



Water Supply Update

Serving the Communities of Hingham, Hull, & North Cohasset

News and Notes

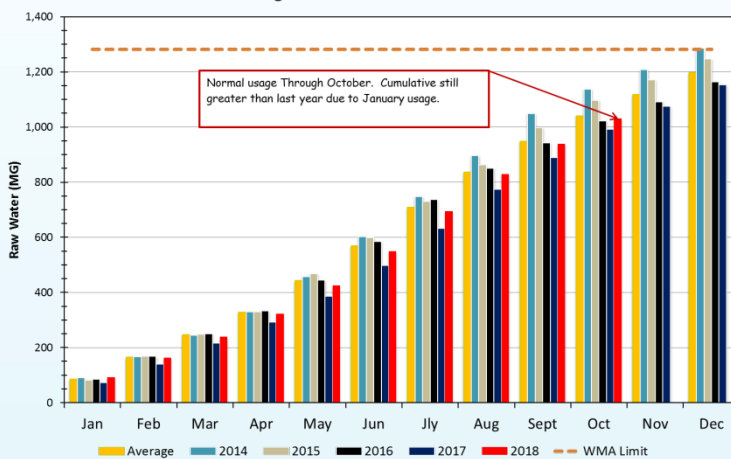
- 💧 This fall, we are flushing sections our distribution system in Hingham, and our entire system in Hull and North Cohasset. The program began on Sunday evening, October 14 and is expected to be completed by the end of November. Hull will be completed the first week in November, and then our service crews will move to South Hingham. Until the final week in November, flushing is being conducted in the evenings from 9:00 p.m. until 5:00 a.m., Sundays through Thursdays. For the last week of November, we are planning to flush during daytime hours (8:30 a.m. to 4:30 p.m., Monday through Friday. Detailed information on the streets to be flushed each evening can be found on our website.
- 💧 We will also be expanding our valve maintenance program in the fall. The program consists of locating and exercising the valves and identifying any valves in need of repair or replacement. This year, we added or replaced six valves and repaired over a dozen without excavating.
- 💧 Design and permitting work on several water main projects planned for 2019 is nearly complete, including water main replacements on Beach Avenue, Maple Lane, Cadish Avenue, Hayes Road, Bradley Hill Road, Bremer Circle, and Forget Me Not Lane. Several of these water main replacement projects include the elimination of seasonal bleeder valves, which are used in the winter to run the water to waste and prevent the pipes from freezing. Once completed, these projects will save almost four million gallons of water per year (~11,000 gpd on an average annual basis).
- 💧 At our treatment plant in Hingham, we are scheduled to install new sludge conveyors after the Thanksgiving holiday. These conveyors will replace old, inefficient equipment, and will also reduce chemical and operating costs at the facility associated with the handling of sludge generated in the water treatment process.
- 💧 Our customer water conservation program continues to be a great success. Since March 2017, we have completed the replacement of over 780 toilets with new water conserving units for over 440 customers. The work completed has resulted in water conservation savings of approximately 11,900 gallons per day (approximately 4.34 million gallons per year)! If you have not already had the opportunity to sign up for our customer water conservation program, or tell others about it, please visit our website at www.aquarionwater.com/conservationoffers.

Water Resource Management

All of our sources are in excellent condition due to the relatively wet fall. Accord Pond was taken offline on October 14 to recharge over the fall, winter, and spring. All of our wells will be tested this November in order to schedule cleanings and rehabilitation work this winter. Next year, we plan to install a new pump for our Fulling Mill Cistern water supply. The Fulling Mill Cistern is recharged from a 1,000 foot horizontal collection well, a diversion from Accord Brook and a diversion from Fulling Mill Brook.

Aquarion is continuing to evaluate the Fulling Mill resource area as a possible way to increase our withdrawals from existing sources. In September, we met with various state regulatory officials to discuss our proposed approach to store water in our Fulling Mill resource area during the winter and spring then release it to a tributary to the Weir River to augment stream flows in the summer.

Aquarion Water Company, MA
 Cumulative Monthly Raw Water Flows (Sum of Sources)
 Hingham Water Treatment Plant



Water Supply and Demand

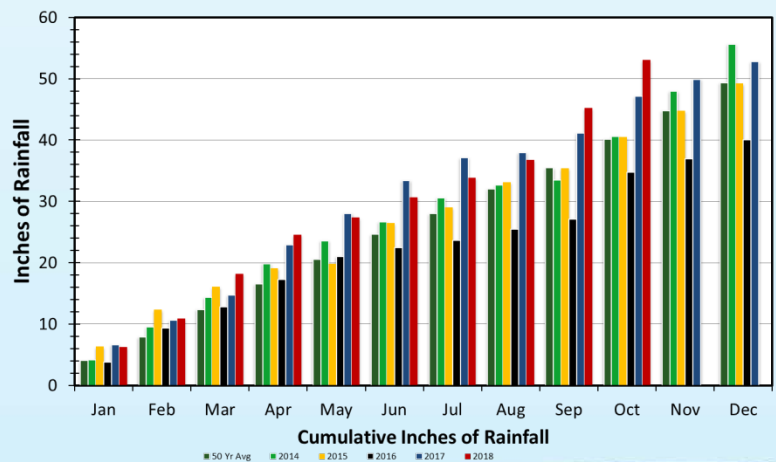
Water demands for October 2018 were slightly less than average for this time of year. The average amount of water pumped from our sources to meet demands in the month of October 2018 was 2.96 million gallons per day (MGD). The cumulative average daily usage through October (3.39 MGD) is marginally more than last year at this time, but the cumulative usage is less than average for this time of year. We anticipate that water demands will steadily decline through the fall and winter, and we

are confident that we will continue to meet the needs of our customers.

