

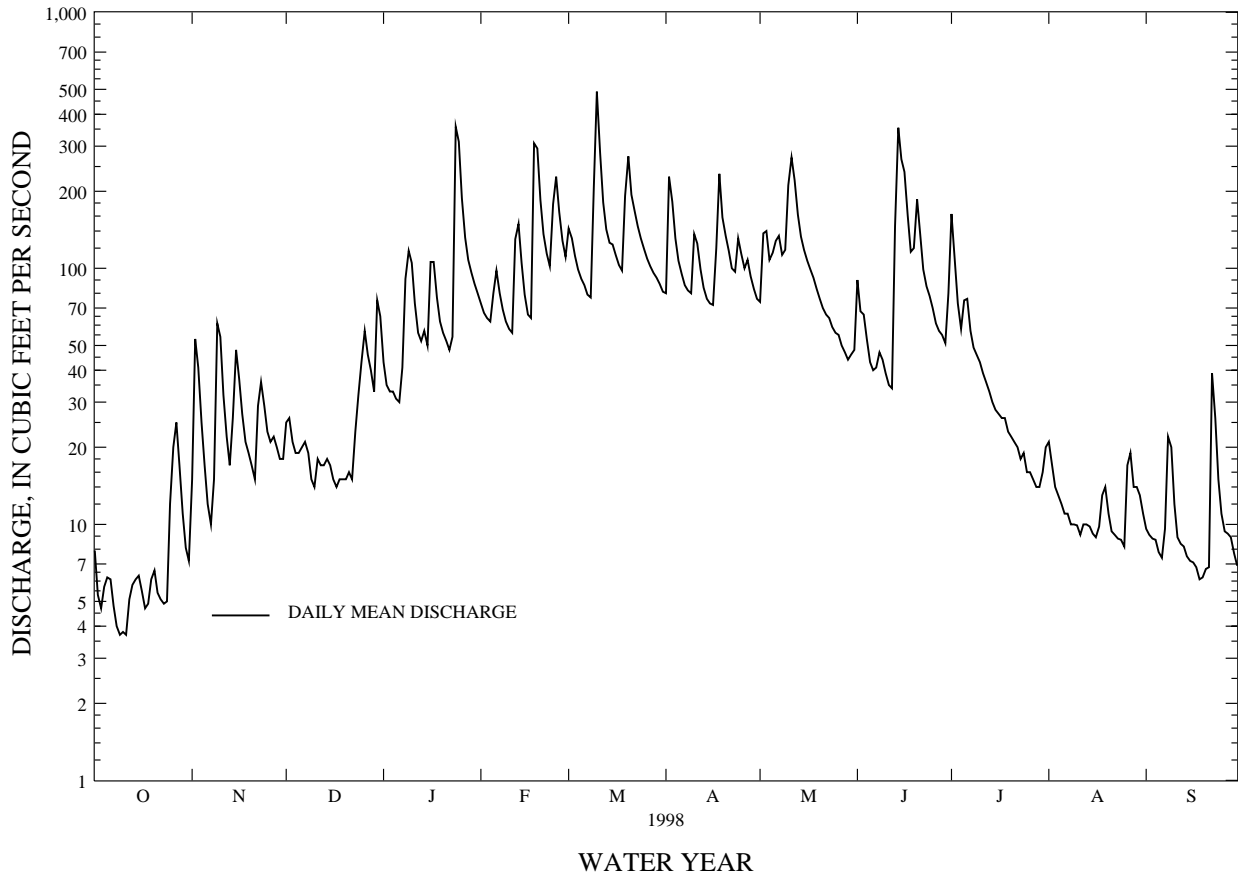


POTOWOMUT RIVER BASIN

01117000 HUNT RIVER NEAR EAST GREENWICH, RI--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1940 - 1998	
ANNUAL TOTAL	15460.3		23912.6		46.9	
ANNUAL MEAN	42.4		65.5		81.6	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					1966	
HIGHEST DAILY MEAN	215	Apr 1	490	Mar 10	861	Jun 6 1982
LOWEST DAILY MEAN	3.7	Oct 9	3.7	Oct 9	.00	Oct 25 1947
ANNUAL SEVEN-DAY MINIMUM	4.4	Oct 7	4.4	Oct 7	.10	Sep 13 1943
INSTANTANEOUS PEAK FLOW			582	Mar 10	1020	Jun 6 1982
INSTANTANEOUS PEAK STAGE			2.94	Mar 10	6.78	Aug 31 1954
INSTANTANEOUS LOW FLOW			3.3	Oct 11	.00	Oct 24 1947
10 PERCENT EXCEEDS	94		141		102	
50 PERCENT EXCEEDS	27		46		34	
90 PERCENT EXCEEDS	5.6		7.9		6.1	

HUNT RIVER NEAR EAST GREENWICH, RI 01117000



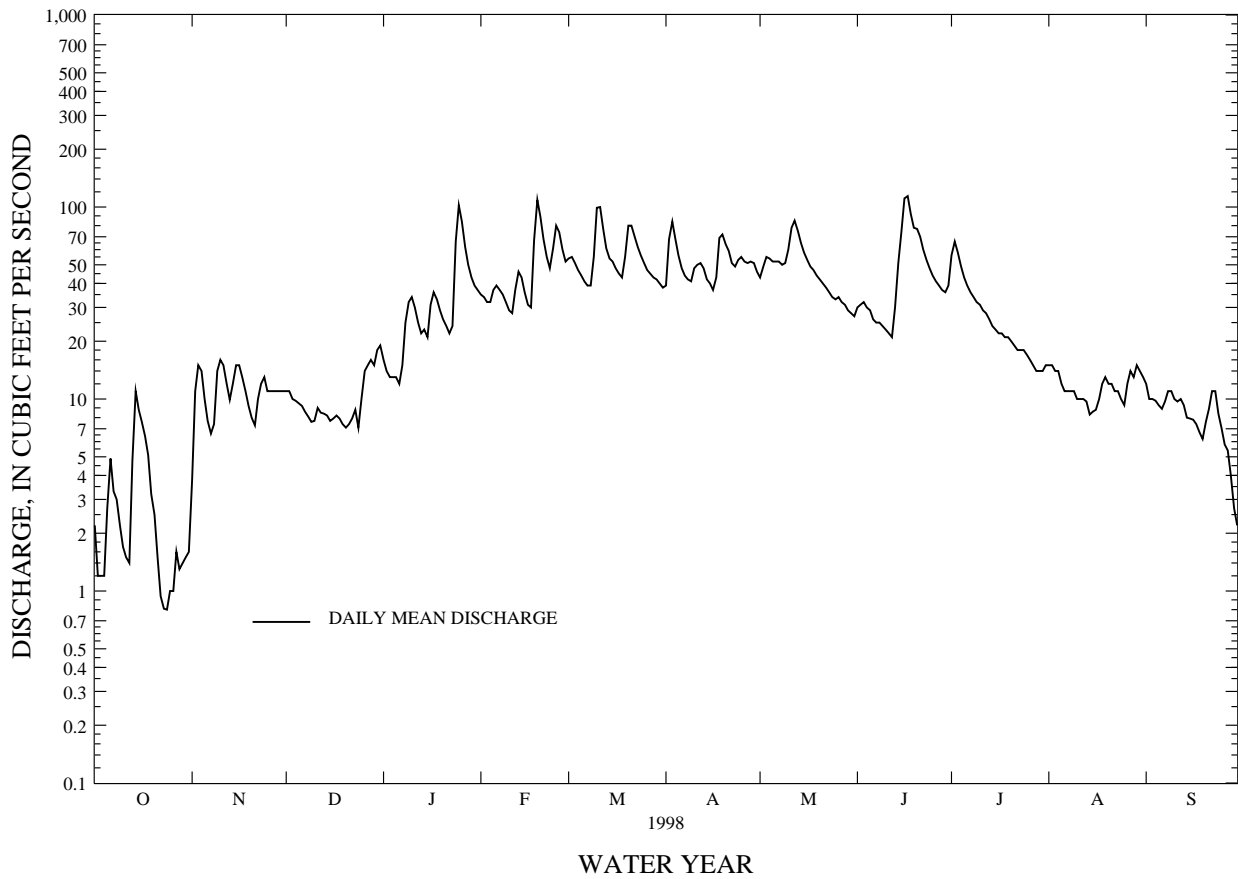


PAWCATUCK RIVER BASIN

01117350 CHIPUXET RIVER AT WEST KINGSTON, RI--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1958 - 1998	
ANNUAL TOTAL	7092.21		10747.75		21.5	
ANNUAL MEAN	19.4		29.4		32.8	
HIGHEST ANNUAL MEAN					6.89	
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	85	Apr 2	114	Jun 17	235	Jun 6 1982
LOWEST DAILY MEAN	.80	Oct 24	.80	Oct 24	.51	Nov 6 1994
ANNUAL SEVEN-DAY MINIMUM	1.1	Oct 22	1.1	Oct 22	.57	Nov 3 1994
INSTANTANEOUS PEAK FLOW			124	Jun 17	250	Jun 6 1982
INSTANTANEOUS PEAK STAGE			6.83	Jun 17	6.92	Apr 1 1997
INSTANTANEOUS LOW FLOW			.74	Oct 23	.47	Nov 6 1994
10 PERCENT EXCEEDS	39		61		43	
50 PERCENT EXCEEDS	15		23		17	
90 PERCENT EXCEEDS	1.5		6.7		5.6	

CHIPUXET RIVER AT WEST KINGSTON, RI 01117350



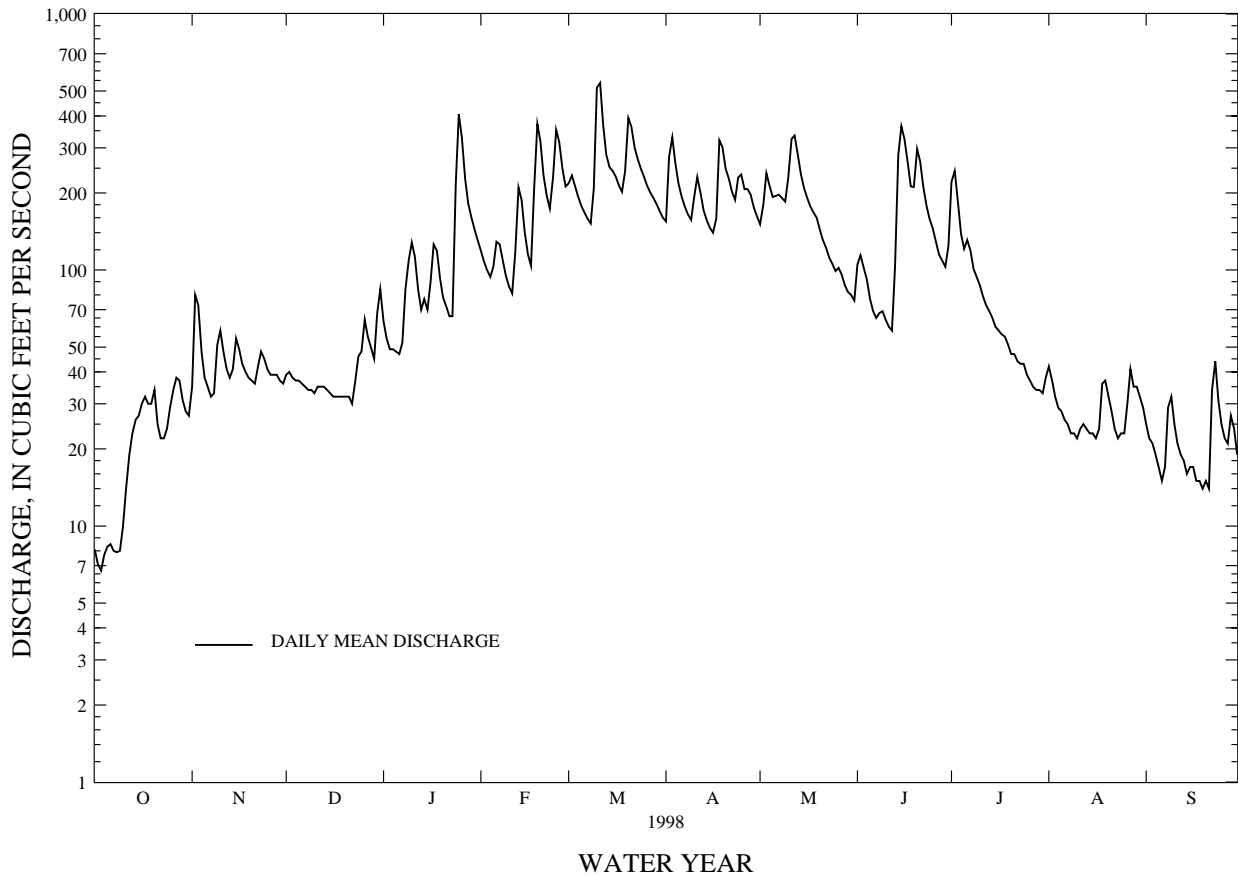


PAWCATUCK RIVER BASIN

01117420 USQUEPAUG RIVER NEAR USQUEPAUG, RI--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1958 - 1998	
ANNUAL TOTAL	26015.6		39528.3		77.5	
ANNUAL MEAN	71.3		108		110	
HIGHEST ANNUAL MEAN					1984	
HIGHEST DAILY MEAN	308	Apr 2	538	Mar 11	1020	Jun 7 1982
LOWEST DAILY MEAN	6.0	Sep 28	6.7	Oct 3	1.1	Sep 14 1993
ANNUAL SEVEN-DAY MINIMUM	6.4	Sep 22	7.7	Oct 2	3.8	Sep 6 1995
INSTANTANEOUS PEAK FLOW			579	Mar 11	1060	Jun 6 1982
INSTANTANEOUS PEAK STAGE			7.21	Mar 11	9.23	Jun 6 1982
INSTANTANEOUS LOW FLOW			6.0	Oct 9	.00	Sep 13 1995
ANNUAL RUNOFF (CFSM)	1.97		3.00		2.15	
ANNUAL RUNOFF (INCHES)	26.81		40.73		29.18	
10 PERCENT EXCEEDS	160		237		161	
50 PERCENT EXCEEDS	45		69		59	
90 PERCENT EXCEEDS	14		22		17	

USQUEPAUG RIVER NEAR USQUEPAUG, RI 01117420



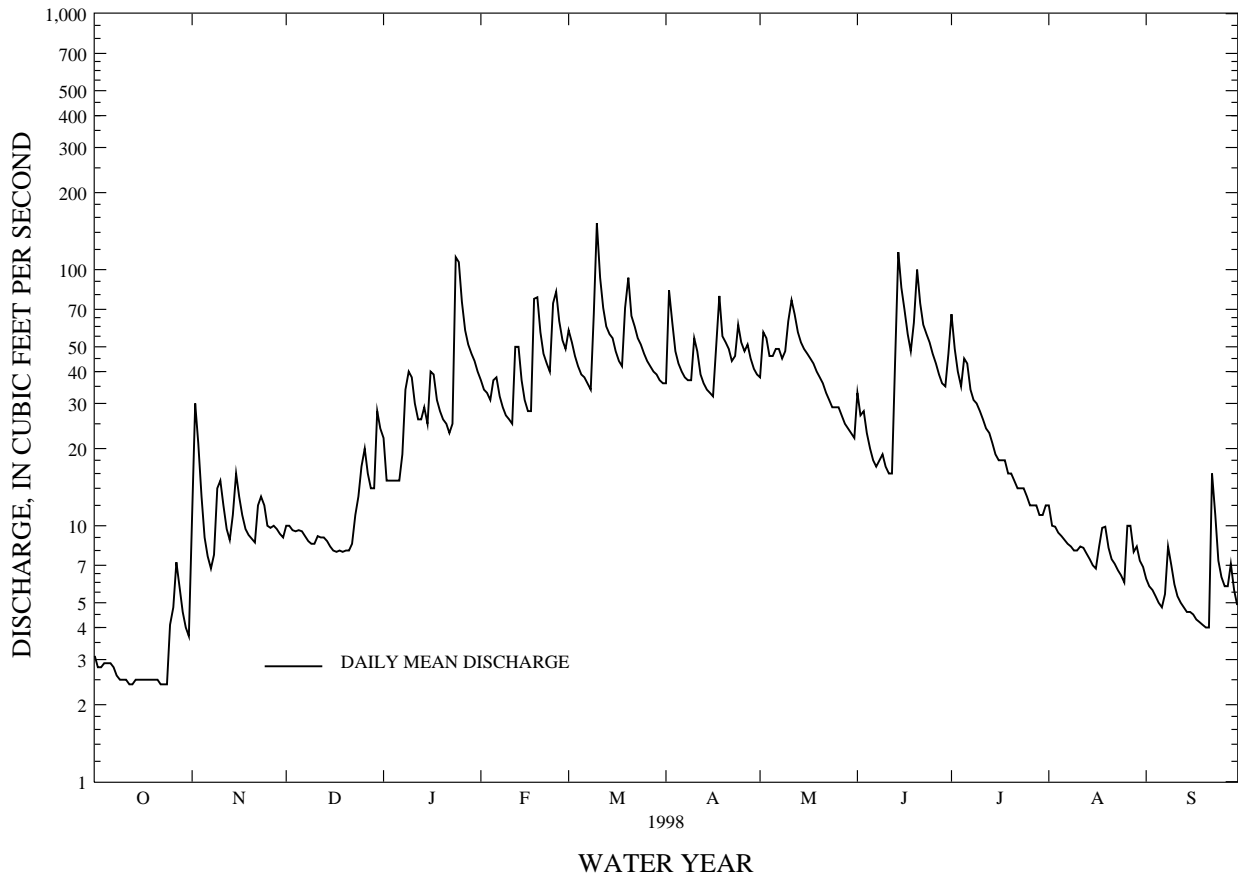


PAWCATUCK RIVER BASIN

01117468 BEAVER RIVER NEAR USQUEPAUG, RI--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1975 - 1998	
ANNUAL TOTAL	6536.8		10107.9		21.5	
ANNUAL MEAN	17.9		27.7		30.4	
HIGHEST ANNUAL MEAN					8.67	
LOWEST ANNUAL MEAN					1983	
HIGHEST DAILY MEAN	70	Apr 1	152	Mar 10	324	Jun 6 1982
LOWEST DAILY MEAN	2.4	Oct 12	2.4	Oct 12	1.2	Sep 7 1993
ANNUAL SEVEN-DAY MINIMUM	2.5	Oct 18	2.5	Oct 18	1.3	Sep 1 1993
INSTANTANEOUS PEAK FLOW			187	Mar 10	370	Jun 6 1982
INSTANTANEOUS PEAK STAGE			3.16	Mar 10	3.83	Jun 6 1982
INSTANTANEOUS LOW FLOW			2.2	Oct 23	1.1	Sep 7 1993
ANNUAL RUNOFF (CFSM)	2.02		3.12		2.43	
ANNUAL RUNOFF (INCHES)	27.41		42.39		32.96	
10 PERCENT EXCEEDS	37		57		44	
50 PERCENT EXCEEDS	12		22		17	
90 PERCENT EXCEEDS	3.2		4.7		4.2	

BEAVER RIVER NEAR USQUEPAUG, RI 01117468





PAWCATUCK RIVER BASIN

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.

REMARKS.--Records good. 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.--57 years, 196 ft<sup>3</sup>/s, 26.68 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, 944 ft<sup>3</sup>/s, Mar. 11, gage height, 5.40 ft; minimum, 25 ft<sup>3</sup>/s, Oct. 23, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	55	90	163	361	574	360	397	227	700	108	74
2	39	120	93	150	332	553	536	452	248	547	101	70
3	38	158	91	139	308	529	666	498	256	404	93	66
4	39	146	89	138	291	487	671	511	238	321	85	63
5	39	114	88	135	311	443	595	490	212	382	81	61
6	38	87	88	131	333	409	511	476	189	364	78	58
7	34	75	85	140	332	387	453	474	177	274	75	58
8	39	73	83	192	318	366	412	464	171	239	74	72
9	33	101	81	237	290	461	391	462	170	224	72	76
10	31	121	80	269	267	753	449	532	165	215	70	70
11	29	121	85	267	253	924	495	662	156	194	72	65
12	29	103	86	245	314	914	488	754	152	183	73	61
13	28	88	86	226	374	809	438	748	218	171	70	58
14	28	94	84	226	407	691	393	675	523	150	69	56
15	28	115	80	216	375	606	365	592	715	147	66	55
16	29	122	78	258	321	546	343	524	872	142	66	54
17	29	110	78	293	292	503	393	474	864	139	68	53
18	30	98	80	305	459	464	617	438	785	132	84	51
19	29	92	77	284	663	530	697	407	719	116	94	50
20	31	86	78	255	739	719	675	381	701	123	85	50
21	31	82	77	232	704	794	606	349	738	120	76	49
22	28	96	73	217	604	780	543	319	667	116	71	122
23	26	109	93	215	515	710	503	291	563	111	68	147
24	26	112	122	413	561	635	567	271	479	116	66	113
25	33	103	138	639	694	570	578	261	421	97	64	83
26	40	96	151	742	739	515	553	266	378	94	79	72
27	59	94	154	703	693	470	546	257	337	101	117	73
28	59	91	144	598	607	439	513	240	287	95	100	83
29	51	88	131	500	---	414	470	224	257	95	93	75
30	45	85	155	436	---	392	426	211	322	94	89	67
31	42	---	174	395	---	374	---	199	---	100	80	---
TOTAL	1101	3035	3092	9359	12457	17761	15253	13299	12207	6306	2487	2105
MEAN	35.5	101	99.7	302	445	573	508	429	407	203	80.2	70.2
MAX	59	158	174	742	739	924	697	754	872	700	117	147
MIN	26	55	73	131	253	366	343	199	152	94	64	49
CFSM	.36	1.01	1.00	3.02	4.45	5.73	5.08	4.29	4.07	2.03	.80	.70
IN.	.41	1.13	1.15	3.48	4.63	6.61	5.67	4.95	4.54	2.35	.93	.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1998, BY WATER YEAR (WY)

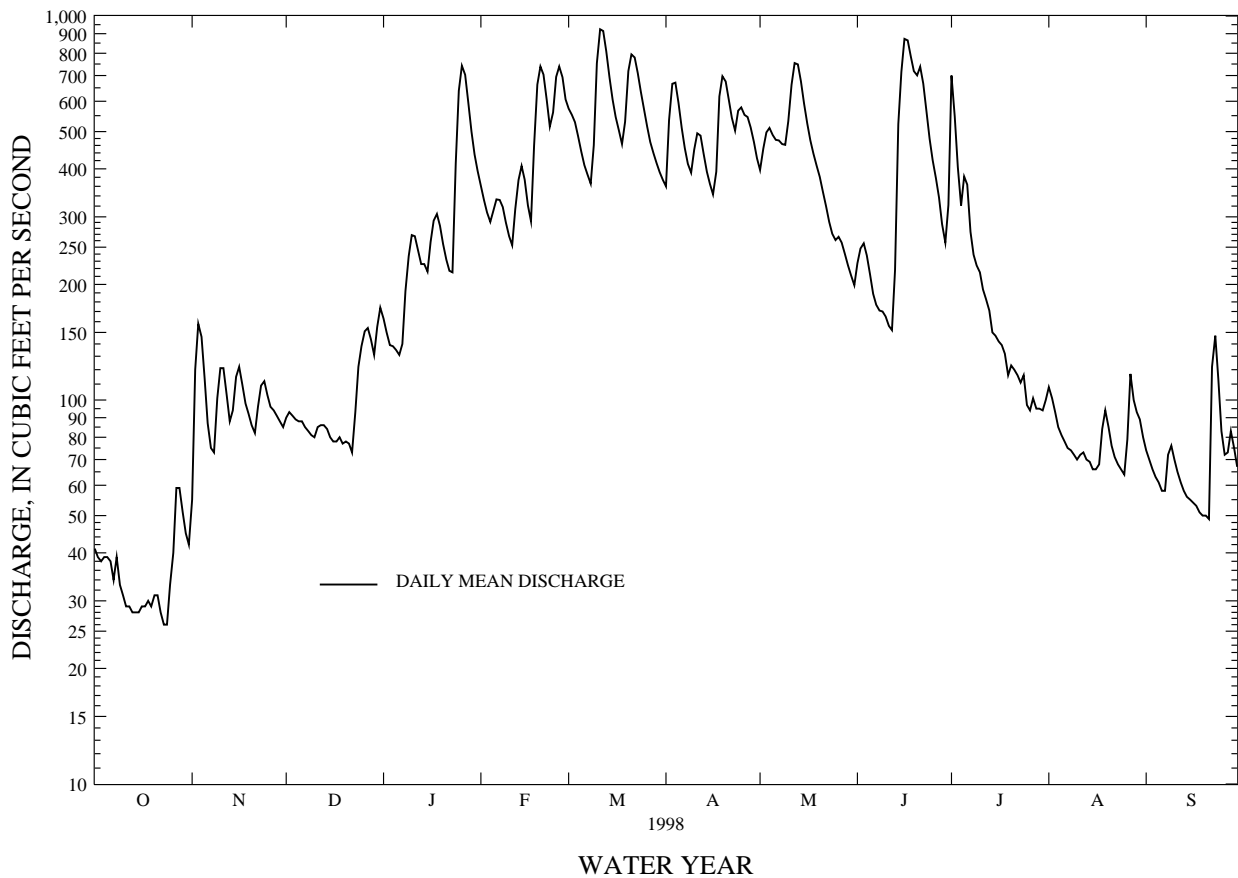
MEAN	88.5	145	212	248	274	347	337	254	182	101	85.4	78.7
MAX	332	471	543	655	453	598	908	464	718	249	275	374
(WY)	1956	1956	1987	1979	1970	1953	1983	1983	1982	1984	1946	1954
MIN	31.1	42.2	49.8	51.8	104	145	124	130	82.3	38.2	31.1	29.5
(WY)	1950	1966	1966	1981	1944	1981	1985	1981	1957	1957	1993	1980

