

REVISED RECORDS.--WSP 921: 1940. WSP 1231: 1940-42(M), 1944-45(M), 1948(M), 1949.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 140 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by mill upstream.

AVERAGE DISCHARGE.--62 years, 99.1 ft<sup>3</sup>/s, 24.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,300 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 11.78 ft, from rating curve extended above 3,700 ft<sup>3</sup>/s on basis of computation of peak flow over dam; minimum, 2.2 ft<sup>3</sup>/s, Oct. 1, 1950; minimum daily, 4.2 ft<sup>3</sup>/s, Aug. 21, 23, 24, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,280 ft<sup>3</sup>/s, Dec. 17, gage height, 6.70 ft; minimum, 3.9 ft<sup>3</sup>/s, Aug. 25, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

1	32	e35	64	e88	e60	e54	237	88	79	49	11	5.8
2	33	e33	56	e76	e54	e47	203	80	302	49	10	6.4
3	33	e32	48	e70	e49	e54	196	76	595	35	10	5.2
4	31	e31	e46	e64	e47	e46	214	70	343	31	14	7.6
5	34	32	e44	e60	e60	e48	257	64	198	36	18	11
6	129	32	e42	e56	e90	157	298	59	145	35	15	7.0
7	79	32	e40	e55	e66	86	378	56	116	28	13	5.6
8	54	30	e39	e54	e45	54	774	55	97	27	11	4.9
9	47	30	e37	e53	e52	53	713	52	86	37	8.9	4.6
10	43	87	e42	e54	e65	57	902	49	76	54	8.3	6.7
11	41	96	49	e56	e88	55	666	47	78	81	8.1	15
12	36	61	55	e49	e72	55	718	46	136	44	8.4	10
13	37	49	53	e44	e58	69	675	41	92	32	14	6.4
14	46	55	84	e40	e64	82	614	39	74	29	13	15
15	45	120	49	e45	e72	80	505	37	65	26	12	15
16	46	71	49	e52	e62	86	437	36	60	25	9.4	9.3
17	41	58	801	e49	e56	93	359	37	189	28	7.8	7.5
18	55	51	501	e46	e68	100	307	37	141	30	7.6	7.3
19	99	48	206	e42	e58	101	256	37	80	24	7.1	6.8
20	63	46	160	e39	e52	111	229	35	63	21	6.9	9.0
21	52	44	135	e42	e50	128	234	38	58	18	7.2	196
22	46	43	121	e48	e52	942	247	80	56	17	7.0	64
23	43	41	111	e56	e56	604	226	199	65	15	6.0	30
24	43	39	e95	e47	e50	421	190	337	73	15	5.8	22
25	41	42	e84	e43	e54	328	153	262	57	13	4.8	88
26	42	70	e74	e39	e62	265	135	273	46	22	4.7	77
27	e41	133	e68	e37	e70	222	124	414	40	25	4.7	38
28	e38	81	e64	e36	e60	197	110	202	34	17	5.1	28
29	e36	66	e60	e38	---	187	99	137	32	16	5.0	24
30	e35	65	e58	e42	---	272	93	106	35	15	4.5	19
31	e37	---	e68	e52	---	291	---	90	---	12	4.5	---
TOTAL	1478	1653	3403	1572	1692	5345	10549	3179	3511	906	272.8	752.1
MEAN	47.7	55.1	110	50.7	60.4	172	352	103	117	29.2	8.80	25.1
MAX	129	133	801	88	90	942	902	414	595	81	18	196
MIN	31	30	37	36	45	46	93	35	32	12	4.5	4.6
CFSM	.88	1.02	2.03	.94	1.12	3.19	6.51	1.90	2.17	.54	.16	.46
IN.	1.02	1.14	2.34	1.08	1.17	3.68	7.27	2.19	2.42	.62	.19	.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2001, BY WATER YEAR (WY)

MEAN	55.6	88.5	99.9	92.2	104	195	234	132	79.3	39.8	35.3	36.0
MAX	456	334	307	287	338	475	478	326	300	146	254	215
(WY)	1956	1956	1997	1978	1981	1953	1993	1984	1982	2000	1955	1999
MIN	8.52	13.2	23.9	15.5	24.1	63.9	53.5	45.9	15.9	9.13	4.96	5.48
(WY)	1965	1965	1947	1981	1940	1989	1985	1985	1964	1957	1957	1957

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1939 - 2001
ANNUAL TOTAL	46598	34312.9	
ANNUAL MEAN	127	94.0	99.1
HIGHEST ANNUAL MEAN			157
LOWEST ANNUAL MEAN			39.1
HIGHEST DAILY MEAN	1300	942	3870
LOWEST DAILY MEAN	25	4.5	3.8
ANNUAL SEVEN-DAY MINIMUM	31	4.8	4.3
MAXIMUM PEAK FLOW		2280	6300
MAXIMUM PEAK STAGE		6.70	11.78
INSTANTANEOUS LOW FLOW		3.9	2.2
ANNUAL RUNOFF (CFSM)	2.36	1.74	1.83
ANNUAL RUNOFF (INCHES)	32.10	23.64	24.93
10 PERCENT EXCEEDS	244	224	220
50 PERCENT EXCEEDS	82	52	57
90 PERCENT EXCEEDS	39	10	14

e Estimated



CONNECTICUT RIVER BASIN

01172003 CONNECTICUT RIVER BELOW HOLYOKE DAM AT HOLYOKE, MA

LOCATION.--Lat 42°12'36", long 72°35'44", Hampden County, Hydrologic Unit 01080201, on right bank, 2,200 ft downstream from dam of Holyoke Water Power Co. in Holyoke, MA. and at mile 86.

DRAINAGE AREA.--8,309 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 43.276 ft above sea level.

REMARKS.--Records good. Flow regulated by powerplants, by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, and other reservoirs, combined usable capacity, about 47 billion ft<sup>3</sup>. Records do not include water diverted around gage by Holyoke Water Power Company for industrial use. Telephone gage-height telemeter at this station.