Weather Trends

The total amount of recorded precipitation for October 2018 was 7.85 inches, which is 3.15 inches above the historic average precipitation for the month of October. Cumulative precipitation through the month of October is 53.08 inches, which is 12.89 inches above average.

Aquarion Water Company, MA
 Cumulative Monthly Rainfall
 Hingham Water Treatment Plant





Recent precipitation has allowed our aquifer to remain at normal groundwater levels for this time of year. In addition, the water level of Accord Pond is at 64.5% capacity, representing a usable volume of over 177 million gallons, which is about average for this time of year.

If you haven't already please Like us on Facebook: www.facebook.com/HinghamWaterFacts

Aquarion Water Company, MA

Monthly Average Water Withdrawals (including Hingham, Hull, & N. Cohasset)

Month/Yr	2011 (MGD)	2012 (MGD)	2013 (MGD)	2014 (MGD)	2015 (MGD)	2016 (MGD)	2017 (MGD)	2018 (MGD)	Average (MGD)
January	3.19	2.75	2.78	2.62	2.65	2.77	2.34	2.98	2.73
February	3.08	2.62	2.72	2.60	3.08	2.87	2.43	2.54	2.77
March	2.84	2.69	2.61	2.57	2.60	2.65	2.44	2.48	2.63
April	2.88	3.20	2.42	2.76	2.73	2.74	2.57	2.75	2.76
May	3.47	3.73	3.21	4.06	4.41	3.59	3.04	3.30	3.64
June	4.35	3.49	3.94	4.75	4.34	4.66	3.73	4.16	4.18
July	4.87	4.06	4.63	4.64	4.23	4.94	4.31	4.67	4.53
August	3.87	3.14	4.34	4.79	4.32	3.67	4.57	4.36	4.10
September	2.89	2.81	4.03	5.09	4.51	3.05	3.84	3.65	3.75
October	3.01	2.35	3.57	2.89	3.21	2.59	3.35	2.96	3.00
November	2.70	2.48	2.93	2.36	2.46	2.29	3.22		2.63
December	2.73	2.59	2.66	2.46	2.46	2.33	2.54		2.54
Average (MGD)	3.32	2.99	3.33	3.47	3.42	3.18	3.16	3.39	3.27

MGD - Million Gallons per Day

* Includes Meter Corrections

Annual Water Management Act Registration Limit: 3.51 MGD

Aquarion Water Company, MA

Monthly Average Water Withdrawals (including Hingham, Hull, & N. Cohasset)

Month/Yr	2011 (MG)	2012 (MG)	2013 (MG)	2014 (MG)	2015 (MG)	2016 (MG)	2017 (MG)	2018 (MG)	Average (MG)
January	98.89	85.17	86.33	81.37	82.11	85.89	72.55	92.35	84.61
February	86.27	76.11	76.27	72.79	86.12	83.16	67.91	71.07	78.38
March	88.19	83.29	80.98	79.52	80.72	82.21	75.49	76.80	81.49
April	86.52	95.94	72.63	82.70	81.99	82.23	76.97	82.52	82.71
May	107.58	115.63	99.41	125.74	136.57	111.28	94.27	102.23	112.93
June	130.45	104.80	118.22	142.44	130.20	139.81	112.00	124.86	125.42
July	151.05	125.83	143.48	143.84	131.10	153.18	133.49	144.85	140.28
August	119.85	97.19	134.51	148.39	133.94	113.87	141.68	135.03	127.06
September	86.72	84.25	121.02	152.74	135.38	91.38	115.19	109.49	112.38
October	93.24	72.93	110.76	89.59	99.47	80.41	103.83	91.79	92.89
November	80.88	74.49	87.81	70.85	73.69	68.71	82.45		76.98
December	84.77	80.28	82.49	76.41	76.14	72.18	78.71		78.71
Total (MG)	1,214.42	1,095.91	1,213.91	1,266.36	1,247.43	1,164.31	1,154.57	1,030.99	1,200.39
Average (MGD)	3.32	2.99	3.33	3.47	3.42	3.18	3.16	3.39	3.28

MG - Million Gallons

MGD - Million Gallons per Day

* Includes meter corrections

Aquarion Water Company, MA
Monthly Water Supply Report
Hingham/Hull/Cohasset

Month
October

Year
2018

Monthly Supply Pumping Summary

Accord Pond	6.79	MG	7.4%
Scotland St Well #1	15.37	MG	16.8%
Scotland St Well #1A	4.83	MG	5.3%
Prospect St Well	7.08	MG	7.7%
Free St Well #2	3.14	MG	3.4%
Free St Well #2A	17.53	MG	19.1%
Free St Well #3	0.00	MG	0.0%
Free St Well #4	18.61	MG	20.3%
Free St Well #5	4.12	MG	4.5%
Fulling Mill Well #1	10.50	MG	11.5%
Fulling Mill Well #2	3.70	MG	4.0%
Fulling Mill Cistern	0.00	MG	0.0%
Downing St Well	0.00	MG	0.0%
	91.67	MG	100.0%
	2.96	MGD	

Accord Pond (last day of the month)

Water Elevation (Ft)	138.9
Usable Volume (MG)	177.0
Capacity (%)	64.5

MG - Million Gallons

MGD - Million Gallons Per Day

Statistics

Pumping

Maximum Day (MGD)	3.47
Date	10/10/18

Minimum Day (MGD)	2.53
Date	10/13/18

Year to Date

Maximum Day (MGD)	6.33
Date	07/04/18

Average Day (MGD)	3.39
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Temperature (°F)

Maximum	89.2
Date	10/10/18

Minimum	32.5
Date	10/21/18

Precipitation

Monthly Total (Inches)	7.85
Annual Total (Inches)	53.08