PAWCATUCK RIVER BASIN

01117500 PAWCATUCK RIVER AT WOOD RIVER JUNCTION, RI--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1941 - 1998	
ANNUAL TOTAL	64519		98462			
ANNUAL MEAN	177		270		196	
HIGHEST ANNUAL MEAN					311	
LOWEST ANNUAL MEAN					84.4	
HIGHEST DAILY MEAN	741	Apr 3	924	Mar 11	1830	Jun 7 1982
LOWEST DAILY MEAN	26	Oct 23	26	Oct 23	15	Oct 11 1947
ANNUAL SEVEN-DAY MINIMUM	29	Oct 11	29	Oct 11	20	Sep 1 1995
INSTANTANEOUS PEAK FLOW			944	Mar 11	1860	Jun 7 1982
INSTANTANEOUS PEAK STAGE			5.40	Mar 11	8.75	Jun 7 1982
INSTANTANEOUS LOW FLOW			25	Oct 23	7.4	Oct 10 1947
ANNUAL RUNOFF (CFSM)	1.77		2.70		1.96	
ANNUAL RUNOFF (INCHES)	24.00		36.63		26.68	
10 PERCENT EXCEEDS	381		624		398	
50 PERCENT EXCEEDS	115		171		156	
90 PERCENT EXCEEDS	40		55		50	

PAWCATUCK RIVER AT WOOD RIVER JUNCTION, RI 01117500





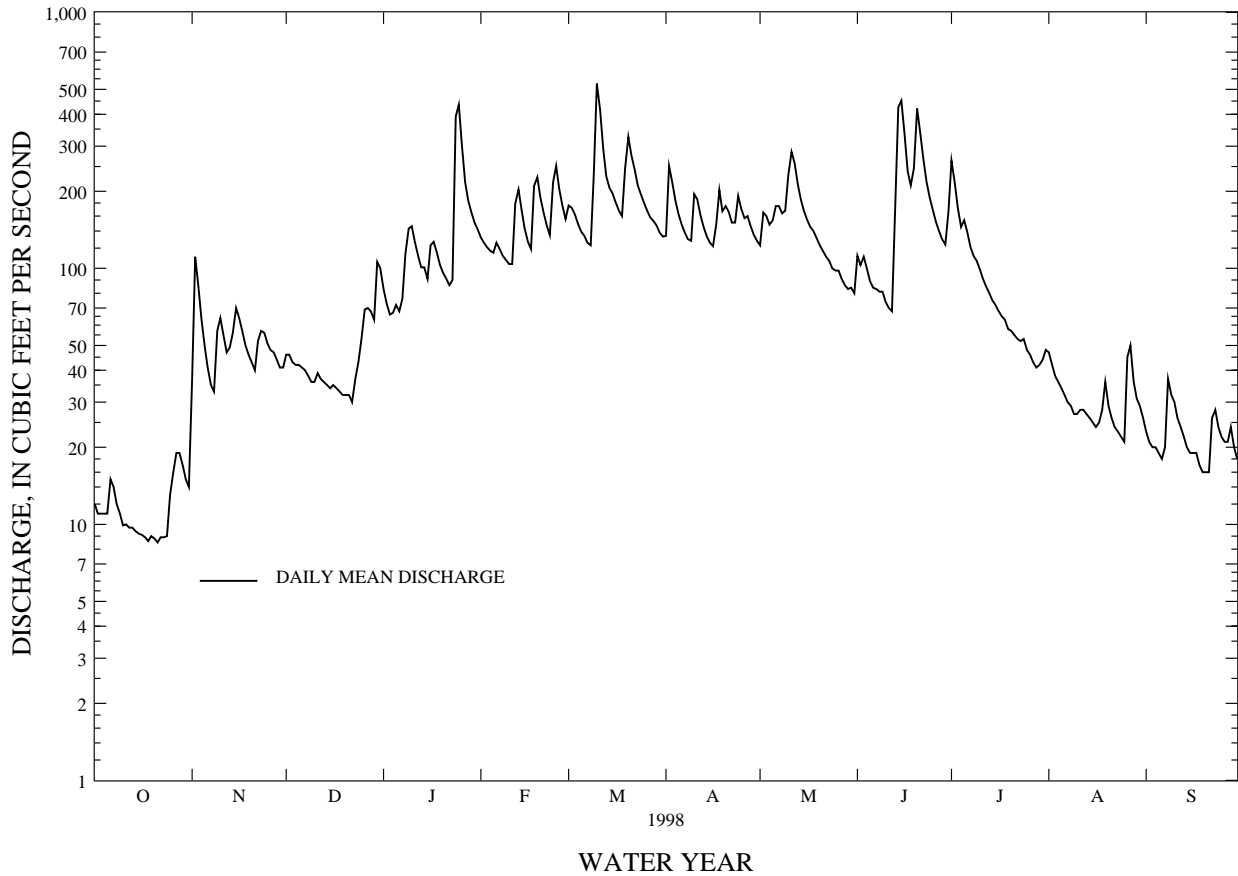
PAWCATUCK RIVER BASIN

01117800 WOOD RIVER NEAR ARCADIA, RI--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1964 - 1998	
ANNUAL TOTAL	22047.9		37456.6		77.1	
ANNUAL MEAN	60.4		103		114	
HIGHEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	206	Jan 29	527	Mar 10	826	Jan 27 1978
LOWEST DAILY MEAN	8.5	Oct 21	8.5	Oct 21	4.2	Sep 1 1995
ANNUAL SEVEN-DAY MINIMUM	8.8	Oct 17	8.8	Oct 17	4.2	Aug 31 1995
INSTANTANEOUS PEAK FLOW			546	Mar 10	896	Mar 18 1968
INSTANTANEOUS PEAK STAGE			6.93	Mar 10	8.64	Mar 18 1968
INSTANTANEOUS LOW FLOW			8.4	Oct 18	4.1	Sep 1 1995
ANNUAL RUNOFF (CFSM)	1.72		2.92		2.19	
ANNUAL RUNOFF (INCHES)	23.30		39.58		29.77	
10 PERCENT EXCEEDS	126		208		159	
50 PERCENT EXCEEDS	46		83		59	
90 PERCENT EXCEEDS	11		19		15	

e Estimated

WOOD RIVER NEAR ARCADIA, RI 01117800



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. 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.--57 years, 156 ft<sup>3</sup>/s, 29.34 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, 1,270 ft<sup>3</sup>/s, Mar. 10, gage height, 7.07 ft; minimum, 17 ft<sup>3</sup>/s, Oct. 21-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	64	86	162	260	365	248	251	199	616	83	50
2	26	229	84	150	246	358	629	378	199	490	77	47
3	24	194	84	136	234	318	556	393	194	355	71	44
4	24	135	81	133	223	287	417	319	180	280	67	42
5	24	107	79	135	244	265	346	324	155	336	64	40
6	24	92	75	131	240	252	304	372	136	317	62	38
7	26	91	74	146	229	237	277	385	123	244	59	39
8	25	88	73	234	208	227	260	355	138	215	56	60
9	23	117	70	316	200	448	253	347	139	202	54	67
10	38	139	69	329	193	1150	406	474	123	195	52	57
11	42	115	76	262	190	957	417	639	115	175	52	51
12	36	101	73	225	325	679	328	582	111	163	53	46
13	30	91	59	208	457	517	286	466	325	151	51	43
14	19	104	59	210	343	442	261	386	1030	131	49	41
15	19	132	70	189	274	424	245	336	1020	127	47	39
16	19	128	69	252	240	377	234	299	803	123	46	39
17	19	113	66	278	223	337	319	274	583	119	48	38
18	18	98	67	232	491	316	559	265	442	114	54	36
19	18	88	64	205	609	517	410	245	607	99	67	36
20	18	84	62	191	451	781	401	226	899	106	60	35
21	18	79	51	177	364	625	386	212	862	103	53	34
22	18	95	59	164	308	543	326	198	640	99	48	60
23	18	111	75	169	275	472	322	184	511	94	45	69
24	18	111	83	849	447	423	464	173	427	99	44	54
25	23	100	94	1060	611	375	398	167	364	82	43	48
26	27	91	151	752	466	338	345	173	308	79	64	44
27	38	83	143	535	370	312	368	162	271	86	100	45
28	44	89	136	421	322	293	316	151	250	80	79	52
29	41	80	124	357	---	282	277	144	231	78	70	48
30	37	77	209	314	---	262	256	124	284	71	61	42
31	35	---	220	285	---	250	---	125	---	78	56	---
TOTAL	818	3226	2785	9207	9043	13429	10614	9129	11669	5507	1835	1384
MEAN	26.4	108	89.8	297	323	433	354	294	389	178	59.2	46.1
MAX	44	229	220	1060	611	1150	629	639	1030	616	100	69
MIN	18	64	51	131	190	227	234	124	111	71	43	34
CFSM	.36	1.49	1.24	4.10	4.46	5.98	4.89	4.07	5.37	2.45	.82	.64
IN.	.42	1.66	1.43	4.73	4.65	6.90	5.45	4.69	6.00	2.83	.94	.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1998, BY WATER YEAR (WY)

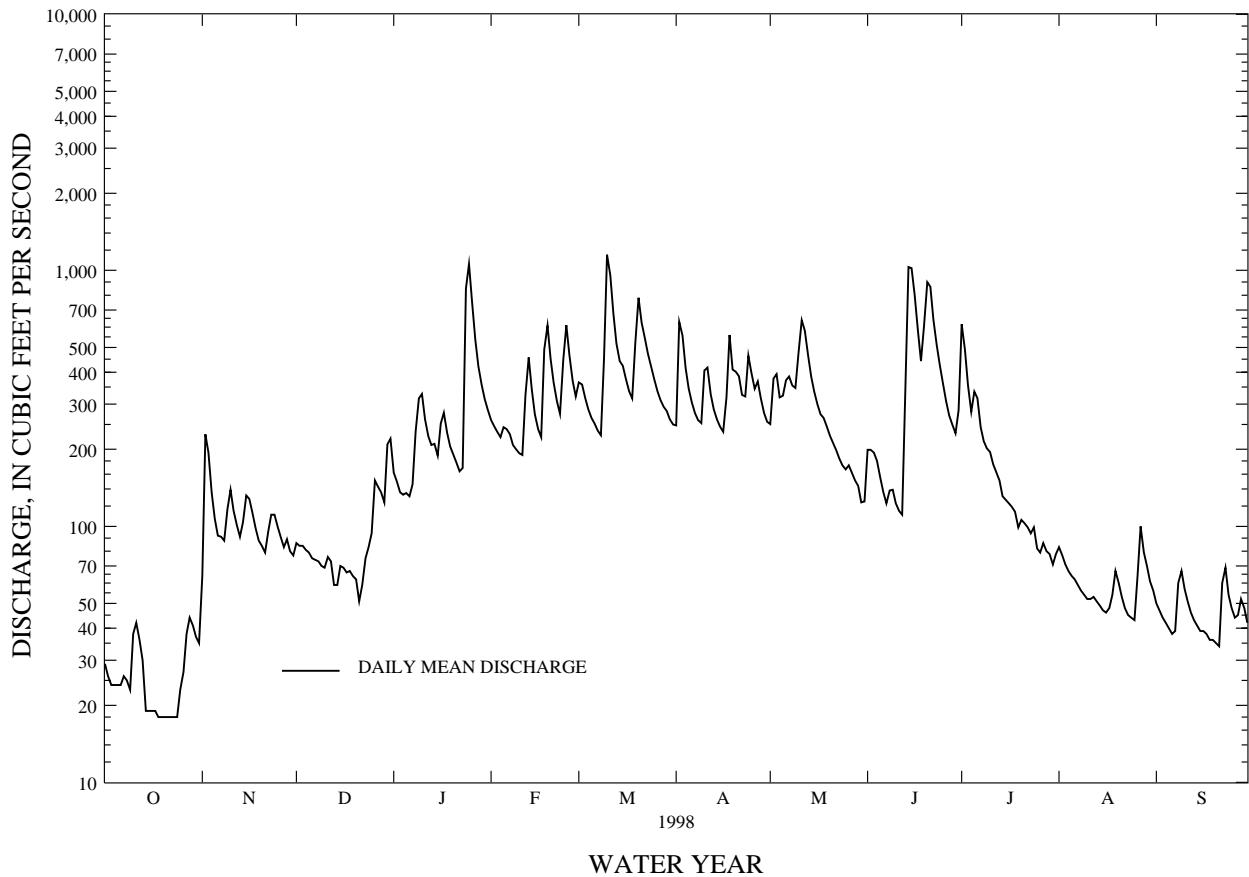
MEAN	76.0	131	188	204	219	278	264	192	131	70.8	62.5	58.8
MAX	341	386	477	666	398	465	664	365	540	178	183	311
(WY)	1956	1956	1987	1979	1970	1972	1983	1979	1982	1998	1979	1954
MIN	22.6	24.9	35.1	36.8	87.6	147	89.4	91.9	48.3	27.7	20.5	17.4
(WY)	1958	1966	1966	1981	1980	1981	1966	1986	1957	1957	1957	1957

PAWCATUCK RIVER BASIN

01118000 WOOD RIVER AT HOPE VALLEY, RI--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1941 - 1998	
ANNUAL TOTAL	48020		78646			
ANNUAL MEAN	132		215		156	
HIGHEST ANNUAL MEAN					235	
LOWEST ANNUAL MEAN					71.2	
HIGHEST DAILY MEAN	566	Jan 29	1150	Mar 10	2200	Jun 6 1982
LOWEST DAILY MEAN	18	Oct 18	18	Oct 18	10	Oct 13 1941
ANNUAL SEVEN-DAY MINIMUM	18	Oct 18	18	Oct 18	14	Sep 5 1995
INSTANTANEOUS PEAK FLOW			1270	Mar 10	2390	Jun 6 1982
INSTANTANEOUS PEAK STAGE			7.07	Mar 10	10.26	Jun 6 1982
INSTANTANEOUS LOW FLOW			17	Oct 21	4.0	Sep 9 1987
ANNUAL RUNOFF (CFSM)	1.82		2.98		2.16	
ANNUAL RUNOFF (INCHES)	24.67		40.41		29.34	
10 PERCENT EXCEEDS	269		460		317	
50 PERCENT EXCEEDS	92		151		120	
90 PERCENT EXCEEDS	26		39		35	

WOOD RIVER AT HOPE VALLEY, RI 01118000



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.--Records good. 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  $\mu\text{S}/\text{cm}$ , Feb. 12, 1988; minimum, 21  $\mu\text{S}/\text{cm}$ , 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, 198  $\mu\text{S}/\text{cm}$ , Dec. 23; minimum, 50  $\mu\text{S}/\text{cm}$ , June 15, 16, 21.

WATER TEMPERATURE: Maximum recorded, 24.5°C, July 24, Aug. 30; minimum, 1.0°C, Dec. 31.

DAY	SPECIFIC CONDUCTANCE ( $\mu\text{S}/\text{CM}$ AT 25°C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998											
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	136	130	132	141	124	137	100	90	96	104	93	99
2	131	124	126	137	111	126	131	91	98	104	93	99
3	125	123	124	111	98	104	131	88	96	104	94	99
4	125	123	124	100	98	99	99	88	94	103	94	100
5	126	125	126	101	98	100	101	90	96	103	94	99
6	127	124	125	101	99	101	101	90	98	102	93	98
7	126	124	126	108	101	104	102	90	98	105	93	99
8	126	124	125	127	108	116	102	90	98	98	94	96
9	125	123	124	133	126	130	103	92	99	97	90	93
10	124	119	122	131	112	122	104	92	100	90	86	87
11	119	108	111	119	100	109	141	99	111	87	85	86
12	108	105	106	107	94	100	111	96	104	88	86	87
13	109	105	107	101	93	97	109	107	107	91	87	89
14	117	108	113	126	100	104	109	106	108	91	89	90
15	119	116	117	104	94	99	107	94	102	118	90	93
16	120	119	119	98	89	93	109	95	103	107	93	97
17	143	118	132	96	90	93	110	96	104	93	90	91
18	145	142	143	97	89	93	110	97	104	91	83	90
19	145	143	144	97	89	94	111	97	105	92	90	91
20	144	142	143	96	88	93	112	98	107	98	91	93
21	144	141	143	97	89	94	112	111	112	96	94	95
22	143	142	143	102	91	96	113	99	107	97	95	96
23	144	142	143	97	90	94	198	112	145	147	96	110
24	143	140	142	94	85	90	165	112	127	120	81	93
25	141	135	138	93	85	90	135	110	122	81	67	71
26	146	135	141	94	86	91	110	103	106	68	67	68
27	136	126	133	97	93	94	133	100	108	73	68	70
28	126	114	118	97	86	91	155	105	121	76	73	75
29	127	114	120	99	87	94	121	99	106	81	76	79
30	136	127	132	99	89	95	124	100	109	83	80	82
31	139	136	138	---	---	---	103	95	99	86	83	85
MONTH	146	105	128	141	85	101	198	88	106	147	67	90

PAWCATUCK RIVER BASIN

01118000 WOOD RIVER AT HOPE VALLEY, RI--Continued

SPECIFIC CONDUCTANCE (µS/CM AT 25°C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	88	85	86	87	83	86	92	86	90	---	---	---
2	90	87	88	86	84	85	88	78	83	---	---	---
3	90	89	90	86	85	85	78	77	78	---	---	---
4	97	90	91	87	85	86	80	77	78	---	---	---
5	109	93	98	90	87	88	82	79	80	81	77	79
6	100	94	95	91	90	91	85	80	82	80	77	78
7	96	93	94	92	90	91	---	---	---	78	75	76
8	97	96	96	94	92	93	---	---	---	80	76	77
9	96	94	95	94	79	89	---	---	---	80	77	78
10	99	94	96	82	66	75	---	---	---	78	72	75
11	108	96	98	66	62	63	---	---	---	75	71	73
12	107	93	100	68	63	66	---	---	---	73	70	71
13	93	85	88	73	67	70	---	---	---	74	70	72
14	85	83	84	77	72	75	---	---	---	79	73	75
15	88	85	86	78	75	76	---	---	---	78	74	76
16	92	88	89	80	77	79	---	---	---	82	77	79
17	92	90	91	81	79	80	---	---	---	83	79	80
18	92	85	89	84	81	82	---	---	---	83	79	81
19	90	81	84	84	80	82	---	---	---	85	81	82
20	81	80	81	81	73	76	---	---	---	88	83	84
21	84	81	82	73	72	72	---	---	---	86	83	84
22	85	83	84	82	72	78	---	---	---	86	83	85
23	89	84	86	81	76	78	---	---	---	90	85	87
24	90	84	88	81	79	80	---	---	---	93	86	88
25	88	81	84	83	79	81	---	---	---	92	87	89
26	82	80	81	84	81	82	---	---	---	91	88	89
27	84	81	82	91	83	86	---	---	---	91	88	90
28	85	83	84	92	86	87	---	---	---	92e	87e	89e
29	---	---	---	93	87	88	---	---	---	94	86	87
30	---	---	---	92	87	89	---	---	---	96	94	96
31	---	---	---	95	89	90	---	---	---	96	94	95
MONTH	109	80	89	95	62	82	---	---	---	96e	70e	82e

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	94	88	90	69	61	62	95	93	93	105	103	104
2	90	83	86	61	58	59	111e	92e	96e	107	104	115
3	90	86	88	63	59	61	96	92	94	107	106	106
4	86	82	84	66	62	64	98	94	96	107	106	106
5	86	85	86	69	63	67	100	96	98	107	106	107
6	96	86	88	72	67	69	101	98	99	109	107	108
7	97	91	94	73	70	71	101	99	100	109	106	108
8	91	85	88	75	72	73	103e	100e	101e	112	104	108
9	94	87	89	77	74	75	---	---	---	105	97	101
10	98	90	93	78	75	76	---	---	---	97	96	96
11	100	92	96	80	77	79	---	---	---	99	96	97
12	106	91	97	80	79	80	106e	104e	104e	100	99	99
13	101	76	90	88	79	82	106	103	104	101	100	100
14	76	58	68	94	82	87	107	104	105	103	101	101
15	58	50	52	94	83	88	109e	106e	107e	105	103	104
16	56	50	53	94	82	87	---	---	---	106	105	105
17	62	56	59	93	82	87	---	---	---	106	105	106
18	66	62	64	95	83	89	---	---	---	106	106	106
19	66	57	60	96	91	93	112e	103e	107e	108	106	107
20	62	52	58	98	84	90	107	103	105	110	108	108
21	52	50	51	97	85	92	104	101	102	111	109	110
22	55	51	53	99	85	92	105	101	103	117e	103e	109e
23	59	55	57	100e	86e	95e	108	103	105	113	108	109
24	62	59	60	96	85	91	---	---	---	112	110	111
25	67	62	64	96	92	95	---	---	---	112	111	111
26	73	67	68	95	94	94	---	---	---	111	110	111
27	74	70	70	104	86	92	106	94	100	111	106	109
28	73	69	71	98	88	93	94	92	93	109	105	107
29	73	71	72	102	89	95	102	94	98	107	105	106
30	74	67	71	99e	98e	99e	103e	100e	101e	108	105	106
31	---	---	---	98	95	96	104	102	103	---	---	---
MONTH	106	50	74	104e	58e	82e	---	---	---	113e	96e	106e
YEAR	198e	50e	94e									

e Estimated





## PAWCATUCK RIVER BASIN

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01118000 WOOD RIVER AT HOPE VALLEY, RI--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.5	19.0	19.5	20.5	19.0	19.5	22.0	19.0	20.5	23.0	21.0	22.0
2	20.0	18.5	19.0	20.5	19.0	20.0	21.5	18.5	20.0	22.0	20.0	21.0
3	19.5	18.0	18.5	20.5	19.5	20.0	22.0	19.0	20.5	22.0	20.0	21.0
4	18.5	17.0	17.5	21.0	20.0	20.5	22.0	19.5	20.5	21.5	19.5	20.5
5	18.0	16.0	17.0	22.0	20.5	21.0	22.0	19.5	21.0	21.0	19.0	20.0
6	19.0	16.0	17.5	21.5	20.5	21.0	22.5	19.5	21.0	21.0	18.5	20.0
7	17.0	16.0	16.5	20.5	19.5	20.0	22.5	20.0	21.0	21.0	19.5	20.0
8	16.5	15.0	15.5	19.5	18.5	19.0	23.0	20.0	21.5	21.0	19.5	20.0
9	17.5	15.0	16.0	19.5	18.0	19.0	23.0	20.5	21.5	19.5	18.0	19.0
10	18.5	15.0	16.5	21.0	18.5	19.5	23.5	20.5	22.0	19.5	17.5	18.5
11	19.5	16.5	18.0	21.0	19.0	20.0	22.5	21.5	22.0	19.0	16.5	18.0
12	18.5	17.5	18.0	21.0	18.5	19.5	23.0	21.0	22.0	19.5	17.0	18.0
13	17.5	17.0	17.0	21.0	18.5	19.5	22.0	20.5	21.5	19.5	18.0	19.0
14	18.0	17.0	17.5	21.5	19.0	20.0	21.5	19.0	20.5	19.0	17.5	18.5
15	18.0	17.0	17.5	22.0	19.5	20.5	22.0	19.5	20.5	20.0	18.0	19.0
16	19.5	17.5	18.5	22.5	20.5	21.5	22.0	19.5	20.5	20.0	19.0	19.5
17	21.0	19.0	20.0	22.5	21.0	21.5	21.5	20.5	21.0	20.5	18.5	19.5
18	21.5	20.5	21.0	24.0	20.5	21.5	23.0	20.5	21.5	20.0	18.0	19.0
19	21.5	20.0	20.5	22.5	20.0	21.5	21.5	20.0	21.0	19.5	17.5	18.5
20	20.5	20.0	20.5	22.0	20.5	21.5	21.5	19.0	20.0	20.0	17.5	19.0
21	21.0	20.0	20.5	23.0	20.0	21.0	21.0	18.5	20.0	20.0	18.5	19.5
22	21.0	20.0	20.5	24.0	20.5	22.0	21.5	19.0	20.5	20.0	19.0	19.5
23	20.0	19.0	19.5	23.5	21.5	22.5	21.0	19.0	20.0	19.0	17.5	18.5
24	19.5	19.0	19.0	24.5	21.5	22.5	22.5	20.0	21.0	18.0	16.0	17.0
25	22.0	19.5	21.0	23.0	20.5	21.5	23.0	20.5	21.5	17.0	15.5	16.5
26	23.5	21.5	22.0	22.5	20.5	21.5	23.0	21.0	22.0	18.0	16.5	17.0
27	23.0	21.5	22.5	23.0	19.5	21.0	24.0	22.0	22.5	19.5	17.0	18.0
28	21.5	19.5	20.5	22.5	20.0	21.0	24.0	21.5	22.5	19.5	17.5	18.5
29	19.5	18.5	19.0	23.0	20.0	21.5	24.0	22.0	23.0	18.5	17.0	18.0
30	19.0	18.5	18.5	23.0	20.5	21.5	24.5	22.5	23.0	18.5	16.0	17.5
31	---	---	---	21.5	20.5	21.0	23.5	22.0	22.5	---	---	---
MONTH	23.5	15.0	19.0	24.5	18.0	21.0	24.5	18.5	21.0	23.0	15.5	19.0

e Estimated

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. 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.--57 years (water years 1942-98), 579 ft<sup>3</sup>/s, 26.67 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, 2,890 ft<sup>3</sup>/s, Mar. 10, gage height, 7.93 ft; minimum, 68 ft<sup>3</sup>/s, Oct. 20, 23, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	154	255	596	1070	1460	1080	1080	619	1250	260	179
2	98	386	270	495	957	1420	1790	1260	732	1390	253	168
3	93	561	261	451	877	1360	1970	1390	742	1310	233	157
4	89	509	255	427	815	1270	1860	1360	703	1140	215	151
5	86	388	255	413	826	1170	1680	1330	617	1040	205	141
6	84	304	253	397	880	1120	1490	1310	533	1010	198	135
7	83	260	238	408	864	1050	1340	1350	471	908	190	141
8	80	237	230	623	833	987	1240	1350	443	773	182	175
9	79	293	224	913	766	1340	1140	1340	451	679	179	190
10	75	344	225	1100	714	2650	1300	1480	434	623	175	179
11	76	360	225	1040	678	2740	1410	1830	400	570	175	164
12	82	318	233	876	880	2620	1380	1960	374	507	182	151
13	76	273	233	774	1180	2320	1300	1890	709	471	171	141
14	76	273	228	760	1210	2050	1160	1730	1850	436	169	138
15	76	344	215	703	1100	1820	1060	1530	2370	401	162	133
16	74	386	216	824	964	1640	988	1400	2400	370	156	131
17	72	365	214	971	853	1500	1110	1260	2210	355	157	128
18	72	316	209	921	1340	1400	1720	1170	1990	355	182	123
19	74	281	206	850	1840	1640	1800	1080	1830	328	209	117
20	72	257	204	762	1880	2250	1730	989	1760	307	208	117
21	72	243	201	686	1740	2300	1660	904	1930	297	186	114
22	73	279	186	612	1560	2240	1510	826	1950	297	170	298
23	70	348	233	594	1400	2050	1370	744	1710	283	147	494
24	69	360	339	1680	1410	1900	1440	686	1430	283	152	321
25	74	334	390	2400	1610	1700	1480	651	1260	273	147	220
26	85	300	487	2280	1720	1560	1460	693	1100	250	172	183
27	132	286	505	2070	1670	1440	1480	658	929	243	295	179
28	164	269	477	1750	1500	1340	1400	603	826	236	286	212
29	144	265	436	1490	---	1260	1290	557	730	235	242	202
30	130	251	538	1320	---	1180	1180	532	857	230	219	174
31	125	---	656	1180	---	1110	---	497	---	238	197	---
TOTAL	2758	9544	9097	30366	33137	51887	42818	35440	34360	17088	6074	5356
MEAN	89.0	318	293	980	1183	1674	1427	1143	1145	551	196	179
MAX	164	561	656	2400	1880	2740	1970	1960	2400	1390	295	494
MIN	69	154	186	397	678	987	988	497	374	230	147	114
CFSM	.30	1.08	.99	3.32	4.01	5.67	4.84	3.88	3.88	1.87	.66	.61
IN.	.35	1.20	1.15	3.83	4.18	6.54	5.40	4.47	4.33	2.15	.77	.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1998, BY WATER YEAR (WY)