AVERAGE DISCHARGE.--16 years (water years 1985--current year), 12,320 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 153,000 ft<sup>3</sup>/s, June 1, 1984, gage height, 25.62 ft; minimum daily, 519 ft<sup>3</sup>/s, Sept. 30, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1854, 244,000 ft<sup>3</sup>/s, Mar. 20, 1936, gage height, 35.0 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 89,100 ft<sup>3</sup>/s, Apr. 24, gage height, 18.12 ft; minimum daily, 465 ft<sup>3</sup>/s, Aug. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	2110	6580	7770	6460	5640	11000	42400	10000	4220	1550	2790
2	1300	3850	8760	7660	6350	5180	9330	40200	10200	7300	1020	2550
3	2360	2100	7710	8430	6090	4600	8280	39100	26900	5920	762	1470
4	3780	877	7810	10800	7160	3030	6840	35600	41000	5960	774	1350
5	2820	1040	6780	10200	5550	3550	7860	34200	37000	5800	957	2020
6	3980	3320	6530	9380	4160	6310	10700	26300	30600	8110	1640	1840
7	3700	4280	6630	7100	7310	3620	14500	20600	22100	6520	3740	2530
8	5550	4820	7110	7460	6430	4990	19000	18600	16900	3240	2790	1520
9	4210	5510	5600	7700	7300	6450	25000	13400	12000	5560	2570	1230
10	3920	7450	4940	7080	8190	4920	38400	10800	9370	7400	4210	2190
11	4820	10000	4170	9210	6050	2840	46900	10200	8480	7120	2490	2110
12	4830	9130	3350	8700	5350	5430	49600	11700	11900	4830	465	1260
13	4170	9670	5780	7160	6390	6280	55200	10400	17000	3630	969	1680
14	4260	9150	6970	7830	7680	6800	68500	8780	15600	3010	3120	2420
15	1290	10200	5960	8040	7900	5280	75100	10500	11400	2920	1200	1080
16	2260	10800	4570	7480	7890	3320	73200	9690	7770	4440	1570	1080
17	4340	11200	8770	5430	8340	6280	66500	7620	8000	7120	1730	1190
18	3400	12000	52200	6550	6400	4720	61500	4950	9430	6740	2170	2470
19	8400	11200	67900	6440	5230	5890	54400	5610	9590	5650	663	1860
20	8580	9310	54700	5720	5000	6050	50100	6890	8120	5630	1270	1390
21	6760	8930	40700	3520	6000	6710	47300	6600	8180	3490	1580	3250
22	7710	7790	33000	4260	6810	13200	54000	8150	6700	3480	1070	3530
23	6930	6170	26100	6160	7260	16500	76800	8500	4010	3900	520	3130
24	7410	4720	16900	6300	6310	17300	86900	9480	4520	5600	842	2310
25	6080	4630	14000	6030	6140	17400	86300	8550	4660	5840	1770	3460
26	8450	4270	10800	5950	5650	15300	82800	7340	5840	4960	517	6370
27	10100	6090	8250	7040	4930	13700	80500	9510	3830	3110	1470	4680
28	5220	8960	9470	6300	5210	11600	78400	9900	2420	1180	2130	4510
29	4550	9910	9810	4120	---	11200	70500	11000	2130	1290	1040	4630
30	3500	8450	7260	5470	---	12900	57700	8840	2270	900	1000	2720
31	5670	---	8040	6180	---	13500	---	10700	---	1350	1290	---
TOTAL	151450	207937	467150	217470	179540	250490	1473110	466110	367920	146220	48889	74620
MEAN	4885	6931	15070	7015	6412	8080	49100	15040	12260	4717	1577	2487
MAX	10100	12000	67900	10800	8340	17400	86900	42400	41000	8110	4210	6370
MIN	1100	877	3350	3520	4160	2840	6840	4950	2130	900	465	1080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2001, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	9047	11720	11490	10430	9779	18150	34680	17500	10590	6341	5477	4886						
MAX	16340	25800	27410	23660	21890	34660	58300	40670	31100	16930	14780	13840						
(WY)	1991	1996	1997	1996	1984	1990	1993	1996	1984	1996	1990	1999						
MIN	1512	3540	5787	4760	4250	8080	10270	7366	4056	2578	1577	1378						
(WY)	1985	1985	1985	1989	1987	2001	1995	1987	1999	1991	2001	1984						

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1984 - 2001

ANNUAL TOTAL	5236578	4050906					
ANNUAL MEAN	14310	11100	12320				
HIGHEST ANNUAL MEAN			19030	1996			
LOWEST ANNUAL MEAN			6580	1985			
HIGHEST DAILY MEAN	68200	Apr 6	86900	Apr 24	145000	Jun 1	1984
LOWEST DAILY MEAN	877	Nov 4	465	Aug 12	465	Aug 12	2001
ANNUAL SEVEN-DAY MINIMUM	1780	Sep 6	1040	Jul 30	707	Sep 18	1984
MAXIMUM PEAK FLOW			89100	Apr 24	153000	Jun 1	1984
MAXIMUM PEAK STAGE			18.12	Apr 24	25.62	Jun 1	1984
INSTANTANEOUS LOW FLOW			387	Aug 20	200	Aug 15	1995
10 PERCENT EXCEEDS	33500		26200		27400		
50 PERCENT EXCEEDS	9620		6370		8120		
90 PERCENT EXCEEDS	3540		1560		2960		

CONNECTICUT RIVER BASIN

01172500 WARE RIVER NEAR BARRE, MA

LOCATION.--Lat 42°25'34" (revised), long 72°01'30" Worcester County, Hydrologic Unit 01080204, on left bank 700 ft downstream from Barre Falls Reservoir, 1.6 mi upstream from Burnshirt River, 4 mi east of Barre, and at mile 33.3.

DRAINAGE AREA.--55.1 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: July 1946 to current year.  
Water-quality records: Water years 1957, 1994.

REVISED RECORDS.--WDR MA-RI-84-1: Drainage area. WDR MA-RI-89-1: 1984-88.

