Water-Data Report 2013

01102345 SAUGUS RIVER AT SAUGUS IRONWORKS AT SAUGUS, MA

MASSACHUSETTS-RHODE ISLAND COASTAL BASIN
NORTH COASTAL SUBBASIN; SAUGUS RIVER SUBBASIN

LOCATION.--Lat 42°28′10″, long 71°00′27″ referenced to North American Datum of 1927, Essex County, MA, Hydrologic Unit 01090001, on left bank, 20 ft upstream from Bridge Street opposite Saugus Ironworks National Historic Site, at Saugus.

DRAINAGE AREA.--20.8 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge: March 1994 to current year. Water-quality records: water years 1999-2001 and 2008-2009.

REVISED RECORDS.--WDR MA-RI-03-1: Drainage area.

GAGE.--Water stage recorder with telephone telemeter. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

COOPERATION.--Massachusetts Department of Conservation and Recreation, Office of Water Resources.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Seasonal regulation by ponds upstream.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 01102345, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/01102345.2013.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	7.3	51	11	79	29	152	33	14	23	33	4.0	2.6
2	5.9	43	11	64	e21	137	30	15	18	38	11	2.8
3	7.8	37	11	45	19	127	27	13	21	39	13	2.8
4	9.8	30	11	40	17	119	26	12	20	38	10	1.8
5	9.3	23	10	34	e17	94	25	10	16	35	9.3	1.4
6	8.7	20	10	32	16	75	23	9.6	14	32	7.1	1.3
7	7.7	18	10	31	e15	106	22	9.4	36	27	6.0	1.2
8	9.1	28	15	29	e14	99	22	9.1	138	25	5.8	1.1
9	8.1	29	15	30	e15	86	23	14	80	21	22	0.99
10	7.9	22	30	29	e20	77	23	19	51	19	25	1.0
11	8.3	19	26	32	e22	74	28	12	108	17	11	1.1
12	7.5	17	21	34	e24	87	31	9.9	126	16	7.5	2.1
13	6.7	20	19	33	e23	108	37	8.6	104	13	6.7	27
14	14	23	18	32	24	95	28	7.4	171	12	6.5	7.6
15	15	18	16	31	25	84	25	6.7	139	11	6.1	3.1
16	9.5	16	15	32	27	77	23	6.2	107	10	5.9	2.2
17	8.1	15	27	33	25	64	21	5.6	105	9.9	5.7	1.9
18	7.6	14	70	29	e23	52	21	5.2	119	8.2	5.6	1.8
19	7.7	14	51	25	23	52	20	5.0	92	6.8	5.0	1.6
20	27	13	34	25	41	59	31	6.4	72	6.1	4.1	1.6
21	23	13	57	23	32	53	25	6.6	66	5.9	3.5	1.5
22	11	12	66	21	28	52	20	9.4	56	5.2	2.5	6.2
23	9.4	12	49	e19	32	52	19	7.9	45	12	2.0	4.1
24	8.2	12	33	e17	53	52	20	13	40	15	1.7	2.1
25	7.6	12	28	e16	57	53	19	32	36	8.8	1.6	1.6
26	16	11	25	e16	52	53	19	22	40	15	1.4	1.7
27	22	11	158	e16	114	47	18	14	39	13	1.4	1.6
28	25	12	172	e15	197	44	17	9.8	63	8.3	1.4	1.5
29	54	12	109	16	---	42	16	12	53	6.6	1.3	1.5
30	88	11	97	20	---	36	15	44	42	6.2	1.2	1.4
31	73	---	85	36	---	33	---	30	---	4.7	1.4	---
Total	530.2	588	1,310	934	1,005	2,341	707	398.8	2,040	517.7	196.7	90.19
Mean	17.1	19.6	42.3	30.1	35.9	75.5	23.6	12.9	68.0	16.7	6.35	3.01
Max	88	51	172	79	197	152	37	44	171	39	25	27
Min	5.9	11	10	15	14	33	15	5.0	14	4.7	1.2	0.99
Cfsm	0.82	0.94	2.03	1.45	1.73	3.63	1.13	0.62	3.27	0.80	0.31	0.14
In.	0.95	1.05	2.34	1.67	1.80	4.19	1.26	0.71	3.65	0.93	0.35	0.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	24.1	27.5	41.5	37.9	41.6	68.1	60.3	41.6	29.9	14.0	12.5	11.9
Max	122	62.4	108	62.3	90.9	229	141	229	117	38.7	64.7	36.9
(WY)	(1997)	(2012)	(1997)	(1996)	(2008)	(2010)	(2004)	(2006)	(1998)	(2006)	(2011)	(2011)
Min	2.35	2.68	6.45	10.4	13.7	20.1	13.0	7.89	3.06	2.23	1.39	2.11
(WY)	(1998)	(2002)	(1999)	(2002)	(2002)	(2006)	(1995)	(1995)	(1999)	(1997)	(1999)	(1997)

