

Water Suppliers PFAS Public Forum Lessons Learned from the Ayer Experience

Ayer Department of Public Works

October 24, 2019

Ayer's Water Supply

- 5 wells – 3 at Grove Pond, 2 at Spectacle Pond
- Two Greensand WTPs
- Two distribution storage tanks
- Demand: 1.4 MGD (average) & 2.7 MGD (maximum)
- 60 % of water use is commercial / industrial
- Emergency interconnections with Devens and Littleton

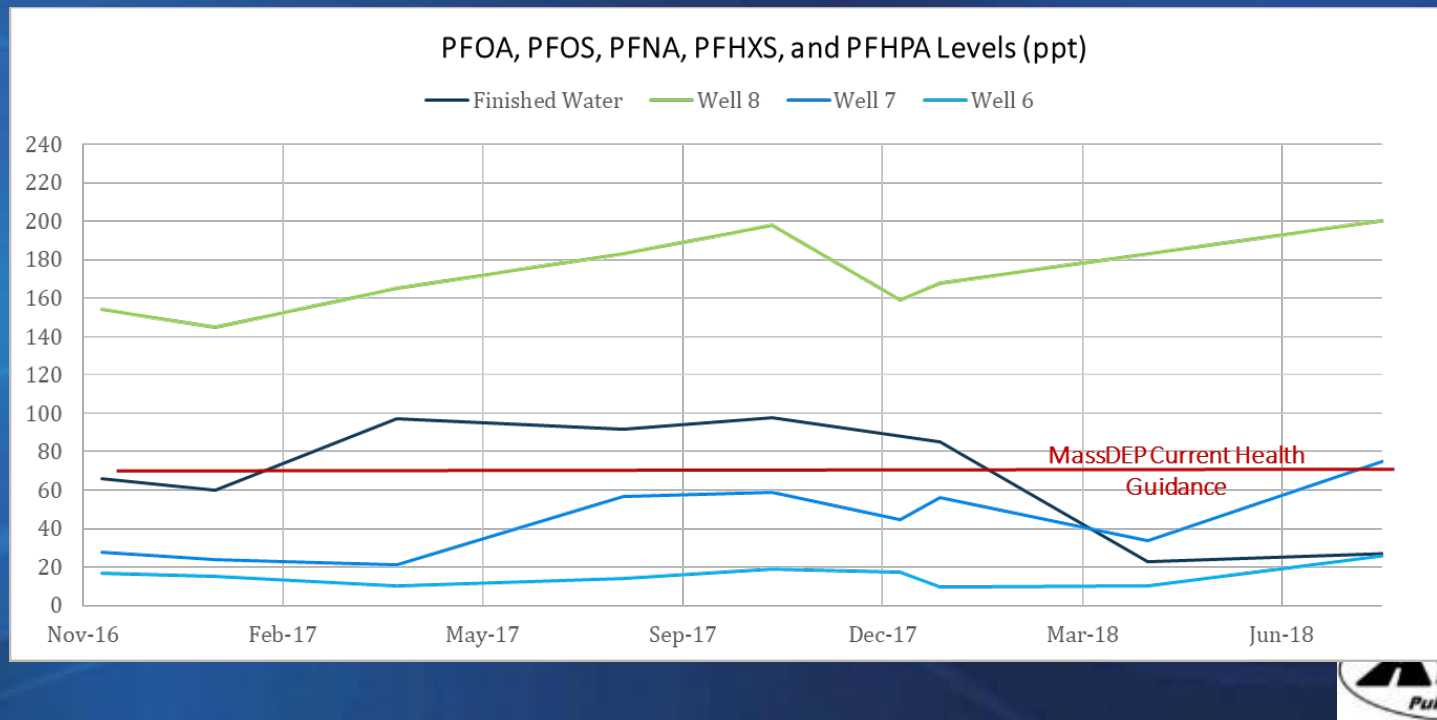
Ayer's Water Supply Challenges

- Very high iron (2.5 to 3.4 ppm)
 - *Secondary MCL 0.3 ppm*
- Very high manganese (0.85 to 5.66 ppm)
 - *Secondary MCL – 0.05 ppm*
- Arsenic – 0.007 to 0.069 ppm
 - *MCL – 0.01 ppm*
- Lead and Copper Rule
- Total Coliform Rule
- Aging infrastructure



