



Water Quality Update

City Council Meeting

Carol A. Rego, P.E.

October 4, 2022



**CDM
Smith**

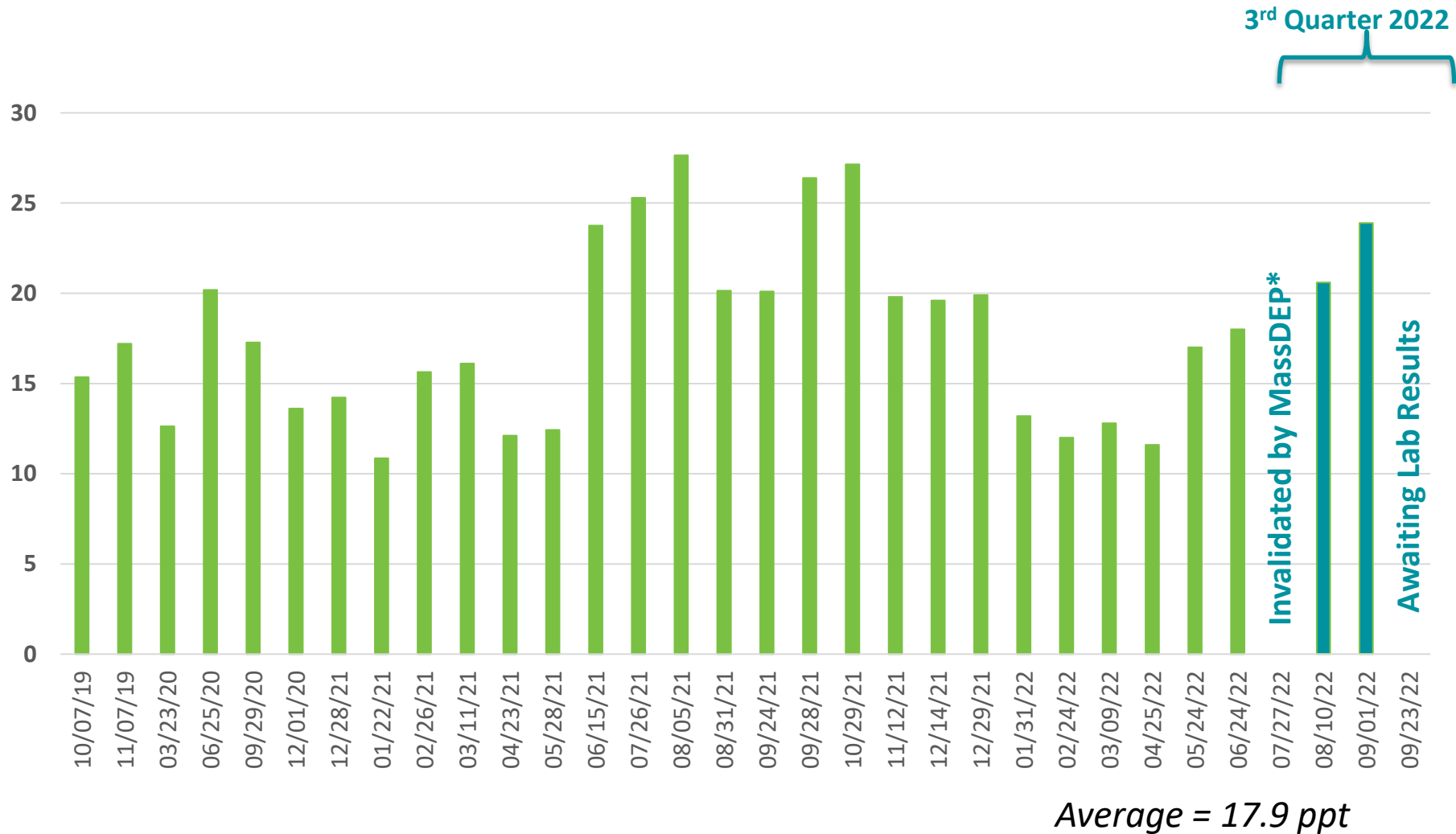
Outline

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1. Update: PFAS Results for Horn Pond; Regulatory Info
 2. Update: What is the City Doing about PFAS?
 3. Update: Treatment to Remove PFAS
 4. Next Steps and Timeline
 5. Questions/Discussion

