Water-Data Report 2012

01161000 ASHUELOT RIVER AT HINSDALE, NH

Lower Connecticut Basin
Middle Connecticut Subbasin

LOCATION.--Lat 42°47′09″, long 72°29′12″ referenced to North American Datum of 1927, Cheshire County, NH, Hydrologic Unit 01080201, on left bank, 40 ft upstream from State Highway 63S bridge in Hinsdale, 200 ft south of State Highway 63S and 119W intersection in Hinsdale, 0.2 mi downstream from dam, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--420 mi^2.

SURFACE-WATER RECORDS

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

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 National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to September 29, 1933, nonrecording gage on State Highway 63S bridge at same datum.

COOPERATION.--New Hampshire Department of Environmental Services.

REMARKS.--Records good except those for estimated daily discharges, 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 ft^3/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 ft^3/s, September 15, 1929. Maximum discharge since at least 1859, that of March 19, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,570 ft^3/s, Dec. 8, gage height, 7.36 ft; minimum daily discharge, 67 ft^3/s, Sept. 3.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 01161000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/01161000.2012.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,980	1,220	2,130	1,240	1,000	499	445	375	1,940	191	94	69
2	3,010	1,210	1,900	1,310	967	490	425	515	2,130	170	88	69
3	2,560	1,250	1,640	1,330	923	470	392	567	2,860	154	76	67
4	2,320	1,350	1,490	1,090	775	497	379	604	2,700	155	73	73
5	2,590	1,440	1,400	1,040	719	494	361	678	2,350	204	78	83
6	2,520	1,370	1,290	1,010	685	442	349	827	2,130	185	109	107
7	2,030	1,240	1,420	944	686	449	327	828	2,070	162	116	99
8	1,650	1,150	4,000	926	643	576	310	750	1,990	150	101	104
9	1,310	1,160	4,240	887	612	961	297	1,020	1,700	139	91	148
10	1,080	1,130	3,400	822	584	1,040	288	1,430	1,400	126	101	165
11	980	1,350	2,670	753	547	888	273	1,770	1,140	118	210	142
12	885	1,470	2,240	721	506	801	258	1,650	870	113	881	121
13	813	1,300	2,020	698	448	879	258	1,270	819	107	903	108
14	893	1,130	1,860	e609	451	974	251	985	1,080	105	442	92
15	1,670	1,020	1,760	e513	430	1,030	340	1,060	944	102	305	85
16	1,890	944	1,750	e485	426	1,070	358	1,310	768	101	290	78
17	1,570	929	1,690	e572	433	1,080	246	1,430	615	104	238	73
18	1,350	925	1,460	e603	430	1,050	218	1,410	503	113	202	83
19	1,230	867	1,260	e572	417	1,010	201	1,180	430	107	174	706
20	1,230	807	1,220	e540	395	943	197	943	390	100	153	997
21	1,210	752	1,090	e525	386	900	189	766	348	113	137	553
22	1,120	699	1,110	e581	388	847	187	654	305	103	123	355
23	1,000	1,020	1,400	e574	400	776	543	564	290	89	114	314
24	918	1,600	1,670	e560	423	751	864	493	306	83	108	290
25	892	1,430	1,410	e684	675	815	696	466	309	85	99	267
26	870	e1,160	1,220	e695	660	797	515	441	293	80	93	220
27	894	e1,060	1,130	1,100	532	684	437	384	287	74	77	194
28	1,190	e1,030	1,610	1,800	485	649	409	342	253	93	88	216
29	1,230	1,040	1,840	1,520	485	631	368	307	225	94	87	452
30	1,250	1,670	1,540	1,170	---	555	340	1,600	207	100	76	587
31	1,270	---	1,320	1,050	---	484	---	2,210	---	99	78	---
Total	46,405	34,723	56,180	26,924	16,511	23,532	10,721	28,829	31,652	3,719	5,805	6,917
Mean	1,497	1,157	1,812	869	569	759	357	930	1,055	120	187	231
Max	3,010	1,670	4,240	1,800	1,000	1,080	864	2,210	2,860	204	903	997
Min	813	699	1,090	485	386	442	187	307	207	74	73	67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	401	633	707	633	612	1,251	1,864	985	536	291	242	262
Max	3,088	2,248	2,209	2,139	2,016	4,392	3,723	2,175	2,075	1,214	1,098	2,394
(WY)	(2006)	(1928)	(1997)	(2006)	(1984)	(1936)	(1960)	(1945)	(1984)	(2009)	(1990)	(1938)
Min	49.2	55.4	113	84.0	113	273	357	335	96.9	60.8	50.5	37.7
(WY)	(1965)	(1965)	(1915)	(1981)	(1980)	(1940)	(2012)	(1985)	(1964)	(1965)	(1966)	(2010)

