

# PFAS Updates and Q&A

Lynnfield Center Water District  
Learning and Working Together with Our Customers



March 14, 2022



**CDM  
Smith**

# Introductions



John Scenna, LCWD  
Superintendent



Carol Rego, CDM Smith  
Water Quality Expert

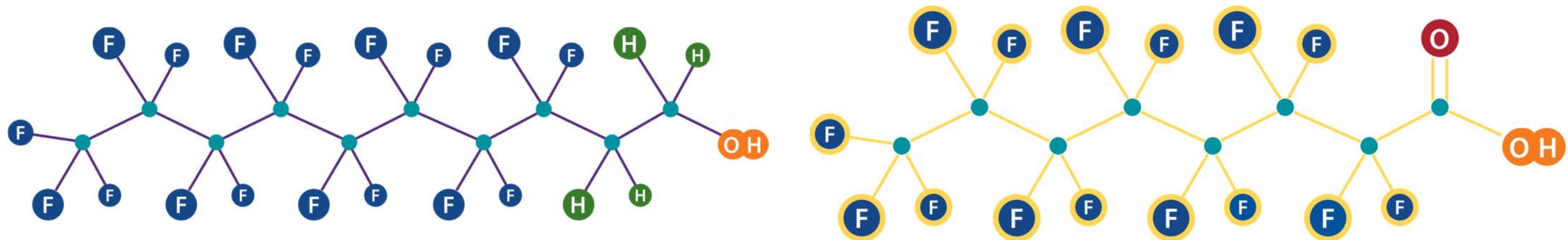


Anne Malenfant, CDM Smith  
Project Manager

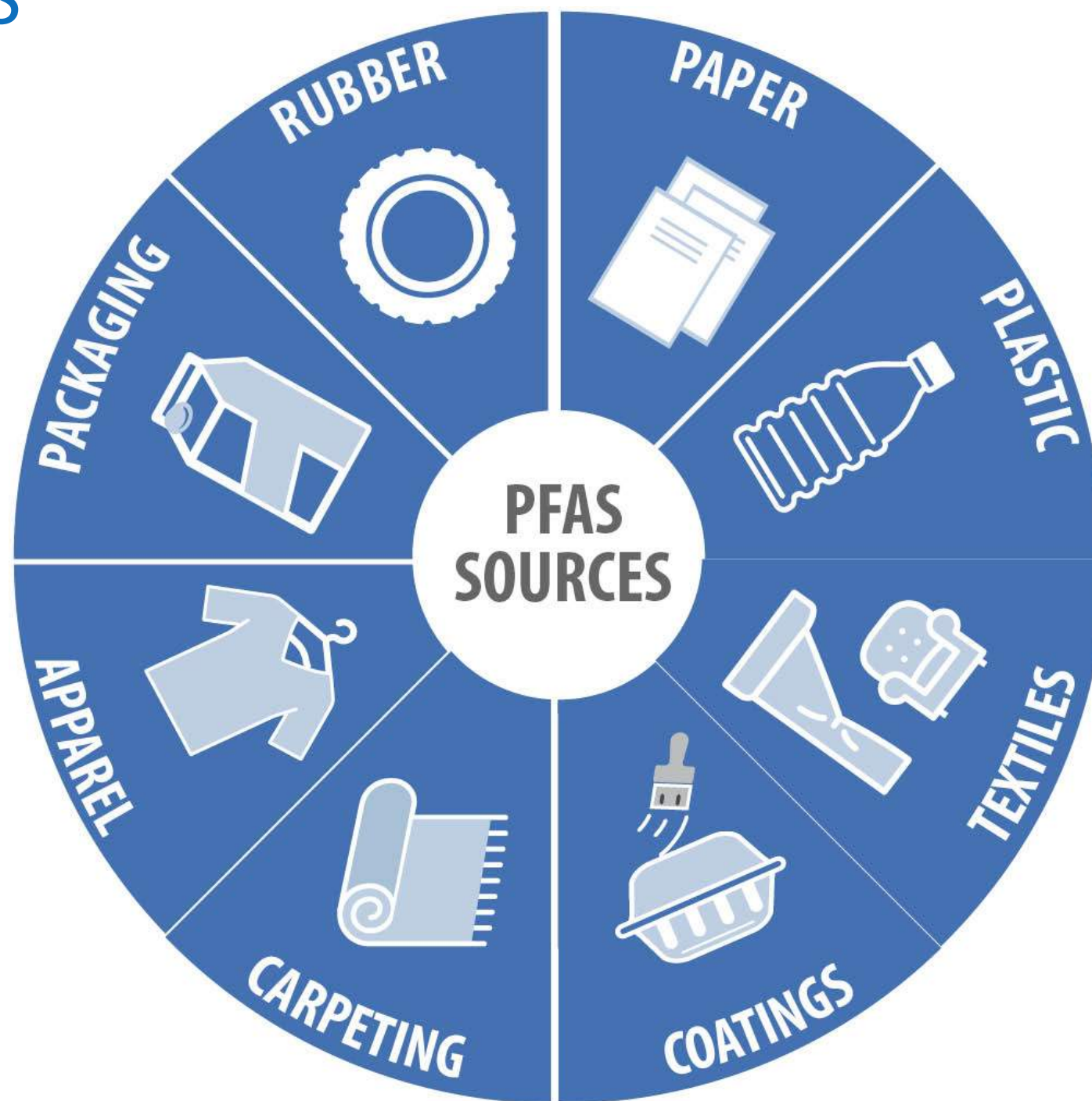
- What are PFAS?
- PFAS Maximum Contaminant Level (MCL)
- PFAS timeline and response
- What is LCWD doing about PFAS?
- LCWD PFAS sampling results
- Is my water safe to drink?
- Short- and long-term solutions