PFAS Discovery & Response

- Not required to sample for PFAS under UCMR3
- Sept. 2016: due to proximity to Fort Devens, MassDEP required Ayer to test Grove Pond Wells for PFOA and PFOS
- All wells had PFAS - GP Well 8 was over the 70 ppt EPA Health Advisory Level
- Sampled Spectacle Pond Wells 1A and 2A PFAS levels in 20s and 30s (for 5 MassDEP PFAS)



Ayer DPW Actions

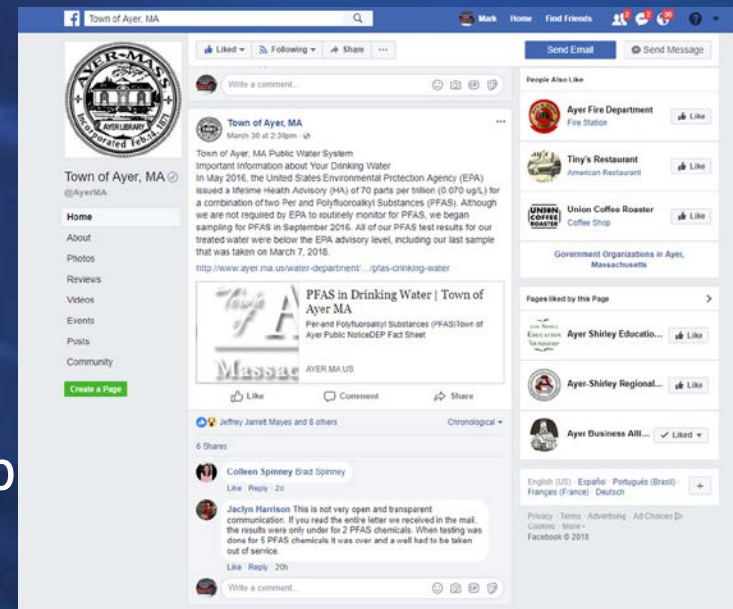
- Worked closely with MassDEP
- Changed SCADA controls so GP Well 8 would only run with Wells 6 & 7 to blend to below EPA 70 ppt
- Stopped using Well 8 in late February 2018 when MassDEP ORSG was 5 PFAS
- DPW issued public notification on March 29, 2018
- Evaluated supply alternatives
- Completed preliminary treatment study
- Began bench scale testing & final design
- Re-activated Grove Pond Well 1 - Fe 2.6mg/l, Mn 4.9mg/l

Ayer DPW Actions - Continued

- Installed temporary GAC treatment for GP Well 8. Grove Pond PFAS Treatment Facility under construction - \$3.2 M
- Grant agreement with Army for \$4.4M to construct and operate Grove Pond PFAS Treatment Facility
- Started design of Spec Pond PFAS Treatment
- Outdoor water ban
- Continue to provide regular updates via email, social media, BOS presentations, Town web site

Public Outreach

- Sent out Public Notifications – March 2018, May 2019
- Info on Town web site, Facebook
- Town PFAS Forum April 2019
- Presentation to Town on drinking water issues– October 2018
- Info in CCR Water Quality Report
- Regular updates at Selectmen's meetings
- Updates at quarterly Devens Remediation Advisory Board Meetings
- Coordination with PACE (People of Ayer Concerned about the Environment)
- Regular updates posted on Town web site



PFAS Related Issues

- Dirty water complaints due to water chemistry changes (and stress on WTP)
- Positive Total Coliform in August 2018
- Lead and Copper Rule
- WWTP Copper violation
- Outdoor Water Ban was not popular and loss of revenue
- Operators have additional responsibilities

Risk Communication Issues

- We're water suppliers, not toxicologists
- Its hard to communicate risks when the experts don't really know
- MassDEP used terms like “an abundance of caution”
- Risk is different depending on where you live ?
- Sensitive population – 1 YO, 2 YO or older?
- Let them know that it is important for you to provide safe drinking water
- Do not give your opinion – but don't be afraid to advise
- Don't blame it on the regulators

Lessons Learned

- Make sure you have a plan – communicate action items
- Get the town boards and other groups involved
- Talk to your State and Federal Reps
- Provide regular updates to BOS, public, MassDEP and use social media
- It would be helpful if MassDEP had an organized task force – we're all on a learning curve
- Many considerations factor into PFAS treatment selection & placement