Water-Data Report 2011

04276500 BOUQUET RIVER AT WILLSBORO, NY

Richelieu Basin
Ausable Subbasin

LOCATION.--Lat 44°21′30″, long 73°23′50″ referenced to North American Datum of 1927, Essex County, NY, Hydrologic Unit 02010004, on right bank 0.5 mi upstream from bridge on State Highway 22, 2.5 mi downstream from North Branch Bouquet River, and 3.0 mi upstream from mouth, at Willsboro.

DRAINAGE AREA.--270 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August to September 1904 and August to November 1908 (gage heights and discharge measurements only), July 1923 to September 1968, water years 1980, 1985, 1987-89 (annual maximum only), March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 150.88 ft above NGVD of 1929. Prior to November 1908, staff gages at site 0.75 mi downstream at various datums. July 23 to Aug. 28, 1923, staff gage at site 600 ft downstream at present datum. May 1987 to February 1990, crest-stage gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation at low flow caused by powerplant at Wadhams. Slight regulation by Lincoln Pond on Black River. Satellite and telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s, Aug. 29, 2011, gage height, 12.35 ft, from floodmark in gage house; minimum discharge, 8.8 ft^3/s, Sept. 20, 1957, gage height, 1.84 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 1	2230	4,110	6.72
Oct 16	0430	3,450	6.25
Dec 2	1430	4,160	6.75
Apr 12	0700	6,210	8.02
Apr 21	0630	3,030	5.93
Apr 27	1415	8,500	9.22
Apr 28	2245	7,640	8.79
May 4	1730	4,020	6.66
May 16	1615	3,950	6.61
May 28	1530	4,320	6.86
Aug 29	unknown	*16,000	a*12.35

a From floodmark in gage house.

Minimum discharge, 70 ft^3/s, Aug. 4, 5, 6, 7, gage height, 2.38 ft.

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 04276500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/04276500.2011.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	2,750	369	676	e271	e166	e306	551	1,410	1,130	274	98	742
2	2,400	314	3,360	e284	e177	e295	628	1,180	913	248	81	541
3	778	287	1,390	e309	e188	e289	767	1,260	729	236	77	436
4	479	281	851	e303	e200	e327	855	3,530	617	229	73	363
5	361	726	648	e278	e194	e387	1,250	2,890	547	208	70	495
6	346	731	531	e284	e200	e444	1,290	1,660	493	186	70	2,080
7	907	507	450	e278	e205	e606	918	1,240	444	192	71	1,650
8	684	533	394	e278	e205	e798	884	1,040	418	185	77	1,530
9	462	1,040	302	e278	e205	e889	983	883	493	159	86	1,080
10	348	816	271	e271	e216	e930	1,340	768	617	154	282	726
11	286	629	e322	e264	e205	e869	4,390	689	466	147	257	532
12	252	505	e420	e257	e188	e899	5,520	634	917	142	144	448
13	228	455	e781	e251	e200	e950	2,990	568	897	143	113	390
14	211	419	e1,030	e257	e200	e859	2,310	554	790	152	99	415
15	960	392	643	e251	e194	e758	1,840	1,490	635	147	95	437
16	2,700	385	589	e244	e211	e657	1,360	3,600	472	122	291	577
17	1,410	911	e521	e244	e228	e728	1,640	2,960	401	118	400	426
18	959	1,340	e453	e257	e239	e879	1,770	1,620	371	117	209	341
19	700	748	e387	e257	e256	e1,030	1,220	1,670	329	157	144	297
20	532	561	e346	e251	e268	e1,160	2,000	1,830	282	140	128	277
21	471	467	e321	e257	e268	e1,040	2,680	1,430	263	120	107	269
22	456	421	e293	e244	e279	901	1,480	1,220	242	108	107	248
23	395	418	e275	e237	e284	758	1,230	957	387	93	103	268
24	352	450	e256	e237	e289	660	1,280	826	630	88	87	436
25	390	391	e243	e230	e284	560	1,300	733	980	88	82	489
26	429	356	e240	e217	e289	482	1,980	717	872	97	81	383
27	452	358	e240	e224	e306	449	7,130	2,040	608	109	76	307
28	484	313	e234	e210	e311	431	5,830	3,900	444	96	1,810	270
29	394	294	e237	e204	---	426	4,680	2,780	365	89	e11,000	359
30	389	297	e250	e183	---	433	1,930	2,230	315	93	2,130	921
31	411	---	e256	e177	---	510	---	1,460	---	109	1,100	---
Total	22,376	15,714	17,210	7,787	6,455	20,710	64,026	49,769	17,067	4,546	19,548	17,733
Mean	722	524	555	251	231	668	2,134	1,605	569	147	631	591
Max	2,750	1,340	3,360	309	311	1,160	7,130	3,900	1,130	274	11,000	2,080
Min	211	281	234	177	166	289	551	554	242	88	70	248
Cfsm	2.67	1.94	2.06	0.93	0.85	2.47	7.90	5.95	2.11	0.54	2.34	2.19
In.	3.08	2.17	2.37	1.07	0.89	2.85	8.82	6.86	2.35	0.63	2.69	2.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	201	280	263	246	191	463	976	558	278	159	126	121
Max	751	892	922	772	627	1,375	2,134	1,605	924	582	631	591
(WY)	(2006)	(1928)	(2004)	(1996)	(1925)	(1936)	(2011)	(2011)	(1998)	(1947)	(2011)	(2011)
Min	40.8	80.5	79.4	53.6	45.1	67.9	258	149	70.3	30.3	28.6	26.9
(WY)	(1958)	(1957)	(1931)	(1940)	(1940)	(1967)	(1995)	(1941)	(1995)	(1965)	(1941)	(1941)