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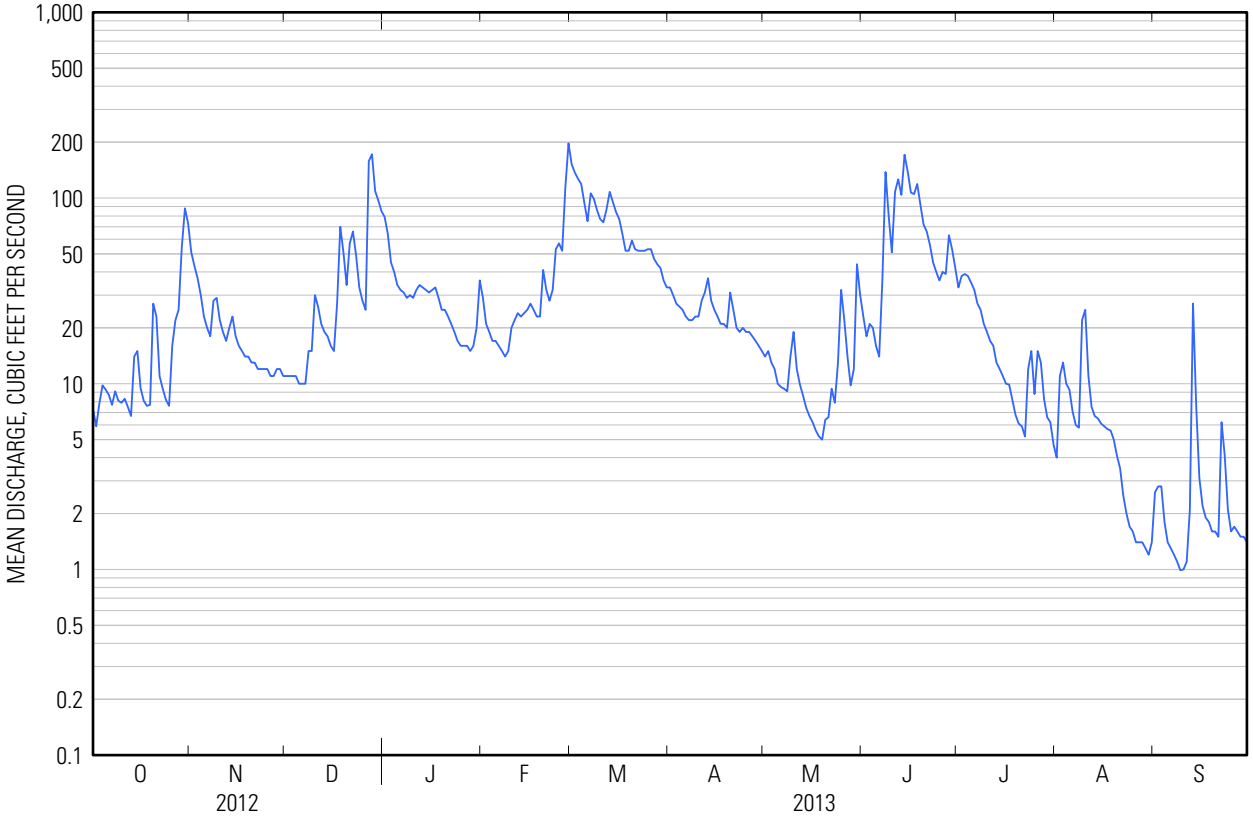
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1994 - 2013	
Annual total	7,853.2		10,658.59			
Annual mean	21.5		29.2		34.2	
Highest annual mean					56.5	2006
Lowest annual mean					14.5	2002
Highest daily mean	172	Dec 28	197	Feb 28	1,220	May 15, 2006
Lowest daily mean	2.5	Sep 18	0.99	Sep 9	0.35	Aug 21, 2010
Annual seven-day minimum	3.0	Sep 12	1.2	Sep 5	0.48	Aug 16, 2010
Maximum peak flow			229	Feb 28	1,420	May 14, 2006
Maximum peak stage			4.28	Feb 28	7.39	May 14, 2006
Instantaneous low flow			0.84	Sep 10	0.46	Sep 5, 1999
Annual runoff (cfsm)	1.03		1.40		1.64	
Annual runoff (inches)	14.05		19.06		22.34	
10 percent exceeds	43		73		76	
50 percent exceeds	15		19		20	
90 percent exceeds	5.3		3.3		3.4