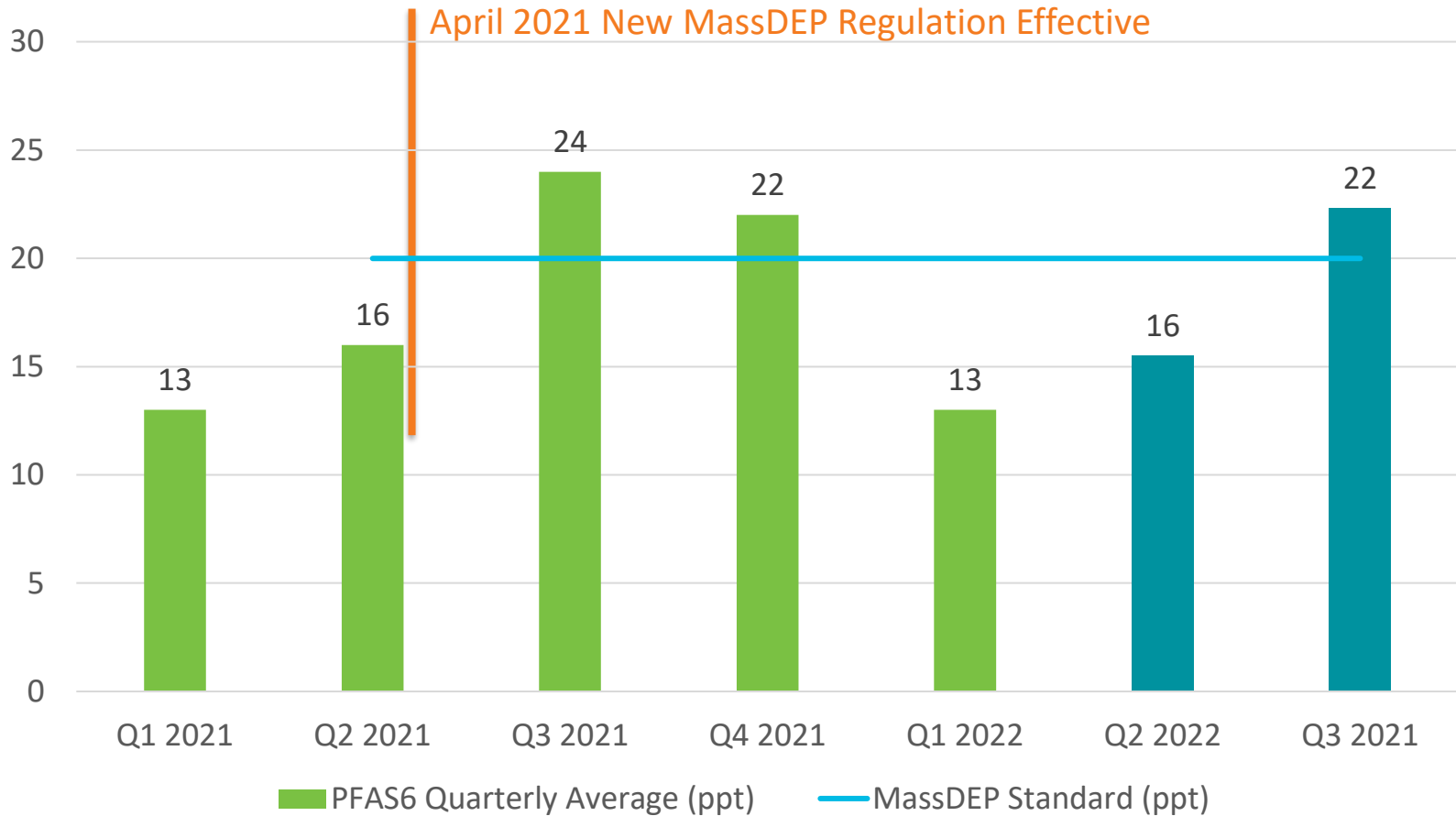


1. Update: Horn Pond PFAS Results

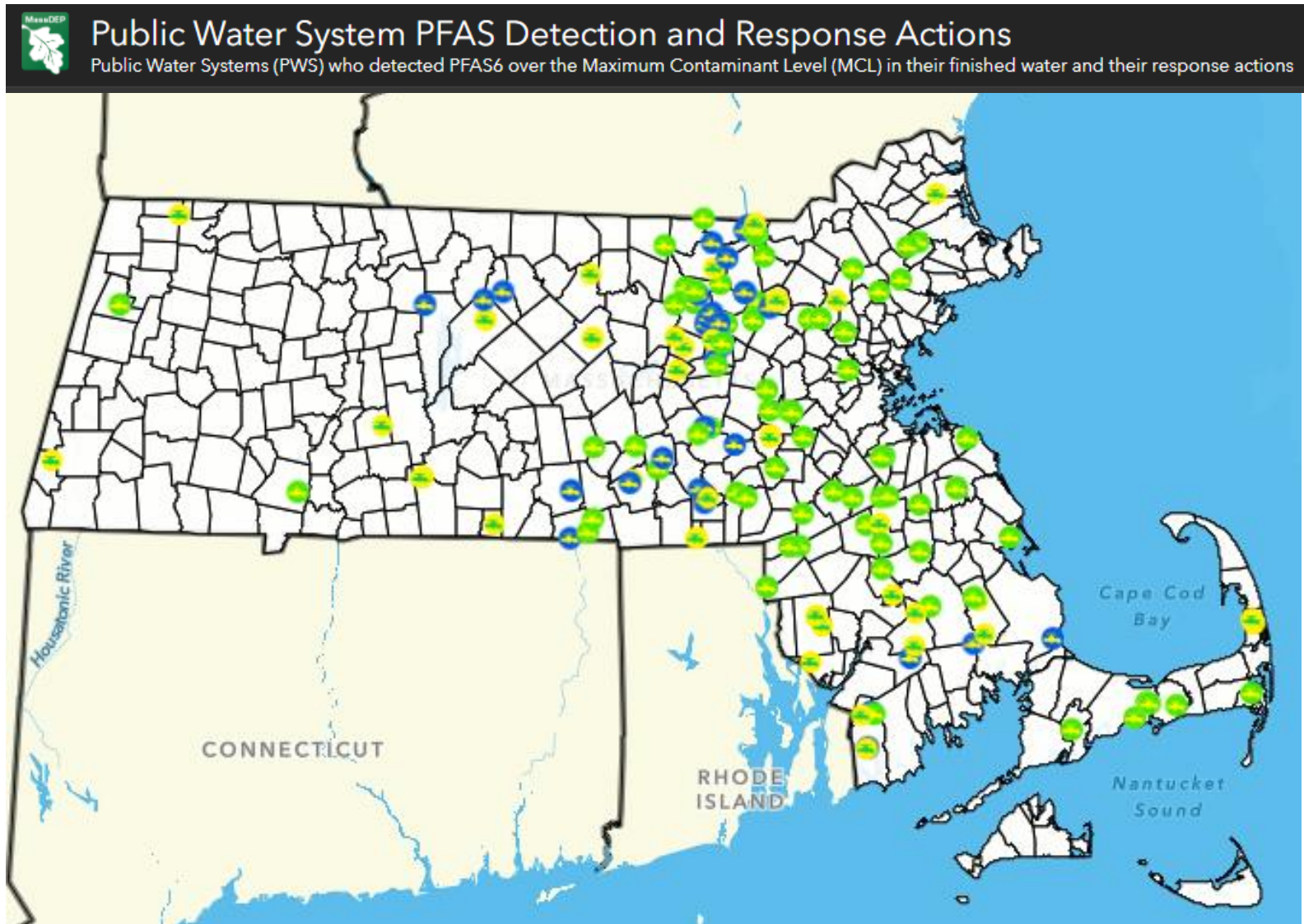
Updated PFAS6 Sampling Results



Compliance with MassDEP Standard



Drinking Water Systems with PFAS6 Over MassDEP Standard of 20 ppt



Why Did EPA Issue New Health Advisory Levels?

- To protect public health & keep communities informed when new science becomes available
- Non-enforceable & non-regulatory
- Calculated to offer a margin of protection against adverse health effects and take into account other potential sources of exposure beyond drinking water

EPA estimates that 80% of the exposure to PFAS is attributed to sources other than drinking water

PFAS Compound	EPA Health Advisory Level (June 2022)		Currently Regulated in Massachusetts?	Woburn Results (since 2019)	
	Value*	Type		Average*	Maximum*
PFOA	0.004**	Interim	Yes	7.1	10.4
PFOS	0.02**	Interim	Yes	8.0	11.0
Gen-X	10	Final	No	Never detected	Never detected
PFBS	2,000	Final	No	3.9	5.1

