

01129200 CONNECTICUT RIVER BELOW INDIAN STREAM, NEAR PITTSBURG, NH

LOCATION.--Lat 45°02'25", long 71°26'37", Coos County, Hydrologic Unit 01080101, on right bank, 1,200 ft downstream from Indian Stream, 2.5 mi west of Pittsburg, and at mile 376.5.

DRAINAGE AREA.--254 mi².

PERIOD OF RECORD.--Discharge records: October 1956 to current year.

REVISED RECORDS.--WDR MA-NH-RI-VT-73-1: 1958, 1960(M), 1969(M).

GAGE.--Water-stage recorder. Elevation of gage is 1,150 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by First Connecticut and Second Connecticut Lakes and Lake Francis 3.7 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,260 ft³/s, April 27 and July 21, 1996, gage height, 7.97 ft, from rating curve extended above 2,600 ft³/s; minimum daily 30 ft³/s, August 6, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,250 ft³/s, September 18, gage height 6.32 ft; minimum daily discharge, e 120 ft³/s, March 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	353	544	697	754	873	730	434	241	121	262	863	202
2	445	515	553	746	871	712	635	239	135	253	745	202
3	391	552	427	741	865	694	700	227	127	251	402	199
4	365	486	643	741	860	729	730	206	141	247	396	199
5	354	445	496	434	853	791	554	205	130	e330	403	199
6	347	424	381	603	839	802	626	198	122	e520	406	197
7	345	419	400	769	831	767	1070	175	146	791	406	196
8	357	413	350	785	823	729	963	160	483	672	411	309
9	411	403	268	807	815	e570	1110	169	352	650	448	363
10	387	393	230	802	812	e205	680	384	270	688	428	367
11	373	508	213	802	806	194	473	287	243	887	410	391
12	365	714	190	797	804	216	486	214	223	908	402	385
13	359	539	186	791	815	228	472	184	212	959	401	373
14	358	474	179	788	826	227	365	164	243	945	407	366
15	495	507	302	811	821	227	290	155	254	899	499	289
16	516	575	858	829	808	227	270	141	247	677	407	188
17	446	485	823	830	802	231	362	134	243	414	325	1410
18	414	444	807	834	794	191	425	131	240	408	334	2320
19	398	425	784	862	788	130	546	147	238	403	335	499
20	387	422	802	893	783	121	544	501	236	395	321	269
21	375	443	789	889	777	e120	460	298	233	386	315	292
22	370	437	872	871	768	146	427	213	229	379	307	555
23	364	419	884	854	759	219	437	179	227	419	285	578
24	358	420	826	974	753	238	344	160	227	442	246	371
25	355	427	818	1000	741	236	266	164	227	e560	243	270
26	351	420	800	779	741	208	255	161	229	e610	242	230
27	349	571	794	781	741	e185	279	164	227	e550	239	252
28	355	515	789	988	731	225	260	173	234	575	238	372
29	487	467	779	950	---	386	251	150	313	623	239	358
30	441	450	779	902	---	607	247	138	322	870	238	386
31	519	---	758	879	---	502	---	125	---	865	215	---
TOTAL	12190	14256	18477	25286	22500	11793	14961	6187	6874	17838	11556	12587
MEAN	393	475	596	816	804	380	499	200	229	575	373	420
MAX	519	714	884	1000	873	802	1110	501	483	959	863	2320
MIN	345	393	179	434	731	120	247	125	121	247	215	188

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1999, BY WATER YEAR (WY)

	548	550	738	791	779	551	618	500	380	416	433	444
MEAN	548	550	738	791	779	551	618	500	380	416	433	444
MAX	1342	1056	1485	1175	1325	1088	1030	1691	863	1187	1043	1095
(WY)	1978	1978	1960	1960	1974	1979	1974	1974	1984	1996	1976	1963
MIN	111	181	384	462	376	209	247	162	80.9	55.7	64.7	111
(WY)	1969	1967	1979	1979	1980	1962	1995	1988	1962	1965	1975	1968

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1957 - 1999

ANNUAL TOTAL	202029	174505	
ANNUAL MEAN	554	478	561
HIGHEST ANNUAL MEAN			789
LOWEST ANNUAL MEAN			379
HIGHEST DAILY MEAN	4470	Mar 31	2320
LOWEST DAILY MEAN	92	May 29	e 120
ANNUAL SEVEN-DAY MINIMUM	98	May 25	129
INSTANTANEOUS PEAK FLOW			3250
INSTANTANEOUS PEAK STAGE			6.32
10 PERCENT EXCEEDS	979		829
50 PERCENT EXCEEDS	425		408
90 PERCENT EXCEEDS	199		193

a From rating curve extended above 2,600 ft³/s.

b Also occurred on July 21, 1996.

e Estimated.

CONNECTICUT RIVER BASIN

01129440 MOHAWK RIVER NEAR COLEBROOK, NH

LOCATION.--Lat 44°52'28", Long 71°24'38", Coos County, Hydrologic Unit 01080101, on right bank, upstream of Bungy Road Bridge, south of the intersection of State Highway 26 and Bungy Road, 0.8 mi upstream of Read Brook, 1.7 mi downstream of Roaring Brook, 5 mi east of Colebrook, and 5.5 mi west of Dixville Notch.

DRAINAGE AREA.--36.7 mi².

PERIOD OF RECORD.--Discharge records: October 1986 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,190 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair, and estimated daily discharges during period January 16-23, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	1600	690	6.72	Sept. 17	0015	* 1,230	* 7.71

Minimum discharge, 5.9 ft³/s, September 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	47	209	e33	e54	e43	158	142	34	22	13	7.3
2	50	57	108	e30	e56	e74	243	147	82	72	11	6.9
3	33	52	119	e32	e59	e38	208	138	49	31	10	6.7
4	26	42	204	e34	e55	160	300	127	44	21	10	6.4
5	23	37	115	e35	e50	e120	185	142	33	34	16	6.4
6	21	35	90	e34	e40	e76	248	113	32	99	13	6.3
7	21	37	97	e32	e39	e58	315	93	40	61	14	6.4
8	32	36	81	e33	e36	e50	258	80	67	54	18	6.6
9	31	33	71	e40	e36	e46	292	130	54	37	21	8.7
10	26	31	62	e41	e35	e45	190	114	39	136	13	32
11	27	160	59	e33	e35	e40	e160	74	29	66	11	40
12	25	88	53	e33	e39	e36	170	61	25	40	10	14
13	23	60	51	32	e60	e35	143	54	23	32	9.5	10
14	55	50	45	e28	e49	e34	112	49	21	28	16	9.0
15	109	73	e42	e32	e42	33	99	44	32	24	15	8.9
16	62	59	46	e68	e45	33	126	40	22	22	11	116
17	42	47	46	e60	e39	33	161	37	20	21	13	948
18	35	43	41	e52	35	40	192	35	22	21	38	239
19	38	41	e35	e156	34	43	210	97	21	22	19	80
20	32	49	e42	e150	e33	36	203	192	17	28	13	49
21	29	58	e38	e105	e31	e33	192	79	16	22	11	77
22	29	47	139	e67	e30	152	196	56	14	14	14	118
23	28	44	e62	e45	e30	193	183	47	16	14	12	166
24	25	49	e50	361	e31	e92	140	45	13	18	10	78
25	23	42	e44	e300	e30	76	123	66	13	36	9.2	66
26	22	57	e40	e156	e28	62	137	54	13	32	8.6	52
27	21	75	e38	e88	e28	e63	132	54	11	27	8.2	43
28	38	54	e38	e75	e28	89	120	47	16	16	8.4	37
29	63	48	e35	e65	---	184	125	37	73	15	8.8	35
30	40	78	e34	e55	---	179	136	33	77	15	8.2	116
31	69	---	e29	e51	---	141	---	29	---	14	7.5	---
TOTAL	1173	1629	2163	2356	1107	2337	5457	2456	968	1094	400.4	2395.6
MEAN	37.8	54.3	69.8	76.0	39.5	75.4	182	79.2	32.3	35.3	12.9	79.9
MAX	109	160	209	361	60	193	315	192	82	136	38	948
MIN	21	31	29	28	28	33	99	29	11	14	7.5	6.3
CFSM	1.03	1.48	1.90	2.07	1.08	2.05	4.96	2.16	.88	.96	.35	2.18
IN.	1.19	1.65	2.19	2.39	1.12	2.37	5.53	2.49	.98	1.11	.41	2.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	55.6	70.1	57.4	53.1	36.5	90.9	206	98.0	54.5	41.6	34.4	33.9	
MAX	122	110	127	134	109	231	344	177	96.3	108	93.3	79.9	
(WY)	1991	1989	1991	1996	1996	1998	1996	1989	1998	1996	1988	1999	
MIN	23.5	33.0	25.9	25.8	13.4	23.0	74.2	51.3	26.7	13.0	12.9	11.1	
(WY)	1998	1995	1990	1994	1993	1994	1995	1998	1992	1991	1999	1995	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1987 - 1999

ANNUAL TOTAL	30296	23536.0		
ANNUAL MEAN	83.0	64.5		
HIGHEST ANNUAL MEAN			104	1996
LOWEST ANNUAL MEAN			44.1	1995
HIGHEST DAILY MEAN	2450	Mar 31	948	Sep 17
LOWEST DAILY MEAN	15	Aug 31	6.3	Sep 6
ANNUAL SEVEN-DAY MINIMUM	16	Aug 27	6.5	Sep 2
INSTANTANEOUS PEAK FLOW			1230	Sep 17
INSTANTANEOUS PEAK STAGE			7.71	Sep 17
INSTANTANEOUS LOW FLOW			5.9	Sep 4
ANNUAL RUNOFF (CFSM)	2.26	1.76		1.89
ANNUAL RUNOFF (INCHES)	30.71	23.86		25.67
10 PERCENT EXCEEDS	141	148		136
50 PERCENT EXCEEDS	48	40		41
90 PERCENT EXCEEDS	21	13		17

a From rating curve extended above 2,200 ft³/s.
b Also occurred on September 5-7, 1996.
e Estimated.

01129500 CONNECTICUT RIVER AT NORTH STRATFORD, NH

LOCATION.--Lat 44°44'56", long 71°37'50", Coos County, Hydrologic Unit 01080101, on left bank, at North Stratford, 400 ft downstream from Nulhegan River, and at mile 344.5.

DRAINAGE AREA.--799 mi².

PERIOD OF RECORD.--Discharge records: August 1930 to current year.

Water-quality records: Water years 1957, 1995, 1996.

REVISED RECORDS.--WSP 781: 1934(M). WSP 891: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 880.17 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes and Lake Francis 36 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,500 ft³/s, September 17, gage height, 9.64 ft; minimum daily discharge, 246 ft³/s, September 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	967	1410	2770	1320	e1710	e1220	3010	1360	449	764	893	269
2	1290	1230	3390	e1150	e1730	e1280	3930	1370	782	870	878	250
3	1010	1450	2350	e1100	e1780	1340	4660	1340	627	877	643	250
4	820	1260	3160	e920	1780	1870	5340	1270	593	566	479	250
5	731	1090	2860	e1200	1660	2340	4010	1460	495	759	517	253
6	670	987	2020	e1100	1490	1860	3950	1330	432	1230	519	251
7	633	953	1960	e1050	1510	e1480	5800	1140	527	2540	523	246
8	704	955	1800	e1200	1400	e1220	5660	993	755	1620	532	249
9	923	913	1430	e1200	e1360	e920	6150	1030	1040	1500	629	395
10	867	856	1200	e1300	e1400	e940	4480	1340	800	2240	618	441
11	827	1490	1080	e1300	e1390	807	2970	1300	613	2380	532	657
12	808	2370	961	e1260	1370	692	2810	978	501	1680	493	567
13	745	1670	912	e1240	1670	710	2630	821	443	1490	472	472
14	730	1320	845	e1200	1580	694	2120	725	408	1320	478	435
15	1280	1490	720	e1320	1420	670	1780	648	505	1200	637	420
16	1500	1950	1150	e1500	1450	656	1640	589	500	1090	608	461
17	1180	1470	1350	e1580	1360	651	2150	533	447	731	476	9380
18	984	1230	1290	e1700	1280	704	2430	489	438	587	549	11600
19	907	1100	1160	e2200	1250	744	2820	627	447	613	554	5550
20	845	1080	1290	e2300	1250	660	2840	3150	419	588	489	1860
21	790	1230	1230	e2100	1220	610	2590	2030	393	550	432	1730
22	751	1210	1990	e1900	1110	946	2380	1270	374	516	421	2980
23	731	1080	1750	e2000	e1010	1930	2300	955	362	499	412	3220
24	702	1070	1400	e4250	e1070	1500	1940	789	355	549	368	2340
25	672	1050	e1370	e4600	e1100	1420	1590	803	345	698	330	1520
26	640	1140	e1320	3930	e1080	1180	1500	770	349	1140	317	1260
27	624	2150	e1330	2760	e1100	1080	1590	775	341	880	310	958
28	675	1860	e1360	2350	e1080	1320	1450	730	350	776	305	916
29	1260	1500	1340	2100	---	2320	1360	634	648	716	303	858
30	1120	1380	1310	1770	---	3450	1370	539	1690	830	294	1150
31	1240	---	934	e1700	---	3030	---	472	---	917	286	---
TOTAL	27626	39944	49032	56600	38610	40244	89250	32260	16428	32716	15297	51188
MEAN	891	1331	1582	1826	1379	1298	2975	1041	548	1055	493	1706
MAX	1500	2370	3390	4600	1780	3450	6150	3150	1690	2540	893	11600
MIN	624	856	720	920	1010	610	1360	472	341	499	286	246

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1999, BY WATER YEAR (WY)

	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	1282	1599	1535	1362	1225	1643	3886	2524	1256	897	844	925																																																										
MAX	3445	3119	3095	2537	3295	6254	7348	6018	3724	2818	2475	3203																																																										
(WY)	1978	1960	1974	1998	1981	1936	1934	1972	1943	1996	1976	1954																																																										
MIN	355	583	643	549	350	271	1206	843	472	292	220	357																																																										
(WY)	1949	1948	1948	1948	1940	1940	1995	1998	1962	1955	1940	1949																																																										

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1930 - 1999

ANNUAL TOTAL	620178	489195		
ANNUAL MEAN	1699	1340		1581
HIGHEST ANNUAL MEAN				2246
LOWEST ANNUAL MEAN				1033
HIGHEST DAILY MEAN	27600	Mar 31	11600	Sep 18
LOWEST DAILY MEAN	294	May 28	246	Sep 7
ANNUAL SEVEN-DAY MINIMUM	345	May 23	250	Sep 2
INSTANTANEOUS PEAK FLOW			12500	Sep 17
INSTANTANEOUS PEAK STAGE			ab 12.45	Jan 24
10 PERCENT EXCEEDS	2730		2370	
50 PERCENT EXCEEDS	1210		1100	
90 PERCENT EXCEEDS	513		445	

a Ice jam.

b From floodmarks in well.

e Estimated.

CONNECTICUT RIVER BASIN

01130000 UPPER AMMONOOSUC RIVER NEAR GROVETON, NH

LOCATION.--Lat 44°37'30", long 71°28'10", Coos County, Hydrologic Unit 01080101, on left bank, 75 ft upstream from highway bridge, 0.2 mi downstream from Nash Stream, and 2.8 mi northeast of Groveton.

DRAINAGE AREA.--232 mi².

PERIOD OF RECORD.--Discharge records: August 1940 to November 1980, October 1982 to current year.
Water-quality records: Water year 1955.

GAGE.--Water-stage recorder. Elevation of gage is 920 ft above sea level, from topographic map.

REMARKS.--Records good except those for periods of estimated record, May 2, 3, 17, and Aug. 1, 2, 4, which are fair and periods of estimated record, Dec. 20, 22 to Mar. 30, which are poor. Prior to May 21, 1969, some regulation by pond 9 mi upstream on Nash Stream. Small diversion upstream for municipal supply of Berlin.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	2015	Ice Jam	* 9.63	Sept. 18	0200	* 5,280	7.11

Minimum discharge, 40 ft³/s, September 6-8.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	408	345	446	e210	e400	e300	1260	688	231	156	e77	53
2	533	308	648	e200	e425	e360	1550	e780	255	132	e69	59
3	360	302	540	e215	e490	e410	1570	e831	277	189	65	52
4	272	279	828	e255	e400	e770	1640	874	293	135	e64	44
5	225	253	782	e240	e350	e600	1510	1480	239	140	87	41
6	196	234	578	e230	e315	e475	1390	1450	215	201	105	40
7	185	223	562	e220	e285	e410	1790	1100	282	447	105	40
8	202	220	571	e220	e260	e370	1910	911	268	295	135	46
9	230	211	483	e250	e280	e345	1890	942	267	240	219	50
10	252	198	429	e300	e270	e335	1660	936	263	301	146	73
11	356	365	398	e360	e260	e310	1220	737	212	291	107	233
12	404	574	361	e280	e320	e290	1110	578	175	202	90	163
13	324	408	344	e250	e390	e280	1020	489	155	159	82	102
14	316	327	318	e230	e345	e270	829	431	141	137	97	79
15	672	432	300	e270	e300	e260	698	388	180	121	165	68
16	622	544	300	e340	e290	e255	655	357	182	108	137	174
17	455	402	288	e390	e270	e255	802	e325	147	98	105	3450
18	372	341	274	e440	e250	e370	875	294	144	92	98	4390
19	322	309	200	e700	e240	e400	1000	362	148	87	105	1750
20	284	307	e210	e800	e230	e310	1010	1300	135	87	92	735
21	255	411	219	e650	e220	e260	984	876	122	81	81	571
22	239	388	e500	e560	e225	e405	939	557	115	76	83	698
23	228	330	e680	e540	e235	e1200	949	440	114	71	88	852
24	217	310	e480	e1750	e250	e830	840	394	113	78	81	627
25	206	300	e360	e2100	e230	e740	690	434	105	139	74	450
26	191	294	e310	e1700	e210	e610	671	488	101	184	65	370
27	178	418	e270	e1200	e200	e580	709	497	92	231	62	313
28	209	395	e240	e890	e195	e650	642	402	91	149	65	276
29	475	343	e230	e700	---	e1000	633	333	143	108	63	248
30	386	314	e220	e520	---	e1450	650	291	218	92	58	300
31	350	---	e200	e370	---	1300	---	258	---	85	56	---
TOTAL	9924	10085	12569	17380	8135	16400	33096	20223	5423	4912	2926	16347
MEAN	320	336	405	561	291	529	1103	652	181	158	94.4	545
MAX	672	574	828	2100	490	1450	1910	1480	293	447	219	4390
MIN	178	198	200	200	195	255	633	258	91	71	56	40
CFSM	1.38	1.45	1.75	2.42	1.25	2.28	4.76	2.81	.78	.68	.41	2.35
IN.	1.59	1.62	2.02	2.79	1.30	2.63	5.31	3.24	.87	.79	.47	2.62
(†)	2.55	2.47	2.58	3.66	3.83	3.75	2.75	2.38	2.44	2.58	2.45	2.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	313	450	348	261	216	461	1419	1126	449	246	202	205																																																
MAX	1057	1128	994	748	851	1374	2416	2695	1115	840	572	1427																																																
(WY)	1991	1970	1974	1978	1970	1945	1954	1972	1947	1996	1969	1954																																																
MIN	69.7	118	68.6	53.3	56.6	74.4	532	402	179	94.0	78.4	51.0																																																
(WY)	1949	1948	1948	1948	1980	1941	1995	1941	1953	1991	1975	1948																																																

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1940 - 1999

ANNUAL TOTAL	216593	157420	
ANNUAL MEAN	593	431	475
HIGHEST ANNUAL MEAN			696
LOWEST ANNUAL MEAN			297
HIGHEST DAILY MEAN	8170	Mar 31	4390
LOWEST DAILY MEAN	79	Sep 26	a 40
ANNUAL SEVEN-DAY MINIMUM	106	Sep 20	45
INSTANTANEOUS PEAK FLOW			5280
INSTANTANEOUS PEAK STAGE			c 9.63
INSTANTANEOUS LOW FLOW			f 40
ANNUAL RUNOFF (CFSM)	2.56	1.86	2.05
ANNUAL RUNOFF (INCHES)	34.73	25.24	27.80
10 PERCENT EXCEEDS	1240	898	1110
50 PERCENT EXCEEDS	343	295	247
90 PERCENT EXCEEDS	145	89	95

(†) Diversion in cubic feet per second for municipal supply of Berlin; records furnished by City of Berlin.

a Also occurred September 7.

b From rating curve extended above 8,700 ft³/s on basis of contracted-opening measurement of peak flow.

c Ice Jam.

d From floodmarks. Caused by failure of dam on Nash Stream.

e Estimated.

f Also occurred September 7, 8.

01131500 CONNECTICUT RIVER NEAR DALTON, NH

LOCATION.--Lat 44°24'36", long 71°43'16", Coos County, Hydrologic Unit 01080101, on left bank, 250 ft upstream from highway bridge, 1,200 ft downstream from dam of Gilman Paper Co., 1.2 mi downstream from Dalton, and at mile 300.1.

DRAINAGE AREA.--1,514 mi².

PERIOD OF RECORD.--Discharge records: March 1927 to current year. Published as "at Waterford, VT" 1927-35. Records published for both sites January to September 1935.

Water-quality records: Water years 1953, 1971, 1994-95.

REVISED RECORDS.--WSP 891: Drainage area. WSP 1231: 1935. WSP 1301: 1928-35(M).

GAGE.--Water-stage recorder. Datum of gage is 799.89 ft above sea level. Prior to September 30, 1935, nonrecording gage at bridge 10.5 mi downstream at mean sea level. January 1, 1935, to June 29, 1937, nonrecording gage at bridge 250 ft downstream at present datum. July 11, 1956, to June 1, 1961, auxiliary nonrecording gage read hourly at same site.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, and other reservoirs. These reservoirs have a combined usable capacity of about 8.3 billion ft³.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,300 ft³/s, September 18, gage height, 16.51 ft; minimum daily discharge, 389 ft³/s, September 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1890	2360	3030	1490	2860	1660	7010	2860	1160	2000	1210	480
2	2660	2430	5150	2030	2970	2090	7850	2920	1350	1250	1140	471
3	2390	2290	4850	1750	3000	2250	8980	3040	1460	1460	1160	389
4	1870	2420	4580	1670	3050	2470	9650	3110	1360	1570	858	391
5	1580	2130	5510	1860	3020	3960	9480	3730	1350	1790	799	410
6	1390	1890	4590	1850	2810	3910	7840	4510	989	1920	863	419
7	1300	1730	3870	1420	2470	3150	8650	3930	1230	2800	878	424
8	1330	1760	3650	1440	2510	2590	10200	3380	1470	3670	971	422
9	1600	1780	3580	1730	2130	2370	10300	3200	1660	2770	1240	403
10	1720	1560	3020	1780	2250	2280	9960	3360	1730	2540	1160	637
11	1800	1750	2570	2000	2220	1980	7450	3320	1450	2960	1070	1100
12	1980	3430	2620	2010	2180	1490	5910	3120	1170	3290	948	1210
13	1740	3660	2180	1960	2280	1600	5500	2390	972	2680	763	858
14	1650	2960	2320	1900	2700	1380	4920	2050	865	2240	876	782
15	2450	2660	1680	1720	2480	1360	4160	1700	970	1920	1190	665
16	3470	3420	1850	2040	2180	1480	3650	1690	1070	1940	1130	935
17	3150	3240	2200	2470	2290	1360	3770	1500	929	1550	997	8720
18	2320	2590	2380	2590	2160	1480	4550	1520	907	1120	773	15800
19	2050	2350	1530	2810	2120	1750	4920	1490	989	1350	934	15400
20	1850	2210	1940	3990	1980	1840	5170	3910	966	955	841	9670
21	1700	2400	2150	4330	1990	1500	5160	5840	896	1120	763	4420
22	1650	2630	2630	3780	1910	1880	4780	4010	861	1420	748	2170
23	1430	2490	3740	3350	1610	4800	4570	3000	1210	1120	708	5740
24	1460	2120	2620	3390	1500	4560	4280	2220	1000	835	694	5610
25	1350	2190	2100	8800	1630	3850	3690	1970	804	930	622	4060
26	1290	2110	2150	10100	1700	3340	3260	2120	766	1560	569	3290
27	1280	3230	2030	8380	1600	3010	3210	1990	739	1730	562	2460
28	1270	3920	2070	5840	1740	3130	3230	1970	1090	1340	538	1970
29	2020	3400	2160	4620	---	4450	3020	1620	851	1100	537	1860
30	2550	2760	2180	3880	---	6920	2950	1590	1570	1110	508	1860
31	2350	---	2120	3230	---	7470	---	1250	---	1120	492	---
TOTAL	58540	75870	89050	100210	63340	87360	178070	84310	33834	55160	26542	93026
MEAN	1888	2529	2873	3233	2262	2818	5936	2720	1128	1779	856	3101
MAX	3470	3920	5510	10100	3050	7470	10300	5840	1730	3670	1240	15800
MIN	1270	1560	1530	1420	1500	1360	2950	1250	739	835	492	389

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1999, BY WATER YEAR (WY)

MEAN	2174	2869	2498	2130	1823	2918	7758	5507	2487	1585	1417	1532
MAX	6129	7331	5786	4321	6093	12140	15380	11890	5915	5059	3662	7140
(WY)	1978	1928	1974	1996	1981	1936	1934	1972	1947	1996	1976	1954
MIN	654	1066	860	751	533	482	2631	1951	1030	654	406	654
(WY)	1949	1948	1948	1948	1940	1940	1995	1941	1988	1955	1942	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1927 - 1999
ANNUAL TOTAL	1195409	945312	
ANNUAL MEAN	3275	2590	2896
HIGHEST ANNUAL MEAN			4203
LOWEST ANNUAL MEAN			1934
HIGHEST DAILY MEAN	38400	Apr 1	15800
LOWEST DAILY MEAN	685	May 26	389
ANNUAL SEVEN-DAY MINIMUM	878	Aug 29	408
INSTANTANEOUS PEAK FLOW			16300
INSTANTANEOUS PEAK STAGE			16.51
10 PERCENT EXCEEDS	5620		4600
50 PERCENT EXCEEDS	2340		2030
90 PERCENT EXCEEDS	1070		864

CONNECTICUT RIVER BASIN

01135150 POPE BROOK (SITE W-3) NEAR NORTH DANVILLE, VT

LOCATION.--Lat 44°28'35", long 72°07'33", Caledonia County, Hydrologic Unit 01080102, on left bank, 0.3 mi north of Pope Cemetery, 1.1 mi upstream of North Brook, and 1.7 mi northwest of North Danville.

DRAINAGE AREA.--3.25 mi².

