

# Ayer Drinking Water PFAS Update

Department of Public Works  
Town of Ayer

October 6, 2020



# Massachusetts Sets PFAS Limits

- MassDEP approved maximum contaminant level (MCL) for 6 PFAS chemicals at 20 ppt
- Ayer knew this was coming and has been proactive in sampling, designing and constructing PFAS treatment
- All systems must sample for PFAS by Dec. 2021
- Currently over 30 water systems have tested above the 20 ppt



# September PFAS Sample Results

| Supply                        | PFOA & PFOS ppt | MassDEP PFAS-6 ppt |
|-------------------------------|-----------------|--------------------|
| Grove Pond Well 1             | 15.8            | 28.5               |
| Grove Pond Well 6             | 13.9            | 24.6               |
| Grove Pond Well 7             | 15.4            | 28.8               |
| Grove Pond well 8 (untreated) | 119             | 262                |
| Grove Pond well 8 (treated)   | Non Detect      | Non Detect         |
| Grove Pond finished           | 8.76            | 15.2               |
| Grove Pond PFAS Treatment     | Non Detect      | Non Detect         |
| Spectacle Pond Well 1         | 13.4            | 20.9               |
| Spectacle Pond Well 2         | 15.4            | 28.6               |
| Spectacle Pond finished       | 14.8            | 25.6               |
| Washington St Water Tank      | 12.9            | 23.7               |
| Pingry Hill Water Tank        | 14.0            | 22.3               |

# Grove Pond PFAS Treatment Facility

- Treatment Plant is “substantially complete”
- Start-up and testing this week
- Hopefully will be fully on-line by end of this week
- Army grant covers construction, start-up and annual operating costs



# Spectacle Pond PFAS Water Treatment Facilities

- Project was bid on September 24
- Low bid was \$5.15M and is the same contractor who built Grove Pond and is working at WWTP
- Treatment facility uses granular activated carbon (GAC) to remove the PFAS
- Construction will start in November and continue through next construction season

# Spectacle Pond Contamination Source Investigation

- MassDEP Waste Site Clean-up is taking the lead
- Investigating industries in the aquifer that may have used fire fighting foam and other PFAS products
- MassDEP process includes:
  - Send Request for information to potential parties
  - MassDEP conducts site inspection / audit
  - Require Environmental Site Assessment (ESA)
- Nothing conclusive to date



# Other PFAS Stuff

- Sample all wells quarterly
- Continue to coordinate with Devens and Army Corp
- Continue to Coordinate with PACE
- Continue to add info to Town Web Site  
<https://www.ayer.ma.us/water-department/pages/pfas-drinking-water>
- Working with Silent Springs on potential health impacts – providing hydraulic model data to determine potential PFAS exposure throughout Ayer

# Spectacle Pond PFAS Treatment Facilities

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# Spectacle Pond PFAS Treatment Facilities

- Spec Pond wells provide 40% of Town water supply
- Existing wells are treated for removal of iron and manganese. Treatment plant built in 1984
- PFAS-6 level in wells is 20 to 30 ppt; MassDEP MCL is 20 ppt
- Testing of treatment systems determined that granular activated carbon was the best treatment process