# What are PFAS?

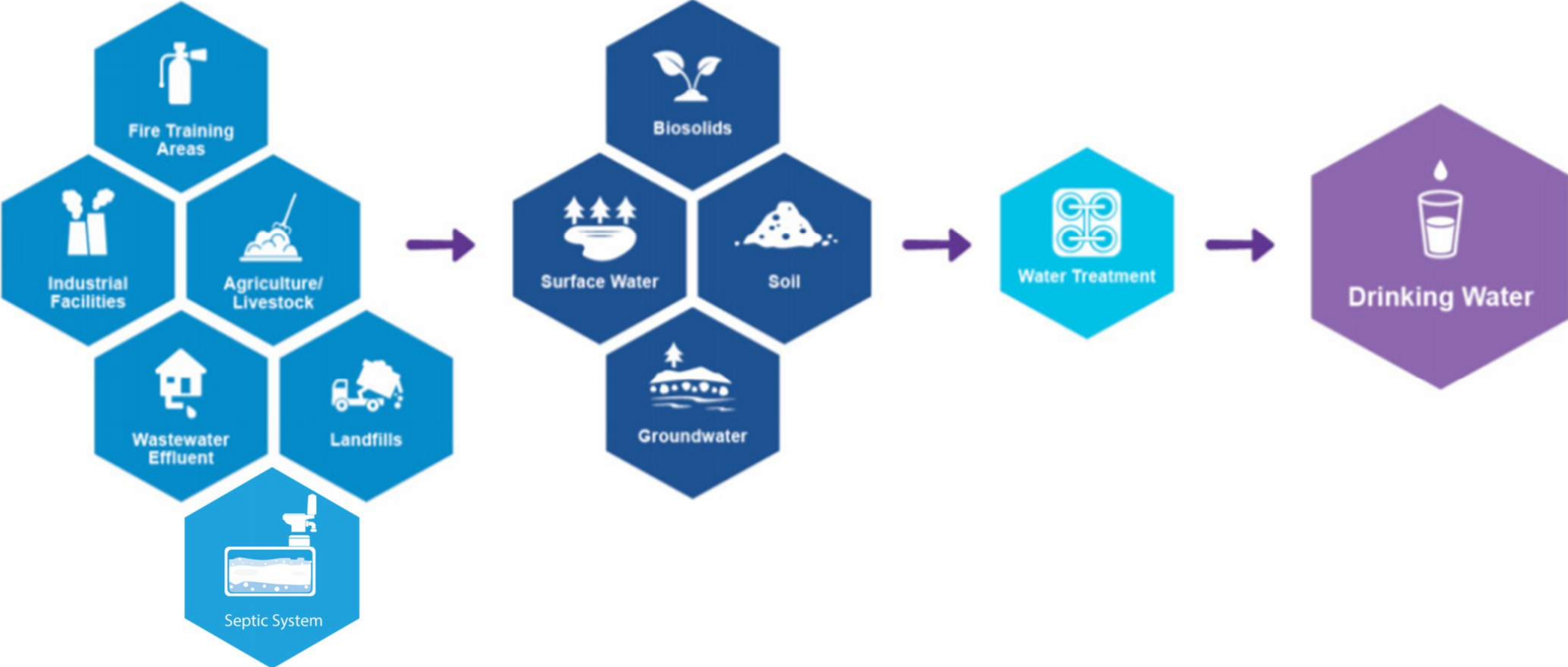
- **Per- and polyfluoroalkyl substances (PFAS)** = group of human-made substances that...
  - Do not break down easily
  - Stay in the environment for a long time
  - Manufactured & used broadly since the 1950s
  - Are widely detected in soil, water, and food
  - Are newly linked to human and environmental health risks