PERIOD OF RECORD.--Discharge records: December 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,141.20 ft above sea level.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 1960-1990, 380 ft³/s, June 30, 1973, gage height, 3.4 ft (data provided by USACOE-CRREL).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	2115	58	1.76	July 6	1455	134	2.38
Apr. 4	0305	38	1.52	Sept. 16	2345	* 179	* 2.64
May 19	1750	105	2.18	Sept. 30	1210	35	1.47
July 5	2335	46	1.62				

Minimum discharge, .69 ft³/s, September 2-5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	2.9	9.4	e3.1	e4.3	5.7	21	5.2	3.8	1.5	1.0	.79
2	3.3	3.2	7.4	e3.1	e4.6	4.0	26	4.9	3.9	2.2	.98	.77
3	2.7	3.4	8.0	e3.0	e5.0	3.3	23	4.5	3.1	1.6	.98	.75
4	2.5	3.1	10	e3.0	4.5	11	28	4.9	2.7	1.4	1.1	.74
5	2.4	2.9	7.4	2.9	4.1	5.6	22	8.4	2.4	5.0	1.7	.73
6	2.3	2.7	7.0	2.8	e3.9	5.3	26	6.6	3.3	23	1.5	.86
7	2.2	2.7	6.8	2.8	3.7	4.8	28	5.1	4.7	4.9	1.3	.91
8	3.1	2.7	6.2	2.8	e3.6	e4.3	28	5.5	5.0	3.1	3.7	.88
9	2.8	2.6	6.1	2.9	e3.5	e3.8	25	6.4	5.1	2.4	1.8	.86
10	2.9	2.6	5.7	2.9	3.4	3.5	18	5.0	3.4	2.8	1.3	2.0
11	3.7	5.8	5.7	2.8	3.4	3.4	16	4.3	2.5	2.2	1.2	1.5
12	2.7	3.6	5.2	2.7	4.2	3.3	16	3.8	2.2	1.8	1.1	.99
13	2.5	3.4	5.0	2.7	5.5	3.2	14	3.6	2.0	1.7	1.1	.89
14	5.6	3.0	4.7	e2.6	e3.7	3.2	12	3.4	2.7	1.6	1.4	.86
15	8.8	6.5	4.5	e2.7	e3.5	3.2	11	3.2	5.0	1.5	1.3	.84
16	4.4	4.1	4.6	e2.7	e3.4	3.2	12	3.0	2.5	1.4	1.1	20
17	3.4	3.5	4.7	e2.8	3.4	4.1	15	2.8	2.2	1.3	1.1	53
18	3.1	3.2	3.8	e3.6	3.4	5.1	14	2.7	2.5	1.3	1.2	8.0
19	2.9	3.2	4.4	15	3.3	4.6	11	26	2.1	1.4	1.0	3.4
20	2.8	5.0	4.5	4.8	3.2	3.9	11	19	1.9	1.3	.94	2.6
21	2.7	4.8	4.1	4.1	3.1	3.7	9.6	6.8	1.8	1.2	1.0	5.5
22	2.7	3.7	11	3.8	e3.0	7.4	8.9	5.4	1.6	1.2	1.4	5.9
23	2.6	3.4	4.7	3.7	e3.0	6.1	8.0	4.7	1.5	1.3	1.2	8.6
24	2.5	3.7	4.3	17	e2.9	5.4	7.3	5.4	1.5	2.5	1.1	3.5
25	2.5	3.4	e4.1	8.5	e2.9	5.2	7.0	6.4	1.6	2.1	.96	2.9
26	2.4	16	e3.9	e5.8	2.8	4.9	6.9	5.7	1.6	1.9	.92	2.5
27	2.4	20	e3.7	5.2	2.7	5.7	6.6	4.8	1.4	1.5	.93	2.4
28	4.4	7.8	e3.5	4.9	2.7	6.8	6.2	4.1	3.6	1.2	.93	2.3
29	4.3	6.6	3.4	4.2	---	14	5.7	3.6	2.5	1.2	.84	2.2
30	3.2	6.9	3.3	e4.1	---	13	5.4	3.2	1.8	1.2	.82	9.8
31	3.5	---	e3.2	e4.1	---	17	---	3.0	---	1.1	.81	---
TOTAL	103.0	146.4	170.3	137.1	100.7	177.7	448.6	181.4	81.9	79.8	37.71	146.97
MEAN	3.32	4.88	5.49	4.42	3.60	5.73	15.0	5.85	2.73	2.57	1.22	4.90
MAX	8.8	20	11	17	5.5	17	28	26	5.1	23	3.7	53
MIN	2.2	2.6	3.2	2.6	2.7	3.2	5.4	2.7	1.4	1.1	.81	.73
CFSM	1.02	1.50	1.69	1.36	1.11	1.76	4.60	1.80	.84	.79	.37	1.51
IN.	1.18	1.68	1.95	1.57	1.15	2.03	5.13	2.08	.94	.91	.43	1.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1999, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	3.89	5.67	4.83	5.27	3.76	6.18	18.3	8.27	4.28
MAX	6.54	11.4	9.22	9.04	8.16	10.9	25.4	15.6	9.48
(WY)	1996	1996	1997	1996	1996	1998	1994	1996	1998
MIN	2.20	2.79	3.24	2.50	1.98	2.66	6.87	4.51	1.84
(WY)	1995	1995	1998	1994	1993	1994	1995	1998	1995

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1991 - 1999

ANNUAL TOTAL	2555.0	1811.58	
ANNUAL MEAN	7.00	4.96	
HIGHEST ANNUAL MEAN			5.90
LOWEST ANNUAL MEAN			8.44
HIGHEST DAILY MEAN	80	Apr 1	3.93
LOWEST DAILY MEAN	1.9	May 28	3.93
ANNUAL SEVEN-DAY MINIMUM	2.1	May 24	.77
INSTANTANEOUS PEAK FLOW		a 179	.77
INSTANTANEOUS PEAK STAGE		2.64	Aug 16
INSTANTANEOUS LOW FLOW		c .69	Sep 2
ANNUAL RUNOFF (CFSM)	2.15	1.53	a 249
ANNUAL RUNOFF (INCHES)	29.24	20.74	b 2.96
10 PERCENT EXCEEDS	13	9.7	c .69
50 PERCENT EXCEEDS	4.6	3.4	1.82
90 PERCENT EXCEEDS	2.5	1.2	24.68

a From rating curve extended above 84 ft³/s on basis of theoretical weir formula.
 b From floodmarks.
 c Also occurred on September 3-5.
 e Estimated.

01135300 SLEEPERS RIVER (SITE W-5) NEAR ST. JOHNSBURY, VT

LOCATION.--Lat 44°26'04", long 72°02'22", Caledonia County, Hydrologic Unit 01080102, on left bank, just upstream of Emerson Falls, 1.5 mi northwest of Post Office in St. Johnsbury, and 2.6 mi above mouth.

DRAINAGE AREA.--42.9 mi².

PERIOD OF RECORD.--Discharge Records: October 1990 to current year.
Water-quality records: Water year 1992 to 1995.

GAGE.--Water-stage recorder. Datum of gage is 641.68 ft above sea level.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 603 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	2215	808	2.90	May 20	0015	1,140	3.33
Jan. 24	2045	462	2.32	July 6	1800	492	2.38
Apr. 2	1815	414	2.22	Sept. 17	0200	* 1,820	* 4.01

Minimum discharge, 1.9 ft³/s, September 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	36	116	e35	e56	54	273	54	26	11	4.8	2.5
2	54	34	95	e34	e58	90	319	51	40	14	4.3	2.2
3	35	39	87	e33	e62	50	263	47	30	13	4.1	e2.4
4	29	37	104	e32	66	175	326	48	24	9.4	4.1	e2.3
5	27	33	85	e31	57	154	226	79	21	21	8.9	e2.3
6	25	30	79	30	52	69	255	79	22	236	9.6	e2.4
7	24	29	76	28	51	63	300	56	68	91	8.6	e2.5
8	33	29	69	e28	50	e56	279	50	52	38	19	2.7
9	36	28	67	e28	e46	e50	267	84	46	24	19	2.8
10	33	27	62	e27	44	e49	196	62	39	27	10	5.5
11	51	66	61	e28	42	46	165	49	24	22	7.6	16
12	37	54	55	29	47	44	161	41	19	16	6.2	7.6
13	31	43	59	29	95	44	147	37	16	13	5.3	5.1
14	53	36	50	e28	62	43	132	35	15	12	5.8	4.1
15	144	76	42	e30	53	44	121	32	41	10	7.4	3.6
16	74	62	54	e30	52	45	121	29	22	9.2	6.0	89
17	49	45	55	e32	46	53	164	27	17	8.1	5.1	823
18	41	40	41	e38	45	86	155	25	20	7.0	5.4	143
19	36	38	34	212	44	90	129	206	19	8.2	4.9	49
20	32	56	53	122	42	63	120	381	15	8.4	4.2	29
21	30	66	48	64	41	56	110	95	14	6.4	4.1	52
22	29	48	149	55	e38	133	101	66	12	5.6	7.1	69
23	29	41	68	55	e36	159	91	53	10	6.0	6.0	128
24	27	42	42	191	34	99	81	51	9.5	6.8	5.5	50
25	26	43	e41	233	e34	92	76	80	9.4	21	4.5	32
26	24	195	e40	e82	e33	85	75	65	10	14	3.8	26
27	24	362	e40	76	33	104	72	55	8.4	14	3.6	22
28	39	129	e39	66	32	118	68	44	18	8.8	3.7	20
29	74	96	38	57	---	228	62	37	28	6.7	3.4	19
30	42	88	38	53	---	238	57	33	15	7.0	2.8	91
31	42	---	e36	e54	---	247	---	29	---	6.0	2.6	---
TOTAL	1298	1948	1923	1870	1351	2927	4912	2080	710.3	700.6	197.4	1706.0
MEAN	41.9	64.9	62.0	60.3	48.2	94.4	164	67.1	23.7	22.6	6.37	56.9
MAX	144	362	149	233	95	247	326	381	68	236	19	823
MIN	24	27	34	27	32	43	57	25	8.4	5.6	2.6	2.2
CFSM	.98	1.51	1.45	1.41	1.12	2.20	3.81	1.56	.55	.53	.15	1.32
IN.	1.13	1.69	1.67	1.62	1.17	2.54	4.26	1.80	.62	.61	.17	1.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1999, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	54.9	71.5	64.2	63.2	44.7	88.6	205	89.3	43.8
MAX	128	124	143	108	93.3	142	302	175	100
(WY)	1991	1991	1991	1996	1996	1998	1994	1996	1998
MIN	20.0	31.6	33.4	24.5	19.8	39.1	75.2	48.8	14.9
(WY)	1995	1995	1998	1994	1993	1994	1995	1998	1995

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1991 - 1999

ANNUAL TOTAL	31002	21623.3		
ANNUAL MEAN	84.9	59.2	69.2	
HIGHEST ANNUAL MEAN			93.2	1996
LOWEST ANNUAL MEAN			42.8	1995
HIGHEST DAILY MEAN	1380	Aug 12	823	Sep 17 1998
LOWEST DAILY MEAN	14	Aug 10	2.2	Sep 2 1999
ANNUAL SEVEN-DAY MINIMUM	18	May 23	2.4	Sep 1 1999
INSTANTANEOUS PEAK FLOW			a 1820	Sep 17 1998
INSTANTANEOUS PEAK STAGE			4.01	Sep 17 1998
INSTANTANEOUS LOW FLOW			1.9	Sep 2 1999
ANNUAL RUNOFF (CFSM)	1.98	1.38	1.9	1.61
ANNUAL RUNOFF (INCHES)	26.87	18.74	21.89	
10 PERCENT EXCEEDS	148	129	148	
50 PERCENT EXCEEDS	54	41	41	
90 PERCENT EXCEEDS	27	6.0	12	

a From rating curve extended above 560 ft³/s on basis of theoretical weir formula.

e Estimated.

CONNECTICUT RIVER BASIN

01135500 PASSUMPSIC RIVER AT PASSUMPSIC, VT

LOCATION.--Lat 44°21'56", long 72°02'23", Caledonia County, Hydrologic Unit 01080102, on right bank, 0.7 mi upstream from Water Andric, 1 mi downstream from dam and village of Passumpsic, and 4 mi upstream from mouth.

DRAINAGE AREA.--436 mi².

PERIOD OF RECORD.--Discharge records: October 1928 to current year. Monthly discharge only October 1928, published in WSP 1301.

Water-quality records: Water years 1953, 1967-74 (partial-record station), 1994.

REVISED RECORDS.--WSP 781: 1933(M). WSP 871: Drainage area. WSP 1231: 1929, 1930-31(M).

GAGE.--Water-stage recorder. Elevation of gage is 490 ft above sea level, from topographic map.

REMARKS.--Records good except for those estimated daily discharges, which are fair. Low flow regulated by powerplants upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1780, about 31.5 ft in November 1927, from information by local residents (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sept. 17	0915	* 5,570	* 9.87	No other peak greater than base discharge.			

Minimum daily discharge, 63 ft³/s, September 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	633	559	1270	e450	e720	e490	2410	650	317	236	115	71
2	898	478	1390	e440	e760	e660	2980	626	528	239	109	76
3	608	477	1140	e425	e810	e640	3050	595	482	308	102	71
4	475	471	1350	e410	e870	1370	3380	567	372	194	97	68
5	411	433	1330	e400	e740	2270	2630	698	310	277	108	66
6	379	405	1050	e390	e660	e1080	2380	731	280	744	152	64
7	358	390	953	e360	e620	e900	3020	622	446	1110	153	63
8	382	394	894	e365	e590	e780	2850	547	529	547	173	65
9	546	384	802	e370	e580	e725	2770	690	455	415	314	68
10	478	368	739	e350	e560	e680	2220	849	375	439	208	90
11	552	562	697	e370	e560	e640	1670	675	314	501	165	198
12	556	1060	636	e380	e600	e620	1550	548	252	324	136	200
13	457	702	583	e380	e900	e610	1450	435	239	226	128	141
14	446	560	618	e375	e840	606	1280	426	230	220	117	117
15	1020	679	522	e390	e690	608	1140	391	319	203	127	102
16	924	982	577	e405	e680	609	1090	363	343	178	144	175
17	687	700	573	e420	e600	648	1320	331	257	168	127	4630
18	556	577	542	e565	e580	844	1450	317	248	153	119	4020
19	492	494	513	2170	e550	1010	1410	467	273	146	115	1310
20	451	546	565	2370	e500	779	1320	3400	217	135	108	608
21	415	675	604	e1280	e460	605	1260	1590	224	135	100	595
22	389	621	983	e1030	e420	1050	1160	879	191	124	103	1110
23	390	531	1340	1020	e400	e1500	1100	659	177	121	127	1370
24	371	508	1530	1540	e405	e1130	968	551	168	111	123	900
25	356	497	e1200	3540	e410	e990	868	672	172	171	111	568
26	328	732	e950	e1620	e430	e940	812	600	162	179	101	450
27	318	3150	e780	e1100	e420	e960	804	593	164	190	92	376
28	364	1750	e590	e880	e415	e1000	771	514	149	132	88	323
29	757	1180	e490	e760	---	e1130	713	435	274	138	77	295
30	640	991	e470	e700	---	e1550	677	378	328	130	78	455
31	548	---	e460	e720	---	2100	---	337	---	114	77	---
TOTAL	16185	21856	26141	25975	16770	29524	50503	21136	8795	8308	3894	18645
MEAN	522	729	843	838	599	952	1683	682	293	268	126	622
MAX	1020	3150	1530	3540	900	2270	3380	3400	529	1110	314	4630
MIN	318	368	460	350	400	490	677	317	149	111	77	63
CFSM	1.20	1.67	1.93	1.92	1.37	2.18	3.86	1.56	.67	.61	.29	1.43
IN.	1.38	1.86	2.23	2.22	1.43	2.52	4.31	1.80	.75	.71	.33	1.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1999, BY WATER YEAR (WY)

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	525	706	601	497	424	936	2256	1338	642	407	342	352																																																											
MAX	1522	1667	1919	1255	2280	4013	3931	3082	1846	1519	963	1126																																																											
(WY)	1946	1960	1974	1978	1981	1936	1934	1972	1973	1973	1990	1954																																																											
MIN	132	253	169	128	123	161	806	517	225	138	122	98.8																																																											
(WY)	1948	1948	1948	1948	1980	1940	1995	1941	1988	1955	1934	1948																																																											

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1929 - 1999

ANNUAL TOTAL	322995	247732	
ANNUAL MEAN	885	679	
HIGHEST ANNUAL MEAN			1153
LOWEST ANNUAL MEAN			472
HIGHEST DAILY MEAN	8550	Apr 1	4630
LOWEST DAILY MEAN	212	Aug 10	63
ANNUAL SEVEN-DAY MINIMUM	245	Aug 4	66
INSTANTANEOUS PEAK FLOW			5570
INSTANTANEOUS PEAK STAGE			9.87
ANNUAL RUNOFF (CFSM)	2.03		1.56
ANNUAL RUNOFF (INCHES)	27.56		21.14
10 PERCENT EXCEEDS	1530		1330
50 PERCENT EXCEEDS	611		529
90 PERCENT EXCEEDS	338		127

e Estimated.

CONNECTICUT RIVER BASIN

01139800 EAST ORANGE BRANCH AT EAST ORANGE, VT

LOCATION.--Lat 44°05'34", long 72°20'10", Orange County, Hydrologic Unit 01080103, on left bank, 0.3 mi east of East Orange, 1.6 mi upstream from mouth, and 5 mi southwest of Orange.

DRAINAGE AREA.--8.95 mi².

PERIOD OF RECORD.--Discharge records: June 1958 to current year.

REVISED RECORDS.--WDR MA-NH-RI-VT-72-1: 1960-64(P), 1969-71(P).

GAGE.--Water-stage recorder. Elevation of gage is 1,180 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation at low flow caused by mill upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 19	0200	Ice Jam	* 4.68	Sept. 16	2330	* 319	4.41
May 19	1800	163	3.69				

Minimum discharge, 1.0 ft³/s, September 5-6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	25	e10	e13	e14	53	21	7.0	e4.5	e2.3	1.3
2	11	15	22	e9.5	e13	e12	57	20	7.0	e13	e2.1	1.3
3	10	15	21	e9.0	e12	e9.0	58	18	7.9	e7.0	e1.9	1.2
4	10	15	21	e9.0	e12	e22	70	19	7.3	e5.0	1.6	1.1
5	10	15	19	e9.0	e11	e17	62	21	6.9	e4.5	4.3	1.1
6	9.9	14	21	e8.5	e11	e12	70	20	7.4	e5.8	2.2	1.1
7	9.9	12	20	e8.5	e10	e12	75	19	7.3	e7.2	2.1	1.7
8	11	12	19	e8.5	e10	e11	76	19	7.1	e5.0	2.6	1.7
9	11	12	e18	e8.5	e9.5	e10	70	24	8.4	e6.0	2.5	1.6
10	12	12	e16	e9.0	e9.5	e10	62	20	6.9	e7.3	2.0	2.7
11	22	25	e15	e9.0	9.7	e9.5	59	19	8.7	e5.3	1.9	3.3
12	12	16	e14	e9.0	12	e9.0	56	e18	10	e4.6	2.0	1.9
13	11	14	e13	e9.0	14	e8.5	52	e17	11	e4.0	1.9	1.6
14	26	13	e12	e9.0	11	e8.0	47	e16	10	e3.7	2.0	1.4
15	26	21	e12	e9.0	e11	e8.0	46	e15	e7.2	e3.5	2.6	1.4
16	19	17	e13	e9.5	e10	e9.0	44	e13	e7.0	e3.3	2.2	33
17	15	15	e12	e10	e9.5	e10	48	e12	e6.7	e3.2	1.9	59
18	13	15	e11	e15	e9.0	14	42	18	e6.5	e3.3	1.8	6.9
19	12	15	e12	e27	e8.0	12	39	55	e6.3	e3.8	1.7	4.0
20	12	20	e11	e10	e8.0	11	38	51	e6.0	e3.8	1.6	3.5
21	11	23	e14	e9.0	e7.0	12	36	30	e5.5	e3.5	1.8	4.9
22	13	17	e27	e9.0	e9.0	42	33	26	e5.2	e3.2	4.1	7.5
23	13	16	e19	e8.5	e8.2	19	32	24	e5.0	e5.0	2.3	7.4
24	13	15	e15	e50	e7.8	14	29	32	5.5	e4.2	1.8	4.4
25	12	15	e13	e22	e7.4	14	28	35	4.5	e5.0	1.6	4.1
26	12	36	e12	e17	e7.0	14	27	28	4.6	e5.8	1.5	3.9
27	12	45	e12	e12	e7.0	16	26	12	4.4	e4.0	1.5	3.8
28	15	27	e11	e11	e7.2	19	24	7.9	4.5	e3.3	2.1	3.9
29	19	23	e11	e11	---	35	23	4.9	6.9	e3.0	1.7	3.9
30	15	22	e10	e12	---	31	22	7.2	5.7	e2.7	1.5	11
31	16	---	e10	e12	---	41	---	8.9	---	e2.5	1.4	---
TOTAL	428.8	547	481	379.5	273.8	485.0	1404	650.9	204.4	146.0	64.5	185.6
MEAN	13.8	18.2	15.5	12.2	9.78	15.6	46.8	21.0	6.81	4.71	2.08	6.19
MAX	26	45	27	50	14	42	76	55	11	13	4.3	59
MIN	9.9	12	10	8.5	7.0	8.0	22	4.9	4.4	2.5	1.4	1.1
CFSM	1.55	2.04	1.73	1.37	1.09	1.75	5.23	2.35	.76	.53	.23	.69
IN.	1.78	2.27	2.00	1.58	1.14	2.02	5.84	2.71	.85	.61	.27	.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1999, BY WATER YEAR (WY)

MEAN	10.1	14.0	13.2	10.2	9.52	17.8	50.5	34.0	13.7	7.38	5.71	5.34
MAX	35.5	33.1	41.0	26.6	46.0	47.0	91.2	75.7	41.1	41.0	25.5	14.9
(WY)	1976	1990	1984	1978	1981	1976	1969	1971	1973	1973	1990	1976
MIN	1.14	3.41	2.91	2.53	1.90	5.02	16.3	11.4	4.87	1.63	1.15	.40
(WY)	1964	1979	1964	1971	1964	1971	1995	1995	1995	1963	1970	1963

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1958 - 1999

ANNUAL TOTAL	7076.2	5250.5	
ANNUAL MEAN	19.4	14.4	16.0
HIGHEST ANNUAL MEAN			29.1
LOWEST ANNUAL MEAN			6.71
HIGHEST DAILY MEAN	130	Jun 27	76
LOWEST DAILY MEAN	5.9	Aug 9	a 1.1
ANNUAL SEVEN-DAY MINIMUM	6.3	Aug 3	1.2
INSTANTANEOUS PEAK FLOW			b 319
INSTANTANEOUS PEAK STAGE			d 4.68
INSTANTANEOUS LOW FLOW			f 1.0
ANNUAL RUNOFF (CFSM)	2.17	1.61	1.78
ANNUAL RUNOFF (INCHES)	29.41	21.82	24.24
10 PERCENT EXCEEDS	35	30	39
50 PERCENT EXCEEDS	13	11	8.6
90 PERCENT EXCEEDS	8.0	2.2	2.3

a Also occurred on September 5, 6.

b From rating curve extended above 160 ft³/s on basis of slope-area measurement of peak flow.

c From floodmarks.

d Ice jam.

e Estimated.

f Also occurred on September 6.

g Also occurred on September 19, 1963.

CONNECTICUT RIVER BASIN

01144000 WHITE RIVER AT WEST HARTFORD, VT

LOCATION.--Lat 43°42'51", long 72°25'07", Windsor County, Hydrologic Unit 01080105, on left bank, 700 ft upstream from highway bridge at West Hartford, and 7.4 mi upstream from mouth.

DRAINAGE AREA.--690 mi².

PERIOD OF RECORD.--Discharge records: June 1915 to current year. October 1927 to September 1928 monthly discharge only, published in WSP 1301.

Water-quality records: Water years 1953, 1967-74, 1992-95.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1928(M). WSP 1031: 1916(m), 1923. WSP 1301: 1916-26(M), 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 374.53 ft above sea level. Prior to October 30, 1927, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges and for period January 20-23, which are fair. Some diurnal fluctuation at low flow during period 1934-50 caused by powerplant upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³/s, November 4, 1927, gage height, 29.3 ft, from floodmarks, from rating curve extended above 29,000 ft³/s on basis of slope-area measurement of peak flow; minimum observed, about 35 ft³/s, August 4, 1918; minimum daily discharge, 54 ft³/s, September 27, 28, 1963. Stage and discharge of the flood of November 4, 1927, are the greatest since at least 1761.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	1900	e 11,900	*ab 17.67	Sept. 17	0600	* 13,000	11.28

Minimum discharge, 72 ft³/s, September 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	518	507	1300	e500	e1000	e1020	7450	1070	652	367	153	100
2	725	487	1550	e510	e1060	1620	9400	1020	704	431	141	98
3	571	487	1280	e520	e1600	1050	7200	966	649	800	136	87
4	492	478	1160	e553	1930	e1730	9260	956	622	408	124	95
5	453	457	1050	e569	1570	2330	6370	1090	536	314	133	84
6	425	439	994	e558	1220	1500	5560	1110	485	293	181	80
7	405	427	950	e569	e1120	e1200	7080	992	501	433	169	101
8	407	415	881	e558	1040	e1180	6620	931	464	353	150	112
9	547	405	862	e591	e961	e1130	6160	1370	613	317	153	105
10	621	398	807	e655	e1000	e1110	4680	1180	781	275	156	117
11	1180	556	791	e655	972	e1100	3730	980	565	402	139	150
12	1010	1060	752	e620	995	e1070	3340	869	458	326	127	142
13	798	737	719	e610	1380	1050	3000	792	404	256	118	119
14	757	635	701	e553	1180	1030	2690	736	379	233	126	111
15	1130	641	628	e560	938	1030	2480	688	401	215	146	100
16	1010	762	658	e840	e960	999	2430	640	428	199	166	263
17	853	685	683	e968	e940	1050	2640	597	360	185	167	8170
18	750	653	666	e816	e940	1310	2530	559	346	174	147	3160
19	679	596	489	e1810	e900	1630	2370	904	339	182	137	1390
20	610	637	681	2650	910	1360	2290	3460	312	327	129	873
21	567	1170	623	1760	e800	1260	2190	1670	289	266	128	727
22	534	1040	1670	1450	e700	4550	2010	1210	285	207	160	1200
23	534	861	1580	1330	e700	5250	1890	1010	266	186	178	2010
24	510	791	1020	e3570	e730	3120	1730	1010	247	180	158	1330
25	487	748	e800	5430	e720	2650	1570	1320	227	232	140	945
26	464	935	725	e2400	e750	2440	1450	1330	224	344	126	768
27	e446	2190	e720	e2000	e700	2510	1360	1330	217	277	121	649
28	443	1550	e740	e1700	e715	2820	1270	1070	208	232	126	577
29	619	1260	e700	e1380	---	4190	1190	918	240	198	128	508
30	617	1110	e600	e1100	---	5140	1120	812	525	177	115	784
31	547	---	484	e950	---	5090	---	722	---	164	114	---
TOTAL	19709	23127	27264	38735	28431	64519	113580	33312	12727	8953	4392	24955
MEAN	636	771	879	1250	1015	2081	3786	1075	424	289	142	832
MAX	1180	2190	1670	5430	1930	5250	9400	3460	781	800	181	8170
MIN	405	398	484	500	700	999	1120	559	208	164	114	80
CFSM	1.06	1.12	1.27	1.81	1.47	3.02	5.49	1.56	.61	.42	.21	1.21
IN.	1.06	1.25	1.47	2.09	1.53	3.48	6.12	1.80	.69	.48	.24	1.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1999, BY WATER YEAR (WY)

	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	667	1018	1005	859	805	1899	3876	1979	897	493	371	406																																																																									
MAX	2416	2391	3189	2178	3503	7170	7286	4734	3459	2010	1822	2774																																																																									
(WY)	1946	1960	1984	1996	1981	1936	1969	1940	1947	1996	1976	1938																																																																									
MIN	80.0	285	237	197	169	222	1131	634	224	108	90.5	77.5																																																																									
(WY)	1964	1954	1923	1925	1940	1940	1995	1941	1921	1965	1965	1963																																																																									

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1915 - 1999

ANNUAL TOTAL	549289	399704	
ANNUAL MEAN	1505	1095	1188
HIGHEST ANNUAL MEAN			1910
LOWEST ANNUAL MEAN			494
HIGHEST DAILY MEAN	21500	Jun 27	31300
LOWEST DAILY MEAN	292	Aug 10	c 54
ANNUAL SEVEN-DAY MINIMUM	331	Aug 4	59
INSTANTANEOUS PEAK FLOW			13000
INSTANTANEOUS PEAK STAGE			ab 17.67
INSTANTANEOUS LOW FLOW			g 72
ANNUAL RUNOFF (CFSM)	2.18	1.59	1.72
ANNUAL RUNOFF (INCHES)	29.61	21.55	23.39
10 PERCENT EXCEEDS	2740	2350	2690
50 PERCENT EXCEEDS	850	719	630
90 PERCENT EXCEEDS	426	152	189

- a Ice jam.
- b From maximum indicator clip.
- c Also occurred on September 28, 1963.
- d From rating curve extended above 29,000 ft³/s as explained under Extremes paragraphs.
- e Estimated.
- f From floodmarks.
- g Also occurred on September 6.
- h About.

