Water-Data Report 2011

01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MA

UPPER HUDSON RIVER BASIN
HOOSIC RIVER SUBBASIN

LOCATION.--Lat 42°42′01″, long 73°09′34″ referenced to North American Datum of 1927, Berkshire County, MA, Hydrologic Unit 02020003, on left bank 0.3 mi downstream from Sherman Brook and 2.7 mi east of junction of U.S. Highway 7 and State Highway 2 in Williamstown.

DRAINAGE AREA.--126 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge: July 1940 to current year. Water-quality records: Water years 1953-54, 1957-58, 1967-69.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 616.11 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark). Prior to June 6, 1979, at site 1.2 mi downstream at different datum.

COOPERATION.--Massachusetts Department of Conservation and Recreation, Office of Water Resources; and Massachusetts Department of Environmental Protection, Office of Watershed Management.

REMARKS.--Records good except those for discharges greater than 4,300 cfs and those for estimated daily discharges, which are poor. The 2011 water year and historic peak gage height was determined from a peak-stage indicator and was not recorded. This value is not included in the computed unit values gage height record. Prior to 1966, slight diurnal fluctuation at low flow caused by mills upstream. Some regulation by Cheshire Reservoir 16 miles upstream.

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 01332500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/01332500.2011.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	1,500	190	981	150	e90	144	268	418	147	251	66	321
2	590	171	1,300	261	e103	128	267	360	158	214	62	269
3	222	160	567	232	e95	118	268	323	129	228	58	229
4	157	277	408	180	e104	118	447	423	115	225	57	209
5	138	574	302	165	e126	130	945	516	107	179	56	831
6	245	375	266	144	e151	801	764	469	102	219	58	2,670
7	494	259	243	134	e122	3,030	578	356	97	303	83	2,860
8	286	246	211	140	e110	1,290	565	309	91	164	111	2,460
9	196	245	179	132	e102	759	559	258	122	180	79	1,270
10	161	257	153	e120	e98	600	739	229	169	143	94	762
11	143	235	179	e109	e90	1,570	1,210	213	330	129	73	561
12	116	206	374	e98	e105	1,380	1,600	204	296	118	62	457
13	100	190	1,410	e100	e101	917	1,200	195	196	110	57	382
14	97	176	661	e107	e98	714	912	182	197	104	59	323
15	1,110	163	417	e109	e100	606	696	313	239	94	299	305
16	951	162	343	e120	e98	772	523	413	172	92	603	303
17	437	554	268	e125	e100	982	1,490	284	220	79	210	223
18	259	406	229	e123	e134	1,440	895	400	341	77	138	205
19	204	257	204	e118	e160	1,450	645	796	193	78	128	190
20	176	216	191	e120	e120	925	597	670	148	74	155	193
21	174	192	183	e114	e125	756	506	448	128	68	140	192
22	176	179	176	e105	e116	668	412	388	279	65	308	387
23	151	178	169	e104	e115	552	645	314	929	70	159	657
24	141	170	159	e116	e114	478	782	311	709	65	121	950
25	134	157	146	e118	134	421	575	267	734	73	119	484
26	168	292	136	e118	130	363	590	227	806	103	137	358
27	704	254	125	e114	126	306	710	231	448	84	149	291
28	553	201	e143	e109	131	285	726	195	318	73	5,640	297
29	335	181	e134	e101	---	272	743	174	549	69	2,400	1,460
30	269	185	e125	e98	---	264	518	159	343	131	749	1,530
31	228	---	e119	e95	---	281	---	145	---	80	463	---
Total	10,615	7,308	10,501	3,979	3,198	22,520	21,375	10,190	8,812	3,942	12,893	21,629
Mean	342	244	339	128	114	726	712	329	294	127	416	721
Max	1,500	574	1,410	261	160	3,030	1,600	796	929	303	5,640	2,860
Min	97	157	119	95	90	118	267	145	91	65	56	190
Cfsm	2.72	1.93	2.69	1.02	0.91	5.77	5.65	2.61	2.33	1.01	3.30	5.72
In.	3.13	2.16	3.10	1.17	0.94	6.65	6.31	3.01	2.60	1.16	3.81	6.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	194	267	287	255	242	460	666	360	225	140	131	135
Max	813	544	714	607	765	1,038	1,178	872	636	461	436	721
(WY)	(2006)	(1956)	(1974)	(2006)	(1981)	(1979)	(1969)	(1943)	(1972)	(2009)	(2000)	(2011)
Min	41.0	46.5	118	60.8	75.3	139	253	144	81.0	60.4	48.2	34.5
(WY)	(1965)	(1965)	(1962)	(1981)	(1980)	(1965)	(1995)	(1987)	(1965)	(1962)	(1980)	(1980)

