Water-Data Report 2013

04286000 WINOOSKI RIVER AT MONTPELIER, VT

Lake Champlain-Richelieu River
Winooski River Subbasin

LOCATION.--Lat 44°15′24″, long 72°35′38″ referenced to North American Datum of 1927, Washington County, Hydrologic Unit 04150403, on right bank, 0.4 mi upstream from Dog River, 0.6 mi downstream of Bailey Road bridge, 0.8 mi southwest of the Vermont State Capitol Building in Montpelier, and 1.0 mi downstream of the North Branch Winooski River.

DRAINAGE AREA.--397 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge records: May 1909 to June 1914 (fragmentary), July 1914 to September 1923, August 1928 to currentyear.

REVISED RECORDS.--WSP 424: 1915. WSP 894: Drainage area. WSP 1437: 1912-14(M), 1915-18, 1919(M), 1920, 1921(M), 1922-23, 1929,1933, 1934(M), 1936, 1937(M), 1938, 1946(M), WDR MA-NH-RI-VT-72-1: 1969(M), 1970(P), 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 499.99 ft above National Geodetic Vertical Datum of 1929. Prior to June 16, 1914, nonrecording gage at site 0.9 mi upstream at different datum. June 16 to July 3, 1914, nonrecording gage at present site and datum.

COOPERATION.—USGS National Streamflow Information Program (NSIP).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by several small power plants upstream, by Peacham Pond and, since 1926, by Mollys Falls Reservoir, combined usable capacity, 492 million ft^3, which regulated runoff from 24 mi^2, and by East Barre and Wrightsville Detention Reservoirs since 1935 (Reservoirs in Winooski River Basin above Montpelier, VT).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1830, 57,000 ft^3/s, November 3, 1927, gage height, 27.1 ft, from rating curve extended above 14,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,480 ft^3/s, July 4, gage height, 8.72 ft; maximum gage height, 12.18 ft; minimum daily discharge, 155 ft^3/s, Aug. 31.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 04286000, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/04286000.2013.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	388	895	283	e340	e1,020	e248	1,350	592	737	1,120	421	251
2	374	652	301	e330	e660	e235	1,380	550	801	2,970	464	237
3	360	523	640	e340	e550	e231	890	509	1,170	2,720	465	299
4	371	453	629	e350	e480	e232	795	468	745	3,160	473	286
5	442	393	1,090	e340	e435	e220	849	414	576	3,280	449	252
6	426	369	872	e330	e395	e215	840	374	499	2,400	349	203
7	438	358	730	e340	e360	e212	714	355	666	2,000	324	168
8	389	343	552	e380	e323	e200	914	351	1,970	2,910	326	169
9	316	324	479	e345	e320	e219	1,510	357	1,260	2,940	789	172
10	273	318	639	e335	e305	e243	2,070	356	827	2,140	934	230
11	496	304	1,550	e330	e293	e300	1,810	393	2,400	2,050	488	275
12	392	296	953	e325	e305	e820	1,350	482	3,550	1,540	388	687
13	367	627	690	e340	e285	e2,550	1,280	325	2,310	1,090	351	1,840
14	296	692	578	e1,040	e270	e1,430	1,560	331	1,710	964	371	1,400
15	342	470	539	e800	e260	e840	1,490	290	1,080	822	337	729
16	493	392	461	e570	e247	e640	1,620	294	845	703	290	579
17	378	361	466	e460	e232	e510	2,270	269	934	616	279	405
18	294	324	525	e430	e230	e480	2,030	267	851	1,320	239	348
19	364	303	843	e480	e238	e440	1,820	222	640	1,110	232	303
20	1,690	298	800	e420	e218	e425	2,940	304	558	739	209	292
21	1,090	308	1,200	e360	e220	e415	2,380	341	500	622	203	243
22	621	283	1,660	e345	e215	e400	1,710	986	446	524	204	533
23	449	271	e850	e325	e213	e395	1,190	1,560	707	1,390	232	465
24	369	325	e660	e305	e225	e380	1,050	1,710	1,470	1,540	198	313
25	447	330	e510	e295	e227	e385	1,010	2,820	1,430	881	194	264
26	440	259	e450	e285	e230	e390	908	3,380	2,660	657	170	238
27	442	247	e420	e280	e240	e430	813	2,520	2,080	560	212	232
28	421	265	e405	e270	e255	e473	723	1,930	2,640	583	165	214
29	449	290	e385	e275	---	726	696	1,690	2,350	808	157	214
30	927	259	e360	e305	---	889	617	1,320	1,510	689	174	198
31	1,570	---	e350	e2,060	---	962	---	944	---	467	155	---
Total	16,114	11,532	20,870	13,730	9,251	16,535	40,579	26,704	39,922	45,315	10,242	12,039
Mean	520	384	673	443	330	533	1,353	861	1,331	1,462	330	401
Max	1,690	895	1,660	2,060	1,020	2,550	2,940	3,380	3,550	3,280	934	1,840
Min	273	247	283	270	213	200	617	222	446	467	155	168

