04293000 MISSISQUOI RIVER NEAR NORTH TROY, VT

Richelieu Basin
Missisquoi Subbasin

LOCATION.--Lat 44°58′22″, long 72°23′09″ referenced to North American Datum of 1927, Orleans County, Hydrologic Unit 02010007, on right bank, 200 ft upstream from Big Falls, 1.5 mi downstream from Jay Branch, 1.8 mi southeast of Town Hall in North Troy, 2.2 mi upstream from State Highway 105 bridge in North Troy, and 8.8 mi west of State Highway 105 and US 5 intersection in Newport.

DRAINAGE AREA.--131 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge records: August 1931 to current year.

REVISED RECORDS.--WSP 924: 1940. WSP 1114: 1933(M), 1936-39.

GAGE.--Water-stage recorder. Elevation of gage is 580 ft above National Geodetic Vertical Datum of 1929, from topographic map.

COOPERATION.--Vermont Department of Environmental Conservation.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional regulation at low flow caused by small power plant upstream; greater regulation prior to 1967.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,5000 ft^3/s, June 12, 2002, gage height, 14.55 ft; minimum, 9.4 ft^3/s, August 28, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,300 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 10	0815	*3,490	*7.67
No other peak greater than base discharge			

Minimum discharge, 37 ft^3/s, Sept. 11, 12, gage height, 1.31 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	150	487	255	e214	e83	e390	690	357	306	403	335	84
2	502	355	354	e230	e78	e284	940	488	216	304	180	66
3	283	256	262	e205	e76	e225	1,560	337	178	829	280	59
4	174	302	240	e185	e75	e195	2,800	252	144	2,370	154	54
5	126	367	272	e170	e75	e180	1,330	211	121	1,020	458	50
6	106	265	e170	e155	e77	e192	777	218	107	426	237	46
7	95	271	e150	e134	e79	e342	1,440	455	98	604	163	45
8	88	291	e87	e129	e94	e680	849	683	92	753	137	44
9	105	534	e110	e119	e108	e555	552	825	175	921	110	42
10	119	430	e530	e105	e96	e405	479	2,710	227	368	105	40
11	95	394	669	e95	e140	e460	450	1,050	151	259	277	38
12	83	286	e285	e84	e342	e545	412	534	333	540	283	39
13	80	244	e222	e80	e640	e390	338	366	281	289	156	41
14	77	311	e187	e78	e300	e317	318	296	158	225	126	43
15	74	326	e320	e75	e235	e280	329	440	183	202	101	60
16	76	649	871	e82	e172	e325	354	327	466	181	88	53
17	97	427	421	e85	e135	e390	377	1,090	194	404	88	44
18	86	302	326	e92	e169	e560	518	478	145	485	87	49
19	77	235	e214	e103	e156	e875	428	327	237	346	77	67
20	74	e165	e182	e96	e132	e745	362	259	196	214	68	48
21	80	e160	e190	e88	e127	e415	348	223	160	175	68	42
22	205	e150	e184	e87	e122	e365	395	182	139	305	79	40
23	173	150	e179	e85	e120	e255	523	164	120	232	83	46
24	129	162	e190	e82	e119	e230	449	151	104	177	86	120
25	117	182	e325	e78	e118	e235	465	136	109	177	78	70
26	1,290	670	e283	e80	e123	e305	568	123	173	183	69	49
27	414	393	e260	e81	e150	e650	407	119	144	162	69	53
28	369	283	e890	e84	e485	862	437	170	138	129	60	509
29	1,130	254	e1,150	e91	---	1,340	464	408	1,600	108	69	232
30	489	214	e463	e96	---	2,050	277	378	1,420	115	110	321
31	353	---	e265	e91	---	1,340	---	263	---	314	97	---
Total	7,316	9,515	10,506	3,459	4,626	16,382	19,636	14,020	8,115	13,220	4,378	2,494
Mean	236	317	339	112	165	528	655	452	270	426	141	83.1
Max	1,290	670	1,150	230	640	2,050	2,800	2,710	1,600	2,370	458	509
Min	74	150	87	75	75	180	277	119	92	108	60	38
Cfsm	1.80	2.42	2.59	0.85	1.26	4.03	5.00	3.45	2.06	3.26	1.08	0.63
In.	2.08	2.70	2.98	0.98	1.31	4.65	5.58	3.98	2.30	3.75	1.24	0.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	236	298	235	177	141	377	883	419	206	130	121	132
Max	868	662	585	661	796	1,225	1,522	991	932	426	454	421
(WY)	(2006)	(2004)	(1974)	(1998)	(1981)	(1936)	(1933)	(1940)	(2002)	(2009)	(1976)	(1945)
Min	51.3	97.6	60.9	53.9	34.0	57.0	265	143	43.7	32.0	19.7	31.5
(WY)	(1949)	(1979)	(1956)	(1940)	(1980)	(1941)	(1995)	(1977)	(1933)	(1934)	(1934)	(1953)