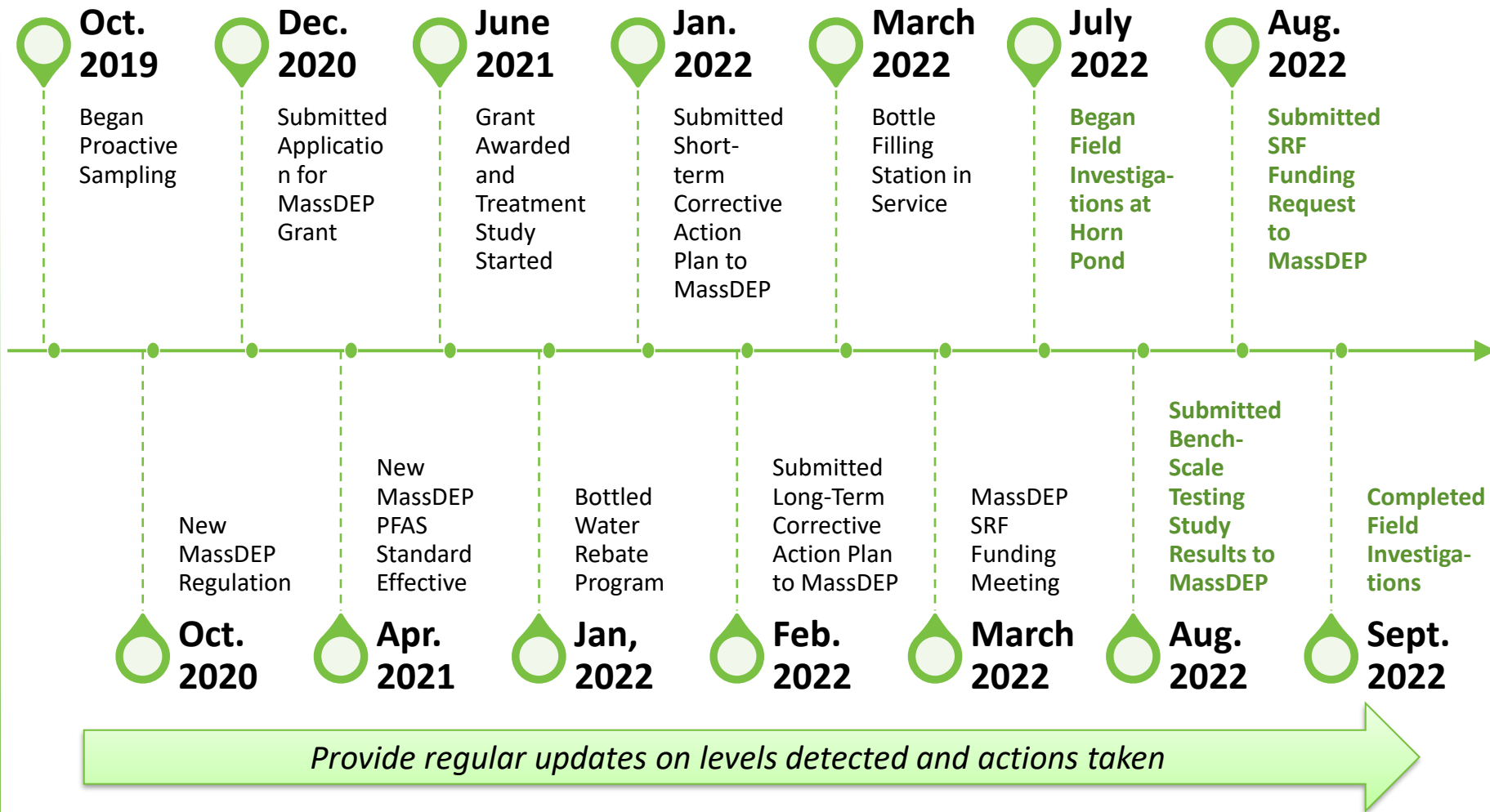
* All values in parts per trillion

** Below levels that can be measured by current