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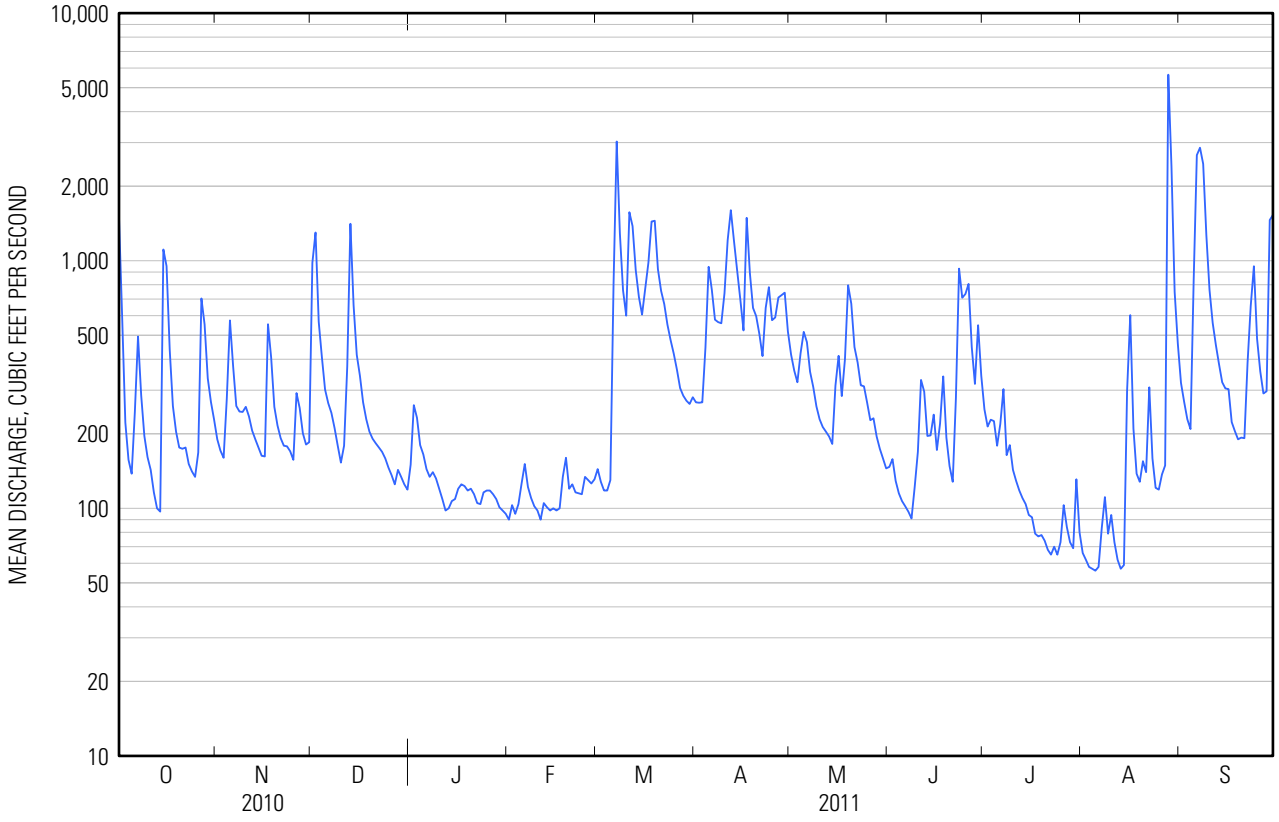
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1940 - 2011	
Annual total	100,357		136,962			
Annual mean	275		375		280	
Highest annual mean					377	2006
Lowest annual mean					135	1965
Highest daily mean	2,840	Mar 23	5,640	Aug 28	10,400	Dec 31, 1948
Lowest daily mean	41	Sep 7	56	Aug 5	24	Sep 9, 1980
Annual seven-day minimum	43	Sep 3	62	Jul 31	25	Sep 9, 1980
Maximum peak flow			[ae]14,900	Aug 28	[ae]14,900	Aug 28, 2011
Maximum peak stage			[b]14.58	Aug 28	[b]14.58	Aug 28, 2011
Instantaneous low flow			53	Aug 4	5.8	Aug 30, 1940[c]
Annual runoff (cfsm)	2.18		2.98		2.22	
Annual runoff (inches)	29.63		40.44		30.19	
10 percent exceeds	570		788		591	
50 percent exceeds	178		204		174	
90 percent exceeds	55		98		68	

[a] From rating curve extended above 4,300 ft³/s on basis of contracted-opening measurement of peak flow.
[b] From peak-stage indicator.
[e] Estimated.
[c] Also occurred on Aug. 31 and Oct. 26, 1940.