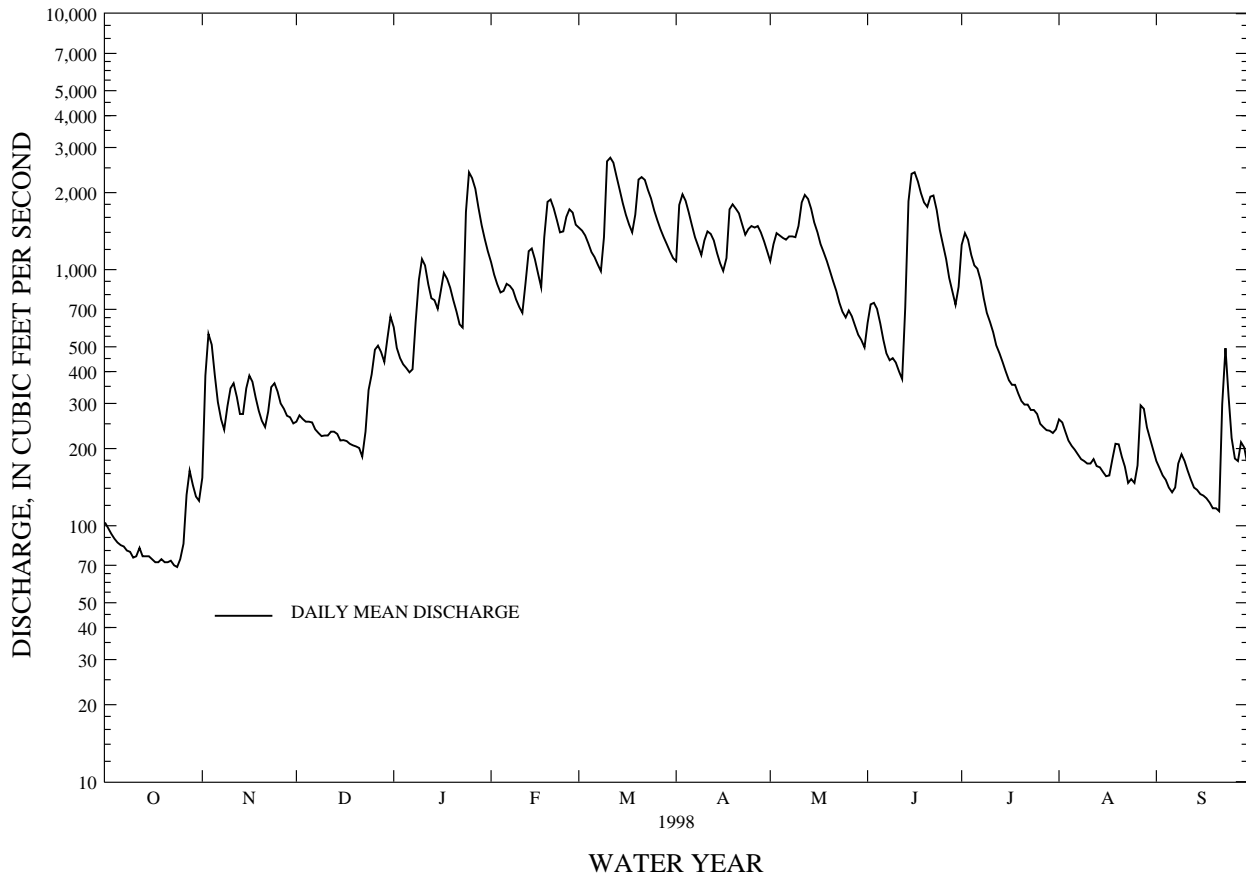
MEAN	259	454	668	758	820	1044	989	718	500	267	234	218
MAX	1186	1450	1789	2151	1377	1775	2603	1274	2246	642	763	1233
(WY)	1956	1956	1987	1979	1982	1994	1983	1948	1982	1959	1946	1954
MIN	87.2	93.2	115	131	325	495	371	325	210	98.5	81.7	65.7
(WY)	1950	1966	1966	1981	1980	1981	1966	1986	1942	1957	1964	1964

PAWCATUCK RIVER BASIN

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1941 - 1998	
ANNUAL TOTAL	180527		277925			
ANNUAL MEAN	495		761		579	
HIGHEST ANNUAL MEAN					871	
LOWEST ANNUAL MEAN					251	
HIGHEST DAILY MEAN	1700	Apr 3	2740	Mar 11	6220	Jun 6 1982
LOWEST DAILY MEAN	69	Oct 24	69	Oct 24	25	Aug 17 1941
ANNUAL SEVEN-DAY MINIMUM	72	Oct 18	72	Oct 18	47	Sep 2 1995
INSTANTANEOUS PEAK FLOW			2890		7070	
INSTANTANEOUS PEAK STAGE			7.93		12.86	
INSTANTANEOUS LOW FLOW			68			
ANNUAL RUNOFF (CFSM)	1.68		2.58		1.96	
ANNUAL RUNOFF (INCHES)	22.76		35.05		26.67	
10 PERCENT EXCEEDS	1090		1720		1200	
50 PERCENT EXCEEDS	318		509		452	
90 PERCENT EXCEEDS	95		134		127	

PAWCATUCK RIVER AT WESTERLY, RI 01118500



PAWCATUCK RIVER BASIN

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1963, 1976 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1978 to September 1992.

WATER TEMPERATURE: June 1978 to September 1992.

INSTRUMENTATION.--Water-quality monitor, June 1978 to September 1992.

REMARKS.--Instantaneous records are representative of the cross section while continuous records are based on point samples.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 354 µS/cm, June 25, 1985; minimum, 27 µS/cm, June 7, 1982.

WATER TEMPERATURE: Maximum recorded, 30.0°C Aug. 9, 1980, Aug. 17, 18, 1987; minimum, 0.0°C on many days during the winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	
NOV	24...	1145	360	123	6.6	6.5	4.5	--	2.7	13.1	102	--
MAR	16...	1110	1,640	78	6.6	5.5	3.5	--	1.6	13.1	97	--
JUN	03...	0630	744	90	6.8	18.0	18.5	110	1.7	8.3	92	--
AUG	27...	0945	302	157	7.3	28.0	23.0	--	2.6	8.2	94	12
DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31616)	ENTERO-COCCI ME,MF TOTAL (COL /100 ML) (31649)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR-BONATE WATER DIS IT FIELD HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (39086)	
NOV	24...	1.0	58	25	19	5.1	1.6	15	1.4	0	9	7
MAR	16...	1.0	K4	K1	12	3.2	1.0	8.8	.94	0	4	3
JUN	03...	1.0	560	130	16	4.3	1.2	12	1.1	0	10	8
AUG	27...	1.0	2500	940	22	6.1	1.7	21	1.5	0	15	12
DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDEd (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	
NOV	24...	15	17	0.12	9.5	83	20	93	<0.010	0.323	<0.020	--
MAR	16...	8.4	12	<.10	6.3	57	4	58	.013	.253	.029	0.12
JUN	03...	10	14	.11	6.2	72	--	76	<.010	.329	.044	.48
AUG	27...	24	16	.11	7.5	104	--	--	<.010	.622	.021	.36

PAWCATUCK RIVER BASIN

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	BERYL- BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	LIUM, DIS- SOLVED (UG/L AS BE) (01010)
NOV 24...	0.32	0.31	0.64	0.019	<0.010	0.025	170	114	<1.0	13	<1.0
MAR 16...	.15	.17	.40	<.010	<.010	<.010	110	106	<1.0	9.4	<1.0
JUN 03...	.53	.36	.86	<.010	.029	<.010	150	90	<1.0	12	<1.0
AUG 27...	.38	.26	1.0	.041	.015	.014	--	72	<1.0	14	<1.0

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
NOV 24...	<0.10	<1.0	<1.0	<1.0	430	260	<0.50	65	50	<0.10	<1.0
MAR 16...	<1.0	<1.0	<1.0	<1.0	160	120	<1.0	28	27	<.10	<1.0
JUN 03...	<1.0	<1.0	<1.0	<1.0	770	400	<1.0	70	51	<.10	<1.0
AUG 27...	<1.0	<1.0	<1.0	<1.0	--	490	<1.0	--	33	<.10	<1.0

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)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L) (32730)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)
NOV 24...	<1.0	<1.0	5.2	<1.0	8.6	<1	--	--	--	--
MAR 16...	<1.0	<1.0	6.6	<1.0	6.0	--	--	--	--	--
JUN 03...	<1.0	<1.0	4.0	<1.0	7.9	--	--	--	--	--
AUG 27...	<1.0	<1.0	2.7	<1.0	5.5	<1	<0.200	<0.200	<3.00	<0.500

DATE	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)
NOV 24...	--	--	--	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--	--
AUG 27...	<0.500	<0.200	<0.200	<0.200	<50.0	<0.200	<0.200	<2.50	<5.00	<0.200

## PAWCATUCK RIVER BASIN

01118500 PAWCATUCK RIVER AT WESTERLY, RI--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 24...	1145	360	4	3.9	60
JUN 03...	0630	744	7	14	79
AUG 27...	0945	302	4	3.3	71



Horseshoe weir showing no flow into Quabbin Reservoir, Sept. 14, 1995, East Branch Swift River near Hardwick, Mass. (photo by L. Y. Comeau).



## 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, flow affected 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.

AVERAGE DISCHARGE.--82 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, 1,270 ft<sup>3</sup>/s, June 17; gage height, 8.85 ft; maximum gage height, 9.24 ft, Mar. 10; minimum discharge, 7.0 ft<sup>3</sup>/s, July 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e45	e120	e170	e90	e125	e320	e430	e94	189	245	8.9	e14
2	e56	e170	e200	e80	e120	e330	e420	e110	225	281	e8.4	e11
3	e70	e230	e170	e70	e115	e350	e400	e130	191	255	e8.2	e9.0
4	e80	e290	e150	e76	e110	e320	e370	e150	135	202	e7.8	e7.6
5	e88	e220	e120	e90	e105	e300	e330	e170	85	175	e8.2	e7.0
6	e78	e170	e130	e130	e98	e270	e290	e200	60	137	e10	e7.6
7	e66	e140	e120	e200	e92	e250	e260	e240	48	107	e9.0	e9.0
8	e58	e120	e110	e300	e86	e240	e240	e230	60	95	e8.4	e8.0
9	e66	e150	e100	e500	e90	e400	e200	e210	77	91	e8.0	e7.2
10	e70	e250	e88	e460	e84	e900	e190	e230	63	80	e9.0	e7.2
11	e58	e200	e80	e410	e94	e1000	e170	e280	52	70	e8.0	e8.6
12	e60	e180	e74	e350	e170	e700	e155	386	47	64	e10	e10
13	e52	e150	e68	e310	e270	e560	e140	376	150	64	e13	e12
14	e47	e140	e64	e280	e250	e450	e120	330	567	45	e11	e10
15	e47	e130	e62	e240	e210	e380	e110	273	930	32	e9.2	e11
16	e50	e125	e58	e210	e180	e330	e92	229	1070	29	e9.2	e12
17	e55	e120	e56	e190	e170	e280	e84	186	1200	26	e11	e14
18	e56	e105	e54	e180	e230	e310	e76	159	926	22	e13	e12
19	e60	e96	e52	e170	e300	e350	e66	119	781	20	e11	e15
20	e65	e86	e50	e155	e310	e380	e100	95	748	18	e10	e17
21	e60	e90	e48	e140	e290	e330	e170	83	524	17	e9.0	e13
22	e69	e110	e47	e150	e260	e290	e150	71	390	15	e8.6	e15
23	e60	e140	e50	e170	e240	e260	e130	62	311	14	e8.0	e18
24	e56	e130	e58	e210	e260	e250	e160	54	261	15	e8.0	e22
25	e54	e110	e70	e250	e300	e230	e200	49	227	10	e9.0	e18
26	e66	e98	e88	e230	e350	e220	e180	44	241	11	e8.0	e16
27	e80	e110	e100	e200	e300	e230	e150	43	243	10	e7.6	e15
28	e86	e98	e110	e170	e310	e260	e130	39	216	9.5	e7.4	e14
29	e82	e105	e100	e150	---	e320	e120	27	179	9.4	e7.2	e16
30	e74	e125	e88	e140	---	e380	e100	22	164	9.0	e8.0	e18
31	e80	---	e100	e130	---	e420	---	31	---	9.5	e10	---
TOTAL	1994	4308	2835	6431	5519	11610	5733	4722	10360	2187.4	282.1	374.2
MEAN	64.3	144	91.5	207	197	375	191	152	345	70.6	9.10	12.5
MAX	88	290	200	500	350	1000	430	386	1200	281	13	22
MIN	45	86	47	70	84	220	66	22	47	9.0	7.2	7.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1998, BY WATER YEAR (WY)

	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
MEAN	94.4	120	143	142	137	261	378	182	113	61.2	51.9	65.2																																																																							
MAX	520	416	500	385	400	931	789	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	93.7	55.0	14.1	8.17	8.24	5.75																																																																							
(WY)	1948	1979	1979	1981	1980	1965	1985	1965	1964	1965	1965	1964																																																																							

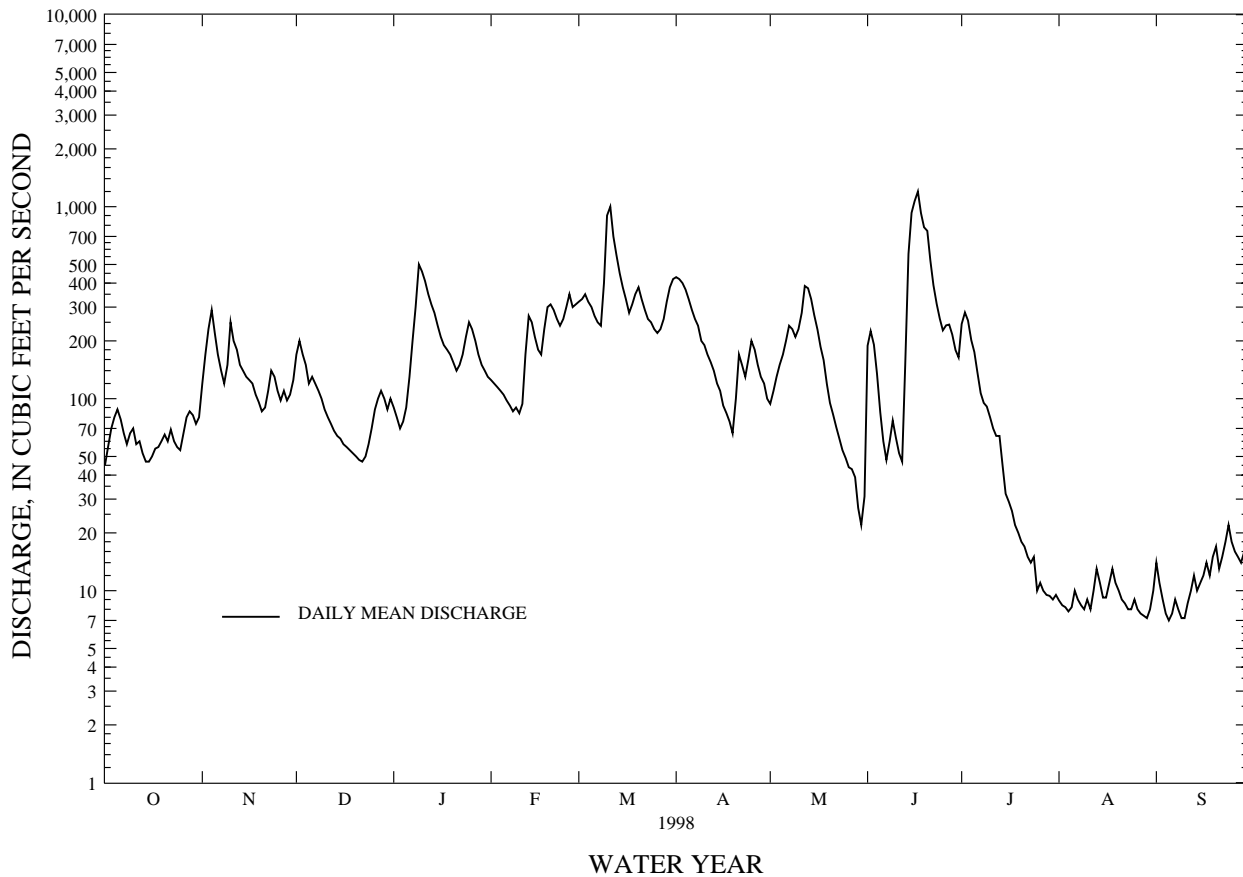
CONNECTICUT RIVER BASIN

01162000 MILLERS RIVER NEAR WINCHENDON, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1916 - 1998	
ANNUAL TOTAL	49401.0		56355.7			
ANNUAL MEAN	135		154		145	
HIGHEST ANNUAL MEAN					238	
LOWEST ANNUAL MEAN					38.5	
HIGHEST DAILY MEAN	779	Apr 20	1200	Jun 17	6130	Sep 22 1938
LOWEST DAILY MEAN	9.2	Jul 2	7.0	Sep 5	3.1	Oct 4 1930
ANNUAL SEVEN-DAY MINIMUM	11	Aug 6	7.7	Sep 4	4.5	Sep 24 1939
INSTANTANEOUS PEAK FLOW			1270		8500	
INSTANTANEOUS PEAK STAGE			9.24		21.55	
INSTANTANEOUS LOW FLOW			7.0		.00	
10 PERCENT EXCEEDS	319		330		337	
50 PERCENT EXCEEDS	91		105		89	
90 PERCENT EXCEEDS	18		10		19	

e Estimated

MILLERS RIVER NEAR WINCHENDON, MA 01162000



## CONNECTICUT RIVER BASIN

01162500 PRIEST BROOK NEAR WINCHENDON, MA

LOCATION.--Lat 42°40'57", long 72°06'56", Worcester County, Hydrologic Unit 01080202, on right bank 100 ft downstream from highway bridge, 3 mi upstream from mouth, and 3.5 mi west of Winchendon.

DRAINAGE AREA.--19.4 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: May 1916 to current year. Monthly discharge only October 1917 to July 1918 (published in WSP 1301) and September 1935 to September 1936.  
Water-quality records: August 1994.

REVISED RECORDS.--WSP 451: 1916. WSP 871: Drainage area. WSP 1051: 1919, 1922-24. WSP 1301: 1917(M), 1919-24(M), 1926-27(M), 1929(M), 1931-35(M).

GAGE.--Water-stage recorder. Concrete control since September 1936. Datum of gage is 849.67 ft above sea level. Prior to Sept. 11, 1936, nonrecording gage on left bank at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to 1962, occasional diurnal fluctuation at low flow by mill upstream; prior to 1953, regulation at low flow by mill and ponds. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--82 years, 33.1 ft<sup>3</sup>/s, 23.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,000 ft<sup>3</sup>/s, Sept. 21, 1938, gage height, 9.90 ft, from rating curve extended above 620 ft<sup>3</sup>/s on basis of contracted-opening measurements at gage heights 8.4 ft and 9.90 ft; minimum, 0.08 ft<sup>3</sup>/s, several times in September 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 367 ft<sup>3</sup>/s, Mar. 10, gage height, 4.87 ft; minimum, 0.59 ft<sup>3</sup>/s, Sept. 6, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	7.9	34	17	22	78	155	23	30	36	2.5	0.79
2	2.6	21	e39	e16	21	84	141	24	32	43	2.3	.74
3	3.3	34	35	16	20	89	127	26	28	36	2.3	.79
4	4.0	38	32	18	20	88	107	26	24	28	2.1	.75
5	4.5	37	29	27	20	82	89	25	19	26	2.1	.67
6	4.4	31	27	35	19	74	74	32	15	23	2.0	.61
7	4.0	28	24	51	18	65	62	51	12	21	2.2	.74
8	3.4	26	22	111	17	58	52	56	12	19	2.3	.87
9	3.1	29	20	198	16	116	48	51	14	18	2.0	.75
10	3.1	48	18	174	e15	348	44	47	13	17	1.8	.76
11	3.0	47	16	136	16	287	39	47	11	14	1.8	.71
12	2.7	39	15	e97	36	205	34	47	10	12	1.9	.66
13	2.5	31	14	85	67	e144	30	43	28	11	1.9	.66
14	2.6	27	e12	e60	e53	109	27	37	128	9.1	1.8	.67
15	2.6	25	12	e43	e45	86	24	31	208	7.7	1.8	.70
16	2.7	23	e11	45	e38	71	23	25	236	6.6	1.7	.79
17	3.1	21	11	43	34	60	22	20	312	5.8	1.4	.77
18	2.6	19	e10	41	44	53	23	19	348	5.4	1.9	.72
19	2.2	17	e10	37	71	62	22	18	251	4.6	1.8	.77
20	2.3	15	10	34	e72	83	45	15	171	4.6	1.3	.74
21	2.4	14	10	31	72	76	60	15	127	4.4	1.2	.61
22	2.3	17	9.0	28	63	62	53	13	92	4.0	1.1	1.1
23	2.3	22	9.1	26	56	e55	45	12	67	3.9	1.0	1.5
24	2.1	22	9.4	35	50	e49	48	9.6	56	4.7	1.1	1.2
25	2.9	21	13	44	71	47	50	8.2	45	3.8	1.2	1.1
26	3.2	20	20	39	79	45	45	7.0	40	3.5	1.3	1.1
27	5.6	22	22	33	75	54	40	9.0	42	3.2	1.1	1.4
28	6.8	23	22	29	73	82	36	13	40	2.9	.94	1.4
29	6.6	22	19	26	---	123	31	11	30	2.9	.88	1.1
30	6.0	21	21	25	---	157	27	9.0	25	2.7	.82	.97
31	5.7	---	21	24	---	165	---	8.3	---	2.4	.79	---
TOTAL	107.7	767.9	576.5	1624	1203	3157	1623	778.1	2466	386.2	50.33	26.14
MEAN	3.47	25.6	18.6	52.4	43.0	102	54.1	25.1	82.2	12.5	1.62	.87
MAX	6.8	48	39	198	79	348	155	56	348	43	2.5	1.5
MIN	2.1	7.9	9.0	16	15	45	22	7.0	10	2.4	.79	.61
CFSM	.18	1.32	.96	2.70	2.21	5.25	2.79	1.29	4.24	.64	.08	.04
IN.	.21	1.47	1.11	3.11	2.31	6.05	3.11	1.49	4.73	.74	.10	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1998, BY WATER YEAR (WY)

MEAN	16.0	29.4	34.7	30.9	28.0	63.6	93.1	43.1	25.0	12.3	9.89	11.9
MAX	69.2	124	120	90.3	102	162	225	93.9	125	62.5	68.8	178
(WY)	1976	1928	1997	1996	1984	1979	1940	1989	1922	1922	1928	1938
MIN	.55	1.38	4.67	1.23	5.28	13.6	21.8	12.8	2.53	1.04	.47	.29
(WY)	1965	1965	1930	1925	1980	1940	1985	1965	1964	1965	1964	1964

