



Water Supply Update

Serving the Communities of Hingham, Hull, & North Cohasset

News and Notes



- 💧 Work on the Shallow Water Main Replacement project is nearly complete. New water mains and services on Logan Avenue and Alsada Road in Hull are on-line and paving is complete. Subsurface conditions on Elmore Road were difficult. Our contractor had to blast to remove bedrock for the new water main installation. We expect to wrap up work on Elmore Road in Hingham by the first week in October. Phase 2 will be completed in Spring 2019, and includes Hayes Road in Hingham and Maple Lane and a portion of Cadish Avenue in Hull. Once this project is complete, we will be able to eliminate the use of bleeders and save approximately 1.2 million gallons of water per year.
- 💧 We completed testing and maintenance of over 50 distribution system valves in the Bay Street neighborhood of Hull in August. Nine valves were identified with “rounded operating heads”, which required the heads to be replaced in order to restore the valves to a fully functional condition. Three of the valves were repaired by excavating and installing new operating nuts while another six valves were repaired using special tools to replace the operating nuts from the roadway surface.
- 💧 Our customer water conservation program continues to be a great success. Since March 2017, we have completed the replacement of over 586 toilets with new water conservation units for over 341 customers. The work completed has resulted in water conservation savings of approximately 9,100 gallons per day (approximately 3.3 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.
- 💧 We want to thank our customers for following the seasonal water restrictions. Twice a week restrictions will remain in effect through October 15, 2018. Our customers’ conservation efforts have helped to ensure we stay within our registered annual water withdrawal limits with the Massachusetts Department of Environmental Protection, and we continue to operate as responsible stewards of the environment.
- 💧 We are making preparations to begin our fall flushing program in early October. This fall, we will complete flushing of northeast Hingham, Cohasset, and Hull. Flushing will be conducted in the evenings from 9:00 p.m. until 5:00 a.m., Sundays through Thursdays. We will provide detailed information on the streets to be flushed each week on our website.

Water Resource Management

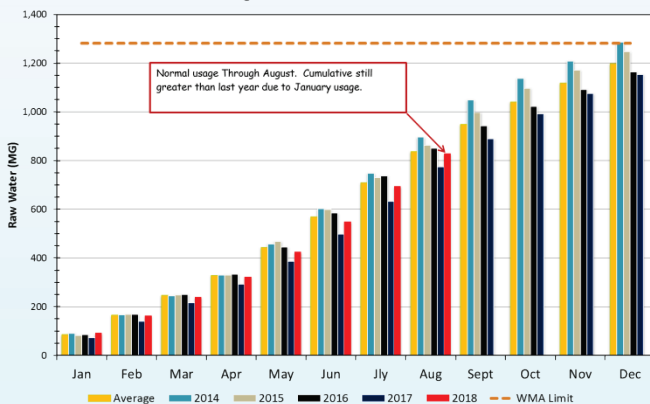
Accord Pond and our groundwater supply wells are in good condition after the summer demands. We utilized our recently upgraded Free Street Well #2 and are planning to install a new pump for our Fulling Mill Cistern water supply. The Fulling Mill Cistern is recharged from a 1,000 foot horizontal collection well with diversions from Accord Brook and Fulling Mill Brook. In October, we are planning to stop withdrawing from Accord Pond to allow it to recharge for spring 2019.

Aquarion is continuing to evaluate the Fulling Mill resource area as a possible way to increase our withdrawals from existing sources. This past summer our engineers completed a ground survey and bathymetric survey of Fulling Mill Pond and the kettle ponds. We are meeting with local and state officials to build the framework for our upcoming computerized watershed modeling to evaluate the Fulling Mill resource area. The concept is to store water from Accord Brook during high stream flows and release the water into Fulling Mill Brook to augment flows in the Weir River during summer low flow periods. We hope to have some modeling results in early 2019, which will indicate if this unique new source approach is still viable.

Water Supply and Demand

Water demands for August 2018 were slightly greater than average for this time of year. The average amount of water pumped from our sources to meet demands in August 2018 was 4.36 million gallons per day (MGD). The cumulative usage through August (3.41 MGD) is greater than last year and the cumulative usage is greater than average for this time of year. We anticipate that water demands will steadily decline through the coming fall and we are

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

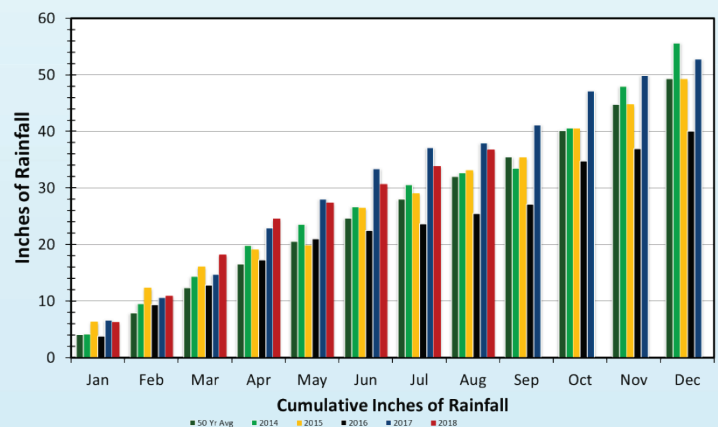


confident that we will continue to meet the needs of our customers.