01144500 CONNECTICUT RIVER AT WEST LEBANON, NH

LOCATION.--Lat 43°38'46", long 72°18'46", Grafton County, Hydrologic Unit 01080104, on left bank, 50 ft downstream from railroad bridge at West Lebanon, 500 ft downstream from White River, and at mile 215.0.

DRAINAGE AREA.--4,092 mi².

PERIOD OF RECORD.--Discharge records: October 1911 to November 1976 (published as "at White River Junction, VT"), November 1978 to current year.

Water-quality records: Water year 1954, 1994.

REVISED RECORDS.--WSP 741: 1932 (adjusted monthly and yearly figures only). WSP 781: 1928(M). WSP 891: Drainage area. WSP 1301: 1922-26(M).

GAGE.--Water-stage recorder. Datum of gage is 321.52 ft above sea level. Prior to June 16, 1918, nonrecording gage on downstream side of pier of railroad bridge 50 ft upstream at same datum. June 16, 1918, to November 2, 1930, nonrecording gage at various locations on upstream and downstream sides of railroad bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, Union Village Reservoir, and other reservoirs. These reservoirs have a combined usable capacity of about 17.2 billion ft³.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136,000 ft³/s, November 4, 1927, gage height, 35.0 ft, present site; minimum daily discharge 82 ft³/s, August 8, 1965. Stage and discharge of flood November 4, 1927, are the greatest since at least 1760.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,800 ft³/s, September 17, gage height, 15.10 ft; minimum daily discharge, 729 ft³/s, September 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670	6050	8280	e3250	e7700	6180	24000	5910	4610	1180	920	1070
2	4080	4570	10500	e2900	5730	6710	27800	6060	5450	1210	1700	1600
3	3740	5290	11800	e3100	6440	6210	26400	4190	4330	1590	878	1870
4	1860	4160	8960	4090	6630	8420	27900	4030	2250	1220	865	738
5	3730	4060	10600	5680	6270	14100	25400	7420	1920	4100	872	1430
6	3960	4630	10300	5750	4440	10500	22400	5900	1850	5140	955	729
7	4590	3190	8450	4600	5810	8110	23200	7280	6770	3180	1270	4130
8	4430	1480	7630	6330	5850	6820	24300	6810	6090	4790	904	1690
9	3700	2940	7570	2460	4880	7870	25000	6570	2110	6770	e900	741
10	2790	3880	7570	3590	5170	7830	22700	6590	2240	3690	e900	761
11	3810	4100	7680	3720	5060	6200	18500	6660	2010	2120	1290	781
12	3380	4980	5160	e5700	7150	6090	14600	6820	1850	4650	1330	792
13	4560	6320	6630	e5200	6230	5820	13700	6550	1730	4510	2280	1790
14	5040	5650	e6250	e5500	5660	5140	12600	4540	2500	3690	2140	1840
15	4660	2280	e5650	e5600	4560	5660	8270	4940	1590	1820	888	4060
16	5780	5200	e6100	e5400	5290	5270	7710	4170	1240	3560	1220	6290
17	7610	6260	e5700	e5250	6130	3670	8720	3480	1750	2240	2590	24900
18	6690	7100	e6100	e5200	5920	6030	7530	2970	1860	934	2150	26500
19	6340	6520	e7200	6910	5050	7130	8050	2950	1130	1920	1400	20500
20	6290	6300	e4800	8950	5530	6550	8190	13600	1110	1710	1490	17200
21	6290	5800	e5700	7040	5150	6550	8110	13600	1100	1370	773	13600
22	6210	6030	e6000	6460	5640	11500	8210	9430	1350	2460	789	9550
23	5610	4200	e10000	6320	6060	20800	7530	8920	1660	1760	1310	10100
24	3080	5480	e7100	e10100	5400	16700	6900	8980	1710	2710	2620	10500
25	1550	4460	e5500	e21700	7700	12200	4630	5300	1030	962	3330	8730
26	4670	4290	e4550	e19000	7800	11400	6730	6220	2510	3250	2160	6490
27	5440	10500	e2650	e15200	7340	11600	5980	4600	999	3880	2150	8760
28	5520	11400	e4900	e10600	6210	12300	6750	5220	4190	3570	2030	7830
29	4410	10700	e5900	e8300	---	16200	6580	4090	2750	5160	1280	6780
30	4970	7630	e6100	e6400	---	19900	6580	3210	1260	3310	1160	5630
31	4380	---	e5200	e6100	---	21100	---	3550	---	2110	2090	---
TOTAL	140840	165450	216530	216400	166800	300560	424970	190560	72949	90566	46634	207382
MEAN	4543	5515	6985	6981	5957	9695	14170	6147	2432	2921	1504	6913
MAX	7610	11400	11800	21700	7800	21100	27900	13600	6770	6770	3330	26500
MIN	1550	1480	2650	2460	4440	3670	4630	2950	999	934	773	729

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1977, 1979 - 1999, BY WATER YEAR (WY)

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	4763	6789	6268	5125	4830	9219	20190	12970	6233	3786	3056	3241	12990	24860	16890	11680	17650	35510	32900	25890	16870	14050	8904	12900	1982	1928	1984	1996	1981	1936	1934	1972	1947	1973	1990	1954	1314	2313	1795	1627	1419	1626	5536	4556	1946	1393	1072	1007	1948	1948	1948	1948	1948	1940	1940	1995	1987	1921	1921	1942	1921																											
MAX	12990	24860	16890	11680	17650	35510	32900	25890	16870	14050	8904	12900	1982	1928	1984	1996	1981	1936	1934	1972	1947	1973	1990	1954	1314	2313	1795	1627	1419	1626	5536	4556	1946	1393	1072	1007	1948	1948	1948	1948	1948	1940	1940	1995	1987	1921	1921	1942	1921																																							
MIN	1982	1928	1984	1996	1981	1936	1934	1972	1947	1973	1990	1954	1314	2313	1795	1627	1419	1626	5536	4556	1946	1393	1072	1007	1948	1948	1948	1948	1948	1940	1940	1995	1987	1921	1921	1942	1921																																																			

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1912 - 1977, 1979 - 1999

ANNUAL TOTAL	3073040	2239641		
ANNUAL MEAN	8419	6136		
HIGHEST ANNUAL MEAN			7149	
LOWEST ANNUAL MEAN			10700	1928
HIGHEST DAILY MEAN	57700	Apr 2	27900	Apr 4
LOWEST DAILY MEAN	1210	Aug 8	729	Sep 6
ANNUAL SEVEN-DAY MINIMUM	2200	May 26	949	Aug 3
INSTANTANEOUS PEAK FLOW			31800	Sep 17
INSTANTANEOUS PEAK STAGE			15.10	Sep 17
10 PERCENT EXCEEDS	14400		11400	15900
50 PERCENT EXCEEDS	6290		5300	4600
90 PERCENT EXCEEDS	2810		1320	1680

e Estimated.

CONNECTICUT RIVER BASIN

01150500 MASCOMA RIVER AT MASCOMA, NH

LOCATION.--Lat 43°38'55", long 72°10'55", Grafton County, Hydrologic Unit 01080104, on right bank, at Mascoma, 100 ft downstream from outlet of Mascoma Lake.

DRAINAGE AREA.--153 mi².

PERIOD OF RECORD.--Discharge records: August 1923 to present; August 1923 to January 1993, at site 900 ft downstream and different datum.

REVISED RECORDS.--WSP 726: Drainage area. WSP 801: 1925(M), WRD NH-VT-84-1: 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 740.68 ft above sea level.

REMARKS.--Records fair. Flow regulated by Mascoma and Crystal Lakes and Goose and Grafton Ponds.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,840 ft³/s, March 19, 1936, gage height, 7.50 ft (at different datum), from rating curve extended above 2,500 ft³/s on basis of computations of flow over dam at gage heights 6.85 ft. and 7.50 ft; minimum daily discharge, 2 ft³/s, February 3, 1939, September 1, 1940.

EXTREMES FOR CURENT YEAR.--Maximum discharge, 2,170 ft³/s, September 18, gage height, 6.99 ft; minimum daily discharge, 19 ft³/s, September 8, 9, 14-16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	165	312	73	204	79	1080	94	69	30	25	21
2	25	172	274	72	156	81	1130	93	35	30	25	21
3	25	179	247	72	160	84	1180	92	35	30	25	21
4	25	169	222	72	163	233	1040	92	35	30	24	21
5	25	167	204	71	169	431	841	93	35	29	24	21
6	25	192	186	70	173	466	682	98	36	29	24	20
7	24	205	167	70	170	460	638	126	36	29	24	20
8	24	184	155	69	165	368	636	160	35	29	23	19
9	25	165	147	69	163	294	620	163	41	29	23	19
10	27	157	152	69	162	282	692	164	39	29	23	20
11	44	154	151	57	159	266	612	160	36	29	23	20
12	196	155	148	46	154	250	370	134	34	28	23	20
13	289	161	145	48	158	239	196	120	34	28	23	20
14	297	159	120	50	161	231	203	72	33	28	23	19
15	372	156	95	53	162	224	198	41	33	27	23	19
16	507	156	95	55	161	178	192	50	33	27	23	19
17	454	155	95	58	159	131	194	57	33	27	23	753
18	386	149	94	122	157	137	198	62	33	27	23	2030
19	347	152	94	182	151	164	207	74	33	27	23	1790
20	319	149	94	192	146	197	209	264	33	27	23	907
21	291	147	82	216	145	209	211	407	32	27	23	480
22	263	147	74	279	122	330	212	344	32	26	23	347
23	246	146	76	306	100	670	210	240	32	26	23	358
24	231	144	88	277	100	1260	205	181	32	26	23	418
25	218	142	98	301	88	1010	196	181	31	26	23	369
26	242	142	98	368	79	576	140	198	31	26	23	305
27	245	153	97	403	79	495	92	171	30	25	22	244
28	221	257	96	383	79	611	93	157	30	25	22	157
29	205	359	85	338	---	740	93	134	31	25	21	109
30	190	354	74	297	---	1110	93	118	31	25	21	138
31	176	---	74	266	---	1190	---	114	---	25	21	---
TOTAL	5989	5292	4139	5004	4045	12996	12663	4454	1043	851	715	8725
MEAN	193	176	134	161	144	419	422	144	34.8	27.5	23.1	291
MAX	507	359	312	403	204	1260	1180	407	69	30	25	2030
MIN	24	142	74	46	79	79	92	41	30	25	21	19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1999, BY WATER YEAR (WY)

MEAN	141	186	191	159	168	314	636	346	178	116	94.2	92.8
MAX	461	560	607	368	550	1222	1338	769	493	658	443	591
(WY)	1976	1928	1984	1978	1981	1936	1969	1996	1984	1973	1990	1938
MIN	34.6	35.8	46.5	39.3	38.7	65.4	180	78.2	34.8	27.5	19.0	29.6
(WY)	1964	1965	1979	1981	1980	1931	1995	1957	1999	1999	1985	1998

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1923 - 1999

ANNUAL TOTAL	90468	65916	
ANNUAL MEAN	248	181	218
HIGHEST ANNUAL MEAN			359
LOWEST ANNUAL MEAN			84.4
HIGHEST DAILY MEAN	2690	Apr 1	2030
LOWEST DAILY MEAN	24	Oct 7	a 19
ANNUAL SEVEN-DAY MINIMUM	25	Oct 2	20
INSTANTANEOUS PEAK FLOW			2170
INSTANTANEOUS PEAK STAGE			6.99
10 PERCENT EXCEEDS	540		371
50 PERCENT EXCEEDS	147		120
90 PERCENT EXCEEDS	32		23
			48
			471
			124
			48
			9.08
			Apr 20 1997
			Mar 19 1936
			Feb 3 1929
			Aug 24 1985
			Mar 19 1936
			Apr 20 1997

a Also occurred on September 9, 14-16.

b From rating curve extended above 2,500 ft³/s on basis of computations of flow over dam at gage heights 6.85 ft and 7.50 ft. from gage located 900 ft downstream of present site at different datum.

01150900 OTTAUQUECHEE RIVER NEAR WEST BRIDGEWATER, VT

LOCATION.--Lat 43°37'20", long 72°45'34", Rutland County, Hydrologic Unit 02010001, on right bank, 50 ft upstream from highway bridge on Mission Chapel Road, 1.6 mi northwest of West Bridgewater and 2.6 mi southeast of Sherburne Center.

DRAINAGE AREA.--23.4 mi².

PERIOD OF RECORD.--Discharge records: October 1984 to current year.

REVISED RECORDS.--WRD NH-VT-87-1: 1985-86.

GAGE.--Water-stage recorder. Elevation of gage is 1,150 ft above sea level, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	2400	* 1,200	*b 6.69	Sept. 17	1300	1,130	6.09
Apr. 2	0645	552	4.92				

Minimum discharge, 2.6 ft³/s, September 2, 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	19	91	e23	e43	e33	311	39	25	12	4.4	3.6
2	12	18	77	e22	e45	38	468	41	28	28	4.4	3.5
3	9.9	18	64	e23	e73	31	355	43	24	30	4.2	3.6
4	9.0	15	56	e23	e52	94	461	46	21	16	3.8	3.5
5	8.8	15	45	e22	e47	93	308	78	18	13	5.4	3.3
6	8.7	14	44	e22	e44	88	212	83	17	14	6.4	3.4
7	8.6	14	44	e21	e43	85	306	69	16	21	5.0	4.3
8	12	14	34	e20	e39	71	331	62	15	14	7.5	4.5
9	16	13	32	e26	e37	37	278	94	19	11	9.5	5.3
10	31	13	28	e25	e34	33	172	64	18	10	5.7	5.2
11	57	40	28	e25	e32	31	133	48	14	8.9	4.9	6.9
12	36	40	25	e25	e35	31	117	40	13	7.5	4.5	4.6
13	28	28	24	e24	e56	30	100	34	12	6.9	4.5	3.9
14	40	23	22	e24	e45	29	87	31	12	6.7	14	3.7
15	51	36	20	e24	e42	31	84	29	18	5.9	17	3.4
16	35	29	20	e24	e37	30	82	27	13	6.5	12	36
17	29	25	22	e24	e34	32	95	25	11	5.7	8.0	752
18	25	23	20	e25	e32	52	91	25	11	5.3	6.6	210
19	22	20	18	e64	e30	56	85	63	9.8	7.6	5.8	55
20	20	35	20	e41	e27	44	84	176	8.8	12	5.5	33
21	19	64	19	e35	e25	42	78	80	8.3	6.9	5.4	33
22	18	45	153	e33	e24	205	72	55	10	5.8	7.0	56
23	17	37	137	e33	e23	282	67	44	8.1	5.7	6.2	73
24	18	36	57	e430	e21	136	56	47	7.2	5.5	5.3	43
25	17	31	39	e625	e20	105	50	50	6.8	6.1	7.0	32
26	16	37	31	e165	e20	90	48	75	6.9	7.6	5.4	25
27	16	74	29	e90	e20	91	45	60	6.0	10	5.4	21
28	17	57	28	e68	e19	104	41	45	7.2	7.1	6.0	20
29	23	50	e25	e60	---	164	38	38	13	6.3	5.3	18
30	22	50	e24	e53	---	195	38	32	18	6.0	5.0	54
31	20	---	e23	e42	---	189	---	27	---	5.1	4.3	---
TOTAL	673.0	933	1299	2161	999	2572	4693	1670	415.1	314.1	201.4	1523.7
MEAN	21.7	31.1	41.9	69.7	35.7	83.0	156	53.9	13.8	10.1	6.50	50.8
MAX	57	74	153	625	73	282	468	176	28	30	17	752
MIN	8.6	13	18	20	19	29	38	25	6.0	5.1	3.8	3.3
CFSM	.93	1.33	1.79	2.98	1.52	3.55	6.69	2.30	.59	.43	.28	2.17
IN.	1.07	1.48	2.07	3.44	1.59	4.09	7.46	2.65	.66	.50	.32	2.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1999, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	49.1	64.3	47.9	50.0	38.5	89.8	152	80.1	42.4	30.9	23.2	27.5			
MAX	121	121	87.2	108	76.6	200	269	169	160	125	51.5	97.2			
(WY)	1988	1989	1997	1998	1990	1998	1994	1996	1998	1996	1986	1987			
MIN	14.2	25.4	21.2	19.4	14.5	44.6	45.7	34.7	13.7	6.77	6.50	6.19			
(WY)	1998	1995	1998	1988	1987	1989	1995	1995	1988	1991	1999	1995			

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1985 - 1999

ANNUAL TOTAL	26429.1	17454.3	
ANNUAL MEAN	72.4	47.8	58.0
HIGHEST ANNUAL MEAN			82.5
LOWEST ANNUAL MEAN			35.6
HIGHEST DAILY MEAN	1460	Mar 29	1460
LOWEST DAILY MEAN	8.6	Oct 7	3.0
ANNUAL SEVEN-DAY MINIMUM	9.7	Oct 1	3.3
INSTANTANEOUS PEAK FLOW		a 1200	a 1960
INSTANTANEOUS PEAK STAGE		b 6.69	7.78
INSTANTANEOUS LOW FLOW		c 2.6	c 2.6
ANNUAL RUNOFF (CFSM)	3.09	2.04	2.48
ANNUAL RUNOFF (INCHES)	42.02	27.75	33.68
10 PERCENT EXCEEDS	123	90	120
50 PERCENT EXCEEDS	30	25	32
90 PERCENT EXCEEDS	12	5.7	10

- a From rating curve extended above 670 ft³/s.
- b Ice jam.
- c Also occurred on September 2, 5, 6.
- e Estimated.

CONNECTICUT RIVER BASIN

01151500 OTTAUQUECHEE RIVER AT NORTH HARTLAND, VT

LOCATION.--Lat 43°36'09", long 72°21'17", Windsor County, Hydrologic Unit 01080106, on left bank, 100 ft upstream from highway bridge at North Hartland, 0.3 mi downstream from North Hartland Dam, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--221 mi².

PERIOD OF RECORD.--Discharge records: October 1930 to current year.

Water-quality records: Water years 1954-55.

GAGE.--Water-stage recorder. Datum of gage is 336.77 ft above sea level (levels by U. S. Army Corps of Engineers).

REMARKS.-- Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants upstream and by North Hartland Reservoir since March 1961; greater regulation by powerplants at North Hartland Reservoir since July 1985. Small seasonal storage in reservoir at Plymouth.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1760, 21.5 ft in November 1927, from floodmarks, discharge 30,400 ft³/s, by computation of peak flow over dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft³/s, September 21, 1938, gage height, 17.68 ft, from rating curve extended above 6,200 ft³/s on basis of computation of flow over dam at gage heights 15.58 ft, 17.68 ft, and 21.5 ft; minimum, 0.2 ft³/s, July 6, 1984 during hydroelectric construction; minimum daily discharge, 3.8 ft³/s, July 3, 1933. Maximum discharge since construction of North Hartland Dam in March 1961, 6,170 ft³/s, March 17, 1977, gage height, 8.67 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,680 ft³/s, April 2, gage height, 7.09 ft; minimum daily discharge, 23 ft³/s, August 31 to September 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	59	294	63	e320	309	2790	311	274	79	37	23
2	46	137	397	63	405	508	3510	337	306	77	32	23
3	46	139	363	116	680	418	3390	308	285	94	29	23
4	46	97	271	222	684	883	3240	272	251	96	27	23
5	46	96	201	186	564	1010	2450	396	197	63	32	23
6	75	72	202	133	412	708	1970	570	189	63	40	23
7	74	44	260	156	363	595	2290	463	192	99	32	32
8	74	44	242	151	e400	409	2300	320	150	90	39	41
9	50	123	188	112	403	445	2190	465	172	64	44	30
10	40	121	184	187	356	466	1500	654	187	55	44	52
11	244	64	184	346	327	462	1170	684	152	55	38	48
12	292	186	155	249	352	405	1120	246	125	55	32	39
13	68	154	155	196	393	350	933	108	106	54	28	38
14	171	102	197	194	416	352	828	236	133	47	27	38
15	233	99	175	192	276	423	728	255	146	44	27	38
16	147	179	161	195	316	438	734	255	103	43	36	41
17	87	158	184	196	381	404	698	177	125	41	42	1270
18	88	122	151	198	358	477	701	139	110	40	40	2050
19	163	135	133	e600	317	682	716	364	95	39	34	1150
20	158	109	131	700	285	468	674	2150	95	39	32	335
21	127	153	147	413	285	442	629	1050	102	38	31	202
22	117	207	643	331	185	1570	545	311	109	53	31	246
23	77	205	617	295	178	2560	520	533	68	59	31	464
24	53	215	335	301	221	1670	463	744	65	46	31	323
25	53	187	205	1310	228	1060	461	747	93	39	31	147
26	120	148	126	1730	230	964	401	568	78	39	31	147
27	135	805	126	990	219	929	372	643	56	48	26	216
28	120	363	247	389	218	1080	372	488	55	55	32	140
29	111	362	264	298	---	1700	342	405	92	50	36	159
30	95	313	226	319	---	2140	281	389	84	46	31	192
31	59	---	138	e260	---	2130	---	294	---	37	23	---
TOTAL	3277	5198	7302	11091	9772	26457	38318	14882	4195	1747	1026	7576
MEAN	106	173	236	358	349	853	1277	480	140	56.4	33.1	253
MAX	292	805	643	1730	684	2560	3510	2150	306	99	44	2050
MIN	40	44	126	63	178	309	281	108	55	37	23	23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	218	340	341	300	283	628	1367	663	291	163	118	133																																																									
MAX	1060	816	1028	900	1157	2570	2587	1676	990	1131	759	1030																																																									
(WY)	1988	1976	1984	1996	1981	1936	1969	1940	1998	1973	1976	1938																																																									
MIN	33.3	70.5	72.2	56.2	55.4	84.0	346	201	70.3	34.8	28.5	29.7																																																									
(WY)	1965	1965	1948	1948	1940	1940	1995	1941	1965	1965	1965	1967																																																									

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1931 - 1999

ANNUAL TOTAL	176348	130841	
ANNUAL MEAN	483	358	403
HIGHEST ANNUAL MEAN			691
LOWEST ANNUAL MEAN			173
HIGHEST DAILY MEAN	4160	Jan 9	3510 Apr 2
LOWEST DAILY MEAN	40	Oct 10	a 23 Aug 31
ANNUAL SEVEN-DAY MINIMUM	53	Sep 29	23 Aug 31
INSTANTANEOUS PEAK FLOW			3680 Apr 2
INSTANTANEOUS PEAK STAGE			7.09 Apr 2
10 PERCENT EXCEEDS	1010	745	928
50 PERCENT EXCEEDS	242	187	206
90 PERCENT EXCEEDS	72	38	55

a Also occurred on September 1-6.
b From rating curve extended above 6,200 ft³/s as explained above.
c Estimated.

CONNECTICUT RIVER BASIN

01153550 WILLIAMS RIVER NEAR ROCKINGHAM, VT

LOCATION.--Lat 43°11'30", long 72°29'08", Windham County, Hydrologic Unit 01080107, on left bank, 50 ft downstream from highway bridge on Parker Hill Road, 0.2 mi downstream from Divoll Brook, 0.35 mi northeast of Rockingham, 2.2 mi upstream from mouth, and 4.5 mi northwest of Bellows Falls.

DRAINAGE AREA.--112 mi².

PERIOD OF RECORD.--Discharge records: October 1986 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 300 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges which are poor. Low flow regulated by powerplant upstream October 1986 to September 1992.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1938 had greatest discharge since at least 1753.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 22	1445	7,100	9.07	Sept. 17	0115	* 7,570	* 9.27
Minimum discharge, 7.0 ft ³ /s, August 4,6-8.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	28	73	e78	e145	e120	1610	110	103	23	11	12
2	22	27	70	e78	e160	e150	1620	103	97	22	8.5	11
3	19	27	63	e79	e240	e130	1240	97	94	26	7.7	9.7
4	18	26	60	e79	e190	e250	1120	99	85	27	7.4	8.9
5	17	27	55	e78	e160	e260	837	152	72	29	7.5	8.4
6	17	26	52	e76	e150	e205	772	170	64	24	7.3	18
7	16	26	50	e74	e140	e185	915	139	58	29	7.4	35
8	20	25	49	e70	e135	e170	813	136	51	20	10	21
9	30	25	56	e69	e130	e160	685	343	47	17	14	19
10	41	25	52	e72	e125	e150	505	197	51	17	11	35
11	139	49	50	e73	e127	e140	410	153	44	15	8.8	54
12	63	59	46	e72	e130	e135	365	131	38	14	8.7	27
13	43	42	47	e70	e180	e130	322	117	34	13	8.2	19
14	66	37	51	e79	e155	e120	289	106	33	13	8.9	16
15	136	38	78	e71	e150	e125	268	97	51	12	59	15
16	71	38	60	e76	e140	e120	258	89	41	11	45	901
17	52	41	48	e76	e130	e140	310	81	33	11	21	2400
18	44	44	45	e77	e125	e195	306	75	33	9.6	15	354
19	40	40	45	e185	e125	e220	253	402	30	12	13	181
20	36	45	50	e145	e110	e180	233	1020	28	18	11	129
21	33	79	46	e115	e90	e170	220	328	26	14	12	131
22	31	63	234	e105	e86	2980	199	224	25	12	19	200
23	30	51	137	e100	e87	1350	197	180	23	10	16	201
24	28	46	96	e325	e89	770	179	410	21	9.4	13	131
25	27	44	155	e450	e89	623	160	498	20	9.2	12	101
26	27	159	166	e250	e90	563	151	310	19	15	11	85
27	25	331	155	e200	e92	596	142	251	18	31	11	77
28	26	133	e130	e180	e94	649	132	199	18	16	42	72
29	30	96	e110	e150	---	1090	125	166	27	13	29	68
30	30	80	e90	e140	---	1160	117	140	29	12	17	248
31	28	---	e79	e130	---	1240	---	119	---	11	13	---
TOTAL	1225	1777	2498	3822	3664	14476	14753	6642	1313	515.2	485.4	5588.0
MEAN	39.5	59.2	80.6	123	131	467	492	214	43.8	16.6	15.7	186
MAX	139	331	234	450	240	2980	1620	1020	103	31	59	2400
MIN	16	25	45	69	86	120	117	75	18	9.2	7.3	8.4
CFSM	.35	.53	.72	1.10	1.17	4.17	4.39	1.91	.39	.15	.14	1.66
IN.	.41	.59	.83	1.27	1.22	4.81	4.90	2.21	.44	.17	.16	1.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1999, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	130	198	180	173	150	410	643	293	139	64.4	45.0	65.8	
MAX	461	382	443	441	306	850	1199	544	440	227	123	282	
(WY)	1988	1996	1997	1996	1997	1990	1994	1996	1996	1996	1990	1987	
MIN	29.4	59.2	78.2	58.7	51.0	184	156	90.4	34.9	16.6	15.7	13.4	
(WY)	1994	1999	1990	1989	1993	1994	1995	1995	1995	1999	1999	1995	

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1987 - 1999

ANNUAL TOTAL	76398	56758.6	
ANNUAL MEAN	209	156	207
HIGHEST ANNUAL MEAN			283
LOWEST ANNUAL MEAN			111
HIGHEST DAILY MEAN	3340	Jun 14	2980
LOWEST DAILY MEAN	16	Sep 30	7.3
ANNUAL SEVEN-DAY MINIMUM	18	Sep 24	8.0
INSTANTANEOUS PEAK FLOW			a 7570
INSTANTANEOUS PEAK STAGE			9.27
INSTANTANEOUS LOW FLOW			b 7.0
ANNUAL RUNOFF (CFSM)	1.87	1.39	1.85
ANNUAL RUNOFF (INCHES)	25.38	18.85	25.16
10 PERCENT EXCEEDS	377	310	455
50 PERCENT EXCEEDS	97	72	100
90 PERCENT EXCEEDS	22	13	23

a From rating curve extended above 3,800 ft³/s.

b Also occurred on August 6-8.

e Estimated.