GAGE.--Water-stage recorder. Elevation of gage is 745 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to August 1955, slight regulation at low flow at times by Long Pond. Flow regulated by Barre Falls Reservoir (see table below for monthend contents) since 1958. Diversion at times since 1955 from 6.5 mi<sup>2</sup> upstream of station for municipal supply of Fitchburg. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--55 years, 95.5 ft<sup>3</sup>/s, 23.54 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft<sup>3</sup>/s, Oct. 16, 1955, gage height, 6.31 ft; no flow part of each day Sept. 3-8, 13, 1996; minimum daily discharge, 0.1 ft<sup>3</sup>/s, Sept. 8, 11, 1995. Maximum discharge since construction of Barre Falls Reservoir in 1958, 1,630 ft<sup>3</sup>/s, Apr. 13, 1987, gage height, 5.56 ft; maximum gage height, 5.62 ft, Mar. 14, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft<sup>3</sup>/s, Apr. 20, gage height, 5.14 ft; minimum daily, 1.8 ft<sup>3</sup>/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	28	73	44	75	68	349	88	60	585	8.0	5.0
2	14	31	e63	44	63	45	279	79	68	339	7.0	4.3
3	14	28	e54	44	40	38	260	71	91	112	7.1	3.5
4	13	25	e49	52	e41	39	238	66	97	84	12	3.7
5	13	26	e43	46	59	49	243	61	100	69	26	3.8
6	36	27	e41	41	65	61	273	60	177	64	27	3.4
7	36	26	e21	41	65	69	292	54	125	60	17	3.1
8	32	24	15	59	65	68	157	49	65	54	12	2.7
9	30	21	13	70	57	62	59	46	52	50	10	2.3
10	27	40	14	69	53	56	20	43	44	51	8.5	2.3
11	24	68	26	62	e53	56	32	61	38	66	7.7	2.2
12	22	85	32	49	e63	66	494	87	74	74	10	1.9
13	20	78	32	e35	75	69	765	71	74	62	18	1.8
14	22	69	32	23	85	68	753	54	64	66	25	3.7
15	23	86	43	24	74	75	774	44	51	64	19	4.9
16	20	86	52	34	73	78	878	40	41	47	16	4.1
17	21	78	46	50	74	79	970	49	41	41	14	3.2
18	21	67	133	53	e74	80	1030	48	13	58	15	2.7
19	33	60	445	43	e73	89	1040	39	168	62	12	2.4
20	31	53	340	39	61	92	1060	34	271	52	11	2.4
21	30	48	174	40	57	101	908	28	208	43	16	14
22	35	45	131	75	e57	42	355	39	327	28	13	15
23	30	41	96	69	52	309	259	51	338	20	15	10
24	27	e36	79	41	50	291	231	57	321	16	17	7.9
25	25	e32	76	55	50	299	204	56	317	14	13	31
26	24	40	62	43	58	476	180	53	305	16	10	51
27	28	59	69	32	71	545	148	52	110	18	8.6	39
28	47	71	65	33	83	582	122	e47	59	17	7.2	25
29	33	79	47	e32	---	591	107	e94	48	13	5.9	24
30	29	79	43	44	---	495	97	79	178	10	4.7	39
31	28	---	43	62	---	355	---	74	---	8.7	4.8	---
TOTAL	804	1536	2452	1448	1766	5393	12577	1774	3925	2263.7	397.5	319.3
MEAN	25.9	51.2	79.1	46.7	63.1	174	419	57.2	131	73.0	12.8	10.6
MAX	47	86	445	75	85	591	1060	94	338	585	27	51
MIN	13	21	13	23	40	38	20	28	13	8.7	4.7	1.8
(+)	2.4	3.8	30.8	30.3	19.6	41.8	3.4	3.0	3.2	1.8	1.6	2.3
MEAN††	26.1	51.7	89.2	46.5	58.6	182	404	57.1	131	72.6	12.7	10.9
CFSM††	0.47	0.94	1.62	0.84	1.06	3.30	7.34	1.04	2.38	1.32	0.23	0.20
IN††	0.55	1.05	1.87	0.97	1.11	3.81	8.19	1.19	2.65	1.52	0.27	0.22

CONNECTICUT RIVER BASIN

01172500 WARE RIVER NEAR BARRE, MA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2001, BY WATER YEAR (WY)

MEAN	52.9	81.9	102	103	110	180	233	121	75.8	33.0	29.0	26.2
MAX	275	233	327	285	274	365	559	257	368	102	169	205
(WY)	1956	1956	1997	1979	1996	1983	1987	1989	1984	1998	1955	1954
MIN	4.17	6.78	13.1	8.14	18.0	69.3	77.4	39.1	9.37	4.45	1.97	2.00
(WY)	1965	1965	1966	1981	1977	1967	1985	1999	1999	1999	1965	1953

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1946 - 2001	
ANNUAL TOTAL	35101.0		34655.5			
ANNUAL MEAN	95.9		94.9		95.5	
ADJUSTED ANNUAL MEAN††	95.8		95.2		95.5	
HIGHEST ANNUAL MEAN					157	
LOWEST ANNUAL MEAN					29.5	
HIGHEST DAILY MEAN	690	Apr 26	1060	Apr 20	1520	Oct 16 1955
LOWEST DAILY MEAN	6.6	Sep 12	1.8	Sep 13	.10	Sep 8 1995
ANNUAL SEVEN-DAY MINIMUM	8.3	Sep 6	2.3	Sep 7	.11	Sep 6 1995
MAXIMUM PEAK FLOW			1120	Apr 20	1890	Oct 16 1955
MAXIMUM PEAK STAGE			5.14	Apr 20	6.31	Oct 16 1955
INSTANTANEOUS LOW FLOW			1.1	Jun 18		
ADJUSTED RUNOFF (CFSM)††	1.74		1.73		1.73	
ADJUSTED RUNOFF (INCHES)††	23.68		23.40		23.54	
10 PERCENT EXCEEDS	201		249		220	
50 PERCENT EXCEEDS	60		49		60	
90 PERCENT EXCEEDS	19		10		7.4	

e Estimated

† Monthend contents, in millions of cubic feet (mcf), in Barre Falls Reservoir. Records furnished by U.S. Army Corps of Engineers. Monthend contents on Sept. 30, 2000, 2.4 mcf.

†† Adjusted for change in contents in Barre Falls Reservoir.

Note.--Except as footnoted, all statistics are based on unadjusted daily and monthly mean discharges.







