Water-Data Report 2011

01166500 MILLERS RIVER AT ERVING, MA

CONNECTICUT RIVER BASIN
MILLERS RIVER SUBBASIN

LOCATION.--Lat 42°35′51″, long 72°26′19″ referenced to North American Datum of 1927, Franklin County, MA, Hydrologic Unit 01080202, on right bank 75 ft downstream from bridge at Farley, 0.6 mi upstream from Mormon Hollow Brook, 2.4 mi downstream from Erving, and 5.5 mi upstream from mouth.

DRAINAGE AREA.--372 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge: August 1914 to June 1915 (twice-daily gage heights and corresponding discharge), July 1915 to current year. Water-quality records: Water years 1953, 1965-66, 1994.

REVISED RECORDS.--WSP 641: 1920(M). WSP 781: 1928(M), 1933(M). WSP 1301: 1915(M). WDR MA-RI-84-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Elevation of gage is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 30, 1915, non-recording gage, June 30, 1915, to Sept. 20, 1938, water-stage recorder, and Sept. 21 to Dec. 31, 1938, non-recording gage, at site 2.2 mi upstream at different datum. Jan. 1 to Mar. 29, 1939, non-recording gage, and Mar. 30, 1939, to Sept. 12, 1941, water-stage recorder, at site 0.4 mi downstream at different datum.

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

REMARKS.--Records good except those for estimated daily discharge, which are poor. Flow regulated by power plants and by Lake Monomonac and other reservoirs; high flow regulated by Birch Hill Reservoir 22 mi upstream since 1941 and Tully Lake since 1948. Greater regulation by power plants prior to 1966.

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 01166500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/01166500.2011.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	423	271	560	471	e330	e790	1,030	1,040	378	652	136	2,740
2	614	279	1,010	460	e360	e820	955	941	479	534	141	2,660
3	526	315	1,110	500	e380	e780	957	821	482	468	114	2,030
4	380	384	1,070	485	e385	e730	996	760	442	411	99	1,400
5	278	668	966	476	e395	870	1,360	784	349	332	91	785
6	250	844	857	440	e440	1,320	1,500	760	302	304	95	711
7	304	833	748	437	e490	4,750	1,470	680	267	333	119	1,610
8	318	854	650	434	e470	3,180	1,270	638	259	301	212	2,960
9	246	972	e500	403	e450	3,280	1,710	615	270	282	223	3,210
10	257	976	e430	373	e425	2,800	1,640	572	361	255	259	2,890
11	198	971	482	379	e390	2,770	1,480	533	407	230	261	2,440
12	175	898	672	e370	e410	3,710	796	499	491	195	238	1,950
13	136	821	1,630	e405	e425	3,700	544	434	536	174	192	1,540
14	134	705	1,640	e415	e420	3,680	1,020	382	483	165	177	1,160
15	404	653	1,480	e400	e390	3,650	2,090	445	449	157	281	901
16	675	526	1,290	e390	e380	3,700	2,140	899	415	151	635	751
17	825	834	e970	e375	e390	3,880	2,390	1,140	380	143	666	637
18	741	971	e780	e400	e450	3,930	1,890	1,400	404	148	508	555
19	617	998	e690	e430	e550	4,140	2,540	1,530	358	138	371	489
20	471	956	e630	e425	e590	3,710	2,240	1,410	310	123	325	437
21	375	856	e600	e415	e580	3,490	1,770	1,160	240	113	271	435
22	335	766	e560	e405	e550	3,240	1,470	1,120	356	109	270	469
23	294	709	e540	e400	e510	3,310	1,380	971	1,420	107	289	633
24	263	610	524	e390	e490	2,980	1,540	826	1,660	105	268	1,260
25	259	559	503	e415	e530	2,030	1,490	754	1,530	110	256	1,550
26	244	589	e460	e400	e610	1,540	1,420	696	1,430	144	516	1,420
27	257	613	438	e395	e670	1,280	1,340	633	1,230	124	427	1,130
28	357	573	471	e390	e710	1,140	1,290	565	1,030	139	2,020	1,000
29	392	525	e475	e370	---	1,240	1,290	531	950	121	1,830	1,080
30	355	464	e450	e360	---	1,210	1,180	477	803	128	1,080	1,490
31	320	---	e435	e340	---	1,150	---	418	---	118	1,610	---
Total	11,423	20,993	23,621	12,748	13,170	78,800	44,188	24,434	18,471	6,814	13,980	42,323
Mean	368	700	762	411	470	2,542	1,473	788	616	220	451	1,411
Max	825	998	1,640	500	710	4,750	2,540	1,530	1,660	652	2,020	3,210
Min	134	271	430	340	330	730	544	382	240	105	91	435
Cfsm	0.99	1.88	2.05	1.11	1.26	6.83	3.96	2.12	1.66	0.59	1.21	3.79
In.	1.14	2.10	2.36	1.27	1.32	7.88	4.42	2.44	1.85	0.68	1.40	4.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	376	550	683	640	631	1,184	1,590	828	535	302	237	280
Max	2,549	1,617	2,324	2,008	2,264	3,989	3,584	1,687	1,932	1,132	1,052	3,030
(WY)	(2006)	(1928)	(1997)	(2006)	(2008)	(1936)	(1940)	(1996)	(1984)	(2009)	(1928)	(1938)
Min	74.0	79.7	143	69.5	132	362	443	286	92.5	61.7	52.6	43.2
(WY)	(1940)	(1965)	(1931)	(1981)	(1931)	(1989)	(1985)	(1999)	(1964)	(1966)	(1964)	(1964)