# Sources of PFAS



# PFAS Environmental Pathway



# PFAS Maximum Contaminant Level (MCL)

- Massachusetts Department of Environmental Protection (MassDEP) drinking water standard = **Maximum Contaminant Level (MCL)**

**PFOS+PFOA+PFHxS+PFNA+PFHpA+PFDA =**

# PFAS6

Its maximum contaminant level (MCL) is **MCL=20 ppt**

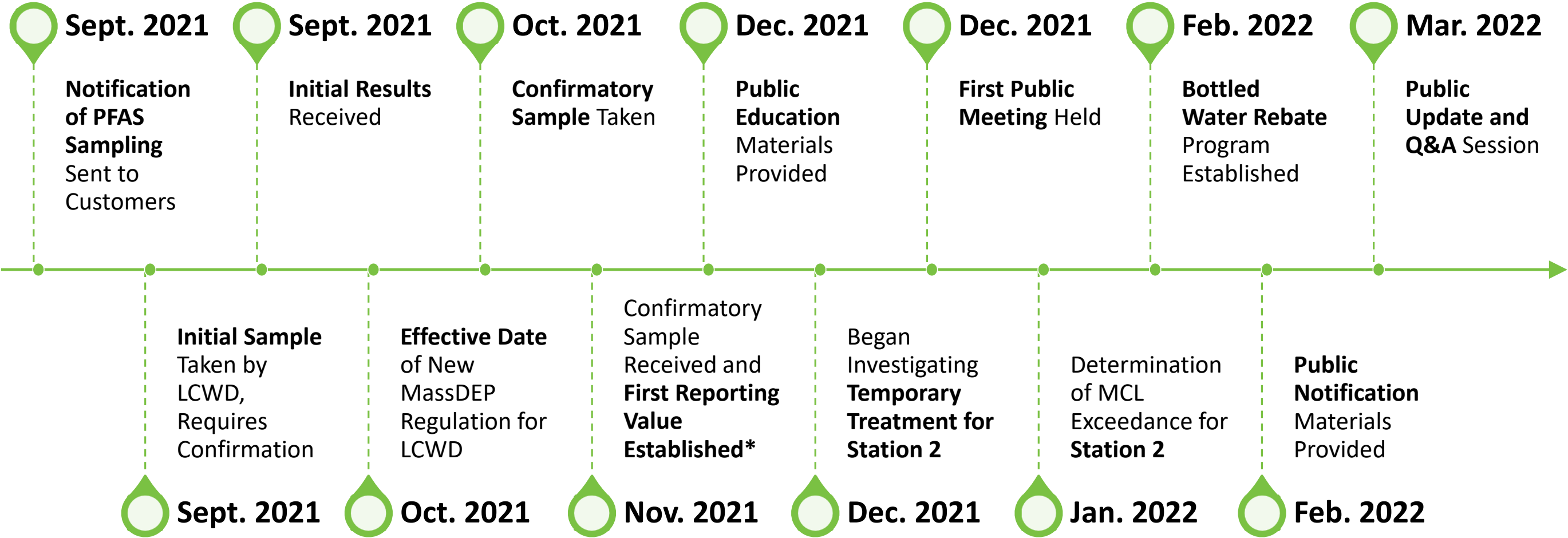


- Pregnant Women
- Nursing Women
- Infants
- Compromised Immune System\*

- MassDEP recommends individuals from sensitive populations avoid consuming water with PFAS6 above the MCL