CONNECTICUT RIVER BASIN

01174565 WEST BRANCH SWIFT RIVER NEAR SHUTESBURY, MA

LOCATION.--Lat 42°27'18", long 72°22'56", Franklin County, Hydrologic Unit 01080204, on left bank 800 ft downstream from State Highway 202 and 1.4 mi east of Shutesbury.

DRAINAGE AREA.--12.6 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1983 to September 1985, April 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 540 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those for discharges greater than 500 ft<sup>3</sup>/s, which are poor.

AVERAGE DISCHARGE.--7 years (water years, 1985, 1996--current year) 23.1 ft<sup>3</sup>/s, 24.96 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft<sup>3</sup>/s, Sept. 17, 1999, gage height, 5.96 ft, from rating curve extended above 310 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 4.28 ft; minimum, about 0.35 ft<sup>3</sup>/s, mid-September 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 338 ft<sup>3</sup>/s, Dec. 17, gage height, 3.34 ft; minimum, 0.60 ft<sup>3</sup>/s, Sept. 2, 3, 8-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	5.8	14	10	18	e10	36	20	9.7	9.9	2.2	0.88
2	5.5	5.7	12	e9.8	15	9.3	32	19	25	9.2	2.2	.73
3	5.4	5.6	e10	e9.6	e12	8.3	31	18	109	7.0	4.0	.73
4	5.1	5.6	e9.2	e9.2	e11	7.7	34	16	50	6.6	4.5	1.1
5	5.3	5.5	e8.6	8.9	e28	16	41	15	28	11	3.3	1.1
6	16	5.3	e8.2	8.7	76	56	53	14	19	13	2.9	.89
7	17	5.2	e8.0	7.8	26	22	71	13	15	9.9	2.4	.85
8	12	5.2	7.7	7.5	12	10	110	13	13	8.3	2.1	.78
9	8.7	5.2	7.3	e7.3	13	9.3	132	12	11	8.7	1.9	.73
10	7.4	11	e7.0	e7.2	e18	10	193	11	9.2	7.3	1.8	.94
11	6.9	14	e7.2	e7.1	e19	9.8	162	10	11	7.2	1.6	2.0
12	6.5	11	e8.0	e7.0	e16	9.9	160	9.8	27	6.5	1.5	1.4
13	6.2	9.5	e8.5	e7.2	e13	12	156	9.0	18	5.9	1.8	1.2
14	6.2	12	e8.7	e7.4	e12	15	158	8.1	13	5.7	3.2	2.1
15	5.9	26	8.8	7.6	18	15	134	7.8	11	5.8	3.5	2.0
16	6.2	20	8.9	8.3	15	17	114	7.8	9.0	5.0	2.6	1.3
17	7.1	16	115	9.7	e13	18	97	8.1	18	5.8	2.2	1.1
18	9.5	13	121	11	e14	19	81	7.8	20	5.7	2.1	1.0
19	17	11	49	11	e12	18	69	7.8	13	4.7	1.8	.95
20	13	10	e32	11	11	20	61	7.1	9.7	4.2	1.7	.96
21	11	9.7	e26	e11	e11	23	63	6.4	8.4	3.9	1.6	14
22	8.9	8.8	e22	e12	e10	72	67	7.9	7.5	3.6	1.5	6.3
23	7.4	7.9	e20	e12	10	101	62	11	17	3.4	1.4	3.7
24	7.0	e7.5	e18	10	9.0	76	49	17	37	3.2	1.3	2.7
25	6.7	e7.2	e17	9.6	11	56	38	24	21	3.0	1.1	4.6
26	6.4	e7.2	e15	e9.2	16	43	31	19	14	4.4	1.0	4.9
27	6.4	22	e14	8.7	14	36	27	25	10	4.1	1.0	3.3
28	6.1	20	e13	8.2	e11	32	25	20	8.4	3.1	1.0	2.6
29	5.2	17	12	e7.6	---	30	23	20	7.1	2.9	.96	2.3
30	5.2	15	11	10	---	37	21	15	6.8	2.6	.84	1.9
31	6.0	---	12	17	---	41	---	11	---	2.5	.90	---
TOTAL	248.7	324.9	639.1	288.6	464.0	859.3	2331	410.6	575.8	184.1	61.90	69.04
MEAN	8.02	10.8	20.6	9.31	16.6	27.7	77.7	13.2	19.2	5.94	2.00	2.30
MAX	17	26	121	17	76	101	193	25	109	13	4.5	14
MIN	5.1	5.2	7.0	7.0	9.0	7.7	21	6.4	6.8	2.5	.84	.73
CFSM	.64	.86	1.64	.74	1.32	2.20	6.17	1.05	1.52	.47	.16	.18
IN.	.73	.96	1.89	.85	1.37	2.54	6.88	1.21	1.70	.54	.18	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2001, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	13.4	20.1	27.6	28.0	33.4	42.6	43.2	29.3	25.0	10.1	6.42	9.67						
MAX	29.5	39.2	75.3	51.0	70.6	60.1	83.0	78.1	52.8	24.3	29.3	52.9						
(WY)	2000	1996	1997	1996	1984	1999	1984	1984	1998	1996	2000	1999						
MIN	2.58	6.98	7.19	9.31	13.6	27.7	15.3	10.5	3.73	1.98	2.00	1.02						
(WY)	1985	1999	1999	2001	1985	2001	1985	1985	1999	1999	2001	1998						

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1984 - 2001

ANNUAL TOTAL	9455.8	6457.04	
ANNUAL MEAN	25.8	17.7	23.1
HIGHEST ANNUAL MEAN			33.0
LOWEST ANNUAL MEAN			11.3
HIGHEST DAILY MEAN	315	Jun 6	193
LOWEST DAILY MEAN	5.0	Sep 12	.73
ANNUAL SEVEN-DAY MINIMUM	5.4	Nov 3	.86
MAXIMUM PEAK FLOW			338
MAXIMUM PEAK STAGE			3.34
INSTANTANEOUS LOW FLOW			.60
ANNUAL RUNOFF (CFSM)	2.05		1.40
ANNUAL RUNOFF (INCHES)	27.92		19.06
10 PERCENT EXCEEDS	53		36
50 PERCENT EXCEEDS	17		9.7
90 PERCENT EXCEEDS	6.9		2.0

e Estimated

CONNECTICUT RIVER BASIN

01175500 SWIFT RIVER AT WEST WARE, MA

LOCATION.--Lat 42°16'04", long 72°19'59", Hampshire County, Hydrologic Unit 01080204, on left bank at West Ware, 1.4 mi downstream from Quabbin Reservoir, 3.5 mi east of Belchertown, and 8.0 mi upstream from mouth.