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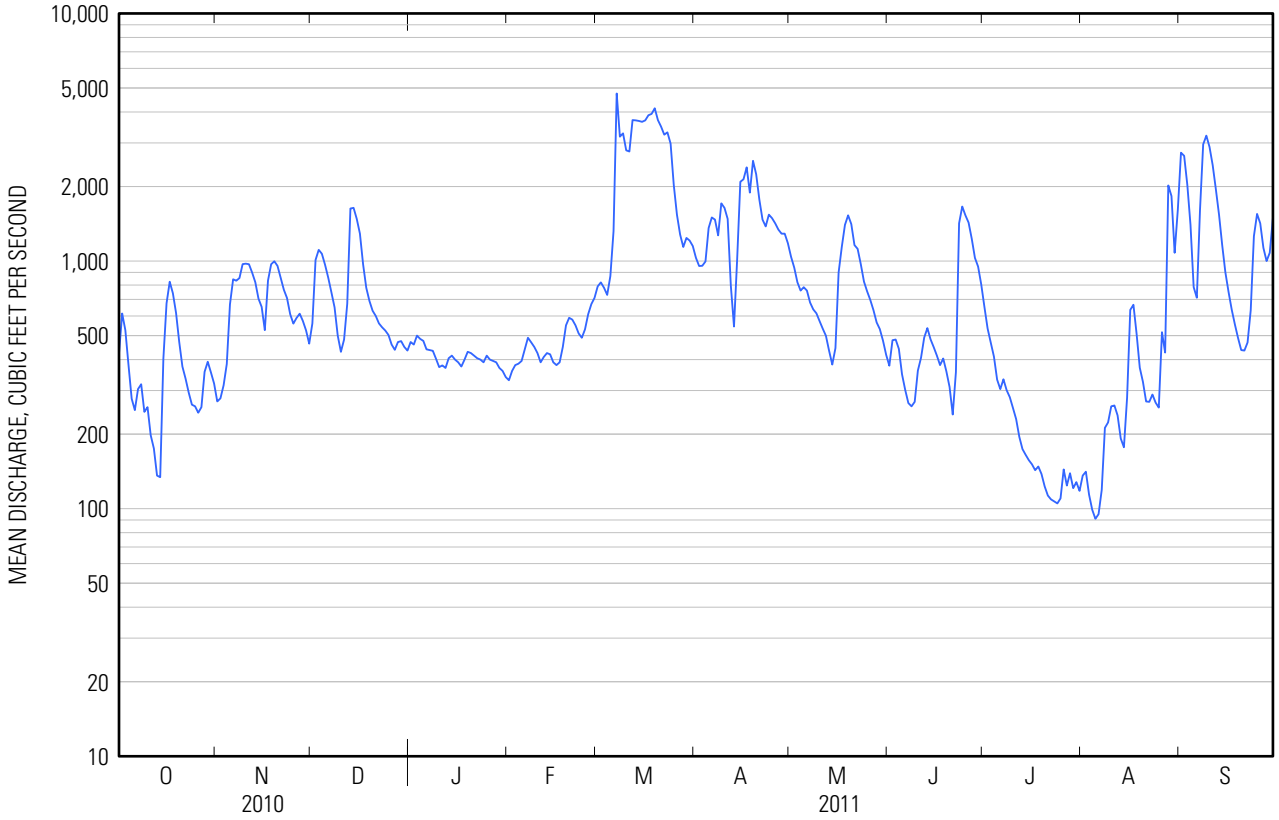
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1916 - 2011	
Annual total	249,278		310,965			
Annual mean	683		852		652	
Highest annual mean					1,070	2006
Lowest annual mean					196	1965
Highest daily mean	3,850	Apr 1	4,750	Mar 7	22,000	Sep 22, 1938
Lowest daily mean	38	Aug 21	91	Aug 5	8.0	Sep 6, 1926
Annual seven-day minimum	40	Sep 21	113	Jul 31	31	Aug 25, 1995
Maximum peak flow			5,520	Mar 7	[a]29,000	Sep 22, 1938
Maximum peak stage			6.88	Mar 7	[b]13.37	Sep 22, 1938
Instantaneous low flow			91	Oct 13	61	Oct 6, 2007
Annual runoff (cfsm)	1.84		2.29		1.75	
Annual runoff (inches)	24.93		31.10		23.82	
10 percent exceeds	1,890		1,730		1,510	
50 percent exceeds	415		533		416	
90 percent exceeds	53		235		107	

[a] From rating extended above 19,700 cfs on the basis of the mean discharge of two slope-area measurements.
[b] From flood marks, at site and datum then in use.