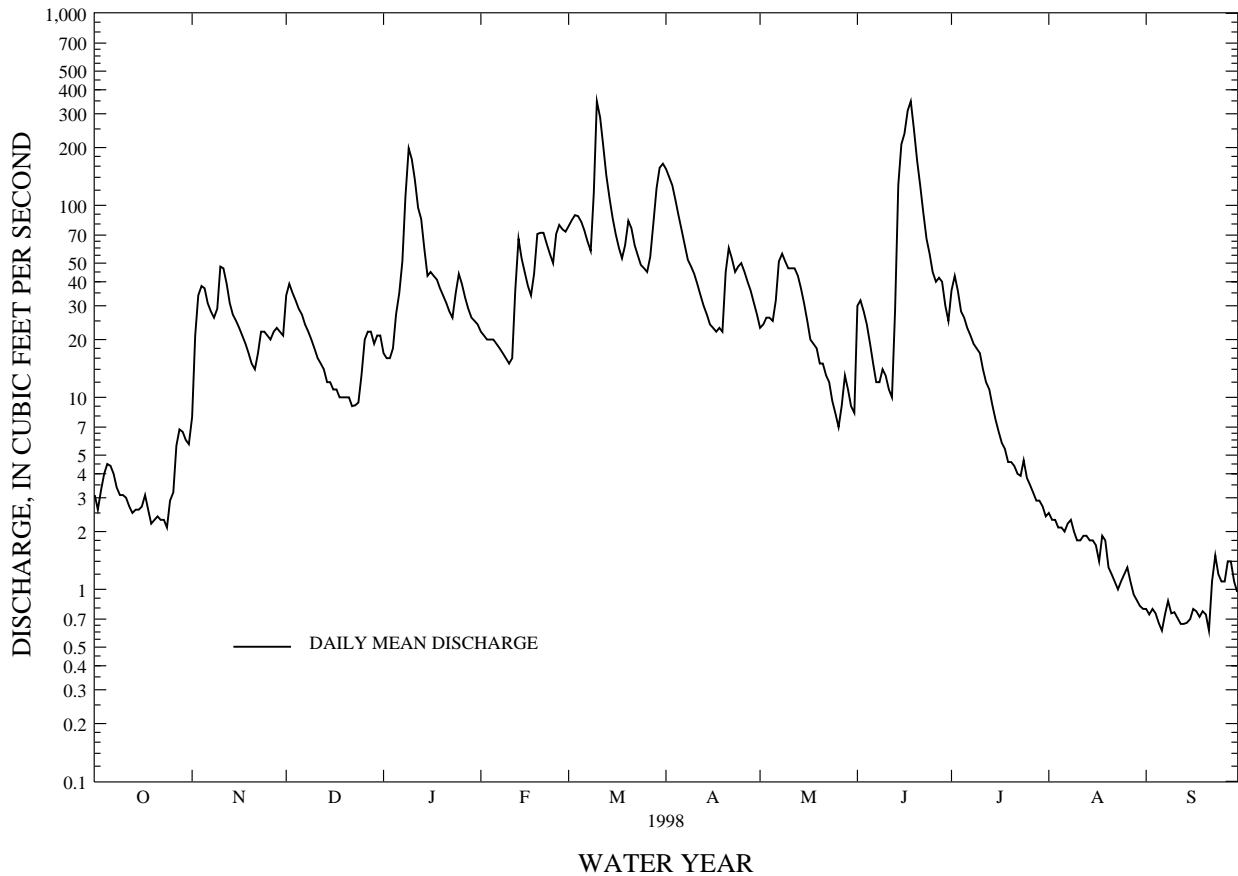
CONNECTICUT RIVER BASIN

01162500 PRIEST BROOK NEAR WINCHENDON, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1916 - 1998	
ANNUAL TOTAL	11027.8		12765.87		33.1	
ANNUAL MEAN	30.2		35.0		55.0	
HIGHEST ANNUAL MEAN					1928	
LOWEST ANNUAL MEAN					8.19	
HIGHEST DAILY MEAN	179	Apr 20	348	Mar 10	2280	Sep 21 1938
LOWEST DAILY MEAN	1.3	Aug 4	.61	Sep 6	.10	Sep 4 1929
ANNUAL SEVEN-DAY MINIMUM	1.6	Jul 30	.70	Sep 9	.19	Sep 2 1929
INSTANTANEOUS PEAK FLOW			367	Jun 18	3000	Sep 21 1938
INSTANTANEOUS PEAK STAGE			4.87	Jun 18	9.90	Sep 21 1938
INSTANTANEOUS LOW FLOW			.59	Sep 6	.08	Sep 18 1929
ANNUAL RUNOFF (CFSM)	1.56		1.80		1.70	
ANNUAL RUNOFF (INCHES)	21.15		24.48		23.16	
10 PERCENT EXCEEDS	77		80		81	
50 PERCENT EXCEEDS	20		21		17	
90 PERCENT EXCEEDS	2.5		1.2		2.4	

e Estimated

PRIEST BROOK NEAR WINCHENDON, MA 01162500





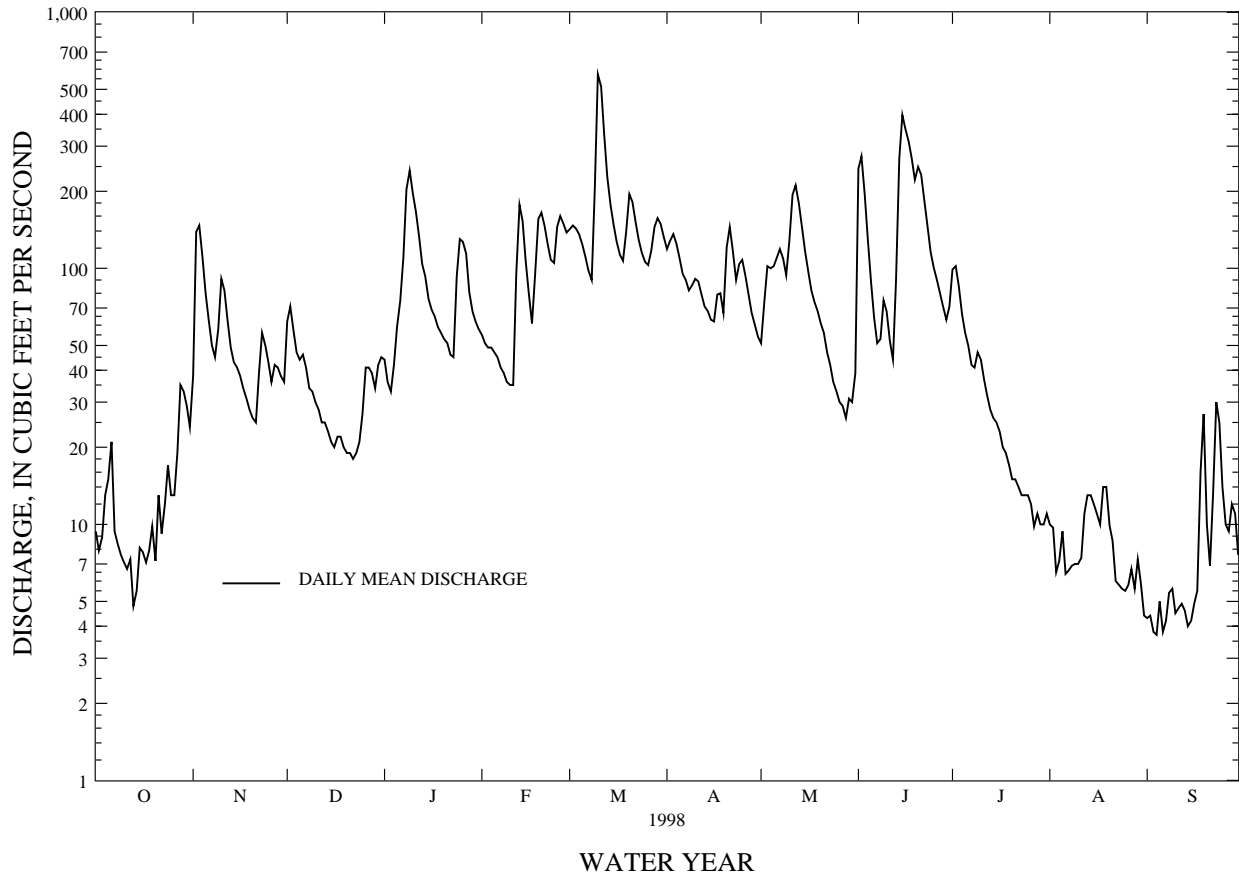
CONNECTICUT RIVER BASIN

01163200 OTTER RIVER AT OTTER RIVER, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1965 - 1998	
ANNUAL TOTAL	21130.4		25418.5		63.3	
ANNUAL MEAN	57.9		69.6		90.0	
HIGHEST ANNUAL MEAN					30.2	
LOWEST ANNUAL MEAN					1984	
HIGHEST DAILY MEAN	295	Apr 20	572	Mar 10	883	Mar 7 1979
LOWEST DAILY MEAN	4.8	Oct 13	3.7	Sep 4	2.4	Sep 12 1995
ANNUAL SEVEN-DAY MINIMUM	6.7	Oct 9	4.2	Sep 1	2.6	Sep 7 1995
INSTANTANEOUS PEAK FLOW			631	Mar 10	948	Mar 7 1979
INSTANTANEOUS PEAK STAGE			4.15	Mar 10	5.02	Mar 7 1979
INSTANTANEOUS LOW FLOW			2.1	Sep 4	2.0	Sep 5 1995
ANNUAL RUNOFF (CFSM)	1.70		2.04		1.86	
ANNUAL RUNOFF (INCHES)	23.05		27.73		25.22	
10 PERCENT EXCEEDS	135		148		138	
50 PERCENT EXCEEDS	41		47		41	
90 PERCENT EXCEEDS	8.3		7.1		11	

e Estimated

OTTER RIVER AT OTTER RIVER, MA 01163200





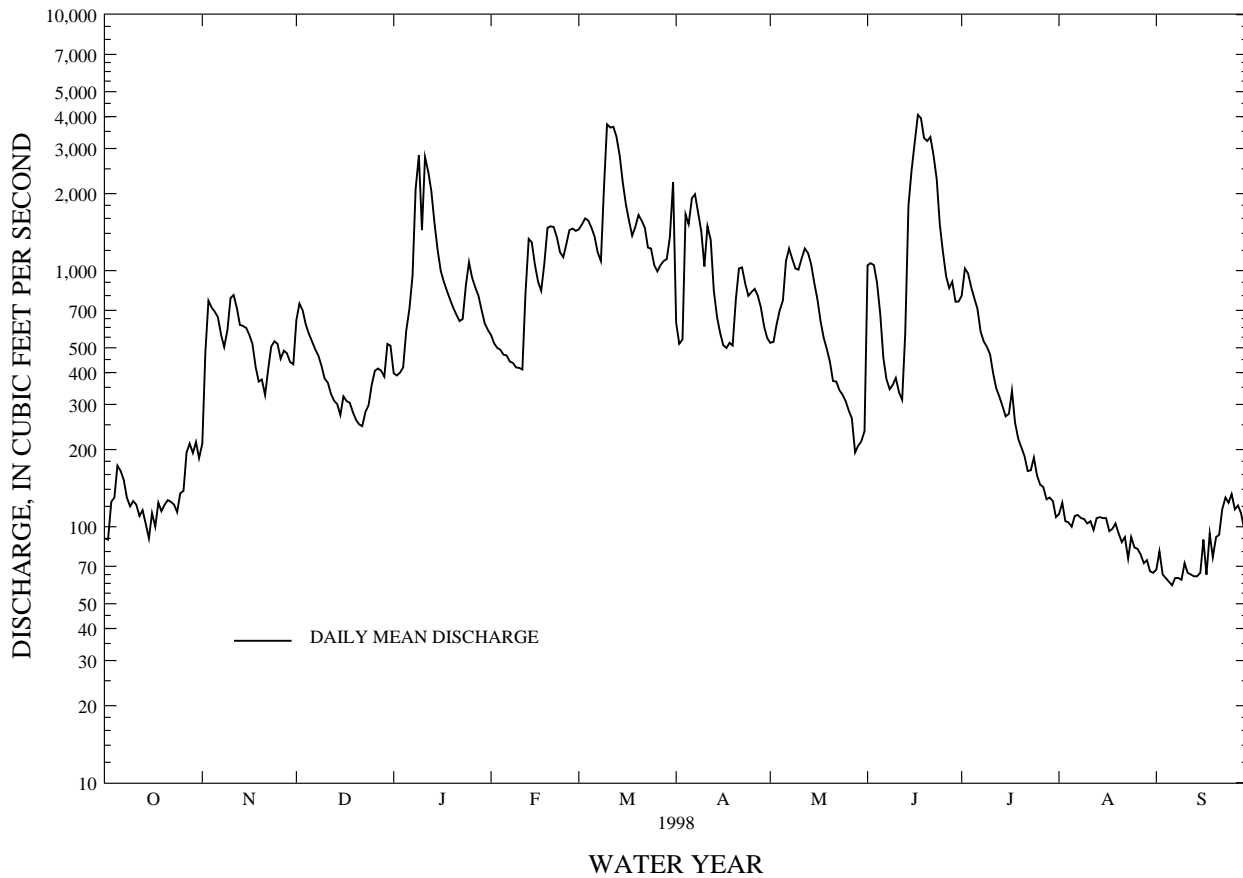
CONNECTICUT RIVER BASIN

01166500 MILLERS RIVER AT ERVING, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1916 - 1998	
ANNUAL TOTAL	224136		258125		641	
ANNUAL MEAN	614		707		1044	
HIGHEST ANNUAL MEAN					196	
LOWEST ANNUAL MEAN					1965	
HIGHEST DAILY MEAN	3050	Apr 22	4060	Jun 17	22000	Sep 22 1938
LOWEST DAILY MEAN	63	Sep 28	59	Sep 6	8.0	Sep 6 1926
ANNUAL SEVEN-DAY MINIMUM	71	Sep 22	62	Sep 3	31	Aug 25 1995
INSTANTANEOUS PEAK FLOW			4260	Jun 18	29000	Sep 22 1938
INSTANTANEOUS PEAK STAGE			6.19	Jun 18	13.37	Sep 22 1938
INSTANTANEOUS LOW FLOW			59	Aug 28		
10 PERCENT EXCEEDS	1370		1520		1500	
50 PERCENT EXCEEDS	465		500		400	
90 PERCENT EXCEEDS	102		95		105	

e Estimated

MILLERS RIVER AT ERVING, MA 01166500







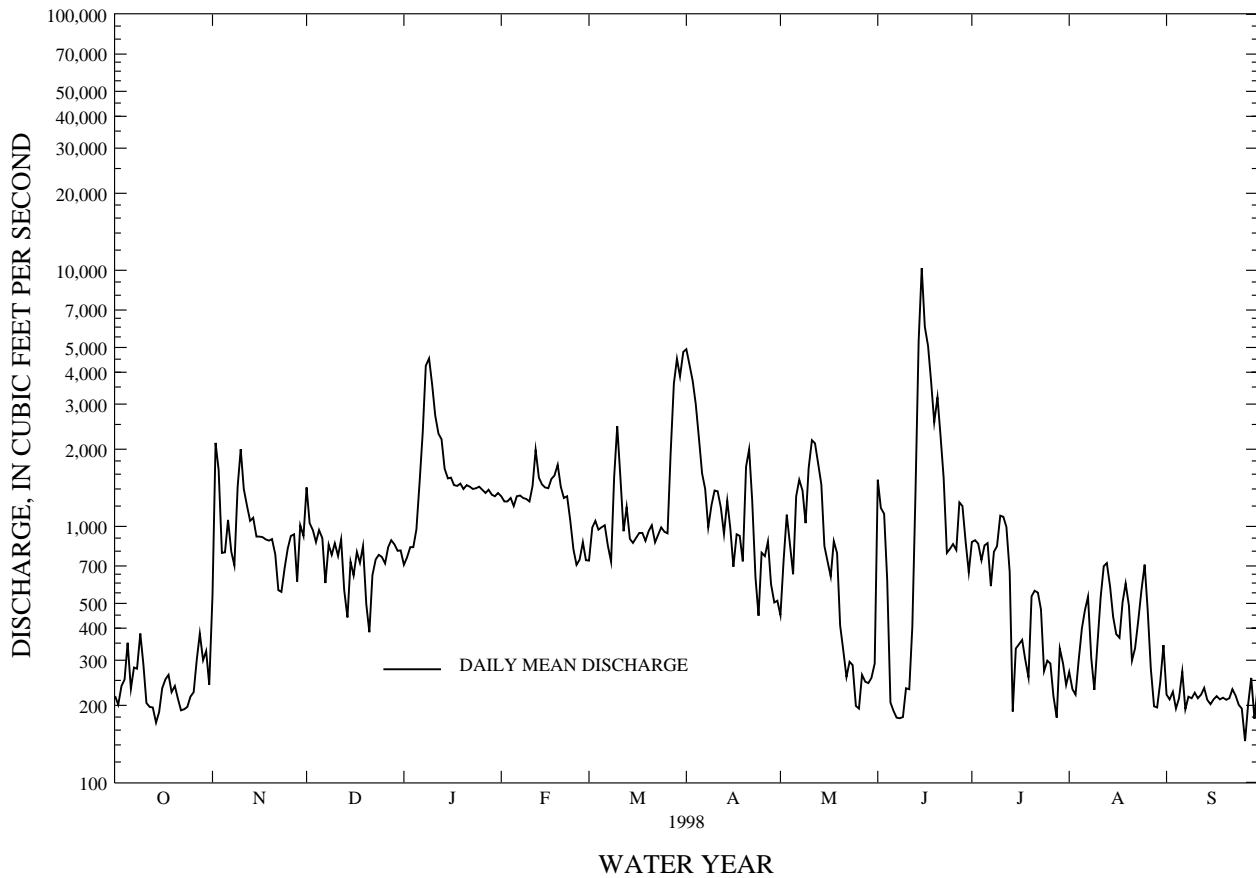
CONNECTICUT RIVER BASIN

01168500 DEERFIELD RIVER AT CHARLEMONT, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1913 - 1998	
ANNUAL TOTAL	315237		356593		902	
ANNUAL MEAN	864		977		1364	
HIGHEST ANNUAL MEAN					455	
LOWEST ANNUAL MEAN					1928	
HIGHEST DAILY MEAN	3660	May 4	10200	Jun 15	31100	Dec 31 1948
LOWEST DAILY MEAN	116	Jun 17	145	Sep 26	5.0	Jun 17 1921
ANNUAL SEVEN-DAY MINIMUM	173	Jun 16	199	Sep 23	34	Sep 19 1953
INSTANTANEOUS PEAK FLOW			13800	Jun 15	56300	Sep 21 1938
INSTANTANEOUS PEAK STAGE			9.74	Jun 15	20.17	Sep 21 1938
INSTANTANEOUS LOW FLOW			73	Sep 26		
10 PERCENT EXCEEDS	1770		1680		1690	
50 PERCENT EXCEEDS	788		794		682	
90 PERCENT EXCEEDS	201		213		186	

e Estimated

DEERFIELD RIVER AT CHARLEMONT, MA 01168500





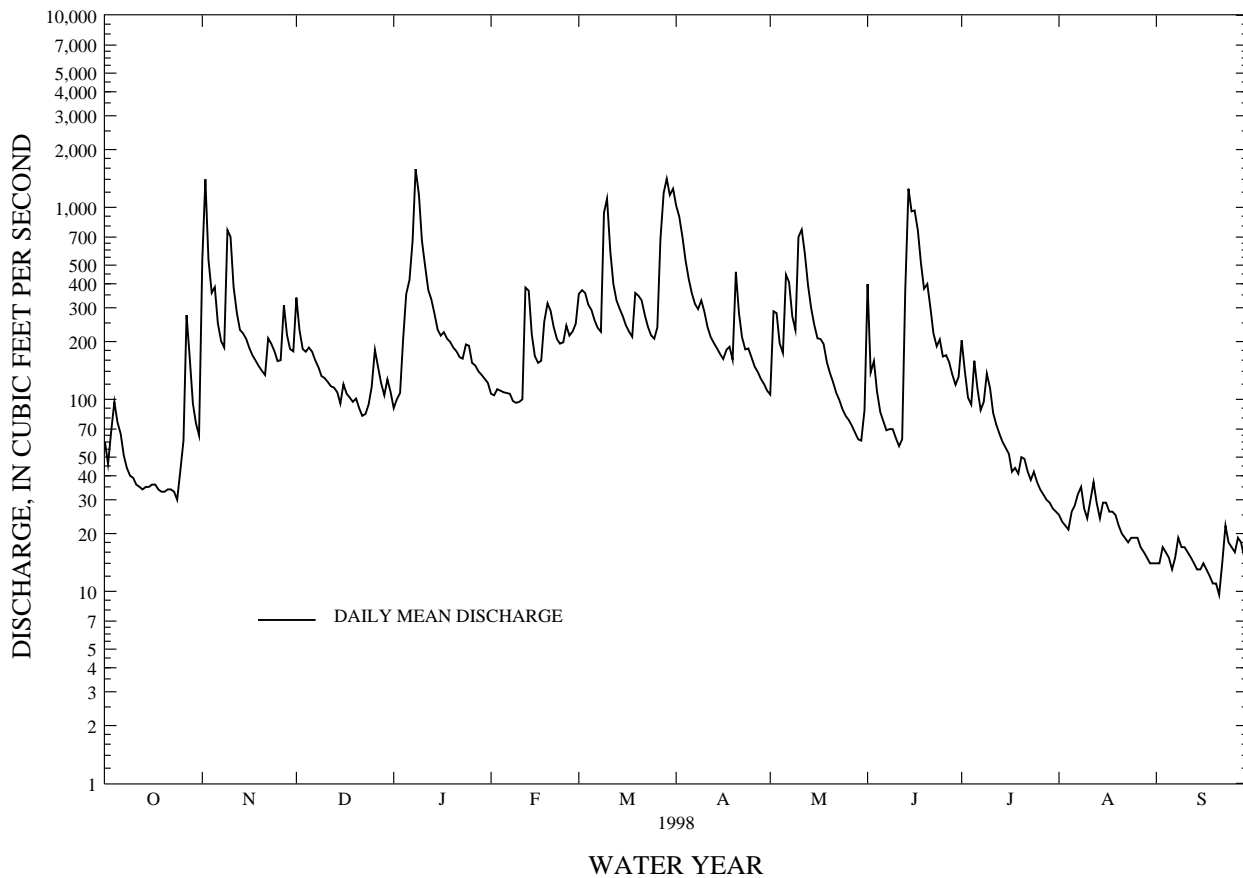
CONNECTICUT RIVER BASIN

01169000 NORTH RIVER AT SHATTUCKVILLE, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1940 - 1998	
ANNUAL TOTAL	65277		73661.6		187	
ANNUAL MEAN	179		202		299	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					79.9	
HIGHEST DAILY MEAN	1400	Nov 2	1580	Jan 8	8740	Oct 15 1955
LOWEST DAILY MEAN	14	Aug 2	9.6	Sep 21	5.1	Oct 3 1948
ANNUAL SEVEN-DAY MINIMUM	16	Jul 29	12	Sep 15	6.3	Sep 1 1953
INSTANTANEOUS PEAK FLOW			4320	Nov 1	14200	Apr 5 1987
INSTANTANEOUS PEAK STAGE			7.44	Nov 1	11.19	Apr 5 1987
INSTANTANEOUS LOW FLOW			8.4	Sep 21		
ANNUAL RUNOFF (CFSM)	2.01		2.27		2.10	
ANNUAL RUNOFF (INCHES)	27.28		30.79		28.60	
10 PERCENT EXCEEDS	475		399		429	
50 PERCENT EXCEEDS	109		135		93	
90 PERCENT EXCEEDS	25		19		21	

e Estimated

NORTH RIVER AT SHATTUCKVILLE, MA 01169000





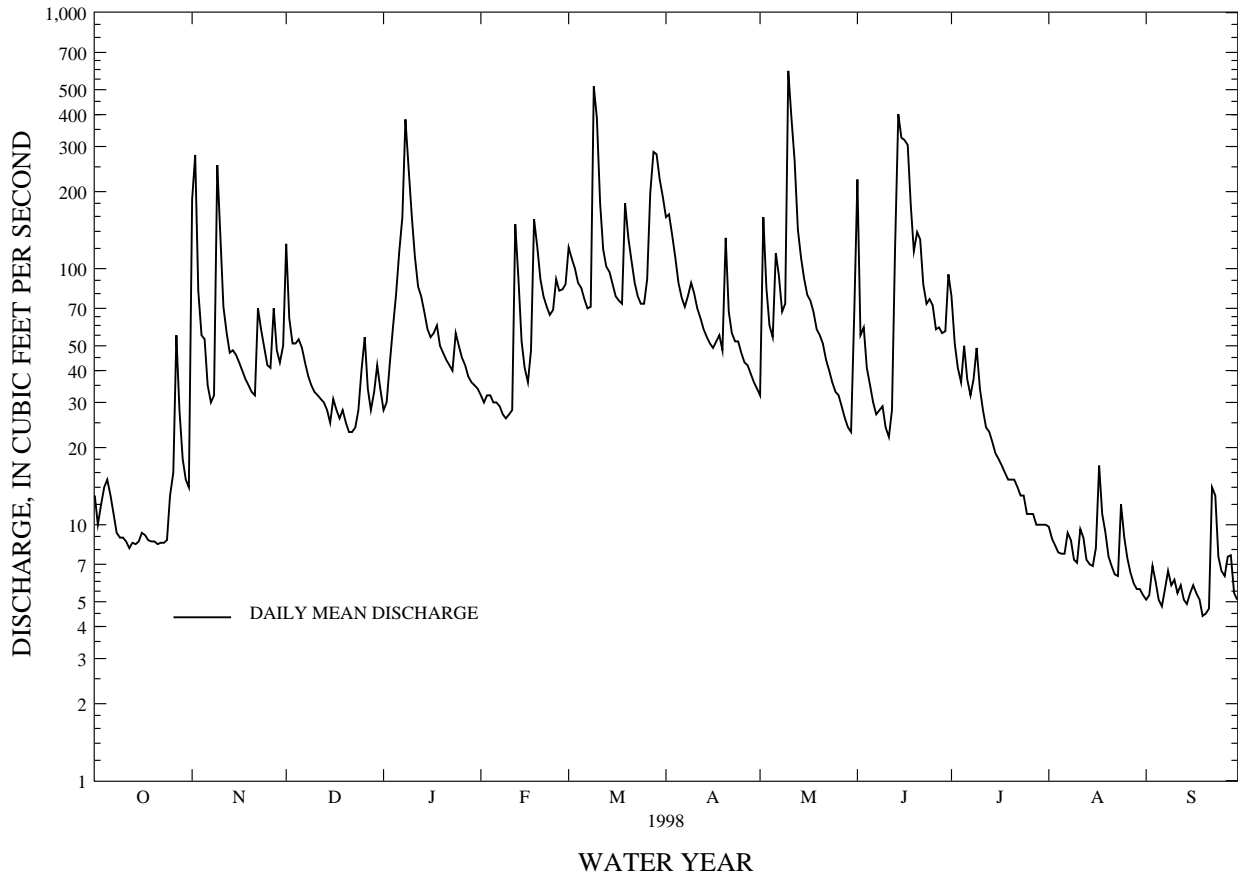
CONNECTICUT RIVER BASIN

01169900 SOUTH RIVER NEAR CONWAY, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1966 - 1998	
ANNUAL TOTAL	16846.8		21972.5		52.9	
ANNUAL MEAN	46.2		60.2		82.6	
HIGHEST ANNUAL MEAN					21.5	
LOWEST ANNUAL MEAN					1570	
HIGHEST DAILY MEAN	278	Nov 2	593	May 10	1570	Jun 6 1982
LOWEST DAILY MEAN	3.3	Aug 3	4.4	Sep 19	2.4	Sep 7 1995
ANNUAL SEVEN-DAY MINIMUM	4.3	Jul 29	5.0	Sep 15	2.6	Sep 3 1995
INSTANTANEOUS PEAK FLOW			1420	Nov 1	5750	Apr 4 1987
INSTANTANEOUS PEAK STAGE			6.32	Nov 1	10.16	Apr 4 1987
INSTANTANEOUS LOW FLOW			3.3	Sep 19		
ANNUAL RUNOFF (CFSM)	1.92		2.50		2.19	
ANNUAL RUNOFF (INCHES)	26.00		33.92		29.82	
10 PERCENT EXCEEDS	102		131		112	
50 PERCENT EXCEEDS	33		40		30	
90 PERCENT EXCEEDS	6.3		7.2		7.2	