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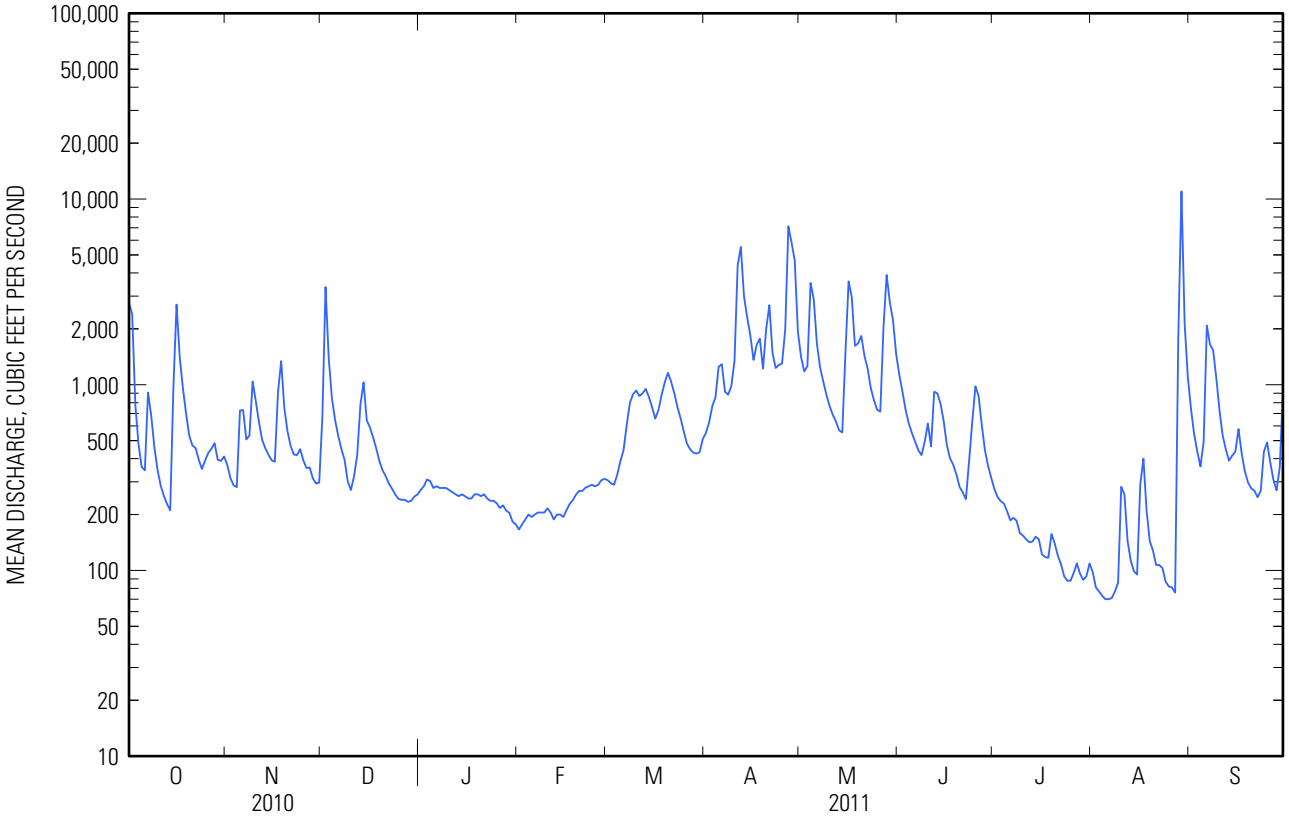
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1923 - 2011	
Annual total	144,906		262,941			
Annual mean	397		720		320	
Highest annual mean					720	2011
Lowest annual mean					122	1965
Highest daily mean	3,650	Mar 24	11,000	Aug 29	11,000	Aug 29, 2011
Lowest daily mean	57	Aug 21	70	Aug 5	12	Sep 19, 1957
Annual seven-day minimum	60	Sep 5	74	Aug 2	20	Sep 23, 1941
Annual runoff (cfsm)	1.47		2.67		1.19	
Annual runoff (inches)	19.96		36.23		16.13	
10 percent exceeds	830		1,510		720	
50 percent exceeds	231		400		164	
90 percent exceeds	94		143		63