Water-Data Report 2011

04289000 LITTLE RIVER NEAR WATERBURY, VT

Richelieu Basin
Winooski Subbasin

LOCATION.--Lat 44°22′13″, long 72°46′09″ referenced to North American Datum of 1927, Washington County, Hydrologic Unit 02010003, on right bank, 0.8 mi downstream from spillway on Waterbury Reservoir, 1.7 mi upstream from mouth, and 2.0 mi north of US Highway 2 and State Highway 100 intersection in Waterbury.

DRAINAGE AREA.--111 mi^2.

SURFACE-WATER RECORDS

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. Monthly discharges only for July, August, and September 1937. 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 National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). July 7 to October 31, 1910, nonrecording gage at site 2 mi upstream at different datum.

COOPERATION.--Green Mountain Power Company.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft^3/s, March 18, 1936, gage height, 19.38 ft; minimum daily discharge, 0.6 ft^3/s several times during summers of 1938-39, 1941, and 1944. Maximum discharge since construction of Waterbury Reservoir in 1937, 5,240 ft^3/s, April 27, 2011, gage height, 16.35 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,240 ft^3/s, Apr. 27, gage height, 16.35 ft; minimum daily discharge, 10 ft^3/s, Aug. 3.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 04289000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/04289000.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	672	267	66	126	308	40	201	1,830	797	644	189	1,250
2	e1,260	262	636	474	351	40	203	1,880	713	396	91	1,250
3	e1,320	639	490	585	290	40	107	1,770	710	220	10	1,240
4	e1,320	641	240	433	319	40	165	1,640	710	177	11	1,230
5	1,040	645	131	380	264	29	235	1,600	601	144	205	944
6	757	640	129	120	12	e32	611	1,470	358	223	12	657
7	737	633	16	128	140	e27	607	1,190	182	432	12	652
8	736	633	154	123	337	24	298	863	209	527	12	438
9	736	634	194	128	324	71	309	722	301	226	12	554
10	e454	629	133	382	306	374	490	666	438	140	323	327
11	e12	628	221	372	301	600	701	669	222	213	233	15
12	e159	626	237	101	157	596	687	666	677	248	79	117
13	246	244	899	99	99	586	1,340	669	654	200	12	114
14	139	144	1,110	124	203	567	1,730	672	337	314	12	16
15	462	294	802	19	33	597	1,720	688	266	159	23	17
16	e1,000	340	671	147	e18	594	1,440	880	154	157	456	324
17	e1,010	444	657	125	e13	596	1,240	1,230	222	13	600	140
18	e915	626	655	121	14	617	1,390	1,200	106	13	165	112
19	776	624	655	234	14	615	1,090	922	332	205	129	167
20	751	622	423	265	13	609	835	807	177	115	13	143
21	750	619	97	407	12	605	1,170	943	101	114	14	161
22	749	619	114	368	12	603	1,160	908	198	139	112	118
23	746	613	336	348	11	603	893	767	190	11	181	123
24	e601	240	121	257	17	603	823	699	444	83	12	249
25	e15	14	18	338	40	602	877	695	645	92	245	250
26	e122	14	198	321	39	600	1,400	657	660	13	12	184
27	e340	13	136	344	39	600	2,300	738	675	166	391	106
28	e384	13	234	340	40	509	2,250	1,010	648	101	685	125
29	e266	13	231	333	---	323	2,180	1,280	643	11	681	240
30	317	13	188	16	---	323	2,020	1,130	641	11	665	644
31	308	---	129	348	---	155	---	1,060	---	20	946	---
Total	19,100	12,386	10,321	7,906	3,726	12,220	30,472	31,921	13,011	5,527	6,543	11,907
Mean	616	413	333	255	133	394	1,016	1,030	434	178	211	397
Max	1,320	645	1,110	585	351	617	2,300	1,880	797	644	946	1,250
Min	12	13	16	16	11	24	107	657	101	11	10	15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	197	242	244	229	257	306	498	410	222	159	155	139
Max	749	627	477	600	530	1,121	1,111	1,030	646	709	493	397
(WY)	(1946)	(2006)	(1974)	(2008)	(2008)	(1936)	(1976)	(2011)	(1973)	(2008)	(2008)	(2011)
Min	18.9	10.4	9.39	16.8	53.3	12.0	72.4	28.8	1.31	31.4	28.5	17.6
(WY)	(1942)	(1941)	(1939)	(1938)	(1936)	(1938)	(1940)	(1938)	(1938)	(1977)	(1999)	(2006)