# PFAS Treatment Design

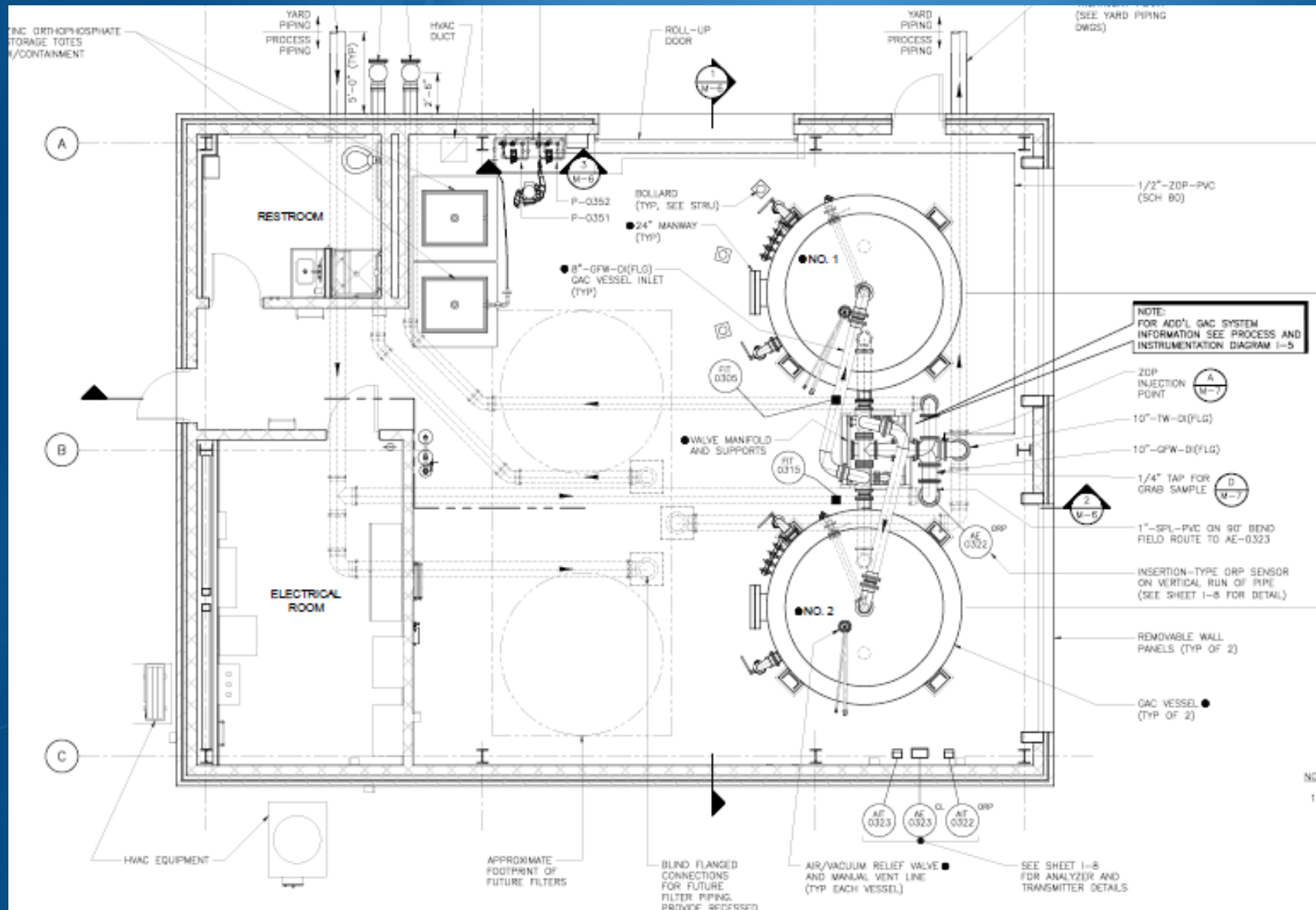
- Due to site constraints, treatment will be a separate building
- GAC treatment vessels are twice as tall as the Grove Pond PFAS ion exchange vessels
- Site issues related to existing well location, wetlands, endangered species habitat, topography
- Design includes required upgrades to existing treatment system
  - Generator
  - Electrical and control
  - New roof