DRAINAGE AREA.--189 mi<sup>2</sup>, includes 1.6 mi<sup>2</sup> drained by Beaver Brook, flow of which is diverted from Ware River basin. Prior to January 1937, 186 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: July 1910 to September 1912 (twice-daily gage heights and corresponding discharge), October 1912 to current year.  
Water-quality records: Water years 1952-54.

REVISED RECORDS.--WSP 451: 1916. WSP 871: 1919. WSP 1031: 1944 (changes in reservoir contents and adjusted figures only). WSP 1301: 1925(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 365.18 ft above sea level. Prior to Aug. 25, 1912, nonrecording gage at site 400 ft upstream at same datum.

REMARKS.--Records good, except those greater than 200 ft<sup>3</sup>/s, which are fair. Flow regulated since August 1939 by Quabbin Reservoir, usable capacity, 53.8 billion ft<sup>3</sup>, (See table below for monthend contents). Diversion from Ware River to Quabbin Reservoir since 1940, from Quabbin Reservoir to Wachusett Reservoir since 1941, from Quabbin Reservoir to Chicopee Valley aqueduct since 1950, and from Quabbin Reservoir to city of Worcester at times since 1966.

AVERAGE DISCHARGE.--27 years (water years 1913-39) prior to completion of Quabbin Reservoir, 314 ft<sup>3</sup>/s, 22.56 in/yr; 62 years (water years 1940-current year), affected by storage and diversions, 95.8 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,590 ft<sup>3</sup>/s, Mar. 19, 1936, gage height, 15.00 ft; minimum daily, 9.1 ft<sup>3</sup>/s, Dec. 15, 1968. Maximum discharge since construction of Quabbin Reservoir in 1939, 3,070 ft<sup>3</sup>/s, June 1, 1984, gage height, 11.58 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 223 ft<sup>3</sup>/s, Aug. 3, gage height, 3.17 ft; minimum daily, 27 ft<sup>3</sup>/s, Nov. 19, 21-23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	32	32	31	31	31	38	99	64	191	116	115
2	103	32	32	31	31	31	38	100	70	190	114	114
3	121	33	32	31	31	31	38	100	83	146	128	114
4	123	32	32	31	31	31	38	100	89	120	121	114
5	68	32	32	31	31	32	39	103	89	74	117	114
6	32	50	32	31	31	32	39	103	90	45	116	114
7	29	47	32	31	30	31	39	101	89	40	116	114
8	29	30	32	31	30	31	44	99	89	38	77	114
9	29	30	32	31	31	31	41	99	87	67	79	114
10	30	32	32	31	32	32	40	100	84	67	112	114
11	29	30	32	31	31	32	38	99	84	46	112	114
12	28	29	32	31	31	31	39	99	90	43	113	114
13	28	29	32	31	31	32	37	103	91	41	114	114
14	28	30	32	31	31	32	36	99	89	39	114	115
15	28	30	32	31	32	32	36	98	88	38	113	114
16	77	29	32	30	31	32	36	95	84	37	114	114
17	83	28	38	31	31	33	40	90	104	37	115	114
18	31	28	36	31	31	33	49	84	101	36	115	114
19	32	27	33	31	31	33	53	81	94	35	115	113
20	32	28	33	31	31	33	61	78	93	33	116	113
21	32	27	33	31	31	34	69	73	101	32	116	117
22	32	27	33	31	31	44	78	74	97	31	116	114
23	32	27	32	31	31	38	83	75	95	33	116	114
24	32	29	32	31	31	37	87	75	96	36	116	114
25	33	32	32	31	32	36	91	75	93	36	116	116
26	33	33	32	31	32	35	93	73	90	37	116	116
27	32	33	32	31	32	34	94	75	85	89	116	69
28	31	32	32	30	31	34	98	72	83	122	116	38
29	32	32	32	30	---	34	97	69	149	122	115	38
30	53	33	31	31	---	46	98	69	191	114	114	37
31	51	---	32	31	---	40	---	68	---	120	115	---
TOTAL	1446	943	1005	958	871	1048	1707	2728	2832	2135	3509	3153
MEAN	46.6	31.4	32.4	30.9	31.1	33.8	56.9	88.0	94.4	68.9	113	105
MAX	123	50	38	31	32	46	98	103	191	191	128	117
MIN	28	27	31	30	30	31	36	68	64	31	77	37
†	50691	50080	50220	49889	49829	50982	53844	53556	53546	52553	51303	50240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2001, BY WATER YEAR (WY)

	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	71.3	76.5	72.9	72.4	77.9	83.9	51.1	1099	775	1192	301	149	139	1956	1956	1997	1997	1997	1953	1953	1984	1948	1961	1963	30.3	31.3	28.0	27.5	27.6	27.7	26.2	27.4	28.6	31.2	30.7	30.3	1945	1945	1995	1995	1995	1995	1945	1944	1944	1990																

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1940 - 2001
ANNUAL TOTAL	14504	22335	
ANNUAL MEAN	39.6	61.2	95.8
HIGHEST ANNUAL MEAN			369
LOWEST ANNUAL MEAN			30.7
HIGHEST DAILY MEAN	123	191	3040
LOWEST DAILY MEAN	27	27	9.1
ANNUAL SEVEN-DAY MINIMUM	27	27	24
MAXIMUM PEAK FLOW		223	3070
MAXIMUM PEAK STAGE		3.17	11.58
INSTANTANEOUS LOW FLOW		27	
10 PERCENT EXCEEDS	64	114	148
50 PERCENT EXCEEDS	33	38	45
90 PERCENT EXCEEDS	30	31	32

† Monthend contents, in millions of cubic feet (mcf) in Quabbin Reservoir. Records furnished by Watershed Management Division of Metropolitan District Commission.