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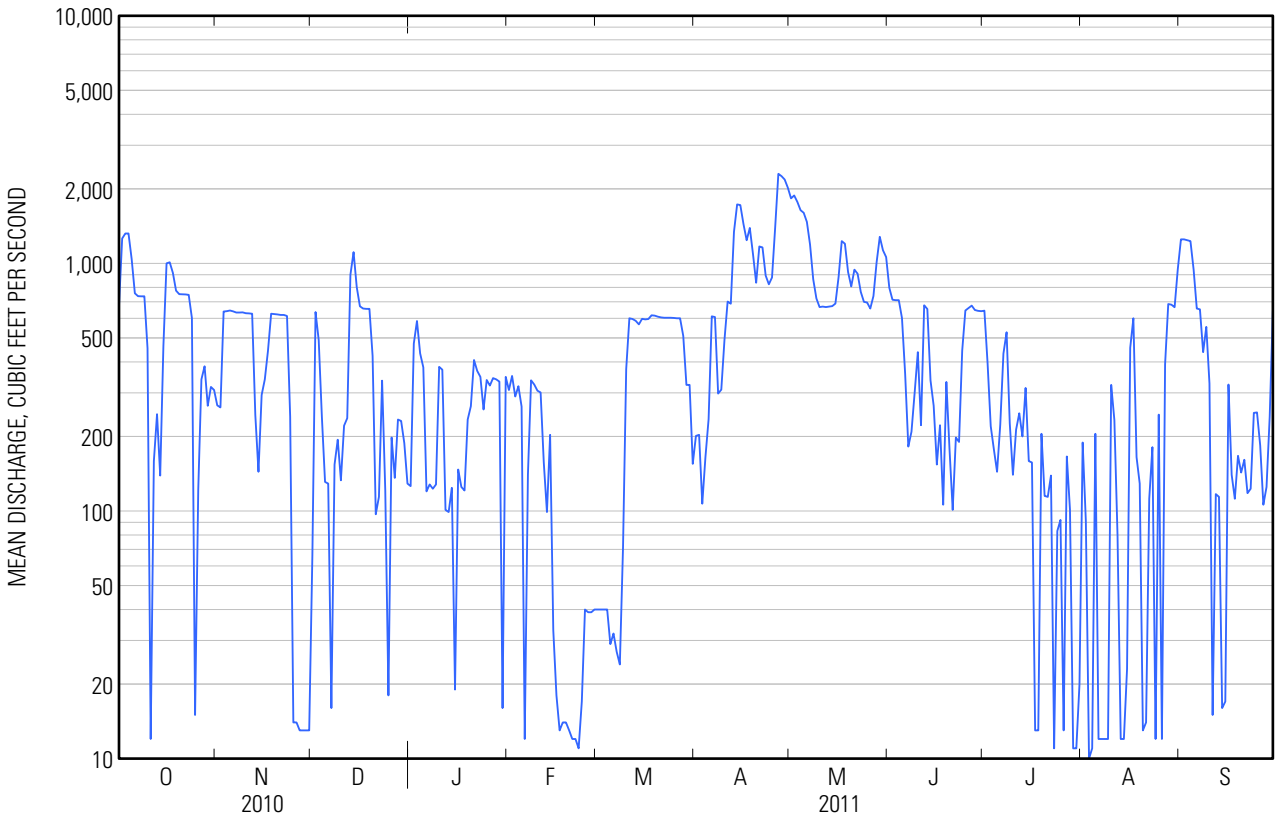
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1936 - 2011	
Annual total	119,700.8		165,040			
Annual mean	328		452		254	
Highest annual mean					456	1976
Lowest annual mean					146	1965
Highest daily mean	[e]1,320	Oct 3[a]	2,300	Apr 27	4,830	Mar 18, 1936
Lowest daily mean	9.4	Sep 19	10	Aug 3	0.60	Jul 10, 1938[b]
Annual seven-day minimum	21	Nov 25	13	Feb 17	0.70	Jul 13, 1938
Maximum peak flow			5,240	Apr 27	6,520	Mar 18, 1936
Maximum peak stage			16.35	Apr 27	19.38	Mar 18, 1936
10 percent exceeds	713		1,010		570	
50 percent exceeds	238		323		195	
90 percent exceeds	14		16		10	

[e] Estimated
[a] Also on Oct 4
[b] Also several times during summers of 1938-39, 1941, and 1944.