technology



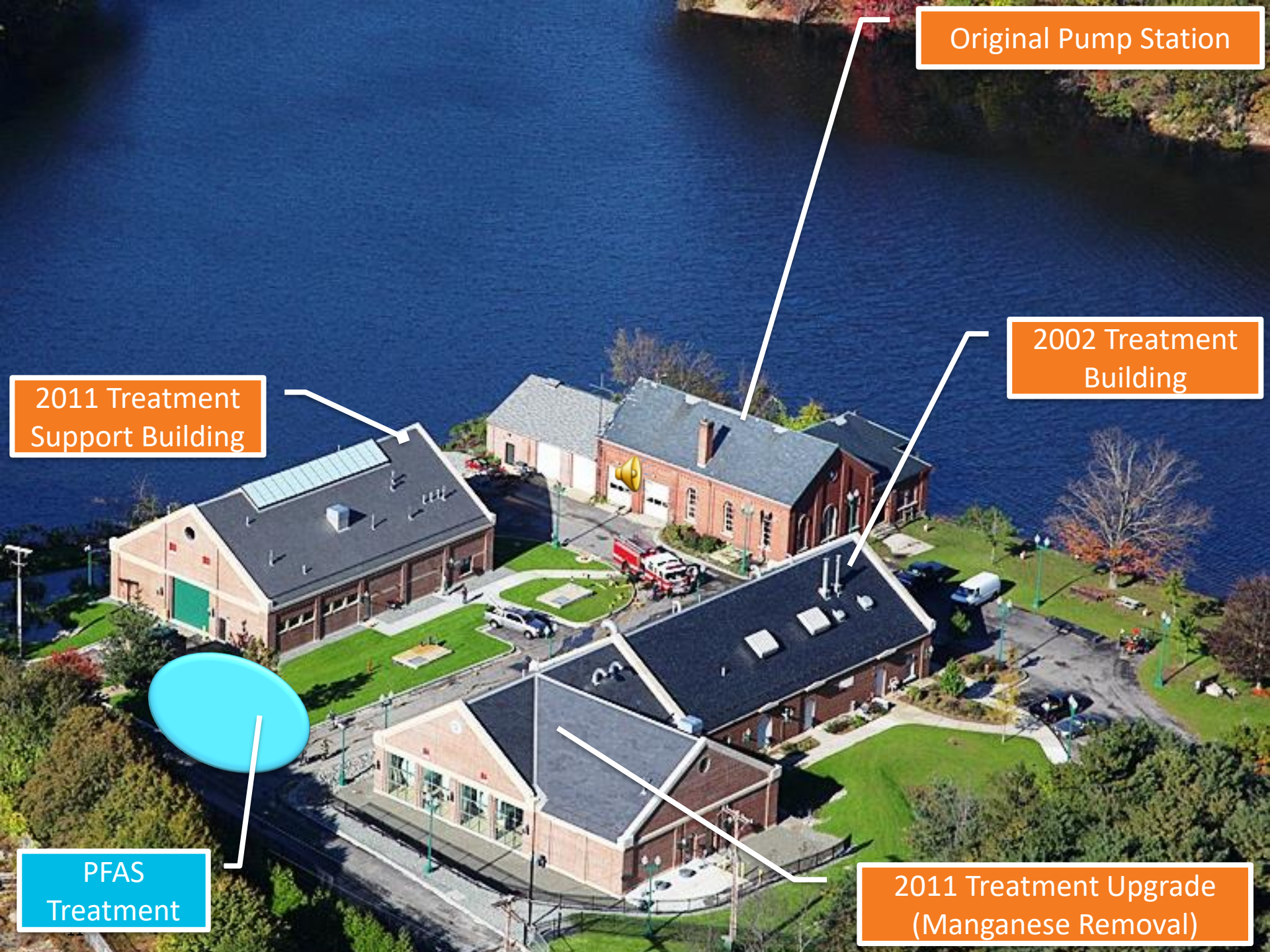
2. Update: What is the City Doing about PFAS?

Update: What is the City Doing?