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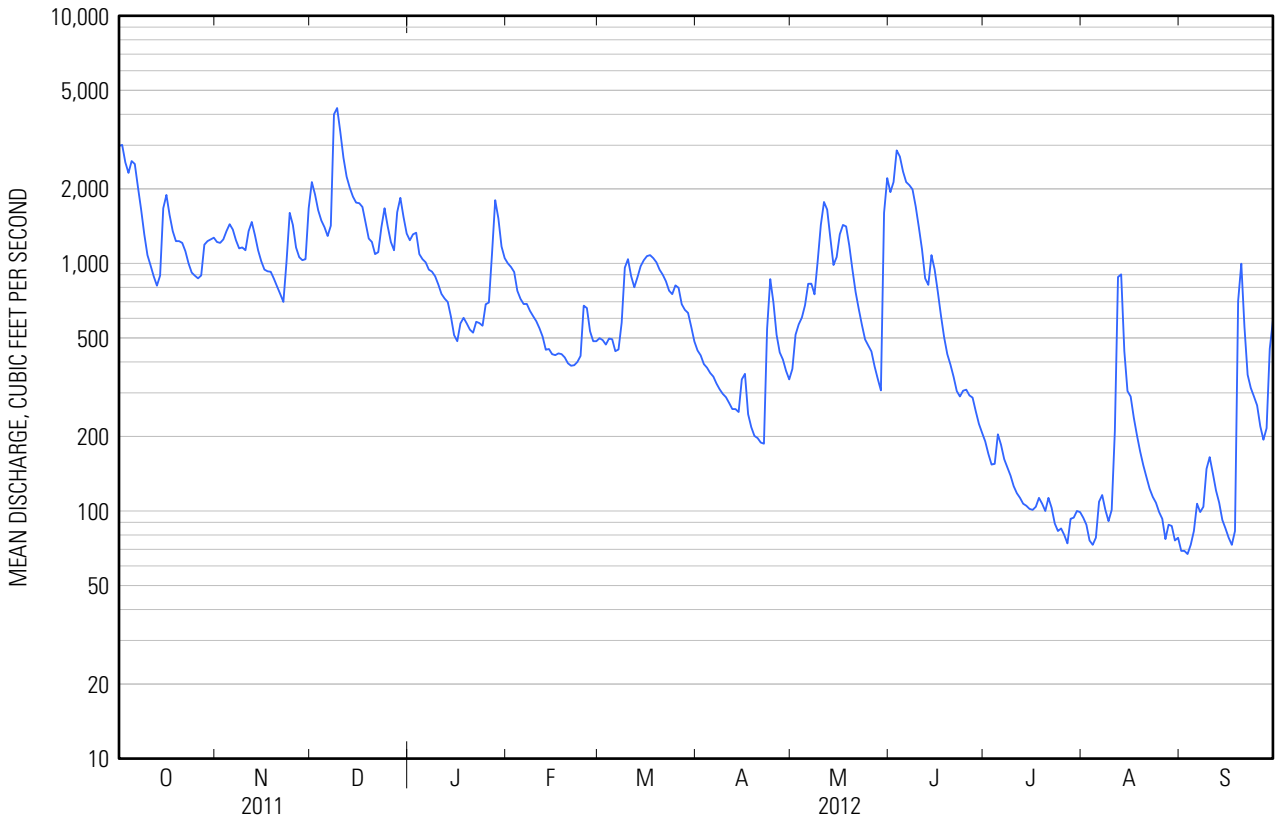
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1907 - 2012	
Annual total	416,892		291,918			
Annual mean	1,142		798		701	
Highest annual mean					1,287	2006
Lowest annual mean					216	1965
Highest daily mean	[e]4,790	Mar 8	4,240	Dec 9	16,500	Mar 19, 1936
Lowest daily mean	107	Aug 14	67	Sep 3	12	Sep 15, 1929
Annual seven-day minimum	132	Jul 19	74	Aug 30	30	Sep 21, 2010
Maximum peak flow			4,570	Dec 8	[a]16,600	Mar 19, 1936
Maximum peak stage			7.36	Dec 8	[b]20.20	Mar 19, 1936
10 percent exceeds	2,330		1,660		1,750	
50 percent exceeds	954		646		395	
90 percent exceeds	238		101		99	

[e] Estimated.
[a] By computation of peak flow over dam as explained above.
[b] From flood marks as explained above.