e Estimated

SOUTH RIVER NEAR CONWAY, MA 01169900





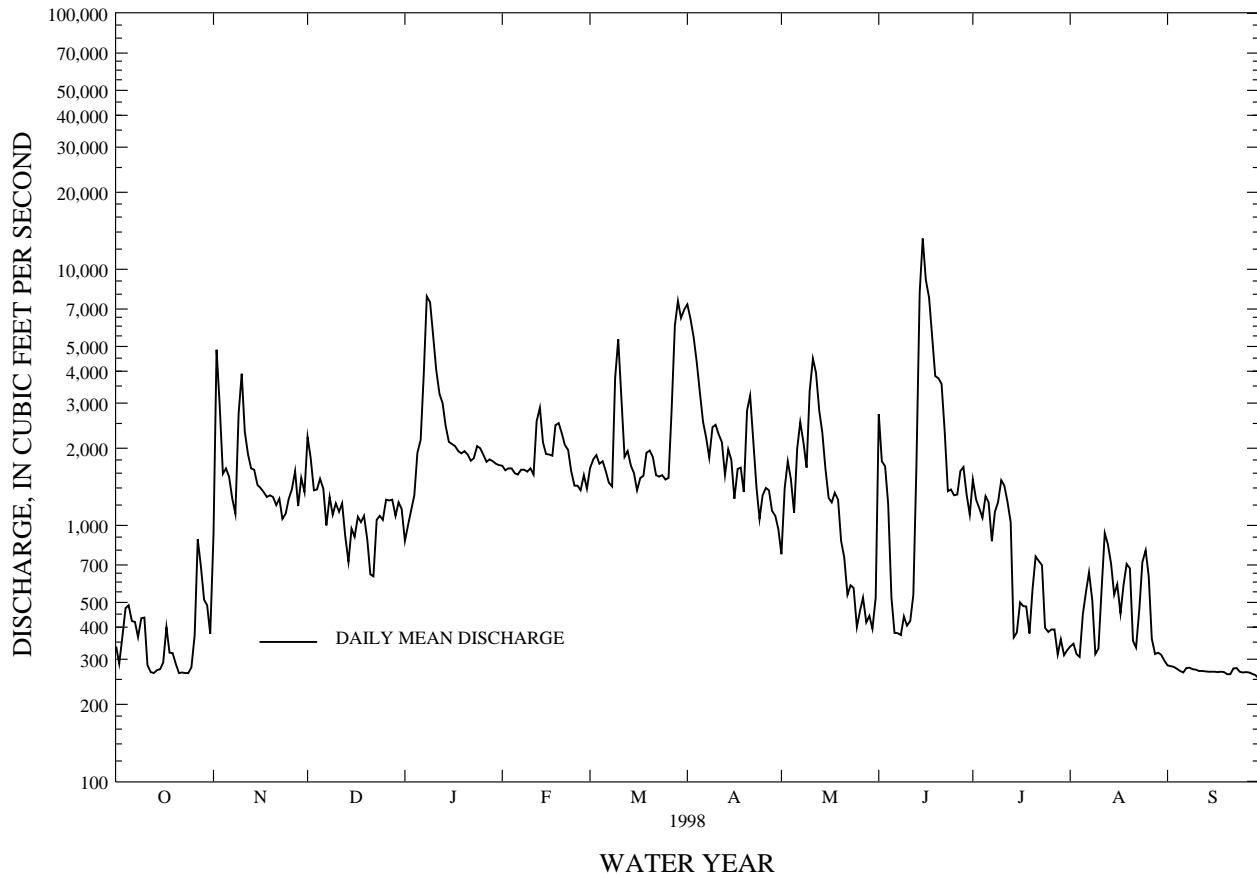
CONNECTICUT RIVER BASIN

01170000 DEERFIELD RIVER NEAR WEST DEERFIELD, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1904 - 1998	
ANNUAL TOTAL	500981		554312			
ANNUAL MEAN	1373		1519		1317	
HIGHEST ANNUAL MEAN					1840	
LOWEST ANNUAL MEAN					629	
HIGHEST DAILY MEAN	5760	May 4	13200	Jun 15	38300	Dec 31 1948
LOWEST DAILY MEAN	265	Oct 13	253	Sep 30	28	Jul 29 1962
ANNUAL SEVEN-DAY MINIMUM	278	Oct 19	263	Sep 24	39	Jul 27 1962
INSTANTANEOUS PEAK FLOW			15300	Jun 15	61700	Apr 5 1987
INSTANTANEOUS PEAK STAGE			8.29	Jun 15	17.71	Apr 5 1987
INSTANTANEOUS LOW FLOW			148	Oct 4		
10 PERCENT EXCEEDS	2950		2810		2670	
50 PERCENT EXCEEDS	1230		1270		967	
90 PERCENT EXCEEDS	290		280		266	

e Estimated

DEERFIELD RIVER NEAR WEST DEERFIELD, MA 01170000







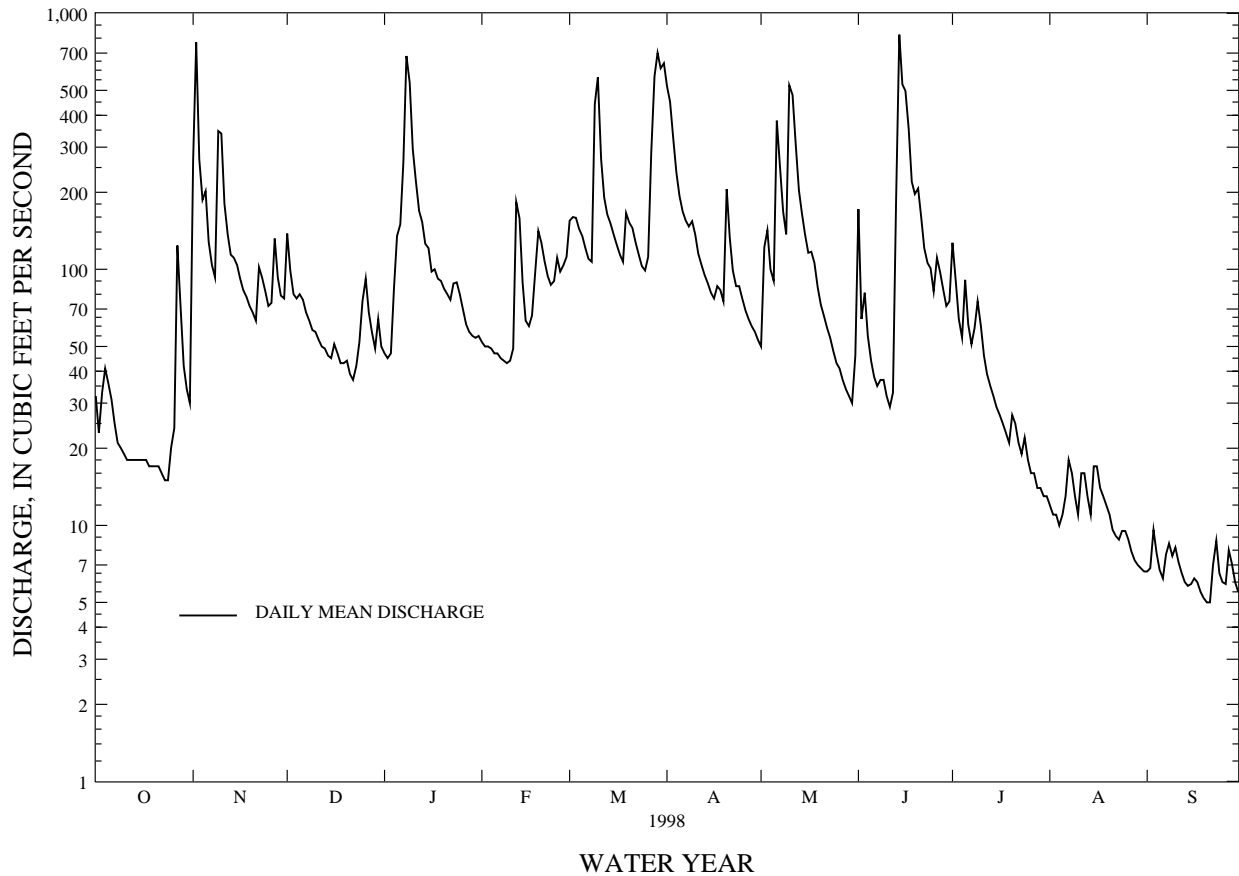
CONNECTICUT RIVER BASIN

01170100 GREEN RIVER NEAR COLRAIN, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1968 - 1998	
ANNUAL TOTAL	31165.2		36151.6		90.6	
ANNUAL MEAN	85.4		99.0		136	
HIGHEST ANNUAL MEAN					44.4	
LOWEST ANNUAL MEAN					2420	
HIGHEST DAILY MEAN	770	Nov 2	825	Jun 14	Mar 31 1987	
LOWEST DAILY MEAN	5.1	Aug 3	5.0	Sep 20	Sep 16 1983	
ANNUAL SEVEN-DAY MINIMUM	5.9	Jul 29	5.5	Sep 15	Sep 11 1983	
INSTANTANEOUS PEAK FLOW			3130	Nov 1	Dec 21 1973	
INSTANTANEOUS PEAK STAGE			6.42	Nov 1	Jan 27 1976	
INSTANTANEOUS LOW FLOW			4.9	Sep 19	Aug 1 1968	
ANNUAL RUNOFF (CFSM)	2.06		2.39		2.19	
ANNUAL RUNOFF (INCHES)	28.00		32.48		29.75	
10 PERCENT EXCEEDS	230		199		208	
50 PERCENT EXCEEDS	48		64		49	
90 PERCENT EXCEEDS	11		9.0		12	

e Estimated

GREEN RIVER NEAR COLRAIN, MA 01170100



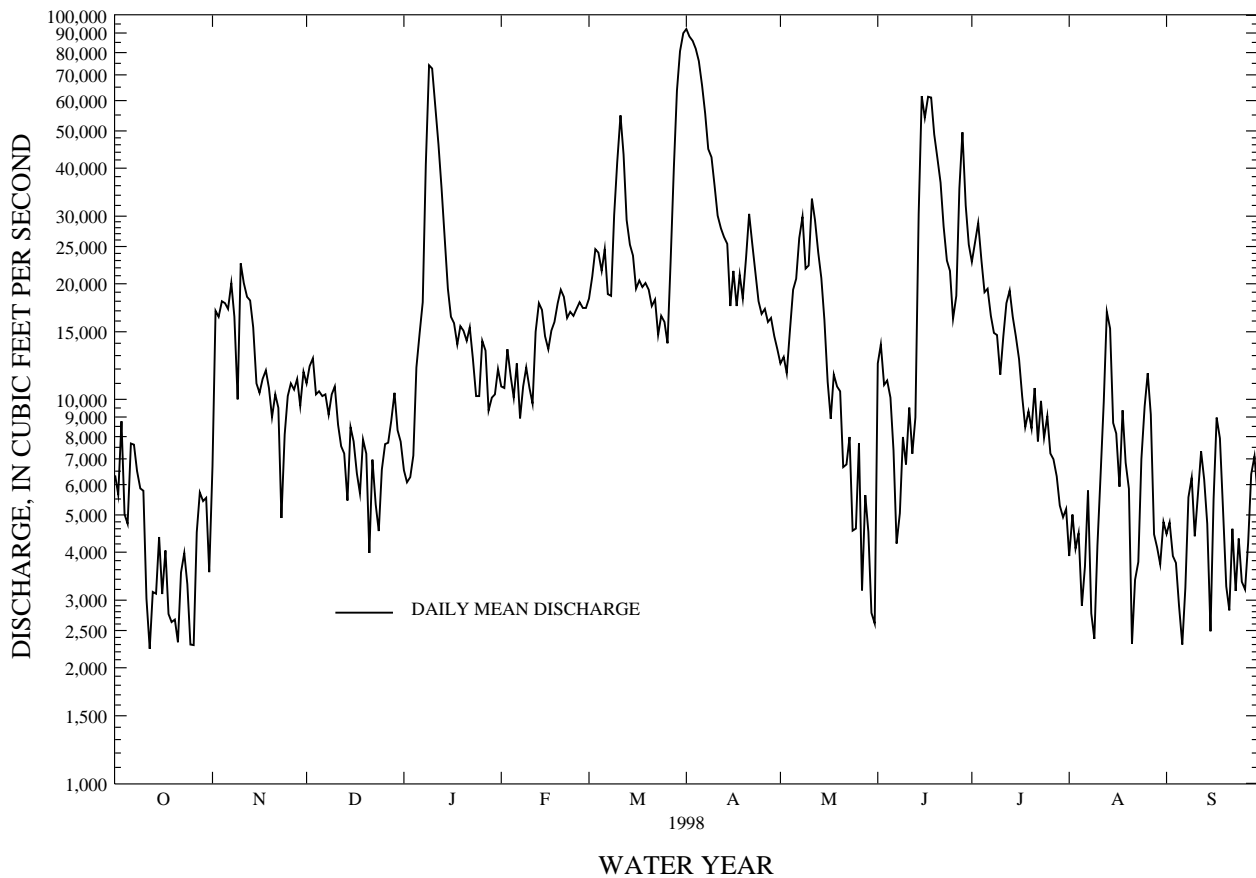


CONNECTICUT RIVER BASIN

01170500 CONNECTICUT RIVER AT MONTAGUE CITY, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1904 - 1998	
ANNUAL TOTAL	5086210		5786550		13960	
ANNUAL MEAN	13930		15850		6768	
HIGHEST ANNUAL MEAN					20680	1928
LOWEST ANNUAL MEAN					6768	1965
HIGHEST DAILY MEAN	66100	Apr 8	92100	Apr 1	233000	Mar 19 1936
LOWEST DAILY MEAN	1870	Jul 28	2240	Oct 12	215	Aug 31 1958
ANNUAL SEVEN-DAY MINIMUM	2530	Aug 4	2920	Oct 20	1300	Jul 29 1965
INSTANTANEOUS PEAK FLOW			95900	Apr 1	236000	Mar 19 1936
INSTANTANEOUS PEAK STAGE			31.09	Apr 1	49.20	Mar 19 1936
INSTANTANEOUS LOW FLOW			1460	Oct 12		
10 PERCENT EXCEEDS	31700		30300		31800	
50 PERCENT EXCEEDS	10200		10800		8960	
90 PERCENT EXCEEDS	3510		3910		3020	

CONNECTICUT RIVER AT MONTAGUE CITY, MA 01170500



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 good except those for estimated daily discharges, which are fair. Flow regulated by mill upstream.

AVERAGE DISCHARGE.--59 years, 98.5 ft<sup>3</sup>/s, 24.79 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, 1,830 ft<sup>3</sup>/s, Mar. 9, gage height, 5.86 ft; minimum, 4.7 ft<sup>3</sup>/s, Sept. 19-21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	115	262	74	90	263	252	71	e200	247	16	6.7
2	24	549	161	106	88	227	249	175	e95	135	13	8.9
3	22	185	131	74	87	206	191	160	e100	99	11	13
4	40	119	120	91	e84	186	163	115	e75	80	10	9.6
5	51	129	120	189	e82	174	145	102	e60	91	10	8.0
6	46	84	128	201	e80	163	133	231	e50	82	9.7	6.6
7	25	67	109	322	e79	149	122	255	e45	65	13	6.5
8	20	69	97	688	76	184	171	158	e42	86	10	8.3
9	17	409	88	468	73	1190	178	138	e39	139	8.5	7.7
10	16	304	83	343	e72	547	215	677	35	84	7.7	7.3
11	20	147	80	236	73	298	150	682	32	63	8.7	6.6
12	24	110	76	187	279	224	129	460	37	53	11	5.8
13	19	93	74	166	283	201	117	255	202	48	9.1	5.2
14	15	93	70	149	154	185	110	198	678	48	8.9	5.1
15	15	91	68	140	118	172	104	163	628	38	8.4	5.9
16	15	85	76	169	e115	156	101	139	695	35	8.6	7.2
17	15	78	65	126	112	150	106	134	401	33	19	6.6
18	14	72	62	115	455	156	119	138	253	30	21	5.8
19	14	69	58	110	339	417	102	111	172	25	18	5.0
20	14	66	59	e100	257	295	260	96	192	24	14	4.7
21	14	63	57	100	224	231	157	85	195	26	11	4.8
22	13	142	e52	e93	199	194	122	76	135	24	10	13
23	13	145	e58	e110	183	175	109	70	114	23	8.8	19
24	13	110	67	e230	226	169	110	63	113	22	24	9.4
25	18	95	86	195	296	168	100	58	145	19	16	7.6
26	28	84	114	141	235	189	92	56	99	17	12	7.9
27	100	111	94	123	218	292	92	52	97	17	9.4	9.5
28	75	95	80	111	217	299	84	47	126	17	8.2	9.2
29	43	82	71	104	---	263	78	e43	100	17	6.9	7.4
30	33	95	103	101	---	223	74	e41	217	17	6.4	24
31	28	---	92	95	---	192	---	e100	---	17	6.8	---
TOTAL	834	3956	2861	5457	4794	7938	4135	5149	5372	1721	355.1	252.3
MEAN	26.9	132	92.3	176	171	256	138	166	179	55.5	11.5	8.41
MAX	100	549	262	688	455	1190	260	682	695	247	24	24
MIN	13	63	52	74	72	149	74	41	32	17	6.4	4.7
CFSM	.50	2.44	1.71	3.26	3.17	4.74	2.55	3.08	3.32	1.03	.21	.16
IN.	.57	2.73	1.97	3.76	3.30	5.47	2.85	3.55	3.70	1.19	.24	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1998, BY WATER YEAR (WY)

MEAN	54.8	89.4	101	92.6	104	192	235	133	76.6	38.5	34.9	32.9
MAX	456	334	307	287	338	475	478	326	300	125	254	150
(WY)	1956	1956	1997	1978	1981	1953	1993	1984	1982	1973	1955	1975
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

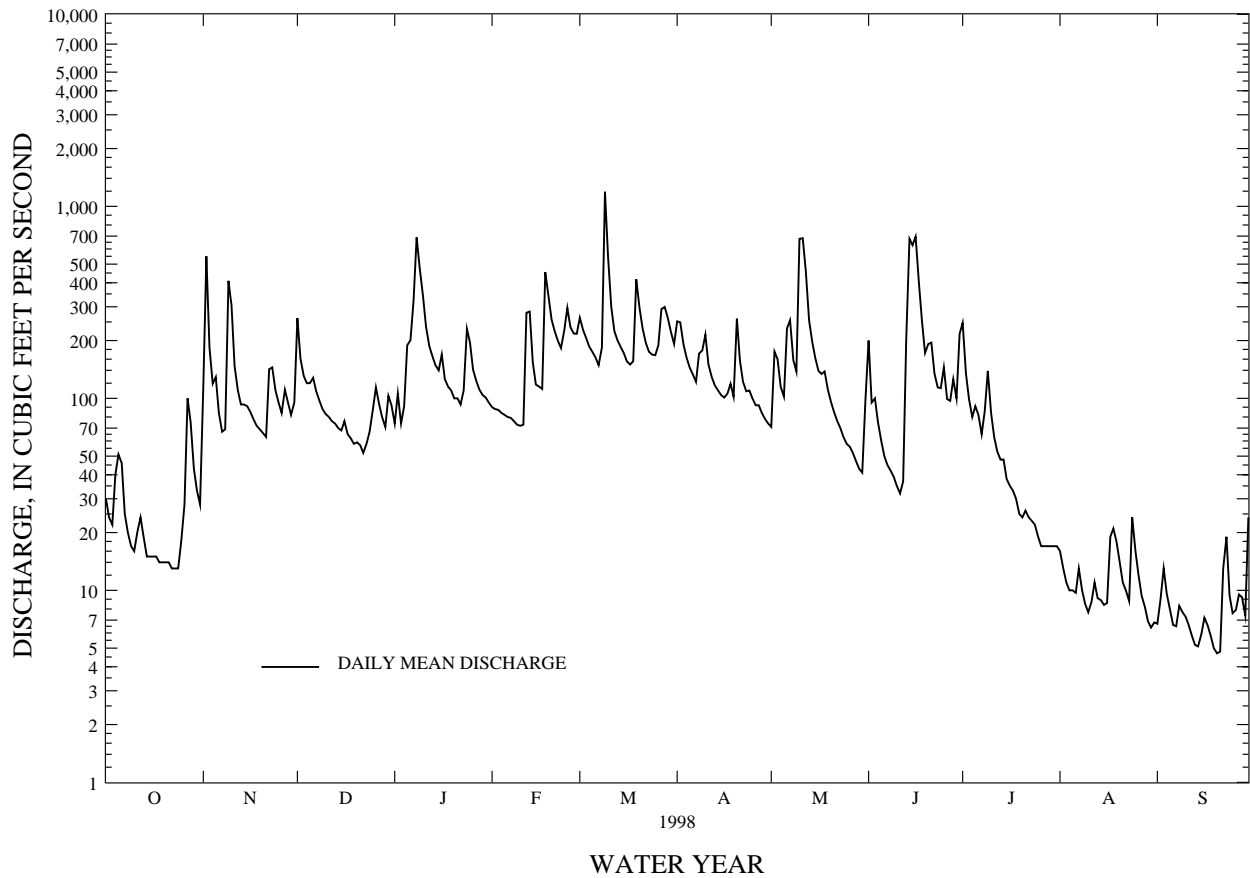
CONNECTICUT RIVER BASIN

01171500 MILL RIVER AT NORTHAMPTON, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1939 - 1998	
ANNUAL TOTAL	35518.1		42824.4		98.5	
ANNUAL MEAN	97.3		117		39.1	
HIGHEST ANNUAL MEAN					157 1996	
LOWEST ANNUAL MEAN					39.1 1965	
HIGHEST DAILY MEAN	549	Nov 2	1190	Mar 9	3870	Aug 19 1955
LOWEST DAILY MEAN	9.1	Aug 3	4.7	Sep 20	4.2	Aug 21 1957
ANNUAL SEVEN-DAY MINIMUM	11	Jul 28	5.7	Sep 15	4.3	Aug 18 1957
INSTANTANEOUS PEAK FLOW			1830	Mar 9	6300	Aug 19 1955
INSTANTANEOUS PEAK STAGE			5.86	Mar 9	11.78	Aug 19 1955
INSTANTANEOUS LOW FLOW			4.7	Sep 19	2.2	Oct 1 1950
ANNUAL RUNOFF (CFSM)	1.80		2.17		1.82	
ANNUAL RUNOFF (INCHES)	24.47		29.50		24.79	
10 PERCENT EXCEEDS	218		248		220	
50 PERCENT EXCEEDS	78		90		56	
90 PERCENT EXCEEDS	15		9.4		14	

e Estimated

MILL RIVER AT NORTHAMPTON, MA 01171500



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 except those for periods of estimated daily discharge, which are fair. Flow regulated by power-plants, 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.--13 years (water years 1985-98), 12,330 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, 92,300 ft<sup>3</sup>/s, Apr. 1, gage height, 18.54 ft; minimum daily, 1,840 ft<sup>3</sup>/s, Aug. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4450	5690	10100	6950	10600	13900	90500	11200	6690	20200	4530	4410
2	5070	10400	10300	6100	10200	15100	87700	10700	10300	19900	3820	3470
3	6130	13500	e9200	5600	9810	19100	83700	11000	9200	23700	3780	3680
4	6220	14000	e8000	6720	9430	19800	79100	8840	9300	21300	4400	3310
5	3540	14100	6660	9000	5770	18500	75100	11800	9600	16200	3340	2840
6	6240	13500	6990	10300	8120	18900	66600	14500	7410	13900	2590	1980
7	5910	14000	9330	12000	6640	17200	56400	20700	4710	13200	3990	2010
8	5900	15000	7640	28000	6170	14300	45100	24600	4290	11100	4550	3390
9	5280	9940	8040	61400	7960	21200	41700	19600	6920	11500	1870	4720
10	5260	13300	7750	75600	6750	39000	35000	16700	7750	9310	1840	3800
11	4220	18600	8180	63800	7490	51700	29000	27900	7950	13200	5380	4880
12	1940	15600	6270	48400	10500	47500	24500	28600	8310	14300	7200	4860
13	1920	14400	7160	37500	13700	32100	21800	22100	7390	13800	9030	6320
14	2620	13400	5590	25700	14000	22600	22800	17000	15900	13400	10800	4660
15	5050	9850	6860	19500	12900	21400	15400	14400	50500	11600	7330	3530
16	3600	7360	8500	11300	9510	17100	15800	8660	56300	8610	6760	3000
17	1890	7670	6020	13800	10500	16200	13800	6780	59000	7340	5840	5220
18	2760	7910	4870	10300	11900	15700	15900	7420	60400	7510	7190	5080
19	2460	8470	6440	10900	14100	16100	15700	10400	52000	9270	7380	3180
20	2680	6490	7490	10400	15600	17500	16500	8530	42600	7330	4550	3020
21	2760	9080	4670	11300	15600	15200	24500	7270	37800	8740	3050	2800
22	2880	8960	5890	10500	14100	15000	23000	6380	26600	7300	1970	3310
23	3510	8180	5960	9450	12600	12900	18400	7540	20900	8000	3260	3240
24	3840	5300	4730	8160	13200	11800	15100	6760	16600	8660	4260	2820
25	2830	8900	4530	7230	13500	12600	12800	4580	15800	7820	4710	3760
26	2680	9420	7710	9400	13900	11200	13200	6100	14300	6900	6760	2700
27	3550	9120	7930	10000	13700	13000	11700	5770	23000	6220	7080	3300
28	5630	9720	7650	6810	13800	29300	13400	5190	41600	6630	3860	4150
29	5260	8760	9350	7030	---	51100	14700	4530	36400	4510	3880	5160
30	5420	9250	7710	7710	---	72000	14100	4100	23800	5520	2750	4610
31	4910	---	8250	9610	---	84000	---	2710	---	3950	3900	---
TOTAL	126410	319870	225770	570470	312050	783000	1013000	362360	693320	340920	151650	113210
MEAN	4078	10660	7283	18400	11140	25260	33770	11690	23110	11000	4892	3774
MAX	6240	18600	10300	75600	15600	84000	90500	28600	60400	23700	10800	6320
MIN	1890	5300	4530	5600	5770	11200	11700	2710	4290	3950	1840	1980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1998, BY WATER YEAR (WY)