01154500 CONNECTICUT RIVER AT NORTH WALPOLE, NH

LOCATION.--Lat 43°07'34", long 72°26'14", Cheshire County, Hydrologic Unit 01080104, on left bank, at North Walpole, 100 ft upstream from Saxtons River, 0.7 mi downstream from Vilas Bridge between Bellows Falls, VT, and North Walpole, and at mile 172.5.

DRAINAGE AREA.--5,493 mi², includes that of Saxtons River.

PERIOD OF RECORD.--Discharge records: March 1942 to current year.

Water-quality records: Water years 1975 to September 1980 (published as "at Walpole"), October 1980.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1981.

WATER TEMPERATURES: October 1980 to September 1981.

GAGE.--Water-stage recorder. Datum of gage is 218.63 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants and by First Connecticut and Second Connecticut Lakes, Lake Francis, Moore and Comerford Reservoirs, and other reservoirs, combined usable capacity, about 24.8 billion ft³.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1750, 43.8 ft, March 19, 1936, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,500 ft³/s, September 18, gage height, 18.97 ft; minimum daily discharge, 1,300 ft³/s, September 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2620	4960	9230	3950	10500	10200	37600	9360	6110	1340	1590	1300
2	4150	5130	11700	4470	9490	10300	44100	6450	6770	2070	1630	1950
3	3800	6540	13000	2630	11800	10900	42300	6780	5880	1640	1370	2040
4	2150	4990	11600	4500	13400	17700	40900	4260	3340	1370	1450	1820
5	3660	4520	10500	6420	12500	27200	39300	6930	3070	4020	1380	1820
6	3450	5600	11400	5970	9370	20000	32800	10000	2960	5960	1500	1680
7	5720	3160	10700	5820	9160	14000	32400	8590	5400	4000	1550	2100
8	4690	2500	8820	6650	8370	12800	34400	8680	7780	3890	1370	1600
9	2720	2700	8330	4850	8250	11300	34700	8740	4710	8280	1340	1750
10	3450	4400	8030	e3550	8000	12300	31900	10400	1900	5450	1330	1360
11	5680	5360	8680	3740	8250	11700	26600	8880	2370	3060	1310	1810
12	4700	4920	8490	e6400	9060	9200	21600	8090	2360	3520	1510	1340
13	5450	5710	8360	e6650	10100	9170	17900	9630	2950	4670	1410	2000
14	5130	7540	6960	e7200	8660	9100	17400	6820	2040	5110	1720	1910
15	7340	3960	7510	e6750	7710	9040	13000	5750	2200	2690	1330	4470
16	7860	4970	5940	e6000	7980	8520	11400	4700	1970	4060	2250	8950
17	7760	7430	7080	e6200	8520	7200	11500	5120	2570	1780	2800	38200
18	8110	7390	7070	e7900	9460	9430	11700	3410	3030	2300	3150	43000
19	8570	7200	6350	e8600	7280	11600	11500	4120	1400	1820	1620	28600
20	7810	7230	6170	e12000	8930	11500	11400	20900	1410	1950	1310	23100
21	8000	7350	5920	e11200	6820	11100	11500	20900	1390	1960	1310	17800
22	6910	6510	6500	e9700	9130	21400	11300	12400	1530	2630	1310	12900
23	5440	5730	12100	e9300	7500	38200	11300	11100	2640	2430	1800	12100
24	3600	7570	11800	e11000	7650	29500	10000	11800	2170	2420	1800	13500
25	2030	4850	5450	e27500	7780	20600	7160	12400	1750	1670	2950	11100
26	5470	5090	6280	e28500	9680	18300	8380	7520	1730	1910	3410	8860
27	5470	13100	3440	e24000	9330	19100	8180	8450	1400	5530	2400	9540
28	6140	14100	4530	21400	8200	19700	8640	8340	3720	4280	2080	9550
29	6040	13000	7200	13200	---	25800	7450	6330	4520	4330	1660	9470
30	5650	11200	7440	11600	---	31300	8980	3340	1390	4750	1800	8620
31	4850	---	5690	10400	---	34000	---	5660	---	2740	2100	---
TOTAL	164420	194710	252270	298050	252880	512160	617290	265850	92460	103630	55540	284240
MEAN	5304	6490	8138	9615	9031	16520	20580	8576	3082	3343	1792	9475
MAX	8570	14100	13000	28500	13400	38200	44100	20900	7780	8280	3410	43000
MIN	2030	2500	3440	2630	6820	7200	7160	3340	1390	1340	1310	1300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1999, BY WATER YEAR (WY)

MEAN	6240	8650	8473	7142	7172	13580	27120	16390	8083	4647	3935	3849
MAX	18300	18420	22550	17930	21810	34150	45630	33380	20600	18930	12990	14820
(WY)	1978	1960	1984	1996	1981	1979	1969	1972	1947	1973	1990	1954
MIN	1424	2886	2124	1866	2736	4532	7803	6477	3082	1845	1461	1555
(WY)	1949	1948	1948	1948	1980	1956	1995	1965	1999	1965	1942	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1942 - 1999
ANNUAL TOTAL	4097630	3093500	
ANNUAL MEAN	11230	8475	9606
HIGHEST ANNUAL MEAN			14630
LOWEST ANNUAL MEAN			4991
HIGHEST DAILY MEAN	72400	Apr 1	88300
LOWEST DAILY MEAN	1580	Sep 6	a 115
ANNUAL SEVEN-DAY MINIMUM	2620	Sep 1	777
INSTANTANEOUS PEAK FLOW			97000
INSTANTANEOUS PEAK STAGE		18.97	30.37
10 PERCENT EXCEEDS	21200	17700	21300
50 PERCENT EXCEEDS	7570	6770	6210
90 PERCENT EXCEEDS	3380	1740	2000

a Also occurred on September 2, 1957.

e Estimated.

CONNECTICUT RIVER BASIN

01155500 WEST RIVER AT JAMAICA, VT

LOCATION.--Lat 43°06'32", long 72°46'33", Windham County, Hydrologic Unit 01080107, on left bank, 0.2 mi upstream from Depot Street bridge in Jamaica, 0.4 mi upstream from Ball Mountain Brook, and 2.8 mi downstream from Ball Mountain Dam.

DRAINAGE AREA.--179 mi².

PERIOD OF RECORD.--Discharge records: October 1946 to September 1989, October 1995 to current year.

Water-quality records: water year 1954.

REVISED RECORDS.--WDR NH-VT-97-1: 1994 (M), 1996 (M).

GAGE.--Water-stage recorder. Elevation of gage is 640 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since 1961 by Ball Mountain Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,500 ft³/s, December 31, 1948, gage height, 14.87 ft, from rating curve extended above 9,800 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.94 ft³/s, September 23, 24, 1968. Maximum discharge since construction of Ball Mountain Dam in 1961, 5,840 ft³/s, April 23, 1996, gage height, 9.47 ft; maximum gage height, 11.72 ft, February 7, 1982 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,400 ft³/s, March 23, gage height, 8.40 ft; minimum daily discharge, 3.7 ft³/s, August 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	e65	710	e140	320	536	2090	185	130	e23	e8.0	20
2	34	e64	741	e125	347	612	2670	194	110	e38	e7.0	14
3	35	e63	585	e128	536	315	2360	161	91	e47	e6.5	20
4	35	e62	292	e190	735	1210	2130	173	97	e46	e6.4	35
5	35	e60	210	e160	527	1620	2060	226	72	e45	e5.4	38
6	35	e66	192	e110	392	978	1400	293	71	e35	4.9	30
7	35	e64	159	e145	344	526	2040	240	62	35	4.8	13
8	36	e63	137	e130	271	452	2320	229	50	40	5.6	13
9	37	e61	114	e110	259	388	2250	429	50	38	4.8	13
10	44	49	116	e400	283	327	1220	312	51	33	4.5	16
11	57	54	128	459	235	335	819	214	50	33	4.8	15
12	50	57	136	415	200	261	679	157	49	28	4.7	14
13	328	70	135	317	370	254	411	231	44	20	3.7	14
14	526	79	132	e270	299	276	279	148	39	18	3.8	14
15	521	79	123	e245	254	264	293	134	33	18	5.2	14
16	497	92	111	e310	303	225	505	126	31	17	4.5	89
17	460	113	129	e320	231	245	646	111	31	14	3.9	1490
18	316	113	101	e280	238	385	652	95	32	e14	11	2100
19	175	112	64	882	264	521	682	218	31	e20	22	1070
20	112	113	123	910	146	380	708	1370	31	19	20	308
21	104	120	115	525	189	354	695	1680	31	22	17	166
22	91	122	303	351	137	1280	679	419	31	22	17	177
23	84	163	836	324	e165	2630	664	299	31	21	17	349
24	66	192	749	365	189	2150	1020	419	30	19	17	626
25	65	190	302	999	e200	1090	820	688	30	19	17	765
26	65	211	226	1610	e215	690	476	517	29	e17	17	607
27	66	281	230	1320	e208	706	327	476	28	e13	16	103
28	67	311	292	582	204	827	245	316	28	e11	20	115
29	e68	309	115	550	---	980	248	260	e34	e9.3	24	113
30	e69	394	171	264	---	1440	217	181	e30	e9.0	23	140
31	e66	---	115	e295	---	1550	---	166	---	e9.0	23	---
TOTAL	4213	3792	7892	13231	8061	23807	31605	10667	1457	752.3	349.5	8501
MEAN	136	126	255	427	288	768	1054	344	48.6	24.3	11.3	283
MAX	526	394	836	1610	735	2630	2670	1680	130	47	24	2100
MIN	34	49	64	110	137	225	217	95	28	9.0	3.7	13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1989, 1996 - 1999, BY WATER YEAR (WY)

MEAN	240	352	351	277	278	564	1274	587	247	128	99.3	124
MAX	916	787	862	749	1009	1486	2290	1499	831	822	909	606
(WY)	1988	1989	1984	1998	1981	1953	1969	1972	1984	1973	1976	1987
MIN	16.9	65.0	78.7	65.3	42.0	107	499	192	35.8	14.2	11.3	12.5
(WY)	1948	1965	1948	1981	1980	1956	1985	1964	1964	1965	1999	1948

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1946 - 1989, 1996 - 1999

ANNUAL TOTAL	149644	114327.8										
ANNUAL MEAN	410	313								376		
HIGHEST ANNUAL MEAN										611		1976
LOWEST ANNUAL MEAN										161		1965
HIGHEST DAILY MEAN				5300	Apr 7		2670	Apr 2		15500		Dec 31 1948
LOWEST DAILY MEAN				22	Sep 22		3.7	Aug 13		.94		Sep 23 1968
ANNUAL SEVEN-DAY MINIMUM				29	Sep 19		4.4	Aug 11		1.1		Sep 18 1968
INSTANTANEOUS PEAK FLOW							3400	Mar 23		a 29500		Dec 31 1948
INSTANTANEOUS PEAK STAGE							8.40	Mar 23		14.87		Dec 31 1948
10 PERCENT EXCEEDS		880					755			948		
50 PERCENT EXCEEDS		186					137			166		
90 PERCENT EXCEEDS		43					17			32		

a From rating curve extended above 9,800 ft³/s on basis of slope-area measurement of peak flow.

e Estimated.

01155910 WEST RIVER BELOW TOWNSHEND DAM NEAR TOWNSHEND, VT

LOCATION.--Lat 43°03'04", long 72°42'02", Windham County, Hydrologic Unit 01080107, on left bank, 150 ft below Townshend Dam, 1.9 mi northwest of Townshend, 2.2 mi upstream from Mills Brook, and 18.2 mi upstream from mouth.

DRAINAGE AREA.--282 mi².

PERIOD OF RECORD.--Discharge records: October 1994 to current year. Records for September 1919 to September 1923, October 1928 to September 1989, at site 5.5 mi downstream (station 01156000) are not equivalent because of difference in drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 463 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges and those for the period of October 1 to May 16, May 26-30, and September 15-30, which are fair. Flow regulated since 1961 by Ball Mountain Reservoir and Townshend Reservoir. These reservoirs have a combined usable capacity of about 3.84 billion ft³.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,280 ft³/s, March 23, gage height, 7.87 ft; minimum daily discharge, 16 ft³/s, August 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	100	806	174	353	622	3550	325	226	49	28	42
2	70	98	869	143	475	971	4500	301	205	90	24	32
3	60	96	739	144	902	596	3970	329	184	110	23	28
4	55	95	377	236	1130	2530	3580	254	172	108	23	38
5	52	94	288	208	944	3150	3240	455	133	103	19	45
6	50	101	270	138	603	1620	2410	628	125	69	17	49
7	49	99	232	180	575	931	3230	468	109	68	17	36
8	55	96	219	166	473	715	3670	431	91	66	17	32
9	90	94	216	135	409	639	3440	826	87	64	21	31
10	142	75	201	499	464	586	2050	600	92	56	20	44
11	302	105	197	620	400	573	1390	454	88	52	18	69
12	169	130	201	547	399	467	1160	279	81	48	17	47
13	305	115	196	433	533	474	855	387	74	41	16	36
14	643	123	190	316	495	452	629	288	72	29	17	30
15	765	124	179	279	340	420	630	261	72	32	34	27
16	643	129	168	382	462	409	794	213	66	32	48	202
17	562	162	177	409	395	424	1040	192	60	29	28	2290
18	432	168	177	340	380	633	1010	186	61	27	22	3410
19	246	162	107	1080	405	881	1000	440	59	39	30	2770
20	169	164	149	1810	283	672	1010	2640	56	65	33	1090
21	158	211	190	869	317	625	973	2010	53	48	31	318
22	138	200	782	608	242	2980	944	737	52	41	39	470
23	132	208	1270	495	186	4700	944	535	50	38	38	652
24	107	243	e1030	920	248	3780	1350	781	49	35	34	836
25	101	240	453	1960	248	1790	1100	1340	47	33	31	917
26	99	346	258	2110	263	1270	630	918	46	52	29	730
27	98	728	225	1880	259	1260	533	839	44	51	41	207
28	99	522	297	890	240	1420	421	588	45	35	90	206
29	106	454	210	759	---	1720	376	434	68	32	61	198
30	105	487	256	446	---	2490	358	340	61	32	53	427
31	101	---	112	413	---	2770	---	293	---	31	55	---
TOTAL	6162	5969	11041	19589	12423	42570	50787	18772	2628	1605	974	15309
MEAN	199	199	356	632	444	1373	1693	606	87.6	51.8	31.4	510
MAX	765	728	1270	2110	1130	4700	4500	2640	226	110	90	3410
MIN	49	75	107	135	186	409	358	186	44	27	16	27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1999, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
MEAN	337	611	581	878	490	1010	1781	834	319	179	71.4	170			
MAX	892	1134	1143	1163	832	1373	2602	1517	967	471	122	510			
(WY)	1996	1996	1997	1998	1996	1999	1996	1996	1998	1996	1995	1999			
MIN	108	199	246	632	234	571	474	269	87.6	51.7	31.4	35.4			
(WY)	1998	1999	1996	1999	1995	1996	1995	1995	1999	1995	1999	1995			

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1995 - 1999
ANNUAL TOTAL	221378	187829	
ANNUAL MEAN	607	515	605
HIGHEST ANNUAL MEAN			816
LOWEST ANNUAL MEAN			378
HIGHEST DAILY MEAN	6570	Apr 7	6570
LOWEST DAILY MEAN	40	Sep 25	2.3
ANNUAL SEVEN-DAY MINIMUM	52	Sep 19	6.4
INSTANTANEOUS PEAK FLOW			5280
INSTANTANEOUS PEAK STAGE		7.87	Mar 23
10 PERCENT EXCEEDS	1250	1200	1640
50 PERCENT EXCEEDS	272	216	267
90 PERCENT EXCEEDS	67	34	42

e Estimated.

01158600 OTTER BROOK BELOW OTTER BROOK DAM NEAR KEENE, NH

LOCATION.--Lat 42°56'45", long 72°14'14", Cheshire County, Hydrologic Unit 01080201, on right bank, 450 ft downstream from Otter Brook Dam, 2.0 mi northeast of Keene, 2.4 mi upstream from Minnewawa Brook, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--47.2 mi².

PERIOD OF RECORD.--Discharge records: May 1958 to September 1989, October 1995 to current year. Annual maximums and measurements, water years 1990-95.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 658.65 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to September 29, 1933, nonrecording gage on highway bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Otter Brook Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 614 ft³/s, September 20, gage height, 8.42 ft; minimum daily discharge, 2.0 ft³/s, August 6,7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	12	38	21	85	65	295	20	25	e22	3.2	4.6
2	4.1	11	33	21	63	134	265	20	20	e29	2.9	4.1
3	4.4	10	30	21	114	153	264	20	18	75	2.5	3.9
4	9.0	9.5	28	21	222	208	258	20	16	59	2.3	3.4
5	16	9.0	26	21	188	281	187	20	13	49	2.1	3.0
6	15	8.4	25	21	115	282	141	21	11	34	2.0	3.2
7	13	8.1	24	21	116	272	113	17	10	26	2.0	7.2
8	28	8.0	24	21	115	260	106	13	9.5	19	2.1	21
9	48	8.0	27	21	80	188	87	14	8.5	14	2.3	28
10	43	7.7	26	21	63	127	74	15	7.8	13	2.3	86
11	63	12	24	41	84	86	74	18	7.3	12	2.3	177
12	55	24	22	51	103	67	74	21	6.1	9.9	2.3	119
13	41	23	20	51	103	68	55	21	5.5	8.7	2.3	61
14	45	20	19	51	103	68	48	20	5.2	7.9	2.6	49
15	78	18	17	51	101	68	48	19	5.1	7.4	36	48
16	58	16	17	51	72	68	44	11	4.7	6.7	39	80
17	44	17	18	52	61	68	105	12	4.3	5.8	23	292
18	35	17	17	52	62	83	188	14	4.2	4.7	16	484
19	29	16	15	90	63	92	216	18	4.1	e5.0	13	493
20	23	17	20	186	63	134	150	124	4.2	9.1	10	491
21	20	19	20	197	63	129	79	98	4.1	9.2	9.7	243
22	18	20	41	131	63	167	56	63	3.8	7.8	13	150
23	16	18	36	97	62	409	56	47	3.8	6.8	14	142
24	14	17	21	101	49	479	56	48	3.9	5.9	12	109
25	13	15	21	243	34	437	56	73	3.6	5.3	11	83
26	12	19	21	312	34	252	32	66	3.4	4.9	9.0	67
27	11	82	21	304	34	197	19	59	3.2	4.6	8.2	45
28	10	69	21	290	34	200	19	49	4.2	4.2	7.9	36
29	12	53	33	218	---	284	19	41	e17	4.1	7.5	33
30	13	43	37	136	---	367	20	35	e34	3.9	6.3	45
31	12	---	27	133	---	376	---	29	---	3.5	5.3	---
TOTAL	806.6	626.7	769	3048	2349	6069	3204	1066	270.5	477.4	274.1	3411.4
MEAN	26.0	20.9	24.8	98.3	83.9	196	107	34.4	9.02	15.4	8.84	114
MAX	78	82	41	312	222	479	295	124	34	75	39	493
MIN	4.1	7.7	15	21	34	65	19	11	3.2	3.5	2.0	3.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1989, 1996 - 1999, BY WATER YEAR (WY)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1996	1997	1998	1999		
MEAN	46.0	74.3	78.6	65.6	72.5	135	252	117	59.4	28.6	20.7	24.1																										
MAX	158	242	272	185	223	368	447	256	312	120	157	114																										
(WY)	1978	1996	1997	1978	1984	1979	1987	1969	1984	1973	1986	1999																										
MIN	.86	3.20	12.8	8.97	14.3	29.8	88.6	34.4	3.78	2.65	2.21	.77																										
(WY)	1965	1965	1965	1981	1965	1965	1985	1999	1964	1965	1963	1964																										

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1958 - 1989, 1996 - 1999	
ANNUAL TOTAL	28793.8		22371.7			
ANNUAL MEAN	78.9		61.3		81.1	
HIGHEST ANNUAL MEAN					126	
LOWEST ANNUAL MEAN					23.2	
HIGHEST DAILY MEAN	607		493		685	
LOWEST DAILY MEAN	2.7		a 2.0		.30	
ANNUAL SEVEN-DAY MINIMUM	2.9		2.2		.30	
INSTANTANEOUS PEAK FLOW			614		b 752	
INSTANTANEOUS PEAK STAGE			8.42		8.62	
10 PERCENT EXCEEDS	178		181		210	
50 PERCENT EXCEEDS	36		24		40	
90 PERCENT EXCEEDS	4.4		4.3		5.8	

a Also occurred on August 7.

b Includes bypass flow around gage through spillway of the dam structure.

e Estimated.

CONNECTICUT RIVER BASIN

01160350 ASHUELOT RIVER AT WEST SWANZEY, NH

LOCATION.--Lat 42°52'16", long 72°19'42", Cheshire County, Hydrologic Unit 01080201, on left bank, 150 ft downstream of California/Main Street bridge in West Swanzey, 4.5 mi downstream from South Branch Ashuelot River, 5 mi southwest of Keene, and 14.2 mi upstream from mouth.

DRAINAGE AREA.--316 mi².

PERIOD OF RECORD.--Discharge records: April 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 452 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those below 150 ft³/s, which are poor. Flow regulated by Surry Mountain Lake 20 mi upstream since 1942 and by Otter Brook Lake 16 mi upstream from Otter Brook since 1958. Some regulation by small hydro plants upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,550 ft³/s, March 5, gage height, 3.26 ft; maximum gage height, 6.30 ft, March 7 (ice jam); minimum daily discharge, 20 ft³/s, August 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e50	170	368	e142	553	646	1560	191	200	151	e26	e32
2	e48	161	322	e124	508	907	1490	254	179	120	e24	e28
3	e49	145	280	131	877	829	1470	316	164	277	e23	e25
4	e49	138	251	137	1190	1620	1400	239	150	302	e23	23
5	e50	155	236	e142	1320	e2350	1260	238	137	261	e22	22
6	e52	145	214	e138	1060	1960	1050	247	130	e210	e22	31
7	e55	140	198	137	909	e1720	921	238	119	e165	e22	79
8	e60	140	209	e124	793	e1450	836	217	110	e140	e22	154
9	e100	140	237	129	e637	e1350	776	225	100	e120	e22	189
10	149	139	229	159	538	e986	721	228	92	e100	e22	372
11	287	181	213	188	566	762	675	215	83	e84	e21	782
12	283	233	198	259	584	642	634	193	75	e76	e21	551
13	240	256	189	252	682	587	556	175	70	e67	20	299
14	438	232	184	201	684	574	468	171	69	e60	28	184
15	563	195	171	206	e637	574	452	166	68	e53	71	153
16	586	182	165	277	561	542	426	156	59	e47	e140	261
17	508	183	160	325	511	560	493	141	55	e42	e130	1590
18	423	177	162	340	522	668	551	142	57	e39	e110	2050
19	322	172	146	577	600	782	622	192	54	e43	e94	1570
20	278	169	146	914	560	804	562	1020	48	e54	e84	1320
21	248	175	153	980	507	760	464	1170	44	e52	e68	1110
22	222	180	223	769	e408	1110	420	827	45	e50	e82	1030
23	201	177	344	598	e417	1830	417	597	43	e51	e95	1040
24	187	171	297	772	342	2020	402	507	41	e48	e74	819
25	178	169	255	1570	295	1900	372	571	36	e40	e66	499
26	161	182	221	1920	283	1670	339	506	34	e36	e56	350
27	156	477	190	1680	282	1310	301	443	33	e34	e52	248
28	149	602	180	1440	287	1210	277	382	44	e33	e64	202
29	164	511	167	1170	---	1380	234	325	110	e34	e54	181
30	172	423	172	807	---	1500	218	263	223	e32	e46	219
31	169	---	e152	650	---	1590	---	230	---	e28	e40	---
TOTAL	6597	6520	6632	17258	17113	36593	20367	10785	2672	2849	1644	15413
MEAN	213	217	214	557	611	1180	679	348	89.1	91.9	53.0	514
MAX	586	602	368	1920	1320	2350	1560	1170	223	302	140	2050
MIN	48	138	146	124	282	542	218	141	33	28	20	22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1999, BY WATER YEAR (WY)

MEAN	345	594	630	753	607	968	1331	738	323	204	107	161
MAX	761	1539	1723	1076	1007	1264	2353	1511	1067	362	214	514
(WY)	1996	1996	1997	1996	1996	1998	1994	1996	1998	1996	1995	1999
MIN	108	160	214	557	396	708	518	316	89.1	91.9	53.0	47.8
(WY)	1998	1995	1999	1999	1995	1997	1995	1995	1999	1999	1999	1995

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1994 - 1999

ANNUAL TOTAL	187557	144443	
ANNUAL MEAN	514	396	544
HIGHEST ANNUAL MEAN			781
LOWEST ANNUAL MEAN			380
HIGHEST DAILY MEAN	3020	Jun 18	2350
LOWEST DAILY MEAN	47	Aug 23	20
ANNUAL SEVEN-DAY MINIMUM	50	Oct 1	21
INSTANTANEOUS PEAK FLOW			2550
INSTANTANEOUS PEAK STAGE		a 6.30	Mar 7
10 PERCENT EXCEEDS	1240		1040
50 PERCENT EXCEEDS	278		213
90 PERCENT EXCEEDS	64		44

a Ice jam.
e Estimated.

01161000 ASHUELOT RIVER AT HINSDALE, NH

LOCATION.--Lat 42°47'07", long 72°29'12", Cheshire County, Hydrologic Unit 01080201, on left bank, 40 ft upstream from highway bridge at Hinsdale, 0.2 mi downstream from dam, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--420 mi².

PERIOD OF RECORD.--Discharge records: March 1907 to December 1911, July 1914 to current year.

Water-quality records Water years 1953, 1958, 1968, 1994.

REVISED RECORDS.--WSP 661: Drainage area. WSP 781: 1907- 10, 1914-34. WSP 1301 1915(M), 1917-19(M),1921-33(M). WSP 1701 1920.

GAGE.--Water-stage recorder. Datum of gage is 201.32 ft above sea level (levels by U.S. Army Corps of Engineers).