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	425	549	531	451	395	907	1,856	961	507	314	266	242
Max	1,533	1,563	1,504	1,269	1,475	3,442	3,275	2,616	1,785	1,462	1,352	934
(WY)	(2006)	(2006)	(1984)	(2006)	(1981)	(1936)	(1933)	(2011)	(1947)	(2013)	(2008)	(1938)
Min	74.3	152	126	109	91.6	153	555	254	131	88.5	50.5	60.1
(WY)	(1964)	(1979)	(1915)	(1940)	(1940)	(1940)	(1995)	(1921)	(1995)	(1991)	(2001)	(1921)

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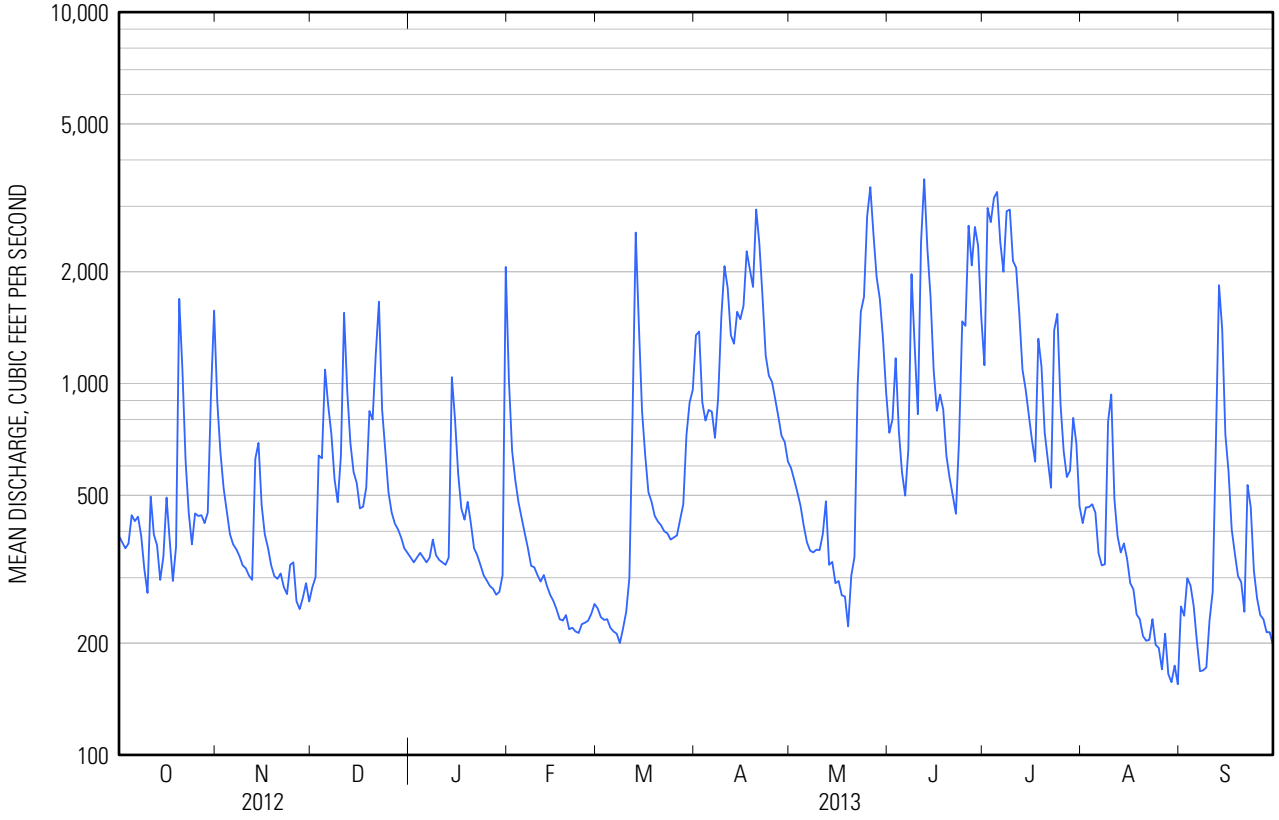
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1914 - 2013	
Annual total	186,985		262,833			
Annual mean	511		720		617	
Highest annual mean					1,128	2011
Lowest annual mean					270	1965
Highest daily mean	2,280	Mar 16	3,550	Jun 12	12,200	Mar 18, 1936
Lowest daily mean	65	Sep 3	155	Aug 31	17	Sep 3, 1933
Annual seven-day minimum	76	Aug 29	175	Aug 25	41	Aug 22, 2001
Maximum peak flow			4,480	Jul 4	17,200	Apr 7, 1912
Maximum peak stage			[a]12.18	Jan 31	19.05	Aug 28, 2011
10 percent exceeds	928		1,690		1,470	
50 percent exceeds	408		442		349	
90 percent exceeds	126		232		122	

[a] Ice Jam.