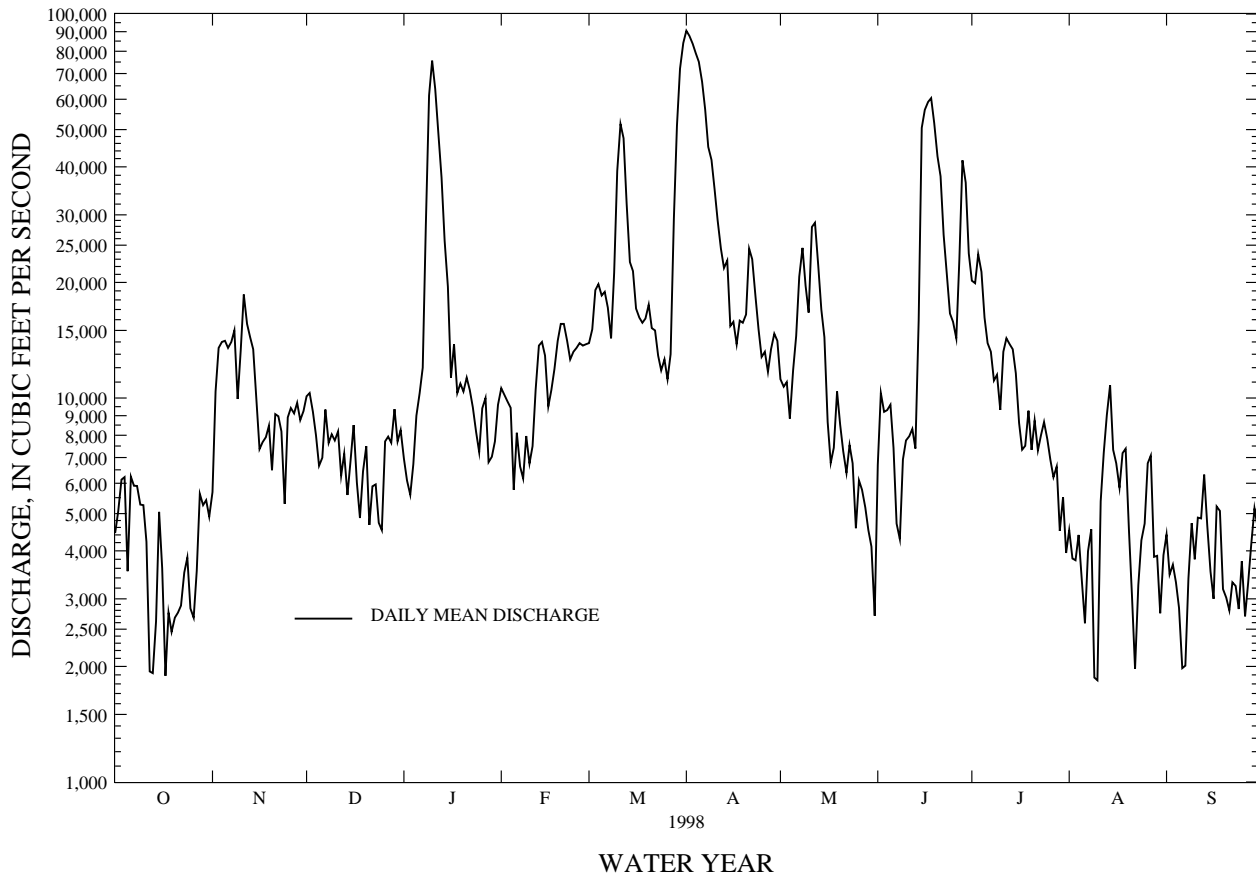
MEAN	9314	12380	11480	10460	9949	17830	34120	17690	10770	6518	5679	4562
MAX	16340	25800	27410	23660	21890	34660	58300	40670	31100	16930	14780	8601
(WY)	1991	1996	1997	1996	1984	1990	1993	1996	1984	1996	1990	1987
MIN	1512	3540	5787	4760	4250	9579	10270	7366	4088	2578	2718	1378
(WY)	1985	1985	1985	1989	1987	1989	1995	1987	1988	1991	1985	1984

01172003 CONNECTICUT RIVER BELOW HOLYOKE DAM AT HOLYOKE, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1994 - 1998	
ANNUAL TOTAL	4430160		5012030		12330	
ANNUAL MEAN	12140		13730		19030	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					1985	
HIGHEST DAILY MEAN	64900	Apr 9	90500	Apr 1	145000	Jun 1 1984
LOWEST DAILY MEAN	1820	Aug 8	1840	Aug 10	519	Sep 30 1984
ANNUAL SEVEN-DAY MINIMUM	2070	Aug 4	2710	Oct 17	707	Sep 18 1984
INSTANTANEOUS PEAK FLOW			92300		153000	
INSTANTANEOUS PEAK STAGE			18.54		25.62	
INSTANTANEOUS LOW FLOW			911		a200	
10 PERCENT EXCEEDS	27800		27100		27400	
50 PERCENT EXCEEDS	8460		8960		8100	
90 PERCENT EXCEEDS	3360		3520		3040	

a Occurred when Hadley 1 generator shut down. Discharge was derived from extending the rating below 2.5 ft.  
 e Estimated.

CONNECTICUT RIVER BL HOLYOKE DAM AT HOLYOKE, MA 01172003







CONNECTICUT RIVER BASIN

01172500 WARE RIVER NEAR BARRE, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1946 - 1998	
ANNUAL TOTAL	30715.1		41353.6			
ANNUAL MEAN	84.2		113		96.1	
ANNUAL MEAN ††	84.1		113		96.1	
HIGHEST ANNUAL MEAN					157 1984	
LOWEST ANNUAL MEAN					29.5 1965	
HIGHEST DAILY MEAN	583	Apr 8	896	Mar 13	1520	Oct 16 1955
LOWEST DAILY MEAN	1.6	Sep 28	1.1	Sep 20	.10	Sep 8 1995
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 23	1.3	Sep 15	.11	Sep 6 1995
INSTANTANEOUS PEAK FLOW			912	Mar 12	1890	Oct 16 1955
INSTANTANEOUS PEAK STAGE			4.93	Mar 12	6.31	Oct 16 1955
ADJUSTED RUNOFF (CFSM) ††	1.53		2.05		1.74	
ADJUSTED RUNOFF (INCHES) ††	20.75		27.92		23.68	
10 PERCENT EXCEEDS	192		286		221	
50 PERCENT EXCEEDS	55		59		60	
90 PERCENT EXCEEDS	4.3		3.4		7.4	

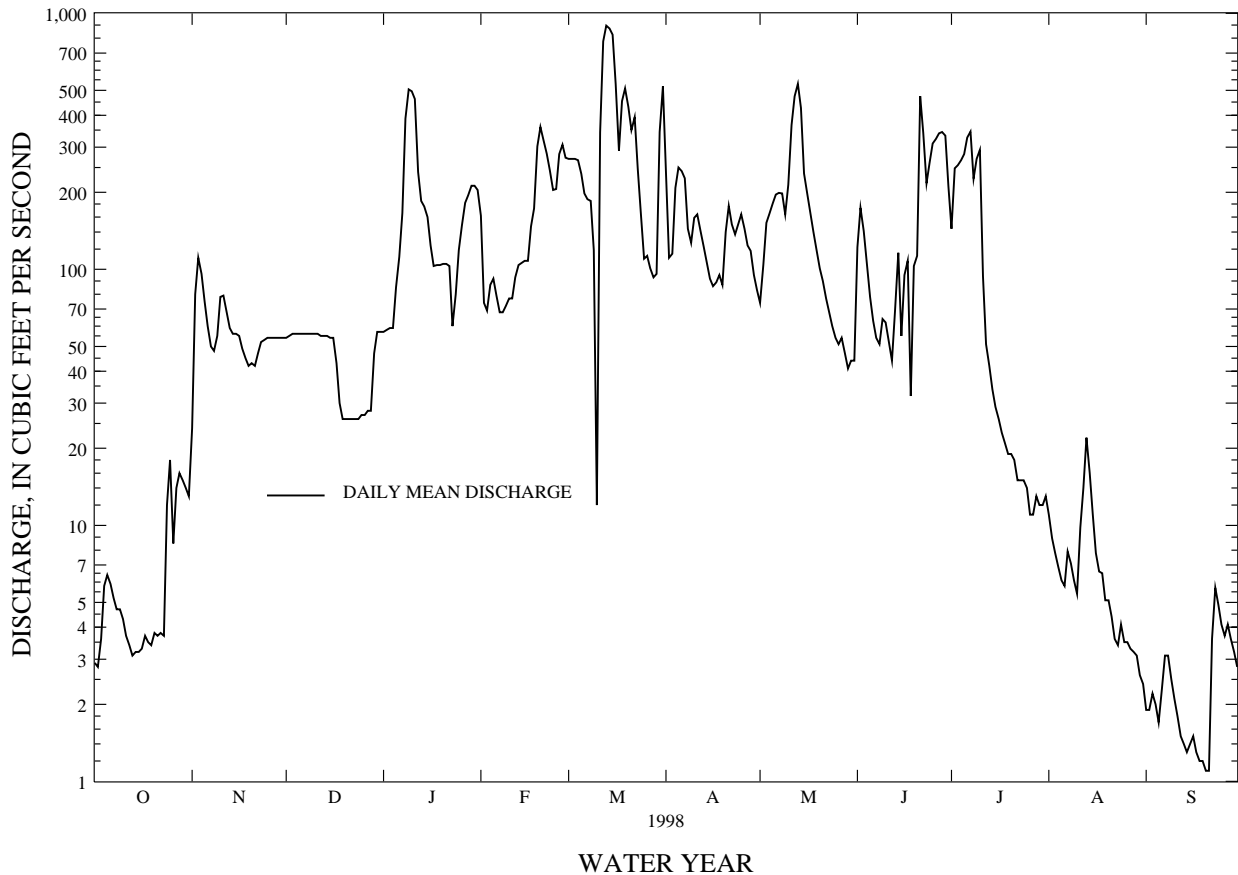
e Estimated

† 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, 1997, 1.8 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.

WARE RIVER NEAR BARRE, MA 01172500





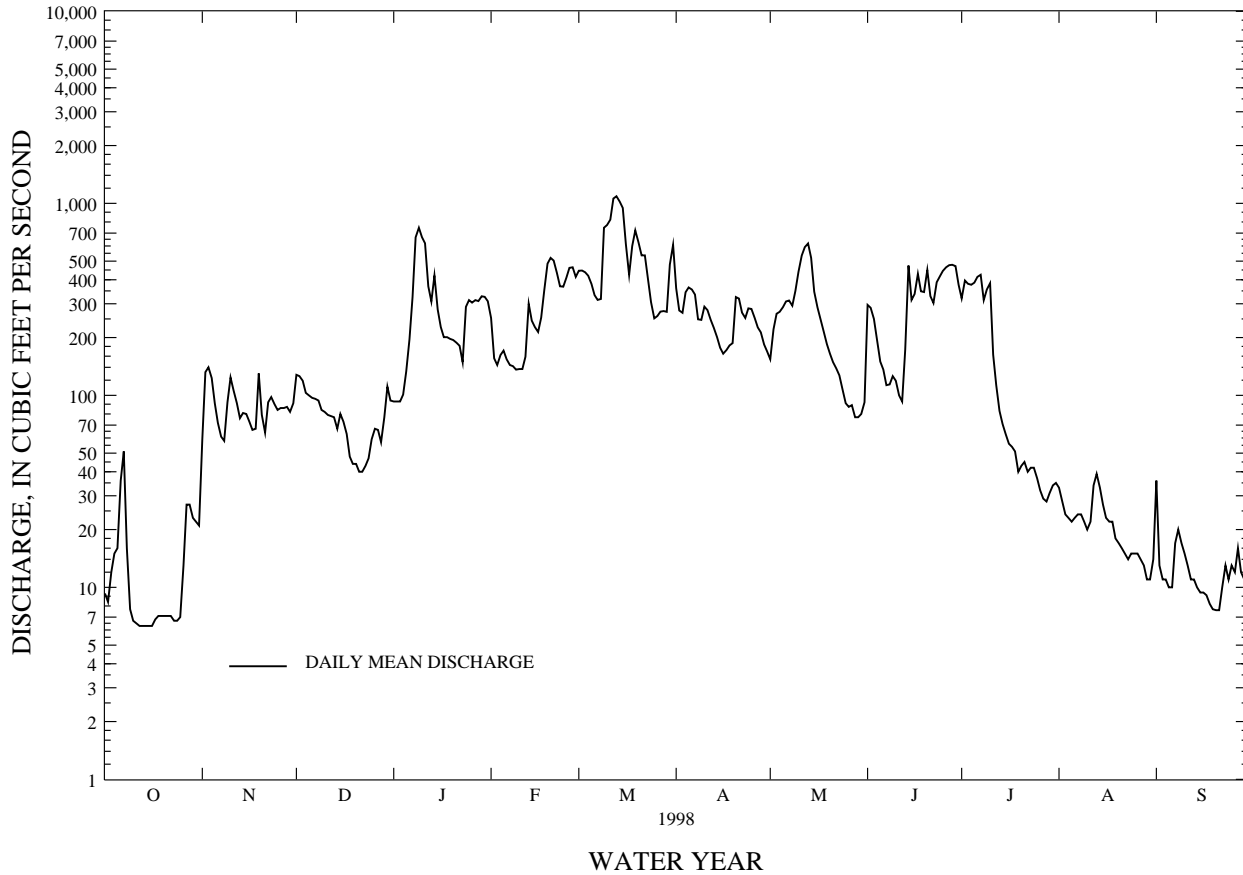
CONNECTICUT RIVER BASIN

01173000 WARE RIVER AT INTAKE WORKS NEAR BARRE, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1928 - 1998	
ANNUAL TOTAL	56294.6		69591.2			
ANNUAL MEAN	154		191		170	
ANNUAL MEAN†	154		191		170	
HIGHEST ANNUAL MEAN					277 1938	
LOWEST ANNUAL MEAN					56.4 1965	
HIGHEST DAILY MEAN	842	Apr 8	1090	Mar 13	8740	Sep 21 1938
LOWEST DAILY MEAN	6.3	Oct 12	6.3	Oct 12	.46	Sep 15 1987
ANNUAL SEVEN-DAY MINIMUM	6.4	Oct 10	6.4	Oct 10	3.4	Sep 3 1963
INSTANTANEOUS PEAK FLOW					14000	Sep 21 1938
INSTANTANEOUS PEAK STAGE					664.28	Sep 21 1938
ANNUAL RUNOFF (CFSM)††	1.60		1.98		1.77	
ANNUAL RUNOFF (INCHES)††	21.75		26.88		23.97	
10 PERCENT EXCEEDS	360		445		386	
50 PERCENT EXCEEDS	91		119		111	
90 PERCENT EXCEEDS	13		11		20	

†† Adjusted for change in contents in Barre Falls Reservoir (see station 01172500 for monthend contents).  
 Note.--Except as footnoted, all statistics are based on unadjusted daily and monthly mean data.

WARE RIVER AT INTAKE WORKS NEAR BARRE, MA 01173000





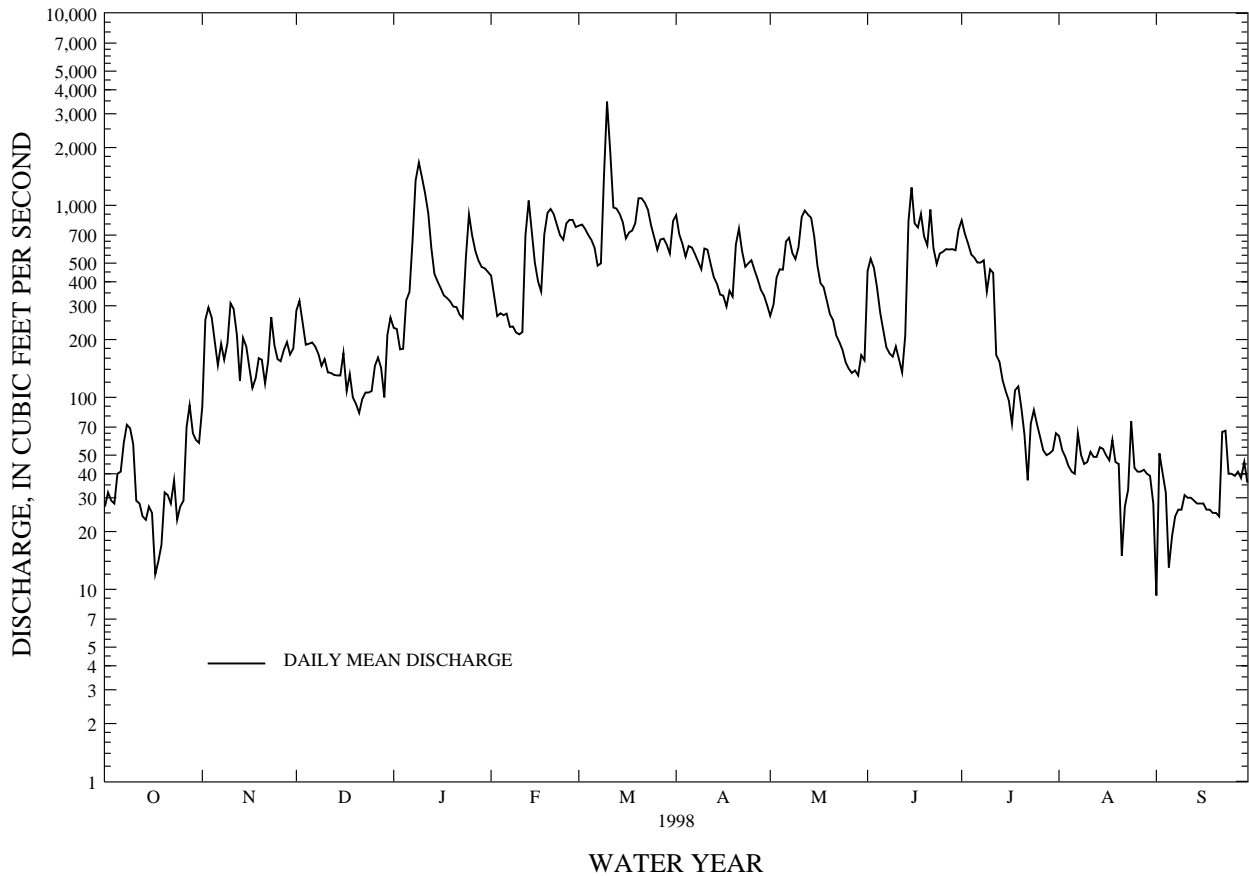
CONNECTICUT RIVER BASIN

01173500 WARE RIVER AT GIBBS CROSSING, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1931 - 1998	
ANNUAL TOTAL	116716		126289.3		293	
ANNUAL MEAN	320		346		107	
HIGHEST ANNUAL MEAN					581 1938	
LOWEST ANNUAL MEAN					16700 1965	
HIGHEST DAILY MEAN	1710	Apr 20	3470	Mar 10	16700	Sep 21 1938
LOWEST DAILY MEAN	12	Oct 17	9.3	Sep 1	7.0	Sep 12 1953
ANNUAL SEVEN-DAY MINIMUM	20	Oct 13	20	Oct 13	9.4	Sep 8 1953
INSTANTANEOUS PEAK FLOW			3860	Mar 10	22700	Sep 21 1938
INSTANTANEOUS PEAK STAGE			7.17	Mar 10	18.20	Sep 21 1938
INSTANTANEOUS LOW FLOW			6.2	Oct 11	4.2	Aug 24 1995
10 PERCENT EXCEEDS	726		805		613	
50 PERCENT EXCEEDS	184		213		215	
90 PERCENT EXCEEDS	33		31		48	

e Estimated

WARE RIVER AT GIBBS CROSSING, MA 01173500



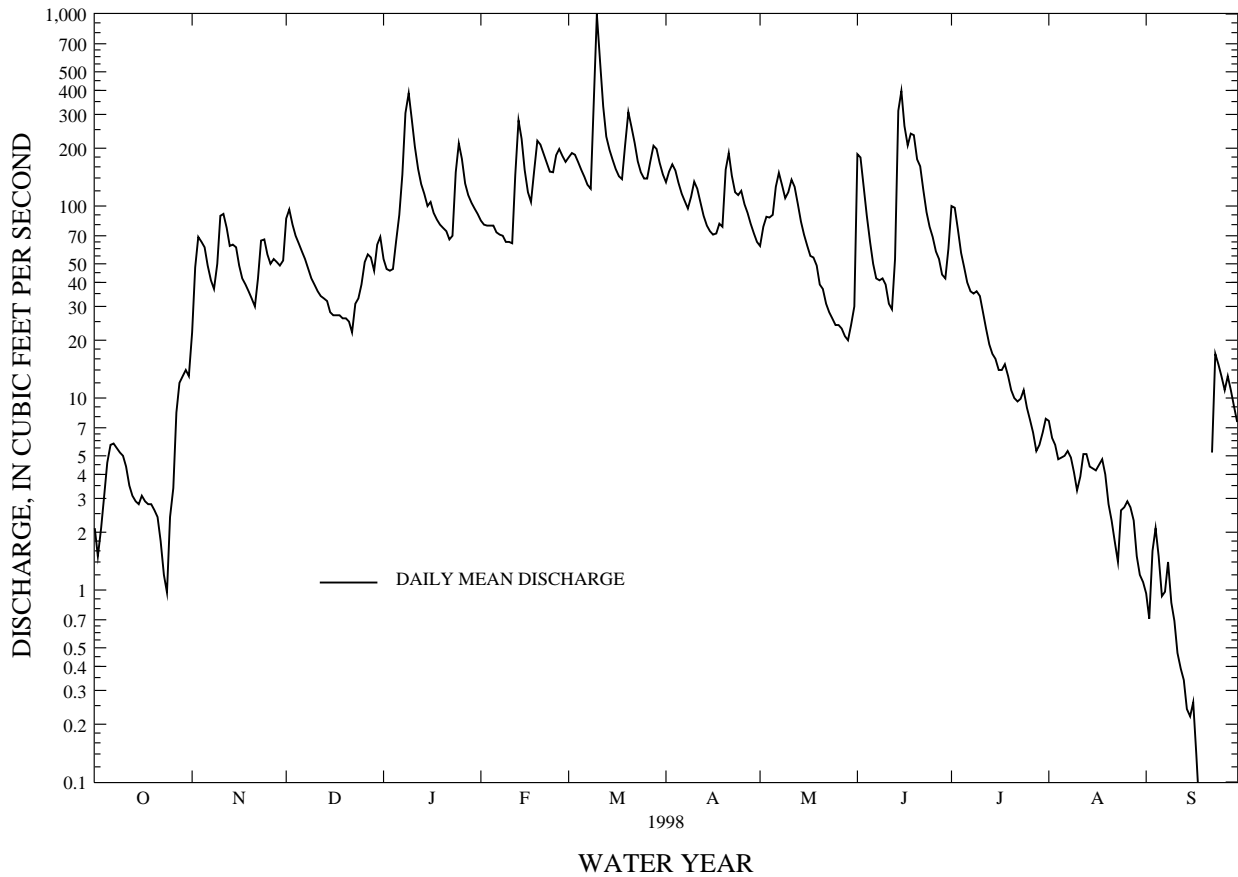


CONNECTICUT RIVER BASIN

01174500 EAST BRANCH SWIFT RIVER NEAR HARDWICK, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1937 - 1998	
ANNUAL TOTAL	27438.11		27938.14		72.0	
ANNUAL MEAN	75.2		76.5		22.8	
HIGHEST ANNUAL MEAN					123	1938
LOWEST ANNUAL MEAN					22.8	1965
HIGHEST DAILY MEAN	392	Apr 20	997	Mar 10	4690	Sep 21 1938
LOWEST DAILY MEAN	.94	Sep 28	.00	Sep 20	.00	Aug 15 1939
ANNUAL SEVEN-DAY MINIMUM	1.5	Sep 26	.10	Sep 15	.00	Aug 31 1953
INSTANTANEOUS PEAK FLOW			1150	Mar 10	6780	Sep 21 1938
INSTANTANEOUS PEAK STAGE			21.31	Mar 10	22.49	Jun 25 1944
INSTANTANEOUS LOW FLOW					.00	Aug 7 1939
ANNUAL RUNOFF (CFSM)	1.72		1.75		1.65	
ANNUAL RUNOFF (INCHES)	23.36		23.78		22.38	
10 PERCENT EXCEEDS	167		179		163	
50 PERCENT EXCEEDS	53		53		45	
90 PERCENT EXCEEDS	4.8		2.5		7.0	