Prior to Sep. 29, 1933, nonrecording gage on highway bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges and those below 350 ft³/s, which are fair. Flow regulated by Surry Mountain Lake 33 mi upstream since 1942 and by Otter Brook Lake 29 mi upstream on Otter Brook since 1958. Regulation by small hydro plants upstream.

EXTREMES FOR PERIOD OF RECORD--Maximum discharge, 16,600 ft³/s, March 19, 1936, by computation of peak flow over dam; maximum gage height, 20.2 ft, March 19, 1936, from floodmarks (backwater from the Connecticut River); minimum daily discharge, 12 ft³/s, September 15, 1929. Maximum discharge since at least 1859, that of March 19, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,100 ft³/s, September 17, gage height, 7.90 ft; minimum daily discharge, 33 ft³/s, August 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	197	527	e210	e930	962	2200	242	282	391	51	60
2	59	192	462	e190	e840	1460	2080	225	242	260	45	56
3	56	184	402	e195	1220	1340	2000	364	215	394	42	42
4	59	173	364	e200	1700	3190	1910	316	193	566	39	44
5	55	162	345	e210	1950	3780	1730	289	167	574	37	42
6	59	176	318	e200	1720	3090	1460	296	154	415	36	42
7	62	168	290	e195	1390	2400	1260	294	143	317	36	57
8	73	160	286	e185	1210	1960	1120	269	122	234	36	116
9	130	163	348	e200	1030	1860	1030	267	114	187	36	169
10	167	162	352	e235	831	1560	945	267	112	170	35	334
11	319	198	327	e295	821	1200	884	247	104	138	34	1010
12	431	277	302	e390	837	1000	829	224	97	119	34	889
13	301	314	281	e400	970	894	764	214	92	105	33	542
14	453	304	261	e320	1050	857	663	199	93	96	37	340
15	728	267	246	e320	890	862	607	197	96	89	41	257
16	788	234	231	e400	855	822	575	184	87	83	64	654
17	709	228	225	e470	778	836	590	169	85	77	110	4990
18	605	229	225	e480	783	990	648	160	83	72	125	3790
19	495	218	212	e900	920	1190	748	204	82	70	123	2840
20	415	222	206	e1500	875	1190	714	1240	78	78	118	2170
21	352	238	210	e1600	782	1160	622	1580	70	78	96	1870
22	303	239	304	e1200	640	2060	547	1130	69	74	121	1730
23	263	232	514	e1000	e620	3090	530	815	64	79	118	1700
24	243	223	487	1270	e560	3030	528	698	63	80	119	1480
25	227	219	436	2310	e520	2800	486	756	60	68	96	1010
26	211	250	e365	2640	486	2480	444	732	58	64	82	747
27	193	594	e310	2440	476	1990	383	632	54	61	70	586
28	188	809	e270	2120	476	1810	349	549	54	54	87	483
29	192	708	e250	1780	---	2010	302	472	233	53	95	424
30	201	593	e260	e1300	---	2180	280	386	494	55	100	463
31	200	---	e230	e1050	---	2250	---	333	---	52	75	---
TOTAL	8599	8333	9846	26205	26160	56303	27228	13950	3860	5153	2171	28937
MEAN	277	278	318	845	934	1816	908	450	129	166	70.0	965
MAX	788	809	527	2640	1950	3780	2200	1580	494	574	125	4990
MIN	55	160	206	185	476	822	280	160	54	52	33	42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 1911, 1914 - 1999, BY WATER YEAR (WY)

MEAN	343	591	659	611	609	1242	1879	992	515	278	222	245
MAX	1474	2248	2209	1539	2016	4392	3723	2175	2075	1182	1098	2394
(WY)	1976	1928	1997	1978	1984	1936	1960	1945	1984	1915	1990	1938
MIN	49.2	55.4	113	84.0	113	273	597	335	96.9	60.8	50.5	53.0
(WY)	1965	1965	1915	1981	1980	1940	1985	1985	1964	1965	1966	1995

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1907 - 1911, 1914 - 1999

ANNUAL TOTAL	259377	216745		
ANNUAL MEAN	711	594	681	
HIGHEST ANNUAL MEAN			1093	1960
LOWEST ANNUAL MEAN			216	1965
HIGHEST DAILY MEAN	4690	Jun 18	4990	Sep 17 1936
LOWEST DAILY MEAN	55	Oct 5	33	Aug 13 1929
ANNUAL SEVEN-DAY MINIMUM	59	Oct 1	35	Aug 7 1966
INSTANTANEOUS PEAK FLOW			6100	Sep 17 1936
INSTANTANEOUS PEAK STAGE			7.90	Sep 17 1936
10 PERCENT EXCEEDS	1690		1640	1720
50 PERCENT EXCEEDS	390		301	372
90 PERCENT EXCEEDS	85		62	97

a By computation of peak flow over dam from floodmarks (backwater from Connecticut River).

b From floodmarks.

e Estimated.

0428000 POULTNEY RIVER BELOW FAIR HAVEN, VT

LOCATION.--Lat 43°37'40", long 73°18'50", Rutland County, Hydrologic Unit 02010001, on right bank, 0.3 mi downstream from Carver Falls, 1.9 mi upstream from Hubbardton River, and 3.2 mi northwest of Fair Haven.

DRAINAGE AREA.--187 mi².

PERIOD OF RECORD.--Discharge records: October 1928 to current year.

Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 1114: 1929(M), 1932-35.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above sea level, from topographic map.

REMARKS.--Records fair. Flow regulated by powerplant upstream and Lake Bomoseen.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s, July 20, 1945, gage height, 24.36 ft, from high-water mark in well, from rating curve extended above 2,600 ft³/s on basis of computations of flow over dam at gage heights 16.10 ft, 21.40 ft, and 24.36 ft; minimum daily discharge, 2.1 ft³/s, August 8, 1965, September 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 25	0730	* 4,780	* 15.08				

No other peak greater than base discharge.
Minimum daily discharge, 7.4 ft³/s, September 1, 2, 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	42	205	e150	e550	344	901	99	75	22	14	7.4
2	39	44	192	e155	814	e400	896	97	90	24	13	7.4
3	37	37	171	e160	1150	e350	778	88	76	43	12	7.5
4	32	40	164	e150	1010	626	760	88	72	39	11	7.6
5	26	40	143	e140	e600	e520	671	94	61	50	11	7.4
6	38	40	115	e128	e560	e380	546	90	56	37	11	7.4
7	18	46	110	e120	e450	e340	413	84	56	47	11	7.6
8	49	42	105	e123	382	e300	404	84	51	25	11	7.9
9	47	39	110	e140	336	e270	466	141	60	24	12	7.9
10	44	38	103	e165	e300	242	398	113	26	25	13	8.0
11	67	63	100	e178	e270	e215	288	98	45	23	14	7.9
12	74	105	75	e180	e280	195	244	88	44	21	13	7.9
13	55	82	81	e190	e385	184	222	80	39	18	12	7.9
14	69	74	84	e200	e335	197	207	74	39	17	12	7.9
15	106	75	85	e220	e300	e218	193	67	31	17	16	7.9
16	85	74	83	e260	e280	221	176	65	30	16	19	12
17	76	75	82	e320	e250	245	197	58	20	16	18	529
18	69	80	81	399	e238	405	211	57	23	15	16	1030
19	65	82	76	651	e220	612	177	62	19	15	13	489
20	59	69	78	811	e218	448	178	389	19	18	9.9	398
21	61	120	75	653	e200	434	169	290	13	20	9.9	352
22	52	163	109	564	e140	682	158	206	18	20	9.9	523
23	53	153	188	511	e150	1290	152	169	18	12	14	759
24	48	144	151	1210	e158	1030	143	159	16	11	17	551
25	45	138	e125	3900	e152	911	134	145	14	12	7.7	352
26	35	170	e105	1870	142	830	130	141	14	15	8.6	224
27	46	308	e98	e1100	136	731	125	142	15	15	9.9	179
28	44	277	e93	e840	137	606	118	125	14	15	9.4	151
29	44	236	e89	e620	---	754	109	114	15	15	8.9	126
30	48	217	e90	e430	---	862	89	101	23	15	8.5	133
31	46	---	e115	e440	---	811	---	86	---	14	7.6	---
TOTAL	1609	3113	3481	16978	10143	15653	9653	3694	1092	676	373.3	5923.6
MEAN	51.9	104	112	548	362	505	322	119	36.4	21.8	12.0	197
MAX	106	308	205	3900	1150	1290	901	389	90	50	19	1030
MIN	18	37	75	120	136	184	89	57	13	11	7.6	7.4
CFSM	.28	.55	.60	2.93	1.94	2.70	1.72	.64	.19	.12	.06	1.06
IN.	.32	.62	.69	3.38	2.02	3.11	1.92	.73	.22	.13	.07	1.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1999, BY WATER YEAR (WY)

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	140	223	260	261	259	523	667	319	161	104	80.3	92.1																																																											
MAX	721	760	1018	897	800	1627	1441	902	776	639	629	666																																																											
(WY)	1978	1973	1984	1996	1984	1986	1977	1983	1947	1976	1976	1938																																																											
MIN	18.2	21.4	38.4	42.0	26.8	113	231	71.5	19.4	7.08	3.94	8.19																																																											
(WY)	1974	1965	1965	1931	1980	1940	1966	1941	1965	1965	1965	1995																																																											

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1929 - 1999
ANNUAL TOTAL	95416	72388.9	
ANNUAL MEAN	261	198	257
HIGHEST ANNUAL MEAN			527
LOWEST ANNUAL MEAN			66.9
HIGHEST DAILY MEAN	2800	3900	7010
LOWEST DAILY MEAN	18	a 7.4	b 2.1
ANNUAL SEVEN-DAY MINIMUM	32	7.5	3.0
INSTANTANEOUS PEAK FLOW		4780	c 14800
INSTANTANEOUS PEAK STAGE		15.08	d 24.36
ANNUAL RUNOFF (CFSM)	1.40	1.06	1.37
ANNUAL RUNOFF (INCHES)	18.98	14.40	18.68
10 PERCENT EXCEEDS	570	548	610
50 PERCENT EXCEEDS	138	90	135
90 PERCENT EXCEEDS	44	12	28

a Also occurred on September 2, 5, 6.

b Also occurred on September 13, 1977.

c From rating curve extended above 2,600 ft³/s as explained above.

d From high-water mark in well.

e Estimated.

ST. LAWRENCE RIVER BASIN

04280350 METTAWEE RIVER NEAR PAWLET, VT

LOCATION.--Lat 43°22'14", long 73°13'00", Rutland County, Hydrologic Unit 02010001, on left bank, 10 ft downstream from highway bridge, 1.0 mi southwest of Butternut Bend, and 2.5 mi northwest of Pawlet.

DRAINAGE AREA.--70.2 mi².

PERIOD OF RECORD.--Discharge records: October 1984 to current year.

REVISED RECORDS.--WDR NH-VT-97-1: 1993, 1994, 1996 (P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 525 ft above sea level, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	1415	* 3,300	*a 6.24	Sept. 17	0030	929	3.94
Mar. 22	1215	1,120	4.15				

Minimum discharge, 6.4 ft³/s, September 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	22	51	e54	e190	e320	296	66	60	23	12	9.7
2	16	22	50	e57	e250	110	319	64	59	22	12	9.0
3	15	21	47	e94	e440	102	319	61	55	21	11	8.4
4	15	21	44	e125	315	302	335	62	51	31	11	7.9
5	14	20	41	e105	271	173	282	65	47	26	13	7.3
6	14	20	40	e86	231	147	249	63	43	23	14	7.4
7	14	20	39	e79	206	134	236	60	41	27	13	8.8
8	20	19	38	e66	193	121	223	63	38	24	17	8.9
9	22	19	39	e57	e170	e115	209	112	38	22	17	9.2
10	24	19	37	e61	e150	e110	191	85	37	21	14	11
11	64	29	36	e52	e145	e105	172	73	33	19	13	12
12	40	29	34	e47	e170	e97	156	67	31	18	13	9.6
13	33	26	33	e44	e240	e92	141	63	29	17	12	8.7
14	39	24	32	e43	e160	86	129	60	29	17	22	8.2
15	48	25	30	e47	e150	85	118	56	34	16	24	8.1
16	42	24	30	e86	e145	83	114	53	28	15	17	90
17	37	29	31	e130	e140	104	131	50	27	14	14	724
18	34	30	29	e180	e140	201	127	48	28	17	13	226
19	32	27	29	e470	e135	152	113	137	25	31	12	109
20	30	29	30	253	e120	123	110	278	24	27	11	72
21	28	43	30	188	e105	117	104	151	22	20	9.9	95
22	27	38	139	175	e79	486	99	119	22	18	11	246
23	26	35	96	e250	e84	327	101	102	20	16	9.8	261
24	25	33	77	e2100	e84	258	94	100	19	16	9.1	153
25	24	31	e67	978	e81	229	89	103	18	15	8.5	112
26	24	59	e62	530	e80	207	85	113	19	15	8.2	89
27	23	100	e49	398	e80	200	80	101	17	17	11	76
28	23	63	e46	322	e85	212	75	88	27	15	30	69
29	25	54	e45	260	---	259	72	79	32	14	17	62
30	23	49	e45	e225	---	264	69	72	32	14	12	118
31	23	---	e45	e195	---	260	---	65	---	13	11	---
TOTAL	840	980	1441	7757	4639	5581	4838	2679	985	604	422.5	2636.2
MEAN	27.1	32.7	46.5	250	166	180	161	86.4	32.8	19.5	13.6	87.9
MAX	64	100	139	2100	440	486	335	278	60	31	30	724
MIN	14	19	29	43	79	83	69	48	17	13	8.2	7.3
CFSM	.39	.47	.66	3.56	2.36	2.56	2.30	1.23	.47	.28	.19	1.25
IN.	.45	.52	.76	4.11	2.46	2.96	2.56	1.42	.52	.32	.22	1.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1999, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	72.3	126	127	143	105	195	264	147	73.7	54.6	44.1	41.5			
MAX	286	233	317	344	182	274	559	371	141	169	101	99.3			
(WY)	1988	1989	1997	1998	1990	1998	1994	1996	1986	1996	1988	1987			
MIN	24.5	32.7	45.8	45.3	45.5	96.5	115	55.4	32.8	13.8	13.6	10.6			
(WY)	1998	1999	1990	1989	1987	1989	1995	1987	1999	1995	1999	1995			

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1985 - 1999

ANNUAL TOTAL	43693	33402.7	
ANNUAL MEAN	120	91.5	116
HIGHEST ANNUAL MEAN			152
LOWEST ANNUAL MEAN			75.9
HIGHEST DAILY MEAN	2480	2100	2480
LOWEST DAILY MEAN	14	7.3	7.3
ANNUAL SEVEN-DAY MINIMUM	15	8.2	8.2
INSTANTANEOUS PEAK FLOW		3300	4480
INSTANTANEOUS PEAK STAGE		a 6.24	a 6.71
INSTANTANEOUS LOW FLOW		6.4	6.4
ANNUAL RUNOFF (CFSM)	1.71	1.30	1.65
ANNUAL RUNOFF (INCHES)	23.15	17.70	22.48
10 PERCENT EXCEEDS	226	225	241
50 PERCENT EXCEEDS	62	47	78
90 PERCENT EXCEEDS	21	13	23

a Ice jam.
e Estimated.

04282000 OTTER CREEK AT CENTER RUTLAND, VT

LOCATION.--Lat 43°36'13", long 73°00'49", Rutland County, Hydrologic Unit 02010002, on right bank, 200 ft downstream from dam, 500 ft upstream from bridge on Vermont Route 4A (formerly U.S. Highway 4) in Center Rutland, 1.2 mi downstream from East Creek, and 1.5 mi west of Rutland.

DRAINAGE AREA.--307 mi².

PERIOD OF RECORD.--Discharge records: May 1928 to current year.
Water-quality records: Water years 1955, 1971.

REVISED RECORDS.--WSP 1084: 1929.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 474.80 ft above sea level; prior to October 1, 1964, datum was 1.00 ft higher. Prior to July 22, 1929, nonrecording gage at same site.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants and Chittenden Reservoir 14 mi upstream on East Creek. These reservoirs have a combined usable capacity of about 819.8 million ft³. Prior to June 3, 1947, regulation by East Pittsford Reservoir, usable capacity, 150 million ft³.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 23	1030	* 3,540	* 7.72	No other peak greater than base discharge.			
Minimum daily discharge, 38 ft ³ /s, August 3.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	176	488	e74	90	721	1940	371	280	123	52	50
2	116	186	539	66	255	554	2230	352	296	247	46	46
3	101	221	452	154	780	390	2220	377	282	136	38	65
4	103	217	457	275	410	889	2250	339	215	116	40	52
5	116	210	417	199	408	323	2040	422	190	125	56	39
6	136	193	401	184	209	202	1730	457	176	183	53	52
7	134	150	370	225	238	122	1770	411	213	226	51	75
8	187	144	318	160	203	119	1870	371	235	128	72	80
9	232	156	278	263	269	181	1880	623	181	109	94	73
10	299	182	271	164	559	219	1580	558	162	102	69	71
11	507	334	260	154	470	207	1190	438	133	96	57	80
12	430	363	246	212	588	179	1040	385	128	88	60	68
13	363	307	239	181	712	343	942	322	118	81	72	56
14	364	271	227	62	e230	455	835	323	138	75	124	49
15	489	276	201	179	e240	450	784	270	158	70	137	44
16	451	272	218	254	450	420	783	255	124	67	99	202
17	350	274	225	420	557	498	879	255	106	62	77	2570
18	319	258	238	409	599	638	915	247	108	59	76	2520
19	286	212	230	821	532	756	851	443	105	77	65	1410
20	218	263	263	612	448	603	786	1740	99	131	55	529
21	253	448	273	484	346	605	782	1160	105	108	49	459
22	237	393	723	565	e115	1900	701	636	91	88	52	747
23	223	329	162	641	e110	3190	643	488	95	76	58	1150
24	177	344	187	1310	207	2070	600	454	85	73	52	782
25	167	315	201	392	282	1280	529	553	81	98	44	555
26	188	414	219	198	354	1040	493	603	78	131	44	455
27	213	1050	305	e160	399	970	464	607	76	79	47	388
28	204	656	363	e130	401	1060	438	477	102	75	60	377
29	224	489	276	105	---	1480	413	369	151	76	101	258
30	207	432	e150	77	---	1770	382	320	171	100	74	587
31	194	---	84	67	---	1600	---	305	---	79	58	---
TOTAL	7603	9535	9281	9197	10461	25234	33960	14931	4482	3284	2032	13889
MEAN	245	318	299	297	374	814	1132	482	149	106	65.5	463
MAX	507	1050	723	1310	780	3190	2250	1740	296	247	137	2570
MIN	101	144	84	62	90	119	382	247	76	59	38	39
CFSM	.80	1.04	.98	.97	1.22	2.65	3.69	1.57	.49	.35	.21	1.51
IN.	.92	1.16	1.12	1.11	1.27	3.06	4.12	1.81	.54	.40	.25	1.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1999, BY WATER YEAR (WY)

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	352	504	511	481	459	826	1461	827	433	284	238	258																																																												
MAX	1227	1025	1291	1094	1564	2376	3078	2120	1565	1047	1591	1385																																																												
(WY)	1988	1960	1984	1949	1981	1936	1969	1940	1947	1976	1976	1938																																																												
MIN	86.5	141	126	100	110	231	445	271	130	78.2	65.5	78.4																																																												
(WY)	1965	1965	1948	1948	1980	1965	1995	1941	1965	1965	1999	1964																																																												

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1928 - 1999

ANNUAL TOTAL	217363	143889	
ANNUAL MEAN	596	394	552
HIGHEST ANNUAL MEAN			1049
LOWEST ANNUAL MEAN			239
HIGHEST DAILY MEAN	6200	Jan 8	3190
LOWEST DAILY MEAN	84	Dec 31	38
ANNUAL SEVEN-DAY MINIMUM	117	Oct 1	48
INSTANTANEOUS PEAK FLOW			3540
INSTANTANEOUS PEAK STAGE			7.72
ANNUAL RUNOFF (CFSM)	1.94		1.28
ANNUAL RUNOFF (INCHES)	26.34		17.44
10 PERCENT EXCEEDS	1070		827
50 PERCENT EXCEEDS	366		240
90 PERCENT EXCEEDS	151		69

a At datum then in use.
e Estimated.

ST. LAWRENCE RIVER BASIN

04282500 OTTER CREEK AT MIDDLEBURY, VT

LOCATION.--Lat 44°00'47", long 73°10'06", Addison County, Hydrologic Unit 02010002, on right bank, 150 ft upstream from highway bridge in Middlebury and 3.5 mi downstream from Middlebury River.

DRAINAGE AREA.--628 mi².

PERIOD OF RECORD.--Discharge records: April 1903 to April 1907, October 1910 to January 1920, October 1928 to current year.

Water-quality records: Water years 1954, 1967-74.

REVISED RECORDS.--WSP 434: 1903-04. WSP 684: 1913(M), drainage area. WSP 1114 1913. WSP 1207: 1929, 1931.

GAGE.--Water-stage recorder. Datum of gage is 335.75 ft above sea level. Nonrecording gage at site 1,800 ft upstream at datum 10 ft lower, April 1, 1903 to April 30, 1907, and October 5, 1910 to January 31, 1920, nonrecording gage at present site and datum, October 1, 1928 to October 17, 1933.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation by Chittenden Reservoir, usable capacity, 819 million ft³ on East Creek.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 13,600 ft³/s, November 4, 1927, gage height, 13.3 ft, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,110 ft³/s, April 8, gage height, 4.75 ft; minimum daily discharge, 125 ft³/s, September 3,4,6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	595	428	1040	e440	e2460	e880	2700	661	534	321	171	133
2	514	410	1000	e470	e2420	1400	2760	631	534	416	146	126
3	424	408	998	e450	2500	1400	2780	620	552	598	134	125
4	373	436	941	e450	2410	1480	2850	630	568	421	130	125
5	340	422	873	e440	2330	1650	2860	617	480	248	130	127
6	330	404	782	e425	2300	1680	2910	710	377	246	136	125
7	382	390	734	e400	2220	e1320	3040	718	382	389	137	126
8	458	355	720	e370	2140	e1300	3100	731	458	492	136	136
9	556	333	667	e370	2030	e1200	3100	810	556	362	142	151
10	636	389	607	e400	1880	e1120	3040	952	468	344	164	164
11	744	506	589	e470	1730	e1050	2990	954	376	303	175	165
12	884	762	566	e560	1650	e990	2910	791	324	225	140	153
13	864	768	520	e620	1730	e910	2800	666	290	195	131	143
14	789	664	489	e640	e1650	e830	2680	553	267	186	134	133
15	985	593	483	e650	e1580	e800	2520	533	299	168	199	131
16	1070	629	448	e660	e1490	e820	2330	487	332	165	221	150
17	932	626	470	749	e1420	e870	2180	442	295	151	182	1250
18	753	572	474	831	e1330	1160	2040	433	263	144	155	1800
19	652	537	503	1100	e1270	1430	1900	497	255	163	142	1750
20	635	580	500	1330	e1130	1480	1790	1180	241	223	133	1810
21	572	775	492	1370	e990	1410	1670	1530	223	236	130	1850
22	565	888	716	1370	e900	1840	1530	1630	212	222	130	1830
23	554	823	1180	1350	e840	2230	1410	1470	205	200	133	1910
24	495	758	1230	2040	e750	2250	1290	1110	195	176	134	1780
25	432	762	928	2280	e710	2370	1120	897	187	191	133	1630
26	393	764	857	2100	e700	2490	964	935	176	185	131	1380
27	390	1180	e780	2150	e695	2570	874	982	174	207	128	1120
28	450	1380	e630	2220	e700	2620	801	933	170	182	130	886
29	556	1340	e610	2330	---	2680	733	799	203	160	130	698
30	531	1170	e580	2480	---	2670	694	667	326	154	134	625
31	468	---	e550	e2500	---	2620	---	578	---	168	140	---
TOTAL	18322	20052	21957	34015	43955	49520	64366	25147	9922	7841	4491	22532
MEAN	591	668	708	1097	1570	1597	2146	811	331	253	145	751
MAX	1070	1380	1230	2500	2500	2680	3100	1630	568	598	221	1910
MIN	330	333	448	370	695	800	694	433	170	144	128	125
CFSM	.94	1.06	1.13	1.75	2.50	2.54	3.42	1.29	.53	.40	.23	1.20
IN.	1.09	1.19	1.30	2.01	2.60	2.93	3.81	1.49	.59	.46	.27	1.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903-07, 10-20, 28-99, BY WATER YEAR (WY)

MEAN	639	869	912	884	861	1515	2543	1520	817	542	456	484
MAX	2021	1897	2610	2509	2414	4538	4500	3717	3025	1833	2624	2411
(WY)	1988	1976	1984	1949	1981	1936	1960	1996	1947	1996	1976	1938
MIN	172	260	246	205	229	384	885	370	208	126	129	168
(WY)	1965	1965	1948	1948	1980	1940	1995	1903	1965	1965	1965	1982

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1903-07, 10-20, 28-99

ANNUAL TOTAL	455084	322120		
ANNUAL MEAN	1247	883		1002
HIGHEST ANNUAL MEAN				1878
LOWEST ANNUAL MEAN				397
HIGHEST DAILY MEAN	5710	Apr 5	a 3100	Apr 8
LOWEST DAILY MEAN	286	Sep 7	b 125	Sep 3
ANNUAL SEVEN-DAY MINIMUM	326	Aug 4	127	Sep 1
INSTANTANEOUS PEAK FLOW			3110	Apr 8
INSTANTANEOUS PEAK STAGE			4.75	Apr 8
ANNUAL RUNOFF (CFSM)	1.99		1.41	1.60
ANNUAL RUNOFF (INCHES)	26.96		19.08	21.67
10 PERCENT EXCEEDS	2640		2220	2320
50 PERCENT EXCEEDS	857		629	630
90 PERCENT EXCEEDS	390		148	259

a Also occurred on April 9.
b Also occurred on September 4,6.
e Estimated.

04282525 NEW HAVEN RIVER AT BROOKSVILLE NEAR MIDDLEBURY, VT

LOCATION.--Lat 44°03'42", long 73°10'16", Rutland County, Hydrologic Unit 02010002, on left bank, at downstream side of Dog Team Road bridge, 0.2 mi south of Brooksville, 0.6 mi upstream from mouth, 1.6 mi downstream of Muddy Branch, 3.4 mi north of Middlebury.

DRAINAGE AREA.-- 115 mi².

PERIOD OF RECORD.--Discharge records: October 1990 to current year.