CONNECTICUT RIVER BASIN

01177000 CHICOPEE RIVER AT INDIAN ORCHARD, MA

LOCATION.--Lat 42°09'38", long 72°30'52", Hampden County, Hydrologic Unit 01080204, on left bank 1,000 ft downstream from West Street Bridge at Indian Orchard, 1.1 mi upstream from Fuller Brook, and 7.2 mi upstream from mouth.

DRAINAGE AREA.--689 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: August 1928 to current year. Published as "at Bircham Bend" prior to November 1938. Water-quality records: Water years 1953, 1957, 1994.

REVISED RECORDS.--WSP 1231: 1934. WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 125 ft above sea level, from topographic map. Prior to Nov. 1, 1938, water-stage recorder at site 1.8 mi downstream at different datum.

REMARKS.--Records good. Diversion since 1941 from 186 mi<sup>2</sup> in Swift River basin and at times since 1931 from 97 mi<sup>2</sup> in Ware River basin for Boston metropolitan district; since 1950, for Chicopee; since 1952, for South Hadley; at times since 1966 for Worcester; at times since 1955 from 6.5 mi<sup>2</sup> in Ware River basin for Fitchburg. Diversion from Ludlow Reservoir for Springfield and, prior to 1952, for Chicopee. Flow regulated by powerplants upstream, by Quabbin Reservoir 21 mi upstream on Swift River since 1939, by Barre Falls Reservoir on Ware River since 1958, by Conant Brook Reservoir since 1966, and by smaller reservoirs. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--73 years, 912 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,200 ft<sup>3</sup>/s, Sept. 21, 1938, by computation of flow over dam; minimum daily, 16 ft<sup>3</sup>/s, several times in 1929-31.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,160 ft<sup>3</sup>/s, Mar. 31, gage height, 9.19 ft; minimum daily, 208 ft<sup>3</sup>/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	250	539	578	607	645	3550	999	512	721	302	245
2	368	277	522	627	601	625	3090	959	661	789	282	250
3	316	240	458	651	551	624	2780	854	939	761	283	235
4	363	276	416	547	384	534	2680	783	1130	627	726	220
5	330	267	366	479	541	521	2720	786	1020	632	556	244
6	425	284	374	475	440	481	2900	680	922	545	389	237
7	442	296	342	472	547	585	3230	730	763	504	375	220
8	439	311	325	449	534	683	4080	692	735	444	407	223
9	370	276	327	454	600	633	4490	700	549	439	319	217
10	386	466	286	557	680	609	4440	624	540	516	214	223
11	285	585	331	631	653	575	4310	545	499	751	319	221
12	341	608	343	463	678	582	3940	558	539	571	328	224
13	341	582	362	462	705	699	3680	594	518	532	367	208
14	318	558	363	415	642	870	3440	591	577	489	319	259
15	266	663	384	406	705	785	3160	501	502	400	467	289
16	293	744	365	377	805	833	2850	460	485	386	331	242
17	358	707	671	376	787	941	2660	499	1650	421	306	219
18	305	607	2120	394	673	1050	2480	425	3460	407	463	213
19	385	500	1750	432	646	1270	2310	456	2140	383	400	208
20	341	521	1540	461	667	1170	2200	445	1350	312	397	212
21	301	487	1340	449	693	1310	2070	450	1740	368	343	366
22	347	419	1120	531	575	2770	1910	482	1540	325	319	361
23	315	397	902	576	509	3710	1640	556	1330	304	323	313
24	284	371	772	502	603	3460	1720	690	1210	297	302	302
25	302	356	746	440	584	3200	1620	812	1140	281	283	319
26	296	392	769	434	722	2870	1430	825	1080	258	272	370
27	273	517	551	397	748	2660	1350	837	950	267	273	421
28	260	568	554	385	747	2520	1190	722	742	318	261	380
29	250	532	517	389	---	2460	1110	704	544	340	273	220
30	287	541	504	400	---	3350	1030	620	584	318	258	215
31	292	---	524	501	---	4590	---	609	---	316	285	---
TOTAL	10249	13598	20483	14710	17627	47615	80060	20188	30351	14022	10742	7876
MEAN	331	453	661	475	630	1536	2669	651	1012	452	347	263
MAX	442	744	2120	651	805	4590	4490	999	3460	789	726	421
MIN	250	240	286	376	384	481	1030	425	485	258	214	208

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2001, BY WATER YEAR (WY)

	528	729	895	978	1007	1595	1826	1184	815	481	447	479
MEAN	528	729	895	978	1007	1595	1826	1184	815	481	447	479
MAX	1953	3022	3207	2447	2374	5993	4117	2680	3519	2458	3719	5474
(WY)	1956	1956	1997	1937	1976	1936	1933	1953	1984	1938	1955	1938
MIN	131	154	241	191	332	634	636	471	229	159	176	160
(WY)	1942	1966	1966	1981	1931	1989	1966	1965	1964	1966	1949	1953

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1928 - 2001
ANNUAL TOTAL	331823	287521	
ANNUAL MEAN	907	788	912
HIGHEST ANNUAL MEAN			1952
LOWEST ANNUAL MEAN			376
HIGHEST DAILY MEAN	4270	Apr 22	37000
LOWEST DAILY MEAN	229	Sep 11	16
ANNUAL SEVEN-DAY MINIMUM	265	Oct 28	96
MAXIMUM PEAK FLOW		5160	45200
MAXIMUM PEAK STAGE		9.19	.00
INSTANTANEOUS LOW FLOW		71	
10 PERCENT EXCEEDS	1880	1740	1860
50 PERCENT EXCEEDS	666	516	656
90 PERCENT EXCEEDS	316	275	220

## CONNECTICUT RIVER BASIN

223

01179500 WESTFIELD RIVER AT KNIGHTVILLE, MA

LOCATION.--Lat 42°17'16", long 72°51'53", Hampshire County, Hydrologic Unit 01080206, on left bank at Knightville, 0.2 mi downstream from Knightville Dam, 0.2 mi upstream from Sykes Brook, 2.4 mi upstream from Middle branch, 3.5 mi north of Huntington, and at mile 29.7.

DRAINAGE AREA.--161 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: August 1909 to September 1990, October 1995 to current year.  
Water-quality records: Water year 1953.