EAST BRANCH SWIFT RIVER NEAR HARDWICK, MA 01174500





## 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, which are poor.

AVERAGE DISCHARGE.--4 years (water years, 1985, 1996-98) 23.4 ft<sup>3</sup>/s, 25.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft<sup>3</sup>/s, June 14, 1996, gage height, 5.87 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, 441 ft<sup>3</sup>/s, June 16, gage height, 3.64 ft; minimum, 0.51 ft<sup>3</sup>/s, Sept. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	10	32	e13	17	53	37	13	89	45	3.0	0.93
2	1.6	27	23	e11	16	54	47	23	35	37	2.4	.92
3	2.7	20	16	9.7	17	52	46	24	29	25	2.2	1.0
4	3.5	13	14	12	17	44	36	25	19	20	2.1	.91
5	4.0	11	13	24	16	39	30	37	14	31	2.0	.79
6	3.8	8.3	12	33	15	35	27	136	12	24	2.5	.75
7	2.9	6.6	11	50	15	32	25	115	11	19	7.5	1.1
8	2.5	6.8	10	157	14	32	24	70	12	18	3.7	1.4
9	2.3	24	9.1	132	14	225	33	54	15	19	3.0	1.0
10	2.4	35	8.7	82	13	184	36	76	11	15	2.7	1.0
11	2.3	19	8.3	60	13	87	27	90	9.8	12	3.2	.85
12	2.1	12	7.8	46	60	60	24	62	11	10	3.5	1.0
13	2.2	9.6	7.7	40	67	54	21	46	46	9.6	2.9	.85
14	2.3	9.1	e7.6	33	40	46	20	37	132	8.8	2.3	.77
15	2.5	9.0	7.6	27	e34	42	18	32	99	8.1	2.6	.86
16	2.6	8.1	6.9	27	e27	36	18	27	219	7.7	2.3	.85
17	2.4	6.9	6.7	26	23	33	19	26	118	7.8	2.3	.63
18	2.3	6.3	6.1	23	62	32	20	24	75	9.3	2.3	.55
19	2.4	5.7	6.3	22	64	67	17	21	57	6.5	1.9	.58
20	2.6	5.3	6.8	21	53	70	57	18	87	6.0	1.7	.63
21	2.4	5.1	5.4	19	46	53	40	17	141	5.8	1.5	.69
22	2.3	16	e3.0	19	41	44	28	15	67	5.2	1.4	2.6
23	2.1	18	e4.0	18	37	37	23	13	50	4.9	1.5	2.0
24	2.4	13	e6.2	54	37	33	25	12	42	4.7	3.1	1.2
25	5.0	10	e8.5	46	50	31	22	11	33	3.9	1.9	.99
26	4.8	9.1	15	31	46	34	19	11	27	3.7	1.6	.99
27	13	14	14	e25	45	51	18	9.7	28	3.4	1.4	1.7
28	8.6	12	11	23	45	63	16	9.0	30	3.1	1.2	1.2
29	5.3	10	e8.0	21	---	58	15	8.8	26	3.3	1.2	.88
30	4.3	11	17	20	---	48	14	9.3	38	3.4	1.2	.86
31	3.7	---	e14	19	---	40	---	16	---	3.5	1.0	---
TOTAL	105.2	370.9	326.7	1143.7	944	1769	802	1087.8	1582.8	383.7	73.1	30.48
MEAN	3.39	12.4	10.5	36.9	33.7	57.1	26.7	35.1	52.8	12.4	2.36	1.02
MAX	13	35	32	157	67	225	57	136	219	45	7.5	2.6
MIN	1.6	5.1	3.0	9.7	13	31	14	8.8	9.8	3.1	1.0	.55
CFM	.27	.98	.84	2.93	2.68	4.53	2.12	2.78	4.19	.98	.19	.08
IN.	.31	1.10	.96	3.38	2.79	5.22	2.37	3.21	4.67	1.13	.22	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1998, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
MEAN	12.3	24.6	34.6	29.6	37.4	39.6	42.0	34.0	25.2	11.6	4.04	3.88			
MAX	23.9	39.2	75.3	51.0	70.6	57.1	83.0	78.1	52.8	24.3	7.71	9.59			
(WY)	1996	1996	1997	1996	1984	1998	1984	1984	1998	1996	1985	1985			
MIN	2.58	10.3	10.5	11.1	13.6	30.5	15.3	10.5	4.85	2.31	2.03	1.02			
(WY)	1985	1985	1998	1985	1985	1985	1985	1985	1997	1995	1995	1998			

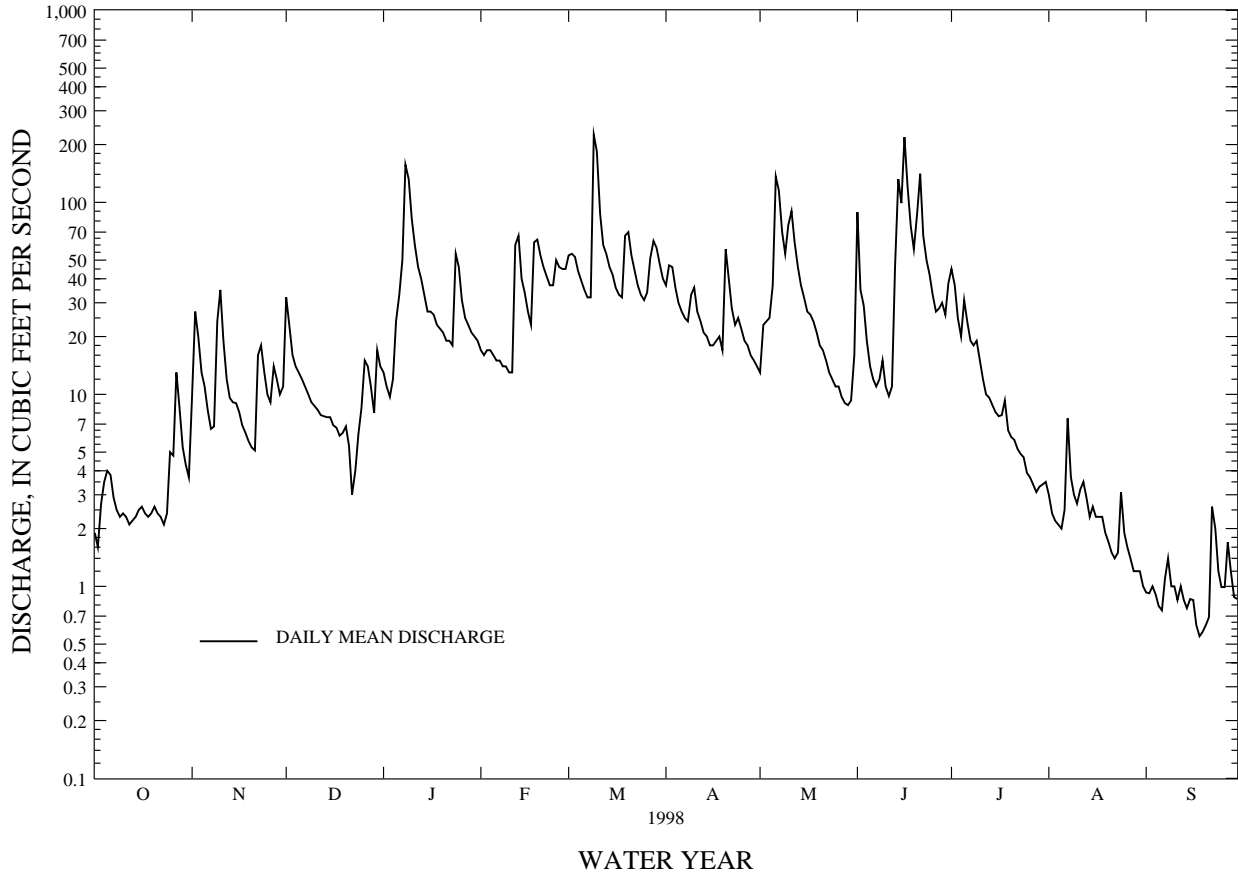
CONNECTICUT RIVER BASIN

01174565 WEST BRANCH SWIFT RIVER NEAR SHUTESBURY, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	WATER YEARS 1984 - 1998	
ANNUAL TOTAL	6170.30	8619.38	23.4	
ANNUAL MEAN	16.9	23.6	33.0	1996
HIGHEST ANNUAL MEAN			11.3	1985
LOWEST ANNUAL MEAN			612	May 30 1984
HIGHEST DAILY MEAN	100 Jul 4	225 Mar 9	.35	Sep 7 1995
LOWEST DAILY MEAN	.94 Aug 2	.55 Sep 18	.38	Sep 7 1995
ANNUAL SEVEN-DAY MINIMUM	1.2 Jul 28	.68 Sep 15	1450	Jun 14 1996
INSTANTANEOUS PEAK FLOW		441 Jun 16	5.87	Jun 14 1996
INSTANTANEOUS PEAK STAGE		3.64 Jun 16	.35	Sep 7 1995
INSTANTANEOUS LOW FLOW		.51 Sep 18	1.86	
ANNUAL RUNOFF (CFSM)	1.34	1.87	25.25	
ANNUAL RUNOFF (INCHES)	18.22	25.45	54	
10 PERCENT EXCEEDS	38	54	14	
50 PERCENT EXCEEDS	11	14	1.8	
90 PERCENT EXCEEDS	2.0	1.6		

e Estimated

WEST BRANCH SWIFT RIVER NEAR SHUTESBURY, MA 01174565



## 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 and those for estimated daily discharges, 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; 59 years (water years 1940-98), affected by storage and diversions, 98.1 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, 345 ft<sup>3</sup>/s, July 2, gage height, 3.68 ft; minimum daily, 28 ft<sup>3</sup>/s, July 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	33	38	35	36	38	38	65	160	307	100	67
2	73	33	36	35	36	38	39	71	158	328	100	104
3	89	32	36	35	36	38	39	72	91	305	112	112
4	124	32	36	36	36	38	38	74	39	284	121	112
5	125	32	36	36	37	37	38	77	38	302	121	112
6	125	32	36	36	37	37	38	94	38	259	121	112
7	126	32	36	38	36	37	37	103	38	218	121	112
8	125	32	36	41	36	37	37	105	38	215	121	112
9	71	34	36	38	36	54	38	114	70	219	121	112
10	34	33	35	37	36	46	40	130	69	209	121	73
11	34	32	35	37	37	42	38	138	36	181	121	75
12	34	32	35	36	43	40	38	143	36	153	122	113
13	33	31	35	36	39	40	38	140	38	135	72	114
14	83	32	35	36	38	40	38	139	42	112	37	114
15	115	32	35	36	37	39	39	139	38	101	37	114
16	112	31	35	36	37	39	39	141	37	94	37	115
17	112	31	35	36	37	39	41	141	37	97	37	115
18	113	33	35	36	41	39	42	141	37	137	37	72
19	112	35	35	36	39	44	42	143	37	118	37	36
20	112	35	35	36	38	41	54	141	49	94	e37	36
21	112	36	35	36	38	40	53	140	85	84	e37	75
22	113	38	35	36	38	39	55	143	95	61	e37	123
23	114	37	35	36	37	39	59	137	98	71	e37	118
24	113	84	35	42	38	39	61	135	112	59	e37	118
25	114	74	36	38	39	39	61	132	124	29	e37	117
26	114	36	35	37	38	40	61	130	132	28	e37	117
27	114	36	36	36	38	39	64	130	153	34	37	118
28	65	36	35	36	38	38	64	141	144	44	36	118
29	32	36	35	36	---	38	64	138	124	44	36	119
30	32	37	36	36	---	38	64	129	203	44	36	72
31	30	---	36	36	---	38	---	132	---	75	36	---
TOTAL	2832	1099	1100	1133	1052	1230	1397	3798	2396	4441	2136	3027
MEAN	91.4	36.6	35.5	36.5	37.6	39.7	46.6	123	79.9	143	68.9	101
MAX	127	84	38	42	43	54	64	143	203	328	122	123
MIN	30	31	35	35	36	37	37	65	36	28	36	36
†	48596	48436	48095	49318	50290	52614	53515	54238	55277	54658	53165	51724

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1998, BY WATER YEAR (WY)

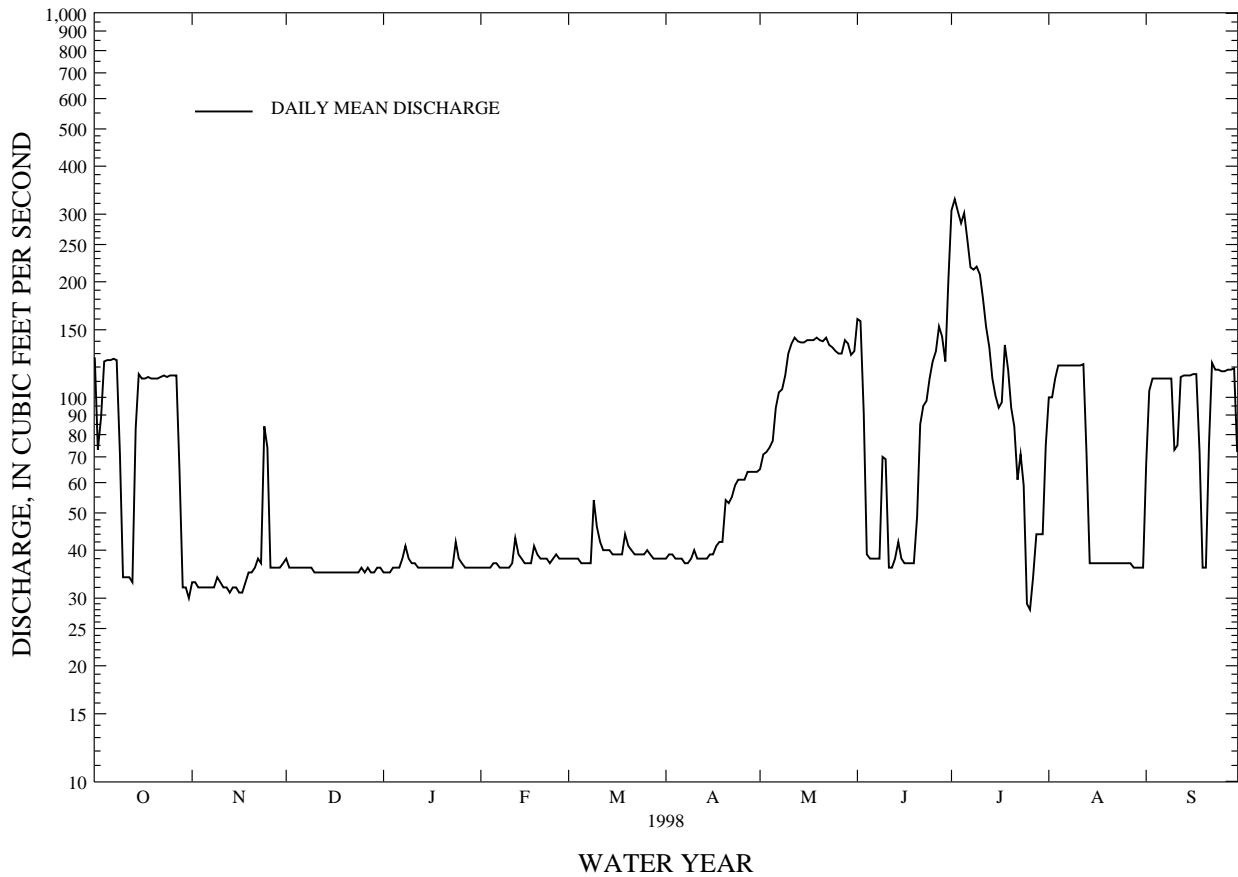
	1940	1945	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995
MEAN	72.8	78.5	74.9	74.4	80.2	86.4	177	169	129	77.6	78.6	79.7
MAX	222	858	656	572	467	511	1099	775	1192	301	149	139
(WY)	1956	1956	1997	1997	1997	1997	1953	1953	1984	1948	1961	1963
MIN	30.3	31.3	28.0	27.5	27.6	27.7	26.2	27.4	28.6	31.2	30.7	30.3
(WY)	1945	1945	1995	1995	1995	1995	1995	1995	1945	1944	1944	1990

01175500 SWIFT RIVER AT WEST WARE, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1940 - 1998	
ANNUAL TOTAL	116637		25641		98.1	
ANNUAL MEAN	320		70.2		30.7	
HIGHEST ANNUAL MEAN					369 1997	
LOWEST ANNUAL MEAN					30.7 1945	
HIGHEST DAILY MEAN	1130	Apr 1	328	Jul 2	3040	Jun 1 1984
LOWEST DAILY MEAN	30	Oct 31	28	Jul 26	9.1	Dec 15 1968
ANNUAL SEVEN-DAY MINIMUM	32	Nov 11	32	Nov 11	24	Nov 11 1996
INSTANTANEOUS PEAK FLOW			345	Jul 2	3070	Jun 1 1984
INSTANTANEOUS PEAK STAGE			3.68	Jul 2	11.58	Jun 1 1984
INSTANTANEOUS LOW FLOW			28	Jul 25		
10 PERCENT EXCEEDS	764		132		151	
50 PERCENT EXCEEDS	152		39		46	
90 PERCENT EXCEEDS	35		35		32	

† Monthend contents, in millions of cubic feet (mcf) in Quabbin Reservoir. Records furnished by Watershed Management Division of Metropolitan District Commission. Monthend contents on Sept. 30, 1997, 49,839 mcf.  
 e Estimated

SWIFT RIVER AT WEST WARE, MA 01175500





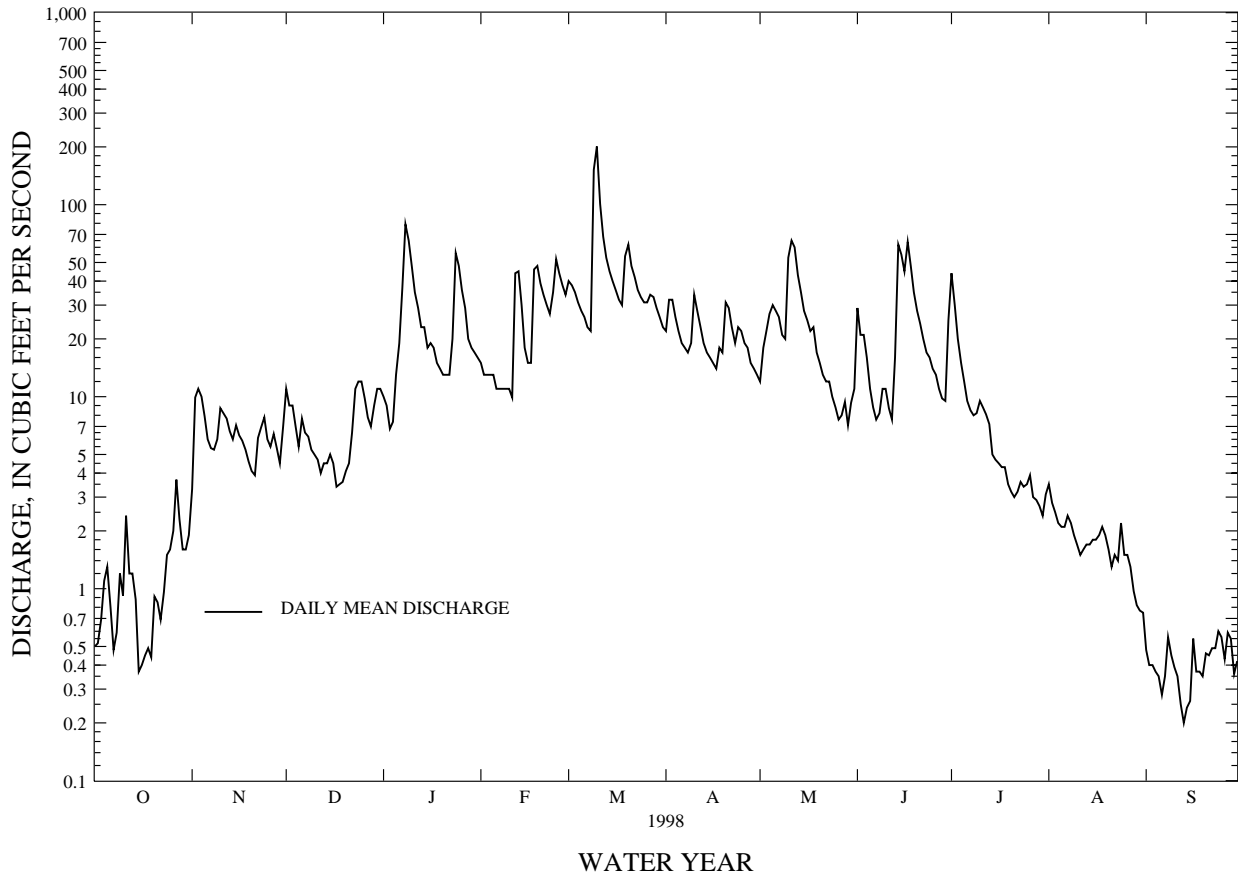
CONNECTICUT RIVER BASIN

01175670 SEVENMILE RIVER NEAR SPENCER, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1961 - 1998	
ANNUAL TOTAL	4583.08		5767.82			
ANNUAL MEAN	12.6		15.8		15.2	
HIGHEST ANNUAL MEAN					22.3	
LOWEST ANNUAL MEAN					5.40	
HIGHEST DAILY MEAN	78	Apr 7	201	Mar 10	284	Mar 19 1968
LOWEST DAILY MEAN	.09	Aug 3	.20	Sep 13	.09	Aug 3 1997
ANNUAL SEVEN-DAY MINIMUM	.20	Sep 16	.31	Sep 9	.16	Sep 3 1995
INSTANTANEOUS PEAK FLOW			319	Mar 9	412	Mar 18 1968
INSTANTANEOUS PEAK STAGE			12.46	Mar 9	13.39	Jan 25 1992
INSTANTANEOUS LOW FLOW			.15	Oct 1	.02	Sep 22 1997
ANNUAL RUNOFF (CFSM)	1.45		1.82		1.75	
ANNUAL RUNOFF (INCHES)	19.64		24.72		23.77	
10 PERCENT EXCEEDS	31		37		35	
50 PERCENT EXCEEDS	6.4		9.5		9.6	
90 PERCENT EXCEEDS	.44		.58		1.1	

e Estimated

SEVENMILE RIVER NEAR SPENCER, MA 01175670





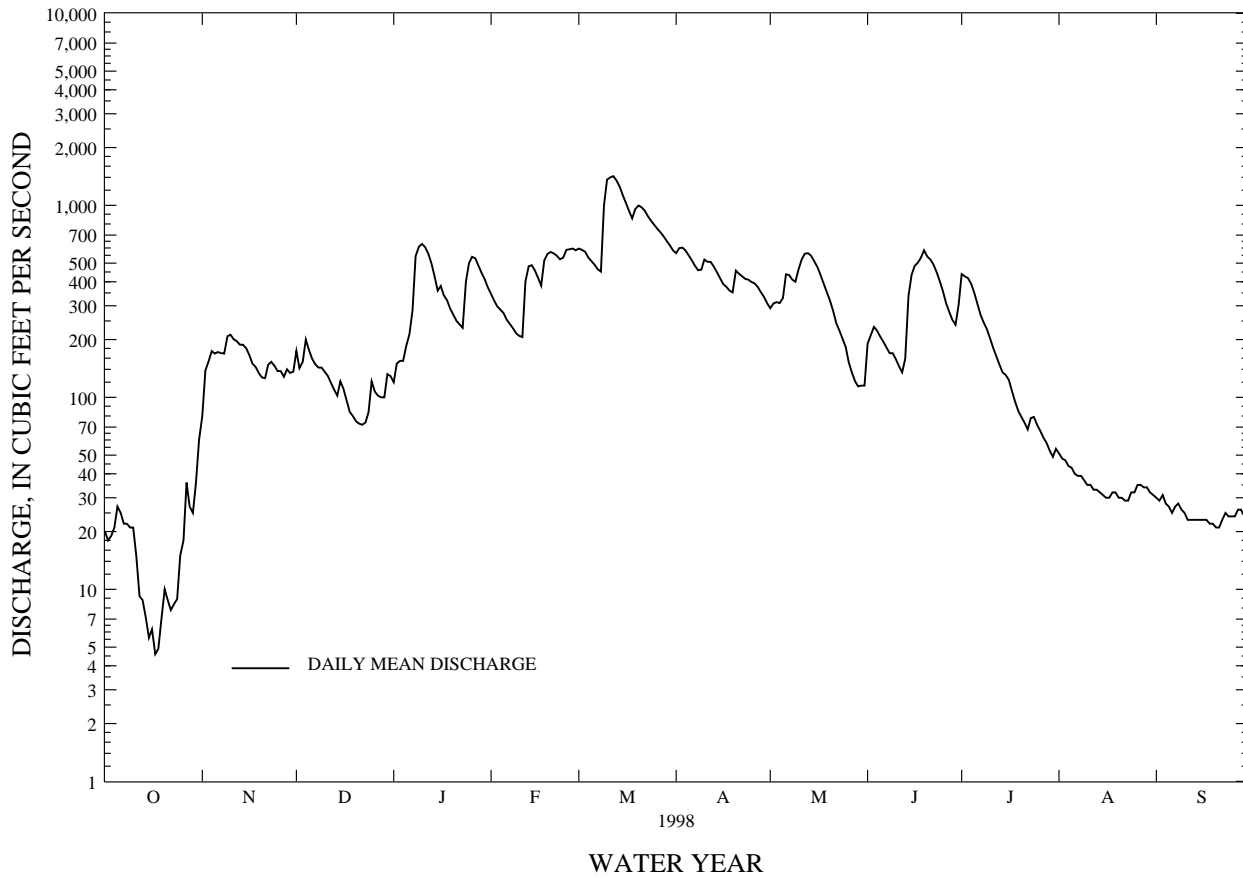
CONNECTICUT RIVER BASIN

01176000 QUABOAG RIVER AT WEST BRIMFIELD, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1912 - 1998	
ANNUAL TOTAL	87018.3		98674.3			
ANNUAL MEAN	238		270		249	
HIGHEST ANNUAL MEAN					430 1938	
LOWEST ANNUAL MEAN					104 1965	
HIGHEST DAILY MEAN	1020	Apr 7	1420	Mar 12	7800	Sep 21 1938
LOWEST DAILY MEAN	4.6	Oct 17	4.6	Oct 17	4.6	Oct 17 1997
ANNUAL SEVEN-DAY MINIMUM	6.3	Oct 13	6.3	Oct 13	6.3	Oct 13 1997
INSTANTANEOUS PEAK FLOW			1610	Mar 9	12800	Aug 19 1955
INSTANTANEOUS PEAK STAGE			6.60	Mar 9	15.36	Aug 19 1955
INSTANTANEOUS LOW FLOW			3.9	Oct 17		
ANNUAL RUNOFF (CFSM)	1.59		1.80		1.66	
ANNUAL RUNOFF (INCHES)	21.58		24.47		22.55	
10 PERCENT EXCEEDS	589		576		553	
50 PERCENT EXCEEDS	140		181		169	
90 PERCENT EXCEEDS	22		24		41	