REVISED RECORDS.--WDR NH-VT-97-1 1991(P), 1992(P), 1993(P), 1994(P), 1995(P), 1996(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 275 ft above sea level, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	1645	Ice Jam	* 9.30	Sept. 17	1815	2,980	7.68
Mar. 22	1630	* 3,120	7.78				

Minimum discharge, 12 ft³/s, September 5-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	325	147	194	e60	e160	e200	582	141	82	42	21	16
2	255	171	174	e55	e150	e170	640	149	96	90	20	15
3	194	180	156	e70	e300	e135	603	158	81	86	19	14
4	169	152	149	e90	e240	e275	850	157	75	53	20	13
5	155	145	141	e80	e210	e200	463	181	67	45	28	13
6	144	133	145	e71	e190	e130	381	192	62	53	28	13
7	137	128	146	e71	e160	e125	442	171	59	72	27	13
8	215	124	146	e72	e135	e122	409	158	61	65	27	16
9	222	119	137	e76	e132	e120	379	279	131	65	32	19
10	237	115	130	e78	e130	e119	306	254	115	125	27	26
11	300	245	133	e73	e130	e115	253	182	78	110	24	28
12	262	227	127	e70	e135	e110	234	150	65	68	22	22
13	213	167	123	e66	e225	e110	214	131	57	53	21	19
14	235	148	119	e67	e185	e108	200	119	53	46	32	17
15	347	161	110	e70	e155	119	189	110	74	40	70	17
16	349	168	113	e73	e152	115	188	102	64	35	38	46
17	266	154	124	e75	e150	143	259	95	54	32	29	2080
18	221	144	114	e76	e140	408	256	89	53	30	26	686
19	195	138	101	e250	e140	306	221	293	52	32	24	221
20	177	201	118	e190	e133	198	216	460	48	42	22	139
21	167	278	111	e125	e102	186	208	209	46	34	21	203
22	167	198	374	e120	e83	1260	200	153	44	29	26	263
23	171	168	178	e115	e84	647	196	129	41	27	27	564
24	158	153	138	e600	e87	390	178	118	37	28	23	241
25	148	141	124	e460	e90	361	166	153	35	41	20	164
26	138	200	112	e375	e92	284	160	182	36	33	18	134
27	133	339	108	e280	e96	285	159	149	33	28	19	109
28	164	215	e97	e215	e100	322	149	125	37	28	20	100
29	238	180	e94	e170	---	549	146	109	57	26	19	87
30	178	168	e85	e160	---	487	144	98	51	25	17	139
31	160	---	e68	e150	---	436	---	90	---	23	17	---
TOTAL	6440	5207	4189	4503	4086	8535	8991	5086	1844	1506	784	5437
MEAN	208	174	135	145	146	275	300	164	61.5	48.6	25.3	181
MAX	349	339	374	600	300	1260	850	460	131	125	70	2080
MIN	133	115	68	55	83	108	144	89	33	23	17	13
CFSM	1.81	1.51	1.18	1.26	1.27	2.39	2.61	1.43	.53	.42	.22	1.58
IN.	2.08	1.68	1.36	1.46	1.32	2.76	2.91	1.65	.60	.49	.25	1.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1999, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	182	210	192	208	122	287	426	260	154
MAX	409	369	409	450	188	554	763	592	448
(WY)	1991	1991	1997	1998	1997	1998	1994	1996	1998
MIN	86.4	108	99.2	101	46.5	146	182	126	51.0
(WY)	1995	1995	1996	1994	1992	1996	1995	1995	1995

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1991 - 1999

ANNUAL TOTAL	108117	56608	
ANNUAL MEAN	296	155	194
HIGHEST ANNUAL MEAN			292
LOWEST ANNUAL MEAN			128
HIGHEST DAILY MEAN	6880	2080	6880
LOWEST DAILY MEAN	47	a 13	a 13
ANNUAL SEVEN-DAY MINIMUM	62	14	14
INSTANTANEOUS PEAK FLOW		3120	b 21700
INSTANTANEOUS PEAK STAGE		c 9.30	d 14.18
INSTANTANEOUS LOW FLOW		f 12	f 12
ANNUAL RUNOFF (CFSM)	2.58	1.35	1.69
ANNUAL RUNOFF (INCHES)	34.97	18.31	22.95
10 PERCENT EXCEEDS	482	284	408
50 PERCENT EXCEEDS	175	130	124
90 PERCENT EXCEEDS	88	26	49

a Also occurred on Sep. 5-7.

b From rating curve extended above 5,300 ft³/s.

c Ice jam.

d From floodmarks.

e Estimated.

f Also occurred on Sep. 6, 7.

ST. LAWRENCE RIVER BASIN

04282650 LITTLE OTTER CREEK AT FERRISBURG, VT

LOCATION.--Lat 44°11'51", long 73°14'58", Addison County, Hydrologic Unit 02010002, on left bank, downstream side of highway bridge on Route 7, 0.5 mi south of Ferrisburg, 2.2 mi north of Vergennes, 2.6 mi downstream of Mud Creek.

DRAINAGE AREA.-- 57.1 mi².

PERIOD OF RECORD.--Discharge records: March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 145 ft above sea level, from topographic map. Prior to October 23, 1990, nonrecording gage at same site and datum.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	1930	Ice Jam	* 4.97	Sept. 17	----	*e 830	unknown
Minimum discharge, .88 ft ³ /s, August 4.				No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	19	31	e21	e71	e60	137	13	9.1	3.3	1.1	1.2
2	46	19	28	e18	e88	e98	125	13	11	3.7	1.0	1.2
3	38	18	25	e20	e128	e80	142	12	11	3.6	1.0	1.1
4	33	18	24	e25	e105	e150	126	12	9.6	3.7	.96	1.0
5	27	18	22	e30	e88	e132	104	13	8.5	3.5	1.1	.98
6	23	17	22	e26	e75	e115	87	25	6.9	3.4	1.2	1.2
7	21	16	23	e24	e60	e100	77	20	9.5	3.1	1.5	1.5
8	24	15	21	e23	e52	e90	69	16	7.5	3.1	1.6	1.8
9	31	14	20	e23	e48	e80	59	22	7.2	3.9	1.5	2.6
10	32	19	20	e24	e46	e70	51	26	9.3	4.8	1.5	2.8
11	38	22	20	e25	e46	e58	44	20	8.7	5.7	1.4	3.9
12	42	29	21	e23	e49	e50	38	15	6.9	4.6	1.4	3.5
13	36	27	20	e22	e88	e48	34	13	6.0	3.8	1.4	2.8
14	35	24	20	e21	e70	e49	31	11	5.5	3.1	1.9	e2.3
15	63	22	21	e21	e60	e52	29	11	8.3	2.8	2.3	e1.5
16	74	23	19	e22	e59	e54	27	9.1	9.7	2.7	3.3	e20
17	71	23	19	e23	e58	181	38	8.6	7.3	2.0	2.8	e600
18	57	22	24	e23	e57	397	52	8.2	5.6	1.8	2.2	e225
19	43	22	34	e45	e54	329	42	10	5.0	1.8	1.8	e90
20	35	24	18	e86	e49	239	43	57	4.2	1.7	1.7	e47
21	29	32	18	e58	e42	289	39	42	4.0	1.7	1.6	e62
22	27	34	28	e45	e39	423	34	25	3.5	2.6	1.6	e75
23	25	31	38	e42	e36	346	29	18	3.3	2.5	1.6	e150
24	23	29	37	e150	e37	271	24	15	3.1	2.1	1.9	e90
25	22	26	33	e265	e38	215	22	23	2.8	1.9	1.8	e65
26	20	26	32	e175	e39	181	20	28	2.9	1.8	1.7	e48
27	19	38	30	e145	e40	168	18	22	2.8	1.7	1.8	e39
28	19	38	31	e120	e45	172	17	17	2.9	2.5	1.5	e30
29	22	36	31	e95	---	176	16	14	3.3	1.9	1.3	e26
30	21	33	e28	e75	---	162	14	11	3.4	1.5	1.2	e44
31	20	---	e25	e63	---	149	---	10	---	1.4	1.2	---
TOTAL	1070	734	783	1778	1667	4984	1588	559.9	188.8	87.7	49.86	1640.38
MEAN	34.5	24.5	25.3	57.4	59.5	161	52.9	18.1	6.29	2.83	1.61	54.7
MAX	74	38	38	265	128	423	142	57	11	5.7	3.3	600
MIN	19	14	18	18	36	48	14	8.2	2.8	1.4	.96	.98
CFSM	.60	.43	.44	1.00	1.04	2.82	.93	.32	.11	.05	.03	.96
IN.	.70	.48	.51	1.16	1.09	3.25	1.03	.36	.12	.06	.03	1.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999		
MEAN	53.4	74.2	66.2	86.9	39.5	110	144	60.2	34.1	23.9	27.0	21.0
MAX	178	174	226	259	69.4	193	332	203	127	123	107	58.7
(WY)	1991	1991	1997	1996	1996	1990	1993	1996	1998	1998	1990	1998
MIN	5.73	19.2	24.2	22.0	18.0	35.6	34.8	15.3	4.16	2.83	1.61	5.12
(WY)	1995	1995	1996	1994	1992	1996	1995	1995	1999	1999	1999	1997

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1990 - 1999

ANNUAL TOTAL	27884.2	15130.64	
ANNUAL MEAN	76.4	41.5	60.1
HIGHEST ANNUAL MEAN			103
LOWEST ANNUAL MEAN			28.7
HIGHEST DAILY MEAN	1620	Jan 9	1620
LOWEST DAILY MEAN	4.8	Jun 11	.96
ANNUAL SEVEN-DAY MINIMUM	5.3	Jun 6	1.1
INSTANTANEOUS PEAK FLOW			e 830
INSTANTANEOUS PEAK STAGE			a 4.97
INSTANTANEOUS LOW FLOW			.88
ANNUAL RUNOFF (CFSM)	1.34		.73
ANNUAL RUNOFF (INCHES)	18.17		9.86
10 PERCENT EXCEEDS	205		92
50 PERCENT EXCEEDS	30		23
90 PERCENT EXCEEDS	15		1.8

a Ice Jam.
e Estimated.

04282780 LEWIS CREEK NEAR NORTH FERRISBURG, VT

LOCATION.--Lat 44°14'57", long 73°13'44", Addison County, Hydrologic Unit 02010002, on right bank, 100 ft east of State Highway 7 crossing, 1.1 mi southwest of North Ferrisburg, 1.2 mi south of Mount Philo peak, 3.1 mi north of Ferrisburg.

DRAINAGE AREA.--77.2 mi².

PERIOD OF RECORD.--Discharge records: March 1990 to current year. Published as "at North Ferrisburg" prior to October 1996.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above sea level, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	0830	Ice Jam	* 5.92	Mar. 22	2130	1,390	4.19
Mar. 18	1845	* 2,190	4.70	Sept. 17	2315	860	3.74

Minimum discharge, 4.0 ft³/s, September 3-5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	54	65	e60	e110	e100	276	37	24	12	6.3	4.5
2	148	55	60	e61	e140	e115	268	37	29	16	5.6	4.6
3	106	62	56	e62	e170	e92	222	34	24	14	5.2	4.4
4	88	55	54	e61	e138	e200	354	33	22	12	6.0	4.2
5	78	51	51	e62	e120	e170	217	36	20	11	9.1	4.3
6	69	50	52	e59	e108	e140	164	39	20	11	11	5.0
7	65	49	51	e56	e103	e125	144	35	18	11	9.3	5.4
8	84	47	48	e52	e98	e117	131	33	19	11	8.1	7.7
9	102	45	48	e52	e96	e113	120	49	32	13	8.5	8.6
10	91	43	47	e54	e94	e110	104	49	27	14	7.3	9.2
11	106	74	47	e53	e92	e110	92	42	22	17	6.7	11
12	106	84	46	e52	e120	e110	84	36	20	13	6.8	9.5
13	91	64	47	e50	e150	e112	75	33	18	11	5.9	7.2
14	90	57	46	e51	e130	e117	70	32	18	10	8.5	6.6
15	129	59	44	e54	e128	e128	67	29	28	9.3	16	6.0
16	139	59	41	e56	e126	e145	62	27	25	9.5	11	9.3
17	111	56	42	e56	e125	e270	83	26	20	9.3	8.1	514
18	96	55	42	e56	e113	1080	98	24	19	8.4	9.6	379
19	86	54	57	e140	e105	1010	79	44	18	8.0	7.0	94
20	77	62	47	e105	e90	743	82	202	18	7.8	6.3	61
21	69	81	50	e88	e76	558	77	76	16	7.5	6.1	84
22	63	73	65	e76	e70	681	69	56	14	6.7	7.8	112
23	63	64	82	e98	e82	643	61	46	13	6.8	8.0	355
24	60	59	146	e350	e74	374	55	40	13	8.1	6.9	139
25	56	57	181	e250	e70	339	53	48	12	7.7	5.9	79
26	54	61	160	e190	e67	247	49	49	11	8.6	5.5	59
27	50	87	128	e135	e65	222	46	45	11	8.5	5.8	47
28	53	74	92	e122	e80	228	44	38	12	7.3	5.9	39
29	73	93	e66	e110	---	292	42	33	13	6.7	5.7	34
30	61	79	e64	e100	---	315	40	29	14	6.7	6.0	33
31	56	---	e60	e100	---	259	---	27	---	6.5	4.7	---
TOTAL	2687	1863	2085	2871	2940	9265	3328	1364	570	309.4	230.6	2136.5
MEAN	86.7	62.1	67.3	92.6	105	299	111	44.0	19.0	9.98	7.44	71.2
MAX	167	93	181	350	170	1080	354	202	32	17	16	514
MIN	50	43	41	50	65	92	40	24	11	6.5	4.7	4.2
CFSM	1.12	.80	.87	1.20	1.36	3.87	1.44	.57	.25	.13	.10	.92
IN.	1.29	.90	1.00	1.38	1.42	4.46	1.60	.66	.27	.15	.11	1.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999		
MEAN	88.0	111	116	124	83.8	181	235	114	60.5	48.4	43.6	41.8
MAX	247	238	300	259	133	299	446	349	151	182	139	92.0
(WY)	1991	1991	1997	1996	1996	1999	1993	1996	1996	1998	1990	1998
MIN	22.6	47.5	41.6	42.1	32.8	69.8	77.1	44.0	15.7	9.98	7.44	16.9
(WY)	1995	1995	1993	1993	1993	1996	1995	1999	1995	1999	1999	1995

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1990 - 1999
ANNUAL TOTAL	45497	29649.5	
ANNUAL MEAN	125	81.2	102
HIGHEST ANNUAL MEAN			152
LOWEST ANNUAL MEAN			54.2
HIGHEST DAILY MEAN	1700	Jan 8	2300
LOWEST DAILY MEAN	19	Jun 10	4.2
ANNUAL SEVEN-DAY MINIMUM	20	Jun 6	4.5
INSTANTANEOUS PEAK FLOW		a 2190	a 3230
INSTANTANEOUS PEAK STAGE		b 5.92	b 6.20
INSTANTANEOUS LOW FLOW		c 4.0	c 4.0
ANNUAL RUNOFF (CFSM)	1.61	1.05	1.32
ANNUAL RUNOFF (INCHES)	21.92	14.29	17.97
10 PERCENT EXCEEDS	231	147	222
50 PERCENT EXCEEDS	76	55	60
90 PERCENT EXCEEDS	38	7.6	17

a From rating curve extended above 550 ft³/s.

b Ice jam.

c Also occurred on September 4, 5.

e Estimated.

ST. LAWRENCE RIVER BASIN

04282795 LAPLATTE RIVER AT SHELBURNE FALLS, VT

LOCATION.--Lat 44°22'12", long 73°13'00", Chittenden County, Hydrologic Unit 02010003, on left bank, 150 ft upstream of small right bank tributary, 300 ft upstream of Shelburne Falls bridge, at Shelburne Falls, 0.9 mi southeast of Shelburne, 1.3 mi upstream of Munroe Brook, 2.0 mi above mouth.

DRAINAGE AREA.--44.6 mi².

PERIOD OF RECORD.--Discharge records: March 1990 to current year.

GAGE.--Nonrecording gage at site 100 ft downstream, March to October 23, 1990. Water-stage recorder, October 24, 1990, to current year. Elevation of gage is 150 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 598 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	1145	Ice Jam	* 5.88	Mar. 22	1545	* 785	4.62
Minimum discharge, .59 ft ³ /s, September 6.				No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	19	24	e18	e56	e80	107	11	7.8	3.2	1.1	.91
2	87	18	22	e17	e70	e72	99	9.9	9.5	3.8	.86	.91
3	57	18	20	e16	e105	e64	92	9.2	8.2	5.8	.76	.86
4	42	17	21	e19	e88	e120	164	9.2	6.7	3.4	1.1	.81
5	34	18	21	e24	e70	e100	102	9.7	5.9	3.0	2.0	.76
6	28	17	19	e17	e57	e90	75	13	5.0	3.5	1.8	.89
7	24	16	20	e15	e46	e76	63	11	4.9	2.6	1.8	.96
8	42	15	19	e13	e40	e67	57	11	5.2	2.2	2.6	1.4
9	53	14	17	e15	e34	e59	54	18	8.6	3.0	2.7	1.5
10	48	13	18	e19	e31	e51	45	18	6.9	3.5	2.4	2.8
11	78	35	20	e18	e30	e45	37	14	5.2	3.2	1.9	2.3
12	80	42	25	e17	e43	e40	32	12	4.3	2.8	1.7	1.8
13	56	28	21	e16	e78	e39	28	9.9	3.9	2.2	1.5	1.6
14	66	23	18	e16	e60	e40	26	8.9	3.7	1.9	1.7	1.4
15	169	24	21	e17	e50	e43	23	7.9	5.0	1.7	5.2	1.3
16	132	24	16	e18	e46	e65	22	7.5	5.1	1.4	2.8	3.6
17	80	23	17	e19	e44	e80	32	6.7	4.2	1.3	2.2	68
18	60	23	18	e27	e42	168	34	7.2	4.0	1.2	1.7	65
19	46	23	22	e85	e40	274	28	17	4.1	1.3	1.3	18
20	37	29	16	e50	e35	128	24	87	3.8	1.2	1.1	9.3
21	32	37	16	e37	e32	138	22	32	3.6	1.2	1.3	9.8
22	28	38	29	e35	e29	422	20	21	3.7	1.1	1.8	22
23	25	29	46	e34	e29	404	19	16	3.6	1.2	1.8	99
24	24	25	19	e100	e30	215	17	14	3.4	1.5	1.8	52
25	22	22	14	e210	e30	182	15	18	3.1	1.5	1.4	22
26	20	26	12	e150	e31	123	14	17	3.2	1.7	1.4	13
27	18	40	12	e110	e32	114	13	15	2.9	1.5	1.3	9.3
28	19	35	13	e90	e45	114	13	13	3.1	1.4	1.3	6.9
29	30	29	12	e70	---	130	12	12	3.6	1.2	1.1	5.7
30	23	26	13	e52	---	139	11	10	3.7	1.5	.89	6.5
31	21	---	e16	e44	---	114	---	9.0	---	1.4	.91	---
TOTAL	1573	746	597	1388	1323	3796	1300	475.1	145.9	67.4	53.22	430.30
MEAN	50.7	24.9	19.3	44.8	47.2	122	43.3	15.3	4.86	2.17	1.72	14.3
MAX	169	42	46	210	105	422	164	87	9.5	5.8	5.2	99
MIN	18	13	12	13	29	39	11	6.7	2.9	1.1	.76	.76
CFSM	1.14	.56	.43	1.00	1.06	2.75	.97	.34	.11	.05	.04	.32
IN.	1.31	.62	.50	1.16	1.10	3.17	1.08	.40	.12	.06	.04	.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999		
MEAN	36.6	56.5	48.1	56.4	28.9	74.3	115	51.0	25.2	26.4	23.7	13.8
MAX	113	135	150	159	47.2	122	249	181	79.4	146	99.7	60.4
(WY)	1991	1991	1997	1996	1999	1999	1993	1996	1996	1998	1990	1998
MIN	3.97	11.1	16.5	14.0	8.61	32.3	28.8	15.0	4.86	1.69	1.72	2.62
(WY)	1995	1995	1993	1993	1993	1996	1995	1998	1999	1995	1999	1995

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1990 - 1999

ANNUAL TOTAL	25147.8	11894.92	
ANNUAL MEAN	68.9	32.6	45.4
HIGHEST ANNUAL MEAN			70.7
LOWEST ANNUAL MEAN			21.8
HIGHEST DAILY MEAN	1170	Jan 9	422
LOWEST DAILY MEAN	3.5	Jun 11	.76
ANNUAL SEVEN-DAY MINIMUM	4.5	Jun 6	.86
INSTANTANEOUS PEAK FLOW			a 785
INSTANTANEOUS PEAK STAGE			b 5.88
INSTANTANEOUS LOW FLOW			.59
ANNUAL RUNOFF (CFSM)	1.54		.73
ANNUAL RUNOFF (INCHES)	20.98		9.92
10 PERCENT EXCEEDS	155		82
50 PERCENT EXCEEDS	30		18
90 PERCENT EXCEEDS	11		1.5
			3.6

a From rating curve extended above 750 ft³/s.

b Ice jam.

e Estimated.

04285500 NORTH BRANCH WINOOSKI RIVER AT WRIGHTSVILLE, VT

LOCATION.--Lat 44°17'58", long 72°34'45", Washington County, Hydrologic Unit 02010003, on right bank, at Wrightsville, 0.8 mi downstream from Wrightsville Detention Reservoir, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--69.2 mi².

PERIOD OF RECORD.--Discharge records: October 1933 to current year.

Water-quality records: Water year 1957.

REVISED RECORDS.--WSP 1237: 1937: 1934-39.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 550.53 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to November 21, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges and November 5 to September 30, which are fair.

Discharge affected since 1935 by Wrightsville Detention Reservoir (Reservoirs in Winooski River Basin). Flow regulated by powerplant at Wrightsville Detention Reservoir since September 1985. Occasional diurnal fluctuation at low flow caused by small mill upstream; more frequent diurnal fluctuation prior to 1968. Maximum discharge since construction of Wrightsville Detention Reservoir in 1935, 1,100 ft³/s, July 5 and October 24, 1990, gage height 4.32 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 17,200 ft³/s, November 3, 1927, by computation of peak flow over dam 0.8 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 869 ft³/s, April 4, gage height, 3.26 ft; minimum daily discharge, 6.9 ft³/s, August 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	75	198	e44	e210	103	788	57	31	13	7.7	8.8
2	162	87	198	e36	e92	70	832	59	42	12	6.9	7.2
3	112	83	198	e64	e94	93	846	59	38	14	7.1	7.8
4	85	83	193	63	102	137	864	59	26	18	7.0	7.9
5	74	73	147	52	110	161	844	60	26	23	8.5	7.6
6	68	72	122	e55	e82	119	811	66	31	56	11	7.9
7	64	67	111	e42	e80	e122	795	60	103	155	11	7.3
8	85	62	102	e44	e105	e205	771	60	54	68	12	7.2
9	75	60	94	e50	e122	e132	547	174	57	33	13	7.2
10	94	52	90	e48	68	e133	376	129	129	29	12	7.4
11	118	140	82	e52	90	95	267	74	59	26	9.0	7.2
12	133	173	74	e43	85	65	230	62	35	20	9.5	7.2
13	95	110	74	e50	120	70	207	51	27	14	9.5	7.2
14	106	95	72	e63	102	59	188	44	27	12	11	7.2
15	171	123	57	e55	155	60	166	41	54	12	15	7.2
16	200	165	72	e47	111	61	189	35	32	12	15	16
17	200	124	72	55	86	70	186	30	27	12	25	506
18	176	99	47	49	77	113	193	28	27	12	21	604
19	122	94	29	99	62	156	179	44	27	12	15	560
20	93	105	29	108	82	116	170	369	27	11	8.9	318
21	82	142	72	82	65	97	136	221	27	8.3	7.5	202
22	78	121	120	72	e92	156	128	134	27	7.0	9.2	264
23	76	101	147	67	e120	227	121	65	31	10	9.0	535
24	68	90	129	132	e110	249	93	61	20	10	8.6	278
25	67	96	80	392	e78	240	73	114	22	10	8.5	202
26	60	115	71	264	e46	216	74	109	22	16	7.3	134
27	48	223	68	203	e75	208	74	83	15	31	7.3	77
28	66	281	53	179	e82	244	69	68	12	18	7.8	56
29	168	216	62	105	---	371	64	43	13	11	7.4	51
30	91	199	e60	e120	---	624	60	50	15	7.1	7.6	99
31	92	---	e62	e145	---	639	---	34	---	7.5	7.9	---
TOTAL	3323	3526	2985	2880	2703	5411	10341	2543	1083	699.9	323.2	4014.3
MEAN	107	118	96.3	92.9	96.5	175	345	82.0	36.1	22.6	10.4	134
MAX	200	281	198	392	210	639	864	369	129	155	25	604
MIN	48	52	29	36	46	59	60	28	12	7.0	6.9	7.2
MEAN(†)	105	121	93.6	96.9	93.0	187	330	84.1	34.8	22.2	9.94	135
CFSM(†)	1.52	1.75	1.35	1.40	1.34	2.70	4.77	1.22	0.50	0.32	0.14	1.95
IN(†)	1.75	1.95	1.56	1.62	1.40	3.12	5.33	1.40	0.56	0.37	0.16	2.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1999, BY WATER YEAR (WY)

	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	107	139	113	85.0	70.5	174	452	244	89.8	50.7	49.1	53.8																																																						
MAX	437	248	318	279	348	556	714	617	396	271	278	230																																																						
(WY)	1991	1984	1974	1998	1981	1936	1994	1972	1984	1973	1995	1938																																																						
MIN	6.00	25.9	28.0	17.5	14.6	21.4	121	47.3	15.8	7.91	8.47	5.10																																																						
(WY)	1964	1954	1948	1940	1980	1940	1995	1941	1949	1953	1942	1963																																																						

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1934 - 1999
ANNUAL TOTAL	60354	39832.4	
ANNUAL MEAN	165	109	136
HIGHEST ANNUAL MEAN			226
LOWEST ANNUAL MEAN			71.4
HIGHEST DAILY MEAN	1030	Mar 31	864
LOWEST DAILY MEAN	11	May 29	6.9
ANNUAL SEVEN-DAY MINIMUM	14	May 24	7.2
INSTANTANEOUS PEAK FLOW			869
INSTANTANEOUS PEAK STAGE			3.26
10 PERCENT EXCEEDS	334	207	398
50 PERCENT EXCEEDS	90	71	61
90 PERCENT EXCEEDS	39	9.1	14

a From rating curve extended above 1030 ft³/s.

e Estimated.

(†) Adjusted for change in contents in Wrightsville Detention Reservoir.

NOTE: All statistics are based on unadjusted daily and monthly mean data.

ST. LAWRENCE RIVER BASIN

RESERVOIRS IN WINOOSKI RIVER BASIN ABOVE MONTPELIER, VT

04283500 EAST BARRE DETENTION RESERVOIR.--Lat 44°09'18", long 72°26'42", Washington County, Hydrologic Unit 0201003, at dam on Jail Branch at East Barre, 4.5 mi upstream from mouth. **DRAINAGE AREA**, 38.8 mi². **PERIOD OF RECORD**, February 1936 (in WSP 1307), March and April 1936 (in WSP 798), May 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. **GAGE**, water-stage recorder. Datum of gage is above sea level (levels by U.S. Army Corps of Engineers). Prior to August 30, 1960, nonrecording gage, and August 30 to September 30, 1960, water-stage recorder, at present site at datum 1,127.9 ft above sea level. Reservoir is formed by earthfill dam completed by U.S. Army Corps of Engineers in 1935 for flood control. Usable capacity, 525 million ft³ between elevation 1,124.9 ft (bottom of outlet opening) and 1,165.0 ft (crest of spillway). Dam has no gates; below elevation 1,165.0 ft, outflow from reservoir is dependent on capacity of outlet opening near base of dam. Outlet-opening enlargement and reservoir-construction modifications completed in November 1959. Size of opening since enlargement, height, 7 ft and average width, 3.7 ft. Figures given herein represent usable contents, determined from capacity tables furnished by U.S. Army Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,163.9 ft, present datum, March 22, 1936; minimum not determined.
EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,145.58 ft September 17; minimum, not determined.