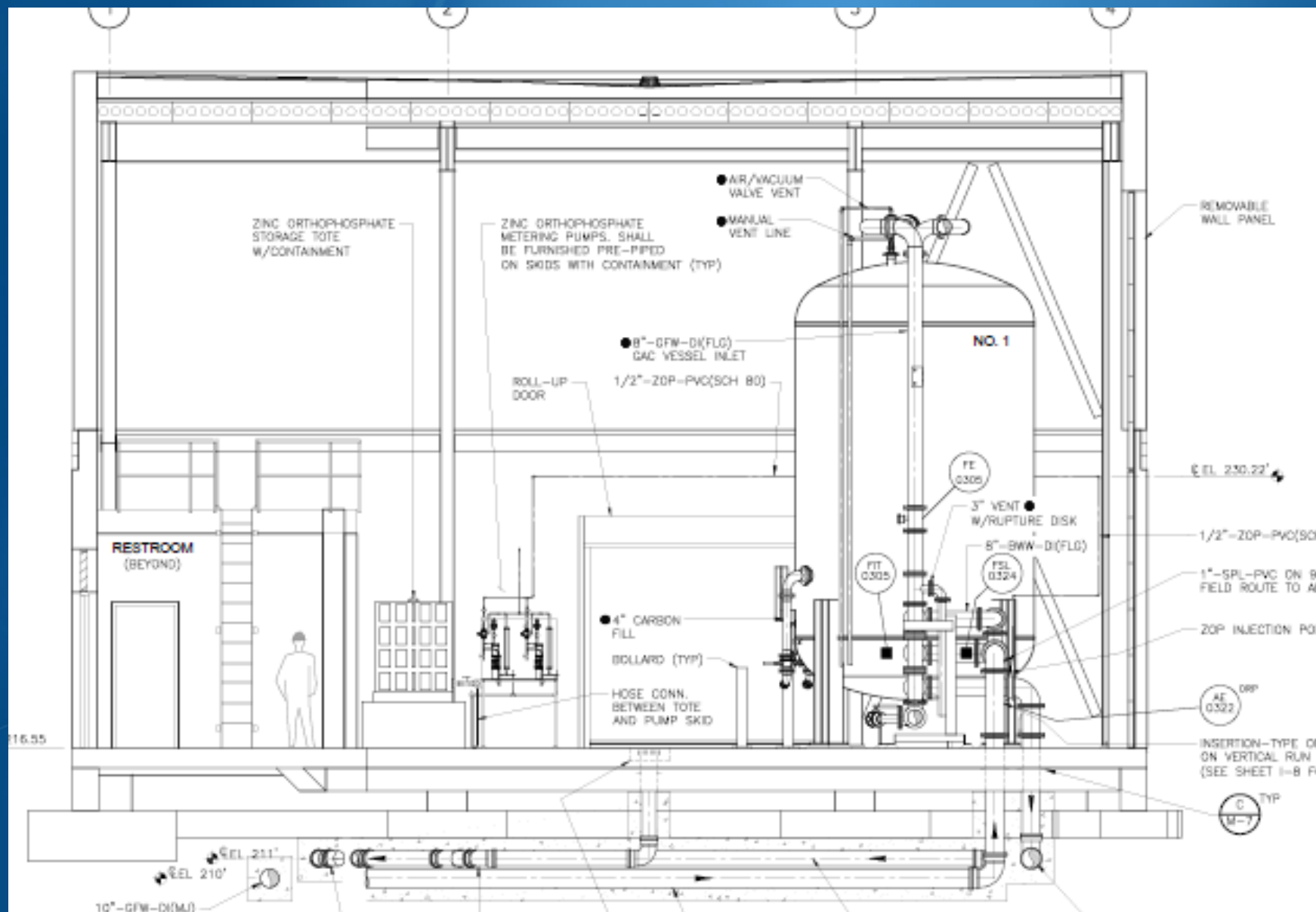














# Funding Issues

- Town Meeting authorized \$6.2M
- Project bid was \$5.15M
- Additional costs for design, well replacement, construction administration and contingencies
- We have obtained MassDEP Drinking Water 0% Interest loan with some principle forgiveness
- We were recently awarded a \$200,000 grant from MassDEP for engineering to date
- I am working with Contractor to develop a “credit” change order

# Total Project Costs

|   |                   |
|---|-------------------|
| Engineering and Design                      | \$ 675,000        |
| Spec 1A Replacement Well (Dankris Builders) | \$ 262,000        |
|   |                   |
| Misc. (to date)                             | \$ 12,687         |
| Winston Builders Bid                        | \$ 5,145,889      |
| Construction Contingency (5%)               | \$ 257,294        |
| CDM-Smith Construction Services             | <u>\$ 650,000</u> |
| Total                                       | \$ 7,002,870      |
|   |                   |
| Appropriation                               | \$ 6,200,000      |
| MassDEP PFAS Grant                          | <u>\$ 200,000</u> |
| Additional funds needed                     | \$ 602,870        |

## ARTICLE 5: BORROW AUTHORIZATION FOR ADDITIONAL FUNDING FOR THE SPECTACLE POND WATER TREATMENT PLANT IMPROVEMENTS FOR REMOVAL OF PERFLUORINATED ALKYL SUBSTANCES (PFAS)

To see if the Town will vote to authorize the Treasurer, with the approval of the Select Board, to borrow the sum of \$ 610,000 for the purposes of funding the construction of the Spectacle Pond Water Treatment Plant improvements for the removal of perfluorinated alkyl substances (PFAS), including demolition and site preparation costs and costs incidental or related thereto. Any premium received by the Town upon the sale of any bonds or notes approved by this vote, less any such premium applied to the payment of the costs of issuance of such bonds or notes, may be applied to the payment of costs approved by this vote in accordance with Chapter 44, Section 20 of the General Laws, thereby reducing the amount authorized to be borrowed to pay such costs by a like amount, or take any action thereon or in relation thereto.