REVISED RECORDS.--WSP 415: 1909-12. WSP 1001: 1941-43. WSP 1231: 1910, 1912, 1913(M), 1914-15, 1916-19(M), 1921-23(M), 1925-27(M), 1929-33(M), 1935(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Dec. 20, 1940. Datum of gage is 461.25 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Jan. 11, 1936, nonrecording gage at site 0.5 mi upstream at different datum. Jan. 11, 1935, to May 20, 1940, water-stage recorder at site 700 ft upstream at datum 10.57 ft higher. May 21 to Dec. 19, 1940, nonrecording gage at site 700 ft upstream at datum 18.75 ft higher.

REMARKS.--Records good. Flow regulated by Knightville reservoir since 1941. Telephone and satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--87 years (water years 1910-90, 1996-current year), 333 ft<sup>3</sup>/s, 28.09 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,900 ft<sup>3</sup>/s, Sept. 21, 1938, gage height, 29.58 ft, from floodmarks, site and datum then in use, from rating curve extended above 3,800 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 24.07 ft and 29.58 ft; minimum, 0.1 ft<sup>3</sup>/s, Apr. 3, 1965; minimum daily, 1.1 ft<sup>3</sup>/s, Apr. 2, 1965. Maximum discharge since construction of Knightville Reservoir in 1941, 6,660 ft<sup>3</sup>/s, Mar. 21, 1945, gage height, 7.45 ft.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge, 3,570 ft<sup>3</sup>/s, Apr. 14, gage height, 7.34 ft; minimum 6.6 ft<sup>3</sup>/s, Mar. 27, 31; minimum daily, 17 ft<sup>3</sup>/s, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	154	260	157	232	191	462	438	287	231	56	20
2	131	148	220	163	232	188	348	403	868	251	50	37
3	130	143	155	164	226	184	330	354	2850	164	45	33
4	124	139	111	164	214	178	352	317	2110	134	52	28
5	125	135	153	224	117	172	418	282	1000	128	160	30
6	509	132	165	243	84	119	512	252	599	184	147	27
7	488	129	148	232	86	85	649	229	450	162	101	23
8	294	127	134	257	142	91	1080	214	361	124	76	20
9	226	125	136	271	198	94	1770	202	301	140	58	19
10	198	354	132	313	199	96	2590	194	258	159	46	17
11	188	546	137	276	218	148	3020	178	239	269	40	47
12	171	344	158	223	266	192	2470	164	474	177	38	53
13	162	264	195	137	287	190	2460	155	348	133	48	37
14	155	257	165	72	283	190	3040	143	264	115	48	36
15	147	612	161	44	278	191	2370	133	218	105	40	55
16	144	393	158	150	283	235	2050	128	191	93	35	48
17	178	303	187	193	314	259	1600	90	281	89	31	38
18	209	258	960	193	319	257	1470	127	381	113	30	34
19	619	233	2620	190	295	257	1190	128	237	106	28	31
20	367	214	1760	188	230	256	843	125	188	93	28	29
21	271	206	542	186	194	286	1040	111	169	83	27	491
22	229	197	381	183	198	303	1230	168	160	74	26	385
23	206	180	701	143	190	994	1580	373	159	67	24	193
24	197	144	426	113	190	1340	1120	819	284	61	23	119
25	190	141	271	113	187	1250	2410	755	203	56	22	530
26	182	207	118	116	187	1070	2610	574	158	59	20	678
27	173	447	121	116	193	462	864	1130	135	154	20	269
28	163	393	160	116	194	448	653	966	114	113	19	168
29	148	320	159	173	---	565	538	775	101	88	19	119
30	148	271	147	239	---	93	473	464	99	73	18	103
31	155	---	150	227	---	581	---	349	---	63	18	---
TOTAL	6759	7516	11291	5579	6036	10965	41542	10740	13487	3861	1393	3717
MEAN	218	251	364	180	216	354	1385	346	450	125	44.9	124
MAX	619	612	2620	313	319	1340	3040	1130	2850	269	160	678
MIN	124	125	111	44	84	85	330	90	99	56	18	17
(+)	0.3	1.9	41.2	36.3	31.5	36.3	2.0	2.5	0.3	0.3	0.1	0.2
MEAN††	218	251	379	178	213	355	1372	347	449	124	44.9	124
CFSM††	1.35	1.56	2.35	1.10	1.32	2.20	8.52	2.16	2.79	0.77	0.28	0.77
IN.††	1.56	1.74	2.71	1.28	1.38	2.55	9.51	2.48	3.11	0.89	0.32	0.86

## CONNECTICUT RIVER BASIN

01179500 WESTFIELD RIVER AT KNIGHTVILLE, MA--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2001, BY WATER YEAR (WY)

MEAN	182	306	306	298	290	618	938	443	259	130	108	126
MAX	1394	1155	989	1305	1001	2050	1853	912	1158	494	745	986
(WY)	1956	1956	1974	1949	1984	1936	1987	1972	1984	1972	1955	1938
MIN	18.3	36.4	68.5	44.7	65.0	158	283	143	41.1	20.7	15.7	14.8
(WY)	1965	1965	1915	1981	1920	1940	1985	1986	1964	1913	1913	1953

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1909 - 2001	
ANNUAL TOTAL	152272		122886			
ANNUAL MEAN	416		337		333	
ANNUAL MEAN††	416		337		333	
HIGHEST ANNUAL MEAN					538	
LOWEST ANNUAL MEAN					137	
HIGHEST DAILY MEAN	3240	Jun 9	3040	Apr 14	13400	Mar 18 1936
LOWEST DAILY MEAN	81	Sep 11	17	Sep 10	1.1	Apr 2 1965
ANNUAL SEVEN-DAY MINIMUM	104	Jul 9	19	Aug 26	8.9	Aug 29 1953
MAXIMUM PEAK FLOW			3570		37900	
MAXIMUM PEAK STAGE			7.34		29.58	
INSTANTANEOUS LOW FLOW			6.6		2.07	
ANNUAL RUNOFF (CFSM)††	2.59		2.10		28.09	
ANNUAL RUNOFF (INCHES)††	35.20		28.39		2.07	
10 PERCENT EXCEEDS	811		723		807	
50 PERCENT EXCEEDS	274		187		167	
90 PERCENT EXCEEDS	136		45		35	

† Monthend contents, in millions of cubic feet (mcf), in Knightville Reservoir; records furnished by U.S. Army Corps of Engineers. Monthend contents on Sept. 30, 2000, 0.3 mcf.