04285000 WRIGHTSVILLE DETENTION RESERVOIR.--Lat 44°18'38", long 72°34'31", Washington County, Hydrologic Unit 0201003, at dam on North Branch Winoski River at Wrightsville, 0.3 mi downstream from Long Meadow Brook, and 4.2 mi upstream from mouth. **DRAINAGE AREA**, 66.5 mi². **PERIOD OF RECORD**, November 1935 to February 1936 (in WSP 1307), March to May 1936 (in WSP 798), June 1936 to August 1938 (in WSP 1307), September 1938 (in WSP 867), October 1938 to current year. **GAGE**, water-stage recorder. Datum of gage is 612.75 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to July 28, 1960, nonrecording gage at present site at datum 612.75 ft above sea level. Reservoir is formed by earthfill dam completed by U.S. Army Corps of Engineers in 1935 for flood control; modification of intake-structure works to create a recreational pool completed in June 1965. Usable capacity for recreation, 22 million ft³ between elevations 612.75 ft (bottom of outlet opening) and 620.00 ft; for flood control, 851.5 million ft³ between elevations 620.00 ft and 685.00 ft (crest of spillway). Reservoir used for storage of water for power September 1985 to current year. Usable capacity for storage of water power 774 million ft³ between elevation 631.00 ft, sill of gate and 685.00 ft, crest of spillway. Total usable capacity 873.5 million ft³. Figures given herein represent usable contents, determined from capacity tables furnished by U.S. Army Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 676.4 ft, present datum, March 22, 1936, from graph based on gage readings; minimum observed, 613.00 ft, August 17, 1949, and August 17-19, 1950.
EXTREMES FOR CURRENT YEAR.--Maximum elevation, 645.33 ft, April 4; minimum, 632.92 ft, September 8.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Elevation (feet)	Contents (millions of cubic feet)	Change in contents	
			Millions of cubic feet	Equivalent, cubic feet per second
04283500 East Barre Detention Reservoir				
Sep. 30.	1136.52	17.0	--	--
Oct. 31.	1136.27	16.3	-0.7	-0.26
Nov. 30.	1135.65	14.7	-1.6	-0.62
Dec. 31.	1131.14	7.0	-7.7	-2.87
CAL YR 1998	--	--	+1.2	+0.04
Jan. 31.	1132.16	8.5	+1.5	+0.56
Feb. 28.	1132.52	9.0	+0.5	+0.21
Mar. 31.	1138.94	27.6	+18.6	+6.94
Apr. 30.	1133.35	10.3	-17.3	-6.67
May 31.	1130.80	6.6	-3.7	-1.38
June 30.	1130.14	5.7	-0.9	-0.35
July 31.	1130.14	5.7	0.0	0.00
Aug. 31.	1130.06	5.6	-0.1	-0.04
Sep. 30.	1136.48	16.9	+11.3	+4.36
WTR YR 1999	--	--	-0.1	0.00
04285000 Wrightsville Detention Reservoir				
Sep. 30.	634.08	102.2	--	--
Oct. 31.	633.34	96.4	-5.8	-2.16
Nov. 30.	634.37	104.5	+8.1	+3.12
Dec. 31.	633.47	97.4	-7.1	-2.65
CAL YR 1998	--	--	-4.8	-0.15
Jan. 31.	634.84	108.2	+10.8	+4.03
Feb. 28.	633.75	99.6	-8.6	-3.55
Mar. 31.	637.81	133.3	+33.7	+12.6
Apr. 30.	633.31	96.2	-37.1	-14.3
May 31.	634.03	101.8	+5.6	+2.09
June 30.	633.61	98.5	-3.3	-1.27
July 31.	633.49	97.6	-0.9	-0.34
Aug. 31.	633.33	96.3	-1.3	-0.48
Sep. 30.	633.61	98.5	+2.2	+0.85
WTR YR 1999	--	--	-3.7	-0.12

ST. LAWRENCE RIVER BASIN

04288500 WATERBURY RESERVOIR NEAR WATERBURY, VT

LOCATION.--Lat 44°22'54", long 72°46'13", Washington County, Hydrologic Unit 02010003, at dam on Little River 2.7 mi upstream from mouth and 3.5 mi north of Waterbury.

DRAINAGE AREA.--109 mi².

PERIOD OF RECORD.--Elevation: September 1937 to current year. September 1937 to September 1938 monthend contents only, published in WSP 1307.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Corps of Engineers). Prior to December 10, 1938, nonrecording gage at same site and datum.

REMARKS.--Records good. Reservoir is formed by earthfill dam completed by U.S. Army Corps of Engineers during summer of 1937 for flood control and storage of water for power. Usable capacity for storage of water for power, 1.58 billion ft³ between elevations 500.0 ft and 592.0 ft, sill of taintor gate; for flood control, 1.23 billion ft³, between elevations 592.0 ft and 617.5 ft, crest of spillway; total usable capacity, 2.81 billion ft³.

500.0	0	560.0	658.8
510.0	34.8	570.0	891.9
520.0	92.6	580.0	1,168.5
530.0	180.8	590.0	1,505.0
540.0	302.7	600.0	1,913.4
550.0	461.7		

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 613.45 ft, May 4, 1940; minimum observed, 501.30 ft, October 16, 1938, July 3, 12, 13, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 594.97 ft, September 18; minimum elevation, 552.92 ft, March 17.

ELEVATION (SEA LEVEL), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
INSTANTANEOUS OBSERVATION AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	589.82	588.22	589.55	587.48	581.47	558.56	567.89	590.21	589.12	589.38	588.73	588.83
2	589.57	588.37	589.50	587.63	580.59	558.84	571.25	590.81	589.08	589.63	588.72	588.81
3	589.51	588.41	589.67	587.87	579.95	557.91	574.09	591.03	588.81	589.72	588.71	588.56
4	589.37	588.45	590.02	587.48	579.18	557.46	578.09	591.01	588.69	589.78	588.75	588.55
5	589.18	588.48	590.24	587.05	578.31	557.16	578.78	591.25	588.63	589.95	588.84	588.54
6	589.48	588.81	590.15	586.58	577.33	556.98	579.58	591.44	588.98	590.25	588.87	588.52
7	589.29	589.13	589.54	586.17	576.35	557.75	582.57	591.23	588.99	589.70	588.91	588.29
8	589.42	588.87	589.01	585.90	575.29	557.30	584.63	591.17	588.72	589.34	589.09	588.16
9	589.39	588.62	588.93	585.91	574.20	556.95	585.64	591.32	588.82	588.94	589.14	588.02
10	589.80	589.01	588.53	585.29	573.14	556.60	586.87	591.26	588.79	589.41	588.91	588.17
11	590.06	588.91	588.84	584.95	572.01	556.39	587.16	591.07	588.70	589.73	588.63	588.25
12	590.12	588.72	589.16	584.53	571.00	555.95	588.01	590.86	588.84	589.56	588.56	588.26
13	589.88	589.16	588.93	584.21	570.27	556.48	588.51	590.60	588.94	589.36	588.58	588.25
14	589.30	590.09	588.87	584.05	569.25	555.51	588.90	590.31	588.59	589.30	588.67	588.27
15	589.13	589.84	588.66	583.30	568.15	555.19	589.25	590.32	588.50	589.19	588.72	587.88
16	588.94	590.20	588.51	583.50	567.04	554.02	589.48	590.34	588.59	589.07	588.74	588.21
17	588.64	590.04	588.26	583.70	565.91	553.33	590.45	589.91	588.69	589.10	588.61	594.92
18	589.04	590.07	588.50	584.50	565.23	554.19	591.41	589.70	588.64	589.15	588.66	593.59
19	589.21	589.81	588.76	584.00	564.05	554.57	591.38	589.75	588.73	589.03	588.70	592.42
20	589.08	590.30	588.73	584.30	562.83	555.40	591.39	590.04	588.82	589.05	588.71	592.28
21	588.30	590.10	588.43	584.60	563.09	555.81	591.11	589.45	588.90	588.87	588.77	593.11
22	588.27	590.01	588.69	585.01	562.58	558.42	590.82	589.17	588.83	589.00	588.84	593.40
23	587.95	590.16	587.87	585.29	562.41	559.67	590.43	589.19	588.89	589.02	588.87	593.88
24	588.25	590.34	587.69	587.00	561.56	559.86	590.06	588.96	588.93	589.10	588.89	593.01
25	588.52	590.90	587.97	587.18	560.54	559.91	589.98	589.36	588.97	589.16	588.90	592.46
26	588.37	591.25	588.21	586.61	559.70	559.64	590.10	589.24	589.02	588.01	588.91	592.53
27	588.21	590.86	588.46	585.98	559.34	559.52	590.09	589.26	589.05	589.03	588.91	591.71
28	588.25	590.31	588.21	585.22	558.87	559.63	590.05	589.17	589.17	588.84	588.92	590.84
29	588.60	589.75	588.22	584.35	---	561.17	589.87	589.04	589.33	588.85	588.91	589.94
30	588.34	589.60	587.73	583.39	---	563.18	589.65	589.23	589.33	588.70	588.91	589.95
31	587.86	---	587.28	582.42	---	564.91	---	589.38	---	588.71	588.90	---
MEAN	589.00	589.56	588.75	585.34	569.27	557.69	586.25	590.16	588.87	589.22	588.81	590.25
MAX	590.12	591.25	590.24	587.87	581.47	564.91	591.41	591.44	589.33	590.25	589.14	594.92
MIN	587.86	588.22	587.28	582.42	558.87	553.33	567.89	588.96	588.50	588.01	588.56	587.88
(†)	1429.2	1490.8	1408.6	1245.7	635.4	768.9	1492.6	1482.9	1481.2	1459.2	1466.0	1503.2
(‡)	-21.8	+23.8	-30.7	-60.8	-252.3	+49.8	+279.0	-3.62	-0.66	-8.21	+2.54	+14.4
CAL YR 1998	MEAN 585.11	MAX 596.49	MIN 550.68									
WTR YR 1999	MEAN 584.51	MAX 594.92	MIN 553.33									

(†) Contents, in millions of cubic feet, at end of month.

(‡) Change in contents, equivalent in cubic feet per second.

04289000 LITTLE RIVER NEAR WATERBURY, VT

LOCATION.--Lat 44°22'12", long 72°46'11", Washington County, Hydrologic Unit 02010003, on right bank, 1 mi downstream from Waterbury Reservoir, 1.7 mi upstream from mouth, and 2.5 mi north of Waterbury.

DRAINAGE AREA.--111 mi².

PERIOD OF RECORD.--Discharge records: July to October 1910 (gage heights only), October 1935 to current year.

October, November 1935 monthly discharge only, published in WSP 1307. Prior to October 1962, published as Waterbury River near Waterbury.

REVISED RECORDS.--WSP 824: 1936.

GAGE.--Water-stage recorder. Concrete control since December 8, 1937. Datum of gage is 428.00 ft above sea level (levels by U.S. Army Corps of Engineers). July 7 to October 31, 1910, nonrecording gage at site 2 mi upstream at different datum.

REMARKS.-- Records good except those for estimated daily discharges, which are fair. Flow completely regulated by Waterbury Reservoir (station 04288500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft³/s, March 18, 1936, gage height, 19.38 ft; minimum daily discharge, 0.6 ft³/s several times during summers of 1938-39, 1941, and 1944. Maximum discharge since construction of Waterbury Reservoir in 1937, 4,080 ft³/s, December 9, 1937, gage height, 14.88 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,710 ft³/s, September 18, gage height, 9.71 ft; minimum daily discharge, 17 ft³/s, July 23-26,29,31,August 1-9,26,28,29,31,September 12-14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	406	24	491	44	476	230	465	e24	e215	e20	17	44
2	480	301	367	41	473	192	471	e21	e130	e23	17	18
3	267	317	334	41	473	301	475	e180	e208	e22	17	120
4	251	201	327	284	472	423	488	e260	e138	e21	17	19
5	260	191	138	283	469	360	515	e179	e98	e22	17	19
6	23	170	135	298	468	236	493	e179	e22	e341	17	19
7	229	24	348	278	465	21	e34	e324	e222	491	17	134
8	188	23	491	222	463	261	e30	e301	e270	e325	17	96
9	234	265	457	209	461	233	e296	e358	e174	e277	17	123
10	23	269	222	284	459	223	e23	e281	e189	e22	129	30
11	180	326	341	248	457	184	e324	e276	e144	e20	145	18
12	210	387	59	277	455	227	e21	e238	e20	e169	56	17
13	288	345	32	246	454	95	e169	e251	e19	e164	18	17
14	496	43	227	443	453	250	e108	e258	e239	e92	19	17
15	496	28	195	416	450	281	e127	e107	e178	e101	18	179
16	496	331	251	36	452	289	e193	e97	e48	e105	18	224
17	418	120	228	32	454	288	e23	e288	e20	e21	79	795
18	23	269	241	235	336	84	e24	e179	e102	e21	19	1390
19	148	189	37	23	437	185	e407	e368	e20	e100	18	778
20	208	331	35	20	435	19	e409	e340	e20	18	18	210
21	493	75	266	20	48	98	500	476	e20	101	18	151
22	204	304	329	20	226	428	499	e280	e85	18	19	299
23	293	186	485	22	291	428	492	e114	e20	17	18	607
24	23	216	252	263	426	429	486	e259	e21	17	18	686
25	22	143	44	490	423	416	e277	e113	e21	17	18	441
26	199	36	41	485	397	428	e213	e284	e21	17	17	93
27	197	315	40	483	186	429	e249	e201	e21	107	18	475
28	233	495	247	482	221	430	e249	e202	e25	105	17	491
29	173	493	141	481	---	341	e303	e188	e25	17	17	490
30	327	491	334	479	---	309	e360	e19	e56	86	18	339
31	399	---	292	477	---	453	---	e18	---	17	17	---
TOTAL	7887	6908	7427	7662	11280	8571	8723	6663	2791	2894	885	8339
MEAN	254	230	240	247	403	276	291	215	93.0	93.4	28.5	278
MAX	496	495	491	490	476	453	515	476	270	491	145	1390
MIN	22	23	32	20	48	19	21	18	19	17	17	17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1999, BY WATER YEAR (WY)

MEAN	185	222	233	221	263	308	454	395	214	142	151	144
MAX	749	494	477	476	527	1121	1111	954	646	433	421	375
(WY)	1946	1996	1974	1991	1947	1936	1976	1940	1973	1973	1962	1938
MIN	18.9	10.4	9.39	16.8	53.3	12.0	72.4	28.8	1.31	31.4	28.5	30.4
(WY)	1942	1941	1939	1938	1936	1938	1940	1938	1938	1977	1999	1984

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1936 - 1999

ANNUAL TOTAL	120658	80030	
ANNUAL MEAN	331	219	243
HIGHEST ANNUAL MEAN			456
LOWEST ANNUAL MEAN			146
HIGHEST DAILY MEAN	1360	Apr 4	4830
LOWEST DAILY MEAN	11	Mar 26	a 17
ANNUAL SEVEN-DAY MINIMUM	18	May 24	17
INSTANTANEOUS PEAK FLOW			1710
INSTANTANEOUS PEAK STAGE			9.71
10 PERCENT EXCEEDS	570	475	557
50 PERCENT EXCEEDS	315	208	190
90 PERCENT EXCEEDS	23	18	8.7

a Also occurred on July 23-26,29,31,August 1-9,26,28,29,31,September 12-14.

b See Extremes for Period of Record.

e Estimated.

ST. LAWRENCE RIVER BASIN

04290500 WINOOSKI RIVER NEAR ESSEX JUNCTION, VT

LOCATION.--Lat 44°28'44", long 73°08'21", Chittenden County, Hydrologic Unit 02010003, on right bank, 0.5 mi downstream from Muddy Brook and 2 mi southwest of Essex Junction.

DRAINAGE AREA.--1,044 mi².

PERIOD OF RECORD.--Discharge records: October 1928 to current year.

Water-quality records: Water years 1953, 1976-79.

REVISED RECORDS.--WSP 714: 1930(M). WSP 894: Drainage area. WSP 1307: 1929(M).

GAGE.--Water-stage recorder. Elevation of gage is 185 ft above sea level, from topographic map; prior to October 1, 1964, datum was 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplants upstream, by Peacham Pond and Mollys Falls Reservoir, combined usable capacity, 492 million ft³ by Waterbury Reservoir (station 04288500) since 1937, and by East Barre and Wrightsville Detention Reservoirs (Reservoirs in Winooski River Basin) since 1935. See table with station 04286000 for monthend contents in Peacham Pond and Mollys Falls Reservoir.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 113,000 ft³/s, November 4, 1927, gage height, 50.4 ft, present datum, from floodmarks, from rating curve extended above 25,000 ft³/s on basis of computations of flow over dam at gage heights 19.72, 24.54, and 51.4 ft, and slope-area measurements at gage height 51.4 ft, all at present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,000 ft³/s, September 17, gage height, 11.21 ft; minimum daily discharge, 154 ft³/s, September 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2510	1500	2440	e750	1590	1180	8920	1280	773	422	269	201
2	2900	1070	2410	e680	1730	1580	10700	1120	829	414	402	196
3	2040	1590	2090	e610	1960	1470	9420	1190	834	514	229	176
4	1770	1290	2010	e800	2250	2050	12100	1240	726	484	493	154
5	1400	1310	1840	e950	2060	3300	7790	1300	632	386	243	185
6	1260	1150	1580	e880	1870	2110	6320	1370	576	446	272	185
7	1210	1060	1530	e950	1670	1410	6710	1300	887	1020	292	185
8	1250	959	1730	e870	1570	1420	6340	1280	1120	1030	307	219
9	1500	936	1730	e880	1460	1540	6030	1640	1120	883	282	268
10	1390	1140	1440	e950	1590	1490	4500	1920	1090	654	291	322
11	1750	1380	1400	e970	1500	1360	3510	1550	1050	620	362	303
12	2250	2220	1330	e960	1680	1210	3010	1230	720	545	385	275
13	1760	1860	1050	e910	2250	1210	2700	1110	550	540	313	248
14	1790	1370	1040	e950	2010	1210	2390	899	550	432	262	233
15	2310	1200	1250	e850	1650	1260	2180	898	813	410	333	190
16	2980	1610	1150	e810	e1620	1300	2180	797	665	377	355	324
17	2380	1660	1250	e850	e1600	1370	2340	821	539	378	323	10400
18	1900	1390	1170	868	e1520	1880	2460	888	497	333	302	9620
19	1570	1210	857	1480	e1490	2500	2410	1010	479	363	254	3670
20	1340	1320	918	1870	e1430	1890	2530	3710	474	376	258	2270
21	1420	1830	995	1530	1300	1580	2350	2920	444	352	268	1520
22	1610	1620	1850	1240	845	5260	2340	1970	439	371	258	2140
23	1200	1480	2180	1140	914	8970	2160	1290	476	284	277	4890
24	982	1380	1630	4180	1180	4850	2050	1160	458	380	309	3060
25	1030	1390	1340	8140	1170	4140	1780	1400	385	320	290	1970
26	1060	1190	993	4190	1200	3390	1410	1500	348	451	248	1370
27	1050	2960	968	2830	1080	3370	1550	1450	349	439	226	1180
28	1060	3180	1020	e2100	977	3840	1480	1200	341	410	217	1250
29	1520	2470	1140	e1850	---	5050	1450	995	386	380	224	1180
30	1510	2150	1090	e1700	---	6990	1360	830	421	312	216	1070
31	1590	---	937	e1580	---	6760	---	741	---	322	207	---
TOTAL	51292	46875	44358	49318	43166	86940	122470	42009	18971	14648	8967	49254
MEAN	1655	1562	1431	1591	1542	2805	4082	1355	632	473	289	1642
MAX	2980	3180	2440	8140	2250	8970	12100	3710	1120	1030	493	10400
MIN	982	936	857	610	845	1180	1360	741	341	284	207	154

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1999, BY WATER YEAR (WY)

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	1146	1597	1495	1346	1248	2599	5123	2789	1299	786	731	720																																																											
MAX	4587	3525	4549	3704	4266	9642	9256	6826	5027	3368	3284	3096																																																											
(WY)	1946	1984	1974	1998	1981	1936	1933	1972	1947	1973	1976	1938																																																											
MIN	245	389	378	350	337	554	1477	846	364	297	225	231																																																											
(WY)	1964	1954	1930	1931	1940	1940	1995	1965	1938	1965	1934	1963																																																											

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1929 - 1999

ANNUAL TOTAL	872742	578268
ANNUAL MEAN	2391	1584
HIGHEST ANNUAL MEAN		1739
LOWEST ANNUAL MEAN		2751
HIGHEST DAILY MEAN	23400	832
LOWEST DAILY MEAN	414	1973
ANNUAL SEVEN-DAY MINIMUM	485	1965
INSTANTANEOUS PEAK FLOW		1936
INSTANTANEOUS PEAK STAGE		1968
10 PERCENT EXCEEDS	4010	1936
50 PERCENT EXCEEDS	1580	1936
90 PERCENT EXCEEDS	859	1936

e Estimated.

04292700 STONE BRIDGE BROOK NEAR GEORGIA PLAINS, VT

LOCATION.--Lat 44°42'13", long 73°10'54", Franklin County, Hydrologic Unit 02010005, on left bank, 20 ft upstream from Lake Road culvert, 0.1 mi downstream of small left bank tributary, 1.0 mi upstream of large right bank tributary, 1.3 mi west of West Georgia, 1.5 mi southwest of Georgia Plains, and 2.8 mi upstream of mouth.

DRAINAGE AREA.--8.45 mi².

PERIOD OF RECORD.--Discharge records: February 1963 to September 1974, March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 150 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	1330	Ice Jam	* 6.11	Mar. 23	----	* 70	Ice Jam

Minimum discharge, .20 ft³/s, July 21, September 5,6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	5.9	4.3	e3.9	e6.9	e6.0	17	3.4	2.4	.86	1.3	.35
2	13	5.8	4.2	e4.0	e7.8	e7.0	16	3.1	4.2	1.9	.58	.29
3	10	5.7	4.1	e3.7	e10	e8.4	15	2.8	3.4	1.3	.35	.30
4	7.8	5.6	4.2	e4.7	e9.6	e6.8	18	2.7	2.7	.91	.64	.32
5	6.7	5.0	4.4	e3.9	e8.2	e12	14	3.2	1.7	1.5	1.4	.30
6	6.4	4.6	4.5	e3.9	e7.6	e14	11	3.3	1.6	4.7	1.3	.33
7	5.4	4.3	4.5	e3.7	e7.0	e10	11	3.2	2.6	7.1	2.5	.44
8	9.8	4.2	4.2	e3.5	e6.6	e9.0	11	3.0	2.3	4.6	2.5	.81
9	13	4.2	4.2	e3.6	e6.2	e8.7	11	3.8	3.5	2.4	2.1	1.2
10	11	4.2	4.4	e3.7	e6.1	e8.2	9.5	4.1	3.0	3.3	1.3	1.6
11	11	7.2	4.2	e3.5	e6.1	e7.8	8.5	3.3	1.8	3.0	.87	1.7
12	11	9.7	4.1	e3.4	e6.2	e7.4	7.6	2.8	1.4	1.9	.62	1.3
13	9.9	7.3	4.1	e3.3	e8.8	e7.1	6.9	2.4	.96	1.2	.90	.93
14	10	5.6	4.0	e3.3	e8.2	e6.8	6.9	2.3	.81	.91	2.6	.86
15	21	5.9	3.7	e3.5	e8.2	e7.0	6.0	2.2	.80	.62	1.6	1.1
16	23	6.1	3.9	e3.7	e8.0	e6.9	6.3	2.0	.64	.55	1.3	2.4
17	14	5.8	4.2	e5.2	e8.2	e7.6	7.8	1.8	.57	.39	.88	22
18	10	5.5	4.0	e4.9	e9.7	e9.4	9.2	1.8	.66	.35	.80	25
19	9.1	5.6	3.5	e7.4	e8.8	e11	7.9	5.3	.52	.32	.75	12
20	8.3	5.9	3.9	e6.6	e7.9	e9.8	6.7	13	.75	.32	.42	5.3
21	6.9	5.8	4.1	e5.3	e6.0	e9.2	6.5	7.5	.61	.37	1.0	8.6
22	6.0	5.6	8.2	e4.9	e5.0	e35	5.0	3.6	.49	.70	1.2	14
23	6.0	5.3	9.6	e11	e4.9	e45	5.1	2.9	.38	.45	.90	21
24	5.7	4.9	4.5	e35	e4.5	e21	4.4	2.6	.39	1.4	.83	17
25	5.3	4.7	3.4	e15	e4.6	e17	4.1	8.1	.43	2.1	.64	9.1
26	5.0	4.7	3.2	e11	e4.7	16	4.0	9.4	.56	2.8	.49	5.5
27	5.0	4.8	3.2	e9.5	e5.0	15	3.9	6.9	.51	2.0	.46	3.9
28	5.9	4.9	3.5	e8.2	e5.4	16	3.6	5.0	.48	.94	.45	3.1
29	9.0	4.6	3.6	e7.2	---	19	3.5	3.5	.79	.75	.41	2.6
30	8.7	4.4	3.3	e6.8	---	20	3.3	2.4	1.2	.59	.33	5.3
31	6.4	---	e3.8	e6.6	---	18	---	1.8	---	.73	.35	---
TOTAL	291.3	163.8	133.0	203.9	196.2	402.1	250.7	123.2	42.15	50.96	31.77	168.63
MEAN	9.40	5.46	4.29	6.58	7.01	13.0	8.36	3.97	1.41	1.64	1.02	5.62
MAX	23	9.7	9.6	35	10	45	18	13	4.2	7.1	2.6	25
MIN	5.0	4.2	3.2	3.3	4.5	6.0	3.3	1.8	.38	.32	.33	.29
CFSM	1.11	.65	.51	.78	.83	1.54	.99	.47	.17	.19	.12	.67
IN.	1.28	.72	.59	.90	.86	1.77	1.10	.54	.19	.22	.14	.74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1974, 1990 - 1999, BY WATER YEAR (WY)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
MEAN	6.29	9.88	9.58	7.60	5.46	14.3	22.4	10.0	4.98	4.91	4.11	3.57											
MAX	22.0	19.9	30.5	26.1	10.9	27.3	47.6	26.1	19.1	18.3	11.9	9.95											
(WY)	1991	1997	1974	1998	1996	1998	1994	1996	1973	1990	1973	1973											
MIN	1.79	2.95	3.78	2.79	1.75	2.64	5.98	3.85	1.23	.81	1.02	.88											
(WY)	1965	1967	1967	1967	1964	1965	1995	1995	1963	1966	1999	1964											

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1963 - 1974, 1990 - 1999

	1998 CALENDAR YEAR	1999 WATER YEAR	1963 - 1974, 1990 - 1999
ANNUAL TOTAL	4515.0	2057.71	
ANNUAL MEAN	12.4	5.64	8.51
HIGHEST ANNUAL MEAN			12.7 1998
LOWEST ANNUAL MEAN			4.15 1965
HIGHEST DAILY MEAN	225 Jan 9	45 Mar 23	312 Dec 2 1996
LOWEST DAILY MEAN	1.8 May 27	.29 Sep 2	.12 Jul 12 1995
ANNUAL SEVEN-DAY MINIMUM	2.3 May 22	.32 Aug 30	.17 Jul 10 1995
INSTANTANEOUS PEAK FLOW		70 Mar 23	a 1030 Jan 19 1996
INSTANTANEOUS PEAK STAGE		b 6.11 Jan 24	8.59 Jan 19 1996
INSTANTANEOUS LOW FLOW		c .20 Jul 21	.10 Jul 12 1995
ANNUAL RUNOFF (CFSM)	1.46	.67	1.01
ANNUAL RUNOFF (INCHES)	19.88	9.06	13.68
10 PERCENT EXCEEDS	23	11	18
50 PERCENT EXCEEDS	7.0	4.4	4.7
90 PERCENT EXCEEDS	4.0	.63	1.4

- a From rating curve extended above 70 ft³/s.
 b Ice Jam.
 c Also occurred on September 5,6.
 e Estimated.