Weather Trends

The total amount of recorded precipitation for August 2018 was 2.86 inches, which is 1.17 inches below the historic average precipitation for the month of August. However, cumulative precipitation through the month of August is 36.77 inches, which is 4.74 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 44% capacity, representing a usable volume of over 121 million gallons, which is about average for this time of year.

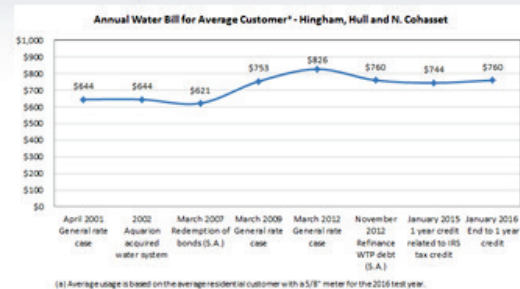
Community Outreach

Aquarion was pleased to provide water coolers for a number of community events in August, including the Summer Wiffle Ball Classic to benefit Children’s Hospital and the Hull 5K Color Splash Fun Run benefitting the Hull public schools PTO.

On September 20, Aquarion held another informational forum at the South Shore Country Club concerning the Hingham Selectmen’s financial analysis of Aquarion’s water system in Hingham, Hull, and North Cohasset. Aquarion reviewed in detail the errors within the Selectmen’s analysis and presented Aquarion’s rate increase track record since purchasing the water system in 2002. Since 2002, water rates have increased an average of 1.1% per year under Aquarion ownership, while the average annual increase in water rates from municipally-owned water systems is 4.7%.

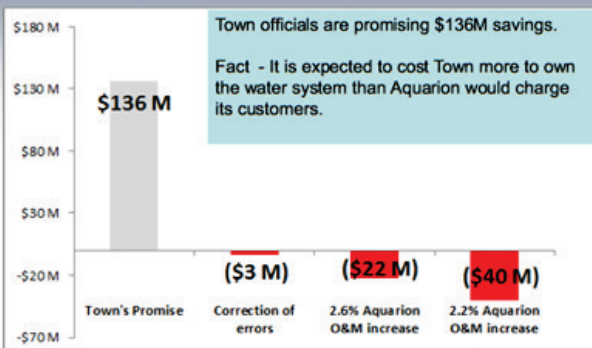
Aquarion excels at controlling cost and water rates

- **1.1 % per year** = Increase in your bill under Aquarion ownership
- **4.7% per year** = Average increase in rates for state's mostly town-owned water systems



Private enterprise is much more efficient than towns

Residents could pay up to \$40M more under Town ownership



Town officials are promising \$136M savings.
Fact - It is expected to cost Town more to own the water system than Aquarion would charge its customers.

Aquarion’s financial analysis shows that Hingham, Hull and North Cohasset customers will pay \$3 million more in their water bills under Hingham Town ownership after Hingham officials fix the errors in their financial model. In addition, if Town officials correct the model to reflect Aquarion’s annual operations and maintenance (O&M) growth rate of 2.2%, customers will pay approximately \$40 million more over the next 31 years under town ownership.

Visit our website at www.aquarionwater.com for addition information on Aquarion’s award winning water system.

If you haven’t already, please like us on Facebook at 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		3.75
October	3.01	2.35	3.57	2.89	3.21	2.59	3.35		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	3.41	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		112.38
October	93.24	72.93	110.76	89.59	99.47	80.41	103.83		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	829.72	1,200.39
Average (MGD)	3.32	2.99	3.33	3.47	3.42	3.18	3.16	3.41	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
August

Year
2018

Monthly Supply Pumping Summary

Accord Pond	49.01	MG	36.3%
Scotland St Well #1	13.20	MG	9.8%
Scotland St Well #1A	4.54	MG	3.4%
Prospect St Well	0.58	MG	0.4%
Free St Well #2	16.62	MG	12.3%
Free St Well #2A	15.54	MG	11.5%
Free St Well #3	0.00	MG	0.0%
Free St Well #4	16.23	MG	12.0%
Free St Well #5	5.61	MG	4.2%
Fulling Mill Well #1	9.77	MG	7.2%
Fulling Mill Well #2	3.93	MG	2.9%
Fulling Mill Cistern	0.00	MG	0.0%
Downing St Well	0.00	MG	0.0%
	135.03	MG	100.0%
	4.36	MGD	

Accord Pond (last day of the month)

Water Elevation (Ft)	137.2
Usable Volume (MG)	121.0
Capacity (%)	44

MG - Million Gallons

MGD - Million Gallons Per Day

Statistics

Pumping

Maximum Day (MGD)	5.34
Date	08/08/18

Minimum Day (MGD)	3.43
Date	08/23/18

Year to Date

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

Average Day (MGD)	3.41
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Temperature (°F)

Maximum	99.5
Date	08/10/18

Minimum	69.7
Date	08/23/18

Precipitation

Monthly Total (Inches)	2.86
Annual Total (Inches)	36.77