e Estimated

QUABOAG RIVER AT WEST BRIMFIELD, MA 01176000





## 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.--70 years, 917 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, 7,150 ft<sup>3</sup>/s, Mar. 10, gage height, 10.45 ft; minimum daily, 112 ft<sup>3</sup>/s, Oct. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	298	682	379	1070	1700	1800	928	1080	2190	360	188
2	217	540	774	505	943	1840	1910	983	1340	1860	357	186
3	145	804	689	545	897	1710	1860	1090	1240	1680	350	204
4	183	557	557	530	850	1620	1650	1090	959	1500	368	279
5	247	642	576	732	871	1560	1560	1160	801	1370	326	235
6	272	478	553	839	841	1480	1530	1680	698	1290	332	198
7	246	471	518	1330	839	1310	1500	2190	635	1140	333	221
8	264	486	475	2110	760	1240	1360	1790	589	1170	322	261
9	375	507	466	2690	724	2620	1320	1570	574	1090	323	251
10	161	987	429	2550	684	6510	1530	1700	640	992	341	241
11	133	776	459	2160	683	4940	1630	2180	554	1010	311	183
12	124	646	383	1870	1380	3290	1430	2170	497	825	329	160
13	116	528	394	1610	2210	2780	1370	2060	629	600	290	205
14	112	499	376	1290	1860	2650	1190	1930	1270	580	250	268
15	126	557	305	1190	1420	2400	1070	1790	2320	505	216	205
16	142	476	337	1280	1150	2170	1000	1530	1880	485	217	226
17	186	462	376	1080	1110	2050	1110	1310	1600	421	196	247
18	186	392	330	966	1510	2010	1120	1230	1650	462	193	218
19	182	423	335	866	2040	2370	1050	1100	1650	520	190	151
20	234	466	286	853	1980	2970	1510	1000	1520	376	202	143
21	153	426	305	832	1910	2660	1840	918	1510	495	157	146
22	179	502	256	785	1750	2550	1570	781	1600	337	151	161
23	222	625	275	779	1620	2330	1370	796	1220	306	149	413
24	163	600	361	1470	1590	2140	1240	729	1230	569	188	208
25	215	574	394	2030	1930	2020	1230	696	1230	389	312	182
26	213	487	362	1880	1960	1870	1350	674	1200	329	227	233
27	365	513	479	1500	1830	1860	1260	584	1160	228	208	239
28	324	521	450	1360	1760	1840	1090	586	1150	258	201	315
29	180	474	472	1230	---	1750	1060	534	1100	332	149	206
30	183	486	588	1250	---	1600	958	675	1340	226	151	226
31	158	---	670	1160	---	1620	---	625	---	313	192	---
TOTAL	6236	16203	13912	39651	38172	71460	41468	38079	34866	23848	7891	6599
MEAN	201	540	449	1279	1363	2305	1382	1228	1162	769	255	220
MAX	375	987	774	2690	2210	6510	1910	2190	2320	2190	368	413
MIN	112	298	256	379	683	1240	958	534	497	226	149	143

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1998, BY WATER YEAR (WY)

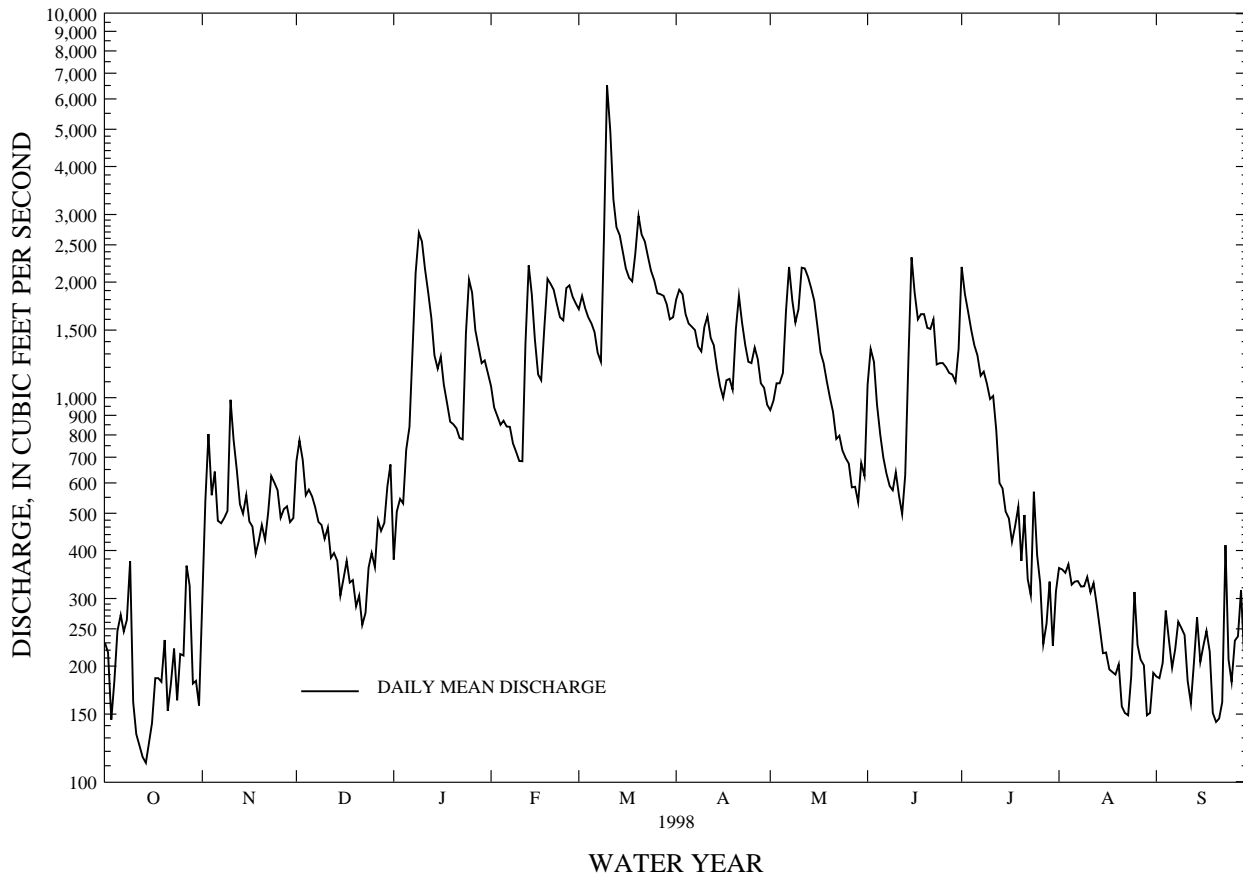
	MEAN	MAX	MIN
MEAN	533	740	908
MAX (WY)	1953	3022	3207
MIN (WY)	1956	1956	1997
MEAN	131	154	241
MAX (WY)	1942	1966	1966
MEAN	986	2447	1937
MAX (WY)	1010	2374	1976
MIN (WY)	1589	5993	1936
MEAN	1828	4117	1933
MAX (WY)	1199	2680	1953
MIN (WY)	813	3519	1984
MEAN	484	2458	1938
MAX (WY)	449	3719	1955
MIN (WY)	176	160	1938
MEAN	482	5474	1938
MAX (WY)	484	2458	1938
MIN (WY)	1938	1955	1938
MEAN	176	160	1938
MAX (WY)	1949	1966	1966
MIN (WY)	1966	1966	1966

CONNECTICUT RIVER BASIN

01177000 CHICOPEE RIVER AT INDIAN ORCHARD, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1928 - 1998	
ANNUAL TOTAL	389672		338385		917	
ANNUAL MEAN	1068		927		1952	
HIGHEST ANNUAL MEAN					1938	
LOWEST ANNUAL MEAN					1966	
HIGHEST DAILY MEAN	3860	Apr 6	6510	Mar 10	37000	Sep 21 1938
LOWEST DAILY MEAN	112	Oct 14	112	Oct 14	16	Sep 1 1929
ANNUAL SEVEN-DAY MINIMUM	131	Oct 10	131	Oct 10	96	Oct 31 1965
INSTANTANEOUS PEAK FLOW			7150	Mar 10	45200	Sep 21 1938
INSTANTANEOUS PEAK STAGE			10.45	Mar 10	.00	Sep 21 1938
INSTANTANEOUS LOW FLOW			63	Nov 25		
10 PERCENT EXCEEDS	2420		1890		1870	
50 PERCENT EXCEEDS	643		675		662	
90 PERCENT EXCEEDS	209		195		220	

CHICOPEE RIVER AT INDIAN ORCHARD, MA 01177000





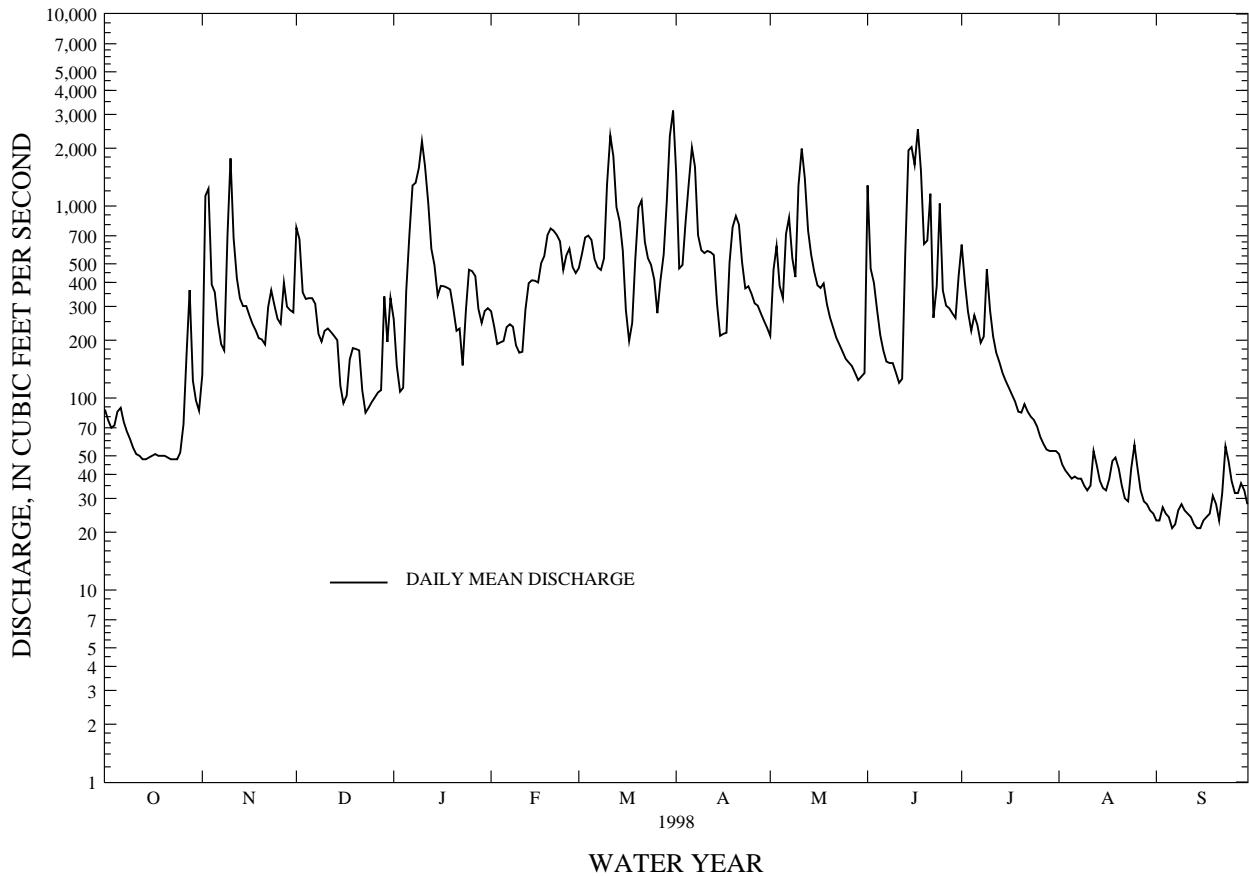
CONNECTICUT RIVER BASIN

01179500 WESTFIELD RIVER AT KNIGHTVILLE, MA

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1909 - 1998	
ANNUAL TOTAL	112489		137174			
ANNUAL MEAN	308		376		333	
ANNUAL MEAN++	307		376		333	
HIGHEST ANNUAL MEAN					538	
LOWEST ANNUAL MEAN					137	
HIGHEST DAILY MEAN	2430	Apr 8	3140	Mar 31	13400	Mar 18 1936
LOWEST DAILY MEAN	39	Aug 3	21	Sep 6	1.1	Apr 2 1965
ANNUAL SEVEN-DAY MINIMUM	42	Sep 5	23	Sep 11	8.9	Aug 29 1953
INSTANTANEOUS PEAK FLOW			3280	Apr 1	37900	Sep 21 1938
INSTANTANEOUS PEAK STAGE			7.15	Apr 1	29.58	Sep 21 1938
INSTANTANEOUS LOW FLOW			19	Jan 23		
ANNUAL RUNOFF (CFSM)++	1.91		2.34		2.07	
ANNUAL RUNOFF (INCHES)++	25.92		31.70		28.09	
10 PERCENT EXCEEDS	719		826		810	
50 PERCENT EXCEEDS	197		235		165	
90 PERCENT EXCEEDS	49		35		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, 1997, 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.

WESTFIELD RIVER AT KNIGHTVILLE, MA 01179500



## CONNECTICUT RIVER BASIN

01181000 WEST BRANCH WESTFIELD RIVER AT HUNTINGTON, MA

LOCATION.--Lat 42°14'14", long 72°53'46", Hampshire County, Hydrologic Unit 01080206, on left bank at Huntington, 0.4 mi downstream from Roaring Brook, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--94.0 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: September 1935 to current year.  
Water-quality records: Water years 1957, 1967-74.

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

GAGE.--Water-stage recorder. Datum of gage is 383.60 ft above sea level. Prior to Oct. 1, 1989, at datum 5.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to 1950, some diurnal fluctuation at low flow caused by small mill upstream. Telephone and satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--63 years, 192 ft<sup>3</sup>/s, 27.81 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 15.27 ft, datum then in use, from rating curve extended above 9,500 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, 3.3 ft<sup>3</sup>/s, Aug. 9, 1955, Nov. 27, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,330 ft<sup>3</sup>/s, June 14, gage height, 7.37 ft; minimum, 8.8 ft<sup>3</sup>/s, Sept. 20, 21, 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	142	593	e85	134	481	513	132	318	440	29	11
2	22	505	326	123	129	444	579	254	176	246	25	11
3	21	323	236	118	130	411	533	314	176	169	23	16
4	23	178	222	199	129	372	401	231	137	133	22	15
5	28	158	233	411	126	344	335	215	103	200	21	13
6	34	120	220	622	121	300	293	547	84	148	20	11
7	26	99	172	857	114	276	261	447	74	120	23	12
8	23	146	153	1390	110	271	241	318	69	135	20	15
9	20	837	138	1210	105	1220	309	272	66	265	18	15
10	19	627	138	902	106	1280	471	667	60	162	17	13
11	18	323	138	601	104	649	329	1080	54	120	19	12
12	17	233	122	428	490	411	273	1020	57	101	24	11
13	17	184	118	363	543	325	241	533	204	87	20	11
14	18	172	108	315	306	302	218	372	1210	75	17	10
15	18	165	86	247	205	273	199	298	1410	67	16	10
16	19	145	104	249	185	243	190	250	1120	60	16	11
17	20	132	108	231	181	224	193	223	773	56	15	11
18	19	123	100	206	386	220	231	210	462	56	17	11
19	19	117	96	192	416	440	193	171	322	49	19	9.5
20	18	110	95	180	378	458	448	147	336	49	17	9.1
21	18	104	80	167	330	423	e336	131	370	94	15	8.8
22	17	201	e50	e120	284	327	266	115	257	63	14	11
23	17	211	e70	e110	269	276	228	103	206	54	13	21
24	24	174	95	e270	298	247	227	95	179	47	16	15
25	35	149	121	276	384	235	204	87	152	41	20	12
26	45	143	169	207	314	259	181	83	131	36	16	11
27	98	251	153	165	309	561	177	78	153	32	14	13
28	97	203	129	174	315	932	162	73	139	30	13	15
29	58	176	96	158	---	1040	149	66	124	29	12	14
30	47	202	139	150	---	762	139	93	257	32	11	12
31	42	---	118	142	---	612	---	83	---	31	11	---
TOTAL	926	6653	4726	10868	6901	14618	8520	8708	9179	3227	553	370.4
MEAN	29.9	222	152	351	246	472	284	281	306	104	17.8	12.3
MAX	98	837	593	1390	543	1280	579	1080	1410	440	29	21
MIN	17	99	50	85	104	220	139	66	54	29	11	8.8
CFSM	.32	2.36	1.62	3.73	2.62	5.02	3.02	2.99	3.25	1.11	.19	.13
IN.	.37	2.63	1.87	4.30	2.73	5.78	3.37	3.45	3.63	1.28	.22	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1998, BY WATER YEAR (WY)

	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
MEAN	107	181	203	184	187	369	500	257	137	67.0	57.9	62.2																																																				
MAX	1041	544	664	537	712	1098	1176	761	684	307	632	579																																																				
(WY)	1956	1956	1974	1996	1981	1936	1993	1984	1972	1955	1938																																																					
MIN	13.4	24.7	39.8	24.3	35.3	112	116	75.6	27.1	8.85	8.46	8.93																																																				
(WY)	1958	1965	1947	1981	1980	1941	1985	1986	1964	1991	1957	1953																																																				

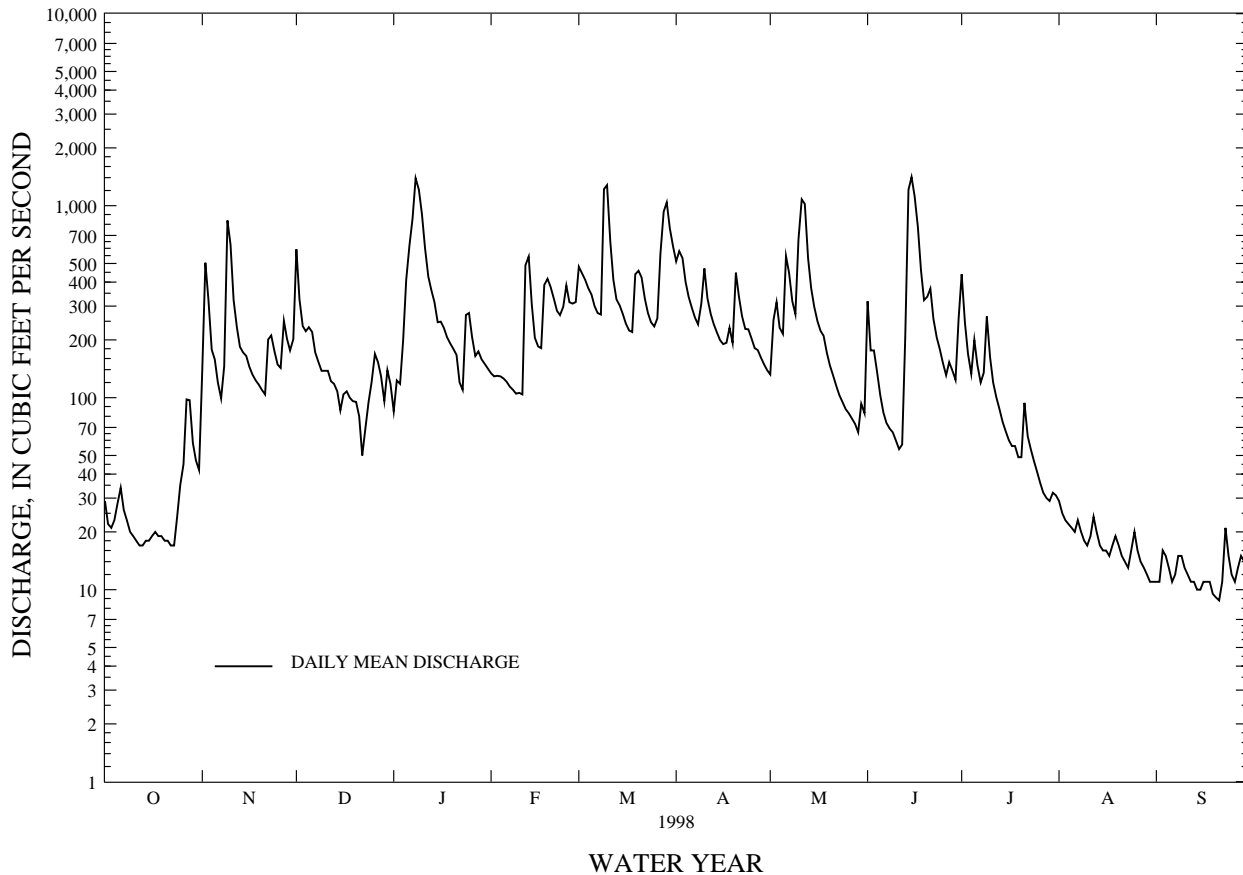
CONNECTICUT RIVER BASIN

01181000 WEST BRANCH WESTFIELD RIVER AT HUNTINGTON, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1935 - 1998	
ANNUAL TOTAL	59161		75249.4		192	
ANNUAL MEAN	162		206		302	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					73.6	
HIGHEST DAILY MEAN	1000	Apr 7	1410	Jun 15	10500	Aug 19 1955
LOWEST DAILY MEAN	16	Sep 28	8.8	Sep 21	3.3	Aug 9 1955
ANNUAL SEVEN-DAY MINIMUM	18	Sep 22	10	Sep 15	3.8	Aug 4 1955
INSTANTANEOUS PEAK FLOW			2330	Jun 14	26100	Aug 19 1955
INSTANTANEOUS PEAK STAGE			7.37	Jun 14	15.27	Aug 19 1955
INSTANTANEOUS LOW FLOW			8.8	Sep 20	3.3	Aug 9 1955
ANNUAL RUNOFF (CFSM)	1.72		2.19		2.05	
ANNUAL RUNOFF (INCHES)	23.41		29.78		27.81	
10 PERCENT EXCEEDS	379		452		440	
50 PERCENT EXCEEDS	118		139		97	
90 PERCENT EXCEEDS	21		15		18	

e Estimated

WEST BRANCH WESTFIELD RIVER AT HUNTINGTON, MA 01181000





CONNECTICUT RIVER BASIN

01183500 WESTFIELD RIVER NEAR WESTFIELD, MA--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1914 - 1998	
ANNUAL TOTAL	327073		408611		935	
ANNUAL MEAN	896		1119		1594	
HIGHEST ANNUAL MEAN					1928	
LOWEST ANNUAL MEAN					368	
HIGHEST DAILY MEAN	4460	Apr 8	6710	May 11	37400	Aug 19 1955
LOWEST DAILY MEAN	76	Jul 26	92	Sep 5	40	Dec 28 1914
ANNUAL SEVEN-DAY MINIMUM	104	Sep 22	104	Sep 9	50	Sep 3 1995
INSTANTANEOUS PEAK FLOW			8090	May 11	70300	Aug 19 1955
INSTANTANEOUS PEAK STAGE			11.08	May 11	34.20	Aug 19 1955
INSTANTANEOUS LOW FLOW			81	Sep 5	9.0	Oct 2 1921
10 PERCENT EXCEEDS	2170		2490		2140	
50 PERCENT EXCEEDS	691		811		544	
90 PERCENT EXCEEDS	130		123		160	

e Estimated

WESTFIELD RIVER NEAR WESTFIELD, MA 01183500