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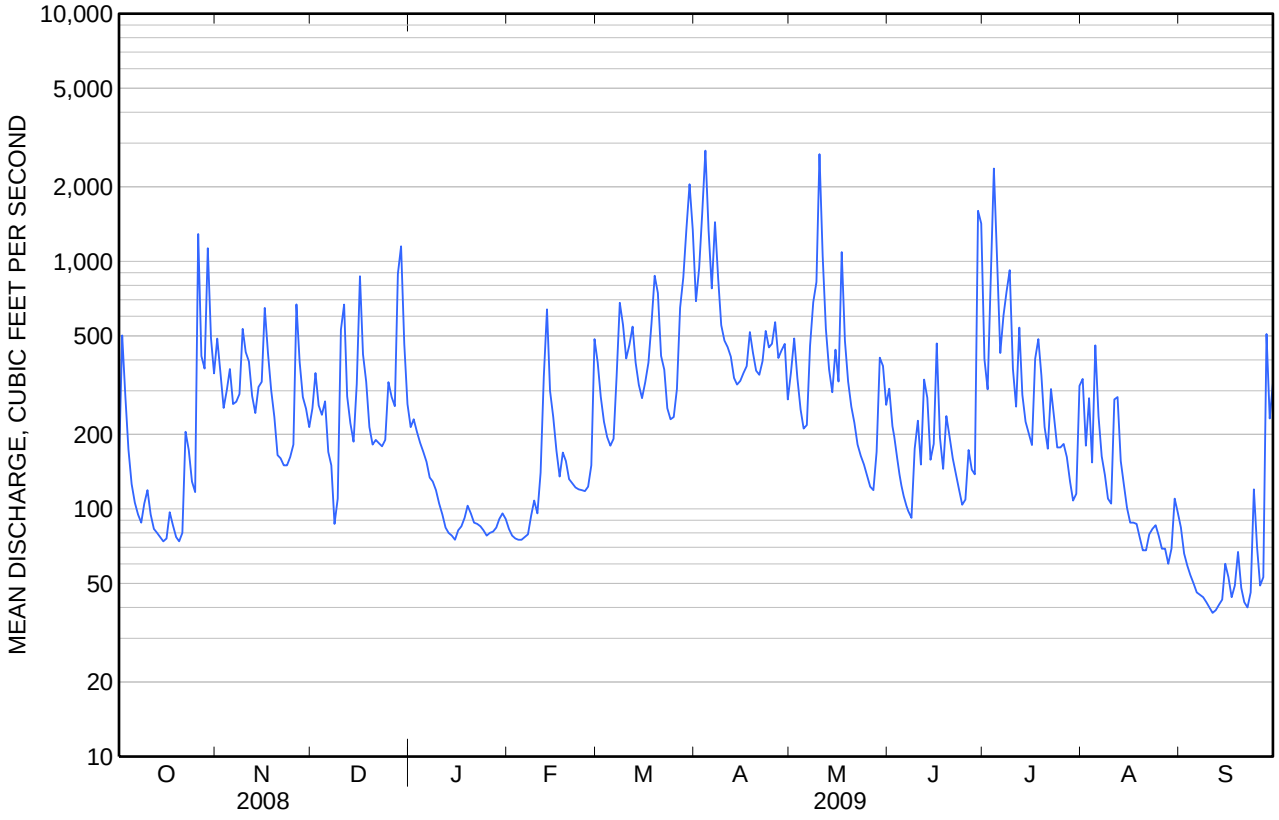
SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1931 - 2009	
Annual total	142,495		113,667			
Annual mean	389		311		279	
Highest annual mean					457	2006
Lowest annual mean					168	1965
Highest daily mean	3,890	Jul 25	2,800	Apr 4	8,330	Jun 12, 2002
Lowest daily mean	57	Sep 26	38	Sep 11	11	Aug 28, 1949
Annual seven-day minimum	63	Sep 2	41	Sep 8	15	Aug 22, 1934
Maximum peak flow			3,490	May 10	11,500	Jun 12, 2002
Maximum peak stage			7.67	May 10	14.55	Jun 12, 2002
Instantaneous low flow			37	Sep 11[a]	9.4	Aug 28, 1949
Annual runoff (cfsm)	2.97		2.38		2.13	
Annual runoff (inches)	40.46		32.28		28.97	
10 percent exceeds	940		644		649	
50 percent exceeds	206		205		130	
90 percent exceeds	81		76		47	

[a] Also September 12.