†† Adjusted for change in contents in Knightville Reservoir.

Note.--Except as footnoted, all statistics are based on unadjusted daily and monthly mean discharges.



CONNECTICUT RIVER BASIN

01183500 WESTFIELD RIVER NEAR WESTFIELD, MA

LOCATION.--Lat 42°06'24", long 72°41'58", Hampden County, Hydrologic Unit 01080206, on left bank 0.7 mi downstream from Great Brook, 3 mi east of Westfield, and 8.1 mi upstream from mouth.

DRAINAGE AREA.--497 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: June 1914 to current year.  
Water Quality: Water years 1952-53, 1957, 1967-74, 1994.

REVISED RECORDS.--WSP 601: 1924(M). WSP 756: Drainage area. WSP 1051: 1919-21(M), 1925(M). WSP 1231: 1915-16(M), 1920.

GAGE.--Water-stage recorder. Datum of gage is 98.25 ft above sea level. Prior to Nov. 3, 1933, on right bank at same datum.

REMARKS.--Records fair except those for estimated daily discharge, which are poor. Flow regulated by Borden Brook Reservoir, Cobble Mountain Reservoir since 1931, Knightville Reservoir since 1941, and Littleville Lake since 1965. High flow slightly affected by retarding reservoirs since 1963. Diversion from Little River for municipal supply of Springfield. Telephone and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--87 years, 936 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,300 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 34.2 ft, from floodmarks, from rating curve extended above 18,000 ft<sup>3</sup>/s on basis of computations of flow over dam at gage heights 27.20 ft, 29.40 ft, and 34.2 ft; minimum, 9 ft<sup>3</sup>/s, Oct. 2, 1921; minimum daily, 40 ft<sup>3</sup>/s, Dec. 28, 29, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,050 ft<sup>3</sup>/s, Apr. 14, gage height, 11.69 ft; minimum, 76 ft<sup>3</sup>/s, Sept. 10; minimum daily, 80 ft<sup>3</sup>/s, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	363	671	531	708	580	2060	1050	940	567	122	91
2	342	360	587	583	681	586	1760	1180	1660	552	118	91
3	325	353	454	623	608	558	1420	1110	5560	461	112	105
4	320	346	394	624	505	507	1490	879	4980	351	186	112
5	336	356	387	592	531	489	1640	724	3140	359	209	100
6	802	308	433	644	448	492	1890	642	2230	362	317	107
7	1140	345	369	583	486	495	2140	584	1580	389	227	104
8	732	316	348	573	449	462	4080	547	1170	309	279	98
9	571	309	345	633	582	466	4780	518	941	298	339	98
10	488	531	315	653	763	483	7120	492	775	321	273	80
11	444	1250	379	713	850	447	7240	454	684	453	172	83
12	417	865	412	599	762	528	7300	417	953	427	126	105
13	399	670	394	562	793	644	7230	380	924	325	137	133
14	378	602	421	370	755	719	8010	357	774	280	140	161
15	362	1160	428	358	814	725	6110	332	616	260	131	209
16	352	967	396	399	808	766	4920	321	527	223	119	122
17	398	745	2380	560	779	857	4390	312	896	202	121	138
18	460	635	3630	526	735	926	3930	255	1180	235	133	125
19	1160	576	3910	572	694	914	3010	366	746	230	114	120
20	898	530	3950	552	668	928	2670	300	559	201	113	120
21	668	501	1790	494	598	1040	2630	289	535	198	110	820
22	559	481	786	466	554	3860	3160	427	486	155	104	871
23	497	449	1410	446	597	4130	3780	1110	484	154	98	438
24	455	383	1150	430	564	3560	2820	2170	807	220	89	290
25	431	355	795	439	550	3080	3800	2240	666	387	84	505
26	419	460	686	410	656	2650	4000	2030	505	249	81	1640
27	400	964	560	412	651	1830	2200	3740	423	216	82	849
28	380	888	525	377	622	1520	1570	2740	366	201	87	507
29	366	779	590	e440	---	1650	1290	2130	316	158	87	398
30	355	702	503	527	---	2510	1140	1510	293	145	85	342
31	361	---	536	640	---	2800	---	1150	---	130	85	---
TOTAL	15566	17549	29934	16331	18211	41202	109580	30756	35716	9018	4480	8962
MEAN	502	585	966	527	650	1329	3653	992	1191	291	145	299
MAX	1160	1250	3950	713	850	4130	8010	3740	5560	567	339	1640
MIN	320	308	315	358	448	447	1140	255	293	130	81	80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2001, BY WATER YEAR (WY)

	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	528	831	908	888	900	1693	2319	1227	751	407	387	400																																																																												
MAX	4587	3344	2623	2635	2663	5064	5225	2630	2792	1738	3237	2938																																																																												
(WY)	1956	1928	1997	1949	1984	1936	1993	1989	1982	1972	1955	1938																																																																												
MIN	96.7	140	206	155	215	597	586	408	186	118	91.2	85.0																																																																												
(WY)	1965	1965	1915	1981	1920	1941	1985	1985	1964	1962	1957	1995																																																																												

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1914 - 2001
ANNUAL TOTAL	409507	337305	
ANNUAL MEAN	1119	924	936
HIGHEST ANNUAL MEAN			1594
LOWEST ANNUAL MEAN			368
HIGHEST DAILY MEAN	7620	Jun 7	8010
LOWEST DAILY MEAN	256	Sep 12	80
ANNUAL SEVEN-DAY MINIMUM	314	Jul 9	84
MAXIMUM PEAK FLOW			9050
MAXIMUM PEAK STAGE			11.69
INSTANTANEOUS LOW FLOW			76
10 PERCENT EXCEEDS	2180	2230	2140
50 PERCENT EXCEEDS	852	507	549
90 PERCENT EXCEEDS	368	131	160

e Estimated