ST. LAWRENCE RIVER BASIN

04294000 MISSISQUOI RIVER AT SWANTON, VT

LOCATION.--Lat 44°55'00", long 73°07'44", Franklin County, Hydrologic Unit 02010007, on left bank, at old railroad abutment, 0.3 mi upstream of dam and Depot Street (Route 78) bridge, 0.3 mi southwest of Post Office in Swanton, 1.1 mi west of Hwy 78 and Interstate 89 interchange, and 7.9 mi upstream of mouth.

DRAINAGE AREA.--850 mi².

PERIOD OF RECORD.--Discharge records: March 1990 to current year.

GAGE.--Water-stage recorder and crest stage gage. Elevation of gage is 105 ft above sea level, from topographic map. July 6, 1989, to February 28, 1990, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges and April 26 to September 30, which are fair. Low flows regulated by powerplants upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 24	2130	Ice Jam	* 4.97	Sept. 18	0300	* 11,900	4.75

Minimum daily discharge, 33 ft³/s, September 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1260	793	1750	e310	e950	e620	6090	633	553	310	178	160
2	2620	748	3320	e340	e1050	e1100	6720	676	688	605	132	89
3	1880	1160	2220	e370	e1200	e790	6850	701	552	541	128	85
4	1070	1200	2450	e340	e1350	e1400	8580	636	554	516	119	101
5	707	933	2570	e360	e1180	e2600	7320	661	392	373	145	62
6	601	863	1960	e310	e910	e1300	5550	822	421	1190	167	36
7	525	734	1670	e300	e760	e910	5590	717	1510	2930	96	33
8	993	637	1710	e300	e700	e830	6560	659	786	2170	84	81
9	1550	786	1410	e290	e660	e750	6500	578	654	1670	151	97
10	1000	680	1220	e285	e650	e700	5340	1280	350	2140	295	177
11	926	822	1110	e270	e640	e650	3700	1260	453	3120	208	158
12	1370	1550	973	e285	e850	e630	2640	834	221	1930	253	213
13	1120	1390	931	e300	e1500	e610	2290	671	237	848	243	154
14	1050	945	851	e310	e1200	e610	2020	418	358	777	123	111
15	873	974	707	e295	e880	e620	1640	517	264	337	234	154
16	1730	1710	661	e280	e750	e630	1380	442	261	648	506	105
17	1310	1450	694	e350	e690	e670	1490	410	236	214	452	5420
18	864	993	601	e450	e640	e1180	2170	390	276	230	297	9540
19	947	875	385	e900	e570	e2100	2230	299	238	460	335	5790
20	781	814	531	e1400	e460	e1600	2000	1480	232	176	290	2170
21	717	868	597	e1200	e390	e1200	1760	1670	175	201	163	1570
22	625	963	1830	e1020	e370	e1600	1520	932	188	161	153	2450
23	484	752	1950	e900	e440	e3500	1350	782	187	295	144	5660
24	596	709	1000	e4500	e450	e2400	1150	485	120	85	158	4220
25	571	750	771	e8000	e370	e2000	955	818	110	119	146	2030
26	399	666	e700	e4600	e360	e1800	862	1150	116	378	152	1470
27	386	1590	e640	e2500	e360	e1900	770	1310	184	140	162	1120
28	700	2280	e540	e1500	e370	e2400	801	1110	120	133	136	834
29	1360	1850	e460	e1100	---	e4100	680	902	153	203	66	590
30	1200	1230	e390	e910	---	e5400	703	547	305	240	36	694
31	899	---	e345	e910	---	e5800	---	562	---	144	85	---
TOTAL	31114	31715	36947	35185	20700	52400	97211	24352	10894	23284	5837	45374
MEAN	1004	1057	1192	1135	739	1690	3240	786	363	751	188	1512
MAX	2620	2280	3320	8000	1500	5800	8580	1670	1510	3120	506	9540
MIN	386	637	345	270	360	610	680	299	110	85	36	33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999		
MEAN	1424	1901	1520	1746	884	2609	4561	1765	891	951	599	640
MAX	2507	3082	3894	4324	1670	5005	7078	3760	1440	2042	1130	1512
(WY)	1991	1996	1997	1998	1996	1990	1993	1996	1998	1997	1990	1999
MIN	295	1024	596	429	317	801	1527	629	363	148	188	165
(WY)	1995	1992	1993	1994	1993	1994	1995	1998	1999	1991	1999	1995

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1990 - 1999

ANNUAL TOTAL	657764	415013	
ANNUAL MEAN	1802	1137	1602
HIGHEST ANNUAL MEAN			2200
LOWEST ANNUAL MEAN			1137
HIGHEST DAILY MEAN	29500	9540	29500
LOWEST DAILY MEAN	126	33	33
ANNUAL SEVEN-DAY MINIMUM	208	70	70
INSTANTANEOUS PEAK FLOW		11900	37700
INSTANTANEOUS PEAK STAGE		a 4.97	9.50
10 PERCENT EXCEEDS	2820	2280	4000
50 PERCENT EXCEEDS	930	700	820
90 PERCENT EXCEEDS	358	154	220

a Ice jam.
e Estimated.

04294500 LAKE CHAMPLAIN AT BURLINGTON, VT

LOCATION.--Lat 44°28'52", long 73°13'27", Chittenden County, Hydrologic Unit 02010003, 50 ft south of Gulf Oil Co. dock at Burlington, 0.1 mi north of Burlington Water Department pumping station, and 0.5 mi north of railroad station.

PERIOD OF RECORD.--Gage heights: May 1907 to current year.

Water-quality records: Water year 1971.

REVISED RECORDS.--WSP 684: 1912-29 (datum correction). WSP 1207: 1938 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 92.86 ft above sea level. Prior to July 20, 1937, nonrecording gage at site 0.7 mi south, and July 20, 1937, to September 7, 1939, nonrecording gage at site 0.1 mi south, both at present datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 9.00 ft, April 27, 1993; minimum observed, -0.25 ft December 4, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 5.54 ft, April 10, affected by seiche; minimum daily gage height, e0.95ft, September 16, affected by seiche.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.45	2.93	2.31	1.97	e3.21	3.10	4.53	4.38	3.01	2.05	1.87	e1.27
2	3.46	2.88	2.34	1.92	e3.24	3.11	4.67	4.31	2.99	2.04	1.85	e1.25
3	3.47	2.84	2.39	1.92	e3.26	3.10	4.81	4.24	2.94	2.03	1.82	e1.22
4	3.45	2.81	2.39	1.94	e3.33	3.13	5.01	4.17	2.90	2.04	1.76	e1.20
5	3.43	2.78	2.41	1.92	e3.33	3.22	5.19	4.12	2.84	2.05	1.75	e1.25
6	3.38	2.75	2.37	1.85	e3.39	3.30	5.25	4.06	2.76	2.10	1.75	e1.25
7	3.24	2.71	2.36	1.86	e3.39	3.35	5.27	3.98	2.76	2.12	1.73	e1.24
8	3.25	2.69	2.39	1.84	e3.39	3.32	5.37	3.93	2.75	2.14	1.72	e1.27
9	3.28	2.65	2.39	1.89	e3.43	3.30	5.45	3.90	2.75	2.15	1.68	e1.26
10	3.28	2.57	2.36	1.89	e3.35	3.28	5.51	3.86	2.70	2.18	1.67	e1.23
11	3.30	2.53	2.36	1.87	e3.37	3.27	5.50	3.83	2.67	2.18	1.64	e1.22
12	3.31	2.55	2.29	1.87	e3.38	3.25	5.49	3.77	2.62	2.20	1.61	e1.17
13	3.28	2.57	2.30	1.90	e3.40	3.22	5.45	3.71	2.58	2.18	1.60	e1.29
14	3.29	2.52	2.29	e1.85	e3.39	3.19	5.40	3.64	2.53	2.16	1.60	e1.24
15	3.37	2.50	2.20	e1.91	e3.42	3.17	5.35	3.58	2.50	2.11	1.61	e1.08
16	3.42	2.52	2.22	e2.01	e3.38	3.13	5.29	3.49	2.47	2.12	1.61	e.95
17	3.42	2.54	2.21	e1.97	e3.40	3.09	5.24	3.41	2.45	2.11	1.55	1.51
18	3.38	2.51	2.18	e2.00	e3.39	3.10	5.21	3.32	2.40	2.10	1.55	1.84
19	3.38	2.44	2.10	e2.04	3.40	3.19	5.17	3.31	2.36	2.08	1.56	1.99
20	3.36	2.41	2.10	e2.04	3.38	3.24	5.13	3.33	2.32	2.05	1.55	2.00
21	3.33	2.44	2.00	e2.06	3.36	3.26	5.08	3.35	2.30	2.02	1.49	2.12
22	3.29	2.38	2.02	e2.10	3.33	3.38	5.03	3.32	2.26	1.98	1.49	2.19
23	3.22	2.31	2.06	e2.24	3.28	3.65	4.98	3.30	2.23	1.96	1.49	2.35
24	3.18	2.32	2.07	e2.29	3.24	3.83	4.91	3.27	2.19	1.98	1.47	2.49
25	3.17	2.34	2.07	e2.60	3.21	3.97	4.82	3.26	2.15	1.99	1.45	2.57
26	3.13	2.28	2.03	e2.92	3.17	4.04	4.74	3.23	2.10	1.99	1.43	2.60
27	3.02	2.33	2.01	e3.02	3.12	4.08	4.69	3.22	2.08	1.97	1.42	2.60
28	2.94	2.35	1.99	e3.09	3.07	4.13	4.62	3.19	2.09	1.94	1.41	2.61
29	2.99	2.38	1.98	e3.17	---	4.19	4.54	3.15	2.07	1.92	e1.31	2.59
30	2.98	2.28	1.98	e3.19	---	4.29	4.46	3.09	2.08	1.89	e1.21	2.59
31	2.95	---	1.98	e3.21	---	4.40	---	3.06	---	1.88	e1.24	---
TOTAL	101.40	76.11	68.15	68.35	93.01	107.28	152.16	111.78	74.85	63.71	48.89	51.44
MEAN	3.27	2.54	2.20	2.20	3.32	3.46	5.07	3.61	2.49	2.06	1.58	1.71
MAX	3.47	2.93	2.41	3.21	3.43	4.40	5.51	4.38	3.01	2.20	1.87	2.61
MIN	2.94	2.28	1.98	1.84	3.07	3.09	4.46	3.06	2.07	1.88	1.21	.95

CAL YR 1998 TOTAL 1629.72 MEAN 4.46 MAX 8.92 MIN 1.98

WTR YR 1999 TOTAL 1017.13 MEAN 2.79 MAX 5.51 MIN .95

e Estimated.

ST. LAWRENCE RIVER BASIN

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY

LOCATION.--Lat 44°59'46", long 73°21'37", Clinton County, Hydrologic Unit 02010006, on left bank at outlet of Lake Champlain in Rouses Point, and 1.0 mi south of Fort Montgomery ruins.

DRAINAGE AREA.--8,277 mi².

PERIOD OF RECORD.--October 1863 to December 1870 (maximum and minimum monthly gage heights at St. Johns, Quebec, published in WSP 97) and March 1871 to current year (daily gage heights prior to October 1970, elevations thereafter: those for 1871-1907 published in WSP 894). Gage heights prior to October 1, 1925, published as "Richelieu River at Fort Montgomery, Rouses Point". Discharge records for January 1875 to September 1916 at "Chambly, Quebec," published in WSP 65, 82, 97, 129, 170, 206, 424, and 1307 have been found to be unreliable and should not be used. Daily discharge record for "Richelieu River at Fryers Rapids, Quebec," published in Water Survey of Canada annual reports.

GAGE.--Water-stage recorder. Datum of gage is sea level. March 1871 to May 1923, nonrecording gage located in Fort Montgomery and May 1923 to October 1938, nonrecording gage at present site. Prior to October 1970, at datum 93.00 ft higher.

REMARKS.--Area of lake surface about 490 mi². Total volume below 92.5 ft elevation, reported by Lake Champlain Studies Center, 902.2 billion ft³. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 101.88 ft, Apr. 25, 1993; minimum observed, 92.17 ft, Oct. 23, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since at least 1827, 102.1 ft, May 4, 1869, from marks at railroad bridge near present gage, according to data published on p. 428 of the Report of the Board of Engineers on Deep Waterways, 1900: U.S. 56th Congress, 2d session H. Doc. 149.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 98.51 ft, April 7; minimum, 93.30 ft, September 16, 17.

**ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96.27	95.68	95.16	94.74	96.07	95.91	97.28	97.20	95.90	95.01	94.68	94.13
2	96.28	95.61	95.24	94.77	96.10	95.93	97.43	97.12	95.85	95.00	94.61	94.11
3	96.23	95.61	95.17	94.78	96.12	95.94	97.64	97.06	95.78	94.91	94.60	94.08
4	96.23	95.61	95.16	94.79	96.19	95.96	97.62	96.99	95.70	94.90	94.69	94.06
5	96.17	95.58	95.20	94.73	96.19	95.99	97.95	96.93	95.73	94.85	94.62	94.11
6	96.18	95.55	95.33	94.85	96.25	96.02	98.13	96.90	95.83	94.94	94.57	94.11
7	96.50	95.52	95.20	94.68	96.25	96.04	98.16	96.89	95.64	94.94	94.53	94.10
8	96.13	95.48	95.22	94.72	96.25	96.09	98.15	96.83	95.61	94.94	94.56	94.13
9	96.05	95.46	95.20	94.70	96.29	96.10	98.20	96.75	95.57	95.03	94.48	94.12
10	96.03	95.70	95.24	94.73	96.21	96.08	98.20	96.63	95.64	95.01	94.48	94.09
11	96.01	95.55	95.15	94.71	96.23	96.03	98.27	96.62	95.59	95.00	94.50	94.08
12	96.05	95.41	95.27	94.70	96.24	96.02	98.19	96.52	95.54	95.03	94.48	94.03
13	96.15	95.39	95.11	94.65	96.26	96.02	98.11	96.47	95.51	95.06	94.50	94.15
14	96.15	95.50	95.07	94.71	96.25	95.98	98.12	96.45	95.55	95.09	94.42	94.10
15	96.14	95.39	95.23	94.77	96.28	95.93	98.12	96.40	95.30	95.08	94.36	93.94
16	96.20	95.29	95.00	94.87	96.24	95.92	98.09	96.37	95.30	94.99	94.39	93.81
17	96.32	95.25	94.97	94.83	96.26	95.91	98.07	96.36	95.25	94.96	94.46	93.82
18	96.39	95.33	94.94	94.86	96.22	95.94	97.99	96.35	95.23	94.91	94.37	94.55
19	96.23	95.55	95.15	94.90	96.18	95.96	97.96	96.16	95.20	94.87	94.34	94.83
20	96.18	95.31	94.83	94.90	96.16	96.03	97.92	96.11	95.16	94.82	94.35	95.09
21	96.12	95.22	95.22	94.92	96.10	96.09	97.88	96.15	95.14	94.87	94.39	94.89
22	96.05	95.38	94.81	94.96	96.09	96.26	97.82	96.17	95.10	94.86	94.36	94.96
23	96.12	95.42	94.96	95.10	96.08	96.50	97.64	96.12	95.07	94.82	94.34	95.20
24	96.07	95.11	94.99	95.15	96.05	96.68	97.62	96.12	95.06	94.82	94.33	95.33
25	95.94	95.17	94.98	95.46	96.00	96.74	97.64	96.15	95.11	94.81	94.34	95.36
26	95.91	95.29	95.08	95.78	95.96	96.83	97.49	96.10	95.02	94.78	94.32	95.42
27	96.12	95.06	95.05	95.88	95.93	96.88	97.41	96.03	94.97	94.80	94.30	95.49
28	96.01	95.16	94.93	95.95	95.94	96.92	97.39	96.03	94.96	94.78	94.30	95.46
29	95.69	95.18	94.90	96.03	---	96.99	97.28	96.00	94.97	94.81	94.12	95.57
30	95.67	95.58	94.75	96.05	---	97.07	97.25	95.98	94.90	94.81	94.07	95.55
31	95.70	---	94.78	96.07	---	97.19	---	95.93	---	94.79	94.10	---
MEAN	96.11	95.41	95.07	95.06	96.16	96.26	97.83	96.45	95.37	94.91	94.42	94.56
MAX	96.50	95.70	95.33	96.07	96.29	97.19	98.27	97.20	95.90	95.09	94.69	95.57
MIN	95.67	95.06	94.75	94.65	95.93	95.91	97.25	95.93	94.90	94.78	94.07	93.81

04295500 LAKE MEMPHREMAGOG AT NEWPORT, VT

LOCATION.--Lat 44°56'15", long 72°12'21", Orleans County, Hydrologic Unit 01110000, on west side of bridge on U.S. Highway 5 at Newport.

PERIOD OF RECORD.--Gage heights: May 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 673.00 ft above sea level. Prior to July 21, 1934, nonrecording gage on highway bridge 0.1 mi southeast at same datum. July 21, 1934, to August 22, 1961, nonrecording gage on east side, and August 23, 1961, to Oct. 18, 1966, on west side of bridge at present site and datum.

REMARKS.--Elevation of lake regulated by powerplant and gates at Magog, Quebec.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 12.92 ft April 20, 1933; minimum recorded, 6.48 ft, November 2, 1968, affected by seiche; but may have been lower during period of use of nonrecording gage.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.07 ft, December 7, affected by seiche; minimum gage height, 7.04 ft, March 17, 18, affected by seiche.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.78	8.89	9.52	9.03	8.65	7.23	8.14	9.26	9.33	8.90	8.93	8.03
2	8.80	8.90	9.59	8.97	8.59	7.21	8.32	9.26	9.33	8.94	8.89	7.99
3	8.83	8.89	9.68	8.94	8.55	7.19	8.52	9.25	9.33	8.98	8.81	7.95
4	8.82	8.88	9.80	8.90	8.49	7.30	8.80	9.26	9.32	8.97	8.74	7.93
5	8.84	8.88	9.85	8.85	8.44	7.27	9.01	9.31	9.24	9.04	8.75	7.88
6	8.80	8.87	9.88	8.78	8.38	7.30	9.18	9.34	9.21	9.08	8.71	7.84
7	8.75	8.87	10.00	8.70	8.32	7.32	9.32	9.34	9.28	9.20	8.68	7.81
8	8.80	8.87	10.00	8.65	8.25	7.29	9.44	9.35	9.31	9.27	8.64	7.81
9	8.85	8.87	10.02	8.67	8.18	7.28	9.53	9.42	9.30	9.30	8.62	7.82
10	8.85	8.81	10.00	8.67	8.11	7.24	9.56	9.49	9.26	9.40	8.55	7.80
11	8.91	8.81	10.02	8.64	8.05	7.21	9.52	9.50	9.25	9.46	8.51	7.80
12	8.90	8.87	9.97	8.63	8.00	7.18	9.47	9.52	9.24	9.45	8.48	7.77
13	8.86	8.90	9.99	8.61	7.94	7.16	9.42	9.50	9.22	9.46	8.43	7.71
14	8.86	8.87	9.99	8.56	7.88	7.14	9.36	9.47	9.19	9.45	8.52	7.66
15	8.92	8.94	9.90	8.54	7.82	7.13	9.29	9.46	9.25	9.43	8.54	7.65
16	8.94	8.99	9.91	8.54	7.76	7.09	9.27	9.44	9.20	9.42	8.49	7.71
17	8.92	9.00	9.89	8.52	7.71	7.05	9.26	9.42	9.20	9.40	8.45	8.42
18	8.90	9.00	9.87	8.53	7.66	7.06	9.28	9.39	9.17	9.39	8.49	8.47
19	8.96	8.98	9.77	8.54	7.56	7.06	9.26	9.43	9.15	9.38	8.45	8.62
20	8.94	9.00	9.75	8.56	7.52	7.06	9.28	9.58	9.12	9.35	8.42	8.73
21	8.94	9.06	9.67	8.57	7.46	7.06	9.31	9.62	9.10	9.27	8.39	8.93
22	8.94	9.06	9.73	8.55	7.40	7.17	9.33	9.63	9.06	9.24	8.37	9.08
23	8.87	9.04	9.66	8.54	7.34	7.19	9.40	9.63	9.03	9.21	8.33	9.25
24	8.87	9.11	9.59	8.60	7.29	7.27	9.41	9.60	8.99	9.19	8.30	9.40
25	8.88	9.11	9.52	8.68	7.26	7.33	9.33	9.57	8.95	9.19	8.27	9.55
26	8.83	9.08	9.44	8.73	7.25	7.39	9.33	9.55	8.94	9.17	8.25	9.62
27	8.76	9.25	9.36	8.77	7.22	7.45	9.33	9.52	8.90	9.13	8.22	9.65
28	8.79	9.32	9.28	8.78	7.22	7.52	9.30	9.49	8.90	9.09	8.18	9.68
29	8.93	9.38	9.21	8.77	---	7.61	9.31	9.46	8.93	9.02	8.18	9.68
30	8.98	9.36	9.13	8.74	---	7.78	9.26	9.41	8.96	8.98	8.13	9.65
31	8.91	---	9.08	8.70	---	7.97	---	9.37	---	8.94	8.06	---
MEAN	8.87	9.00	9.71	8.69	7.87	7.27	9.22	9.45	9.16	9.22	8.48	8.46
MAX	8.98	9.38	10.02	9.03	8.65	7.97	9.56	9.63	9.33	9.46	8.93	9.68
MIN	8.75	8.81	9.08	8.52	7.22	7.05	8.14	9.25	8.90	8.90	8.06	7.65

CAL YR 1998 MEAN 9.08 MAX 11.42 MIN 7.51
WTR YR 1999 MEAN 8.79 MAX 10.02 MIN 7.05

04296500 CLYDE RIVER AT NEWPORT, VT

LOCATION.--Lat 44°56'22", long 72°11'23", Orleans County, Hydrologic Unit 01110000, on right bank, in Newport, just downstream from small right-bank tributary, and 1 mi upstream from mouth.

DRAINAGE AREA.--142 mi².

PERIOD OF RECORD.--Discharge records: May 1909 to September 1919; May 1920 to August 1922, October 1922 to September 1924, November 1928 to May 1936, September 1938 to current year. Prior to November 1928, published as "at West Derby."

Water-quality records: Water years 1975-77.

REVISED RECORDS.--WSP 744: 1913(M), drainage area. WSP 924: 1940. WSP 1307: 1913-15(M).

GAGE.--Water-stage recorder. Datum of gage is 682.36 ft above sea level. May 25, 1909, to September 20, 1915, nonrecording gage, and September 21, 1915, to September 30, 1924, November 16, 1928, to May 4, 1936, water-stage recorder, at site 0.65 mi upstream at different datum. March 6, 1957, to May 11, 1994, water-stage recorder and records of power generation.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by powerplant and reservoirs upstream. No instantaneous peak stage or discharge available for period of March 6, 1957 to May 11, 1994 due to diversion of flow around station through canal and penstock of Newport No. 11 powerplant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft³/s, March 20, 1936, gage height, 5.76 ft, site and datum then in use; maximum daily, 3,610 ft³/s, March 20, 1936; minimum daily discharge, 2.6 ft³/s, June 18, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 833 ft³/s, April 9, gage height, 5.69 ft; minimum daily discharge, 25 ft³/s, September 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	285	179	291	124	358	127	450	295	148	54	57	29
2	308	209	247	115	307	127	466	295	123	55	56	26
3	292	209	405	163	203	115	570	210	93	54	51	26
4	339	209	452	200	204	211	715	199	93	96	48	26
5	279	208	520	118	200	250	726	206	93	99	48	26
6	320	155	526	117	191	240	735	275	94	160	48	27
7	228	221	512	116	191	276	761	271	166	181	48	27
8	295	219	501	113	179	276	789	212	90	181	49	31
9	292	181	466	104	167	249	822	187	90	182	49	31
10	223	175	445	98	222	205	821	201	91	250	48	25
11	210	175	421	e99	158	205	784	207	98	282	49	26
12	179	175	405	101	167	191	729	207	104	282	49	28
13	206	175	394	e105	174	167	667	191	104	282	49	31
14	193	175	381	e120	174	167	612	175	104	281	48	31
15	186	203	361	150	216	174	568	175	104	255	48	31
16	182	270	372	172	170	141	531	175	104	239	46	37
17	182	211	286	171	161	112	512	168	93	159	46	339
18	208	212	265	262	167	172	503	129	75	148	44	384
19	209	212	192	279	190	206	497	120	75	146	44	338
20	209	211	251	197	144	189	498	187	75	108	44	399
21	209	212	264	158	120	179	506	206	61	65	44	442
22	209	212	264	157	120	217	508	271	55	58	44	504
23	209	209	206	190	e120	278	503	290	55	70	44	627
24	208	208	206	320	e140	238	490	278	55	86	44	568
25	144	180	207	362	e185	336	483	277	55	153	44	519
26	133	180	207	363	209	315	474	270	55	94	43	489
27	177	205	198	361	206	286	460	259	55	68	42	472
28	178	249	180	358	170	288	441	219	56	61	42	456
29	135	278	180	358	---	352	430	160	57	58	42	444
30	115	279	180	358	---	378	330	148	55	58	39	418
31	131	---	177	359	---	428	---	148	---	57	37	---
TOTAL	6673	6196	9962	6268	5213	7095	17381	6611	2576	4322	1434	6857
MEAN	215	207	321	202	186	229	579	213	85.9	139	46.3	229
MAX	339	279	526	363	358	428	822	295	166	282	57	627
MIN	115	155	177	98	120	112	330	120	55	54	37	25
CFSM	1.52	1.45	2.26	1.42	1.31	1.61	4.08	1.50	.60	.98	.33	1.61
IN.	1.75	1.62	2.61	1.64	1.37	1.86	4.55	1.73	.67	1.13	.38	1.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909-24, 28-36, 38-99, BY WATER YEAR (WY)

	1909-24	28-36	38-99	1909-24	28-36	38-99
MEAN	178	233	223	186	160	280
MAX	576	560	599	452	477	1136
(WY)	1946	1919	1984	1998	1981	1936
MIN	50.7	79.5	80.4	62.9	19.1	72.8
(WY)	1962	1923	1923	1948	1979	1911

	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1909-24, 28-36, 38-99	
ANNUAL TOTAL	111045		80588			
ANNUAL MEAN	304		221		256	
HIGHEST ANNUAL MEAN					394	1974
LOWEST ANNUAL MEAN					153	1979
HIGHEST DAILY MEAN	2300	Apr 2	822	Apr 9	3610	Mar 20 1936
LOWEST DAILY MEAN	74	May 24	25	Sep 10	2.6	Jun 18 1956
ANNUAL SEVEN-DAY MINIMUM	77	May 23	27	Sep 1	14	Oct 9 1961
INSTANTANEOUS PEAK FLOW			833	Apr 9	ab 3900	Mar 20 1936
INSTANTANEOUS PEAK STAGE			5.69	Apr 9	5.76	Mar 20 1936
ANNUAL RUNOFF (CFSM)	2.14		1.55		1.80	
ANNUAL RUNOFF (INCHES)	29.09		21.11		24.50	
10 PERCENT EXCEEDS	492		462		525	
50 PERCENT EXCEEDS	214		190		180	
90 PERCENT EXCEEDS	115		48		63	

a No instantaneous peak stage or discharge available for period of March 6, 1957 to May 11, 1994, as explained above in remarks.

b Site and datum then in use.

e Estimated.