3. Update: Treatment to Remove PFAS



Original Pump Station

2002 Treatment Building

2011 Treatment Support Building

PFAS Treatment

2011 Treatment Upgrade (Manganese Removal)

Geotechnical Field Investigations

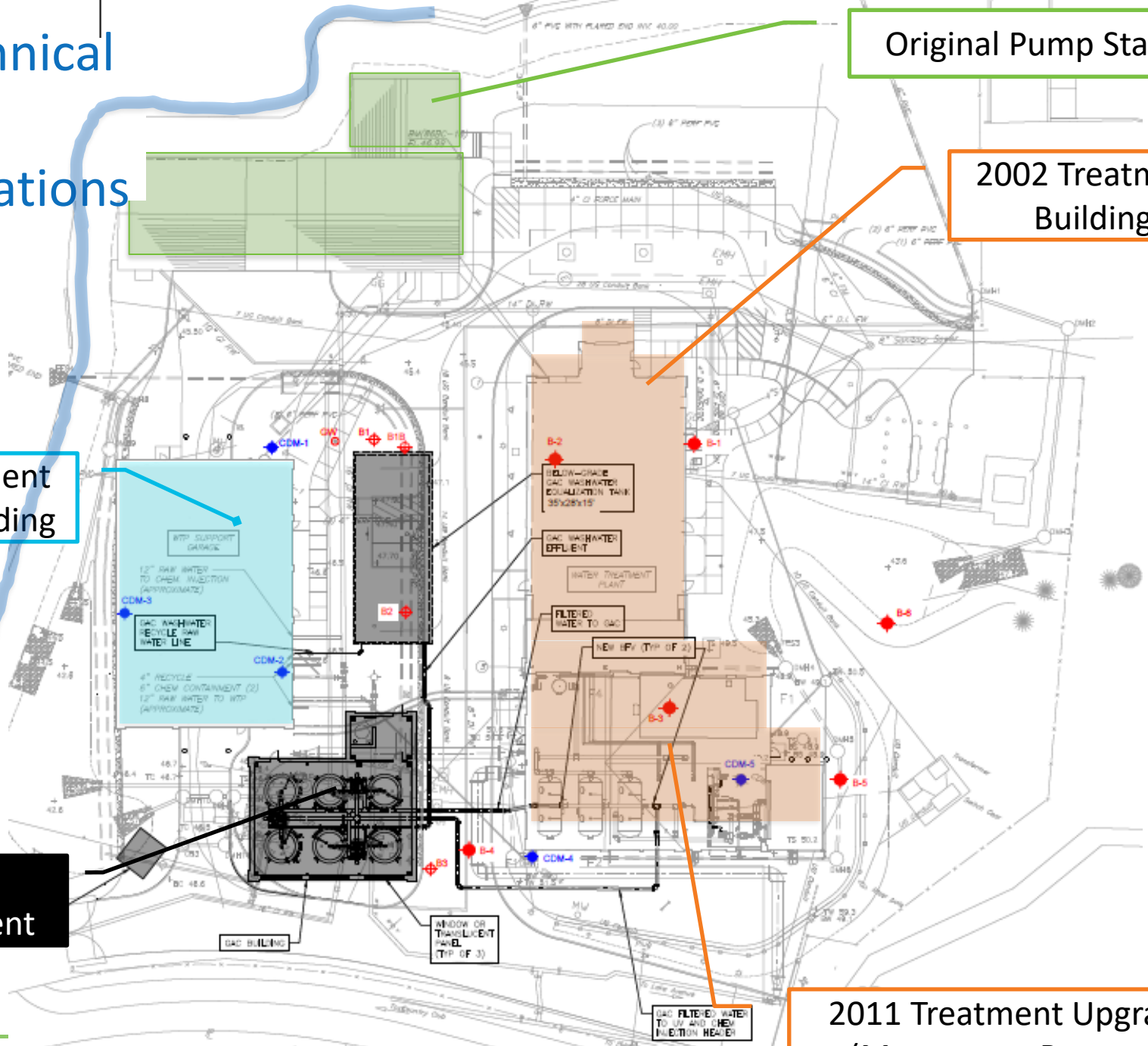
Original Pump Station

2002 Treatment Building

2011 Treatment Support Building

PFAS Treatment

2011 Treatment Upgrade (Manganese Removal)



Field Investigations

- Geotechnical
 - Four borings advanced on July 7 and 8
 - 1 boring encountered refusal and terminated at depth of ~ 6 feet
 - 3 borings were advanced to a depth of about 26 feet
- Topographic Survey and Wetlands Flagging
- Ground Penetrating Radar (underground utilities)



*Awaiting data
and CADD files*



4. Next Steps and Timeline

Next Steps



- Submit Conceptual Design to MassDEP as part of Long-Term Corrective Action Plan (due February 8)



- Meet with Clean Water Trust re: funding process (including state disbursement of federal Infrastructure funds)



- Site investigations
 - Subsurface investigations (borings)
 - Survey
 - Environmental features (wetlands flagging, etc.)



- August 2022 – Submit funding application (State Revolving Fund; potential infrastructure funding)

In Parallel



- Design (30/60/90/100% milestones)
 - Cost estimates at 60 and 100%
- Permitting
- Bidding/contract award
- Construction
- Startup



5. Questions/Discussion