\* People diagnosed by health care provider to have compromised immune system

# PFAS Discovery, Analysis and Response

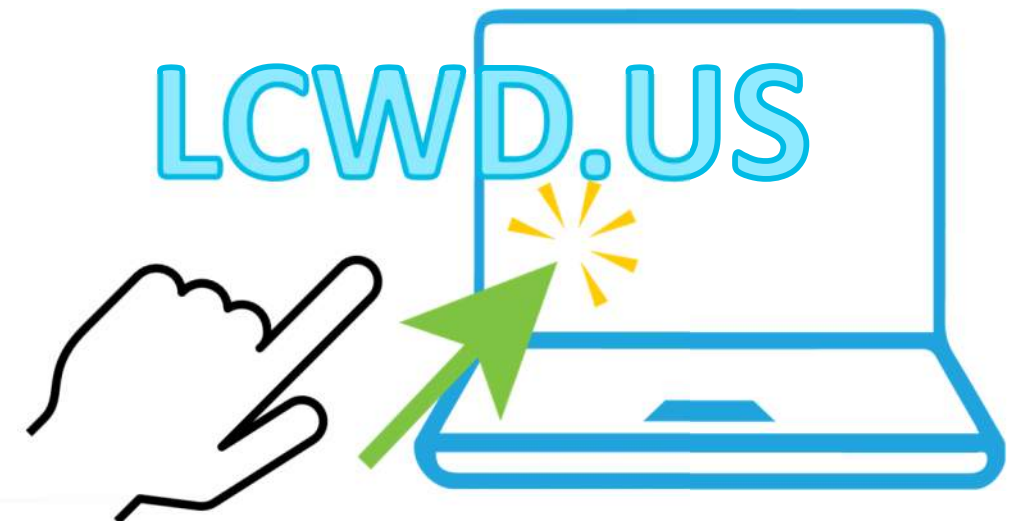


\* Basis of sampling schedule for PFAS6 according to DEP regulations

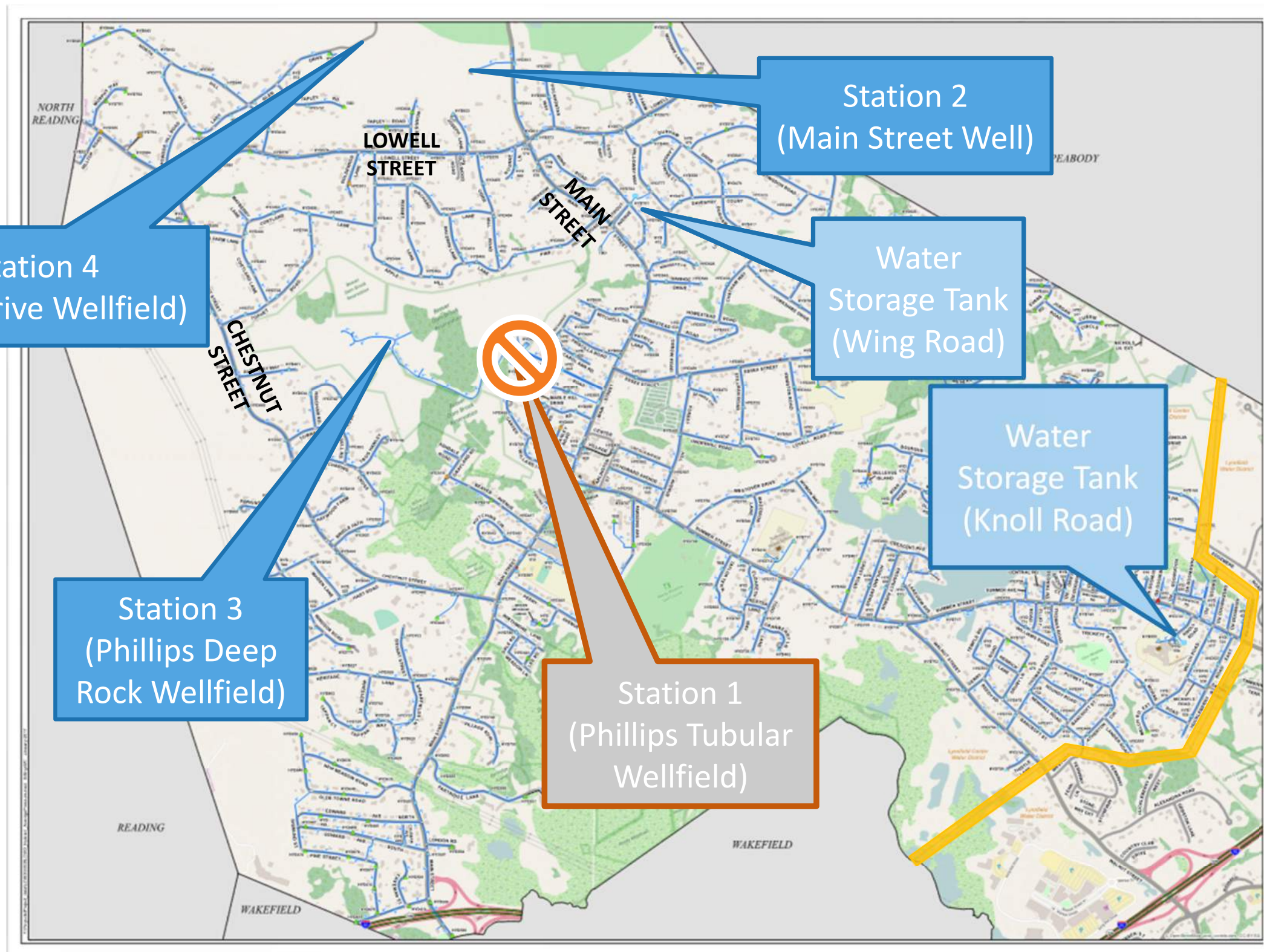
# What is LCWD doing about PFAS?

## We have already...

- ✓ Taken the well with the highest level of PFAS6 (Phillips Tubular Wellfield at Station 1) out of service.
- ✓ Increased production of the two stations with PFAS6 levels below the MCL, effective September 2021.
- ✓ Implemented Bottled Water Rebate for sensitive populations in Station 2 area.
- ✓ Committed to continued monitoring of PFAS6 (as required by DEP) with sampling results will be communicated by our website and *WaterSmart*.







Station 4  
(Glen Drive Wellfield)

Station 2  
(Main Street Well)

Water  
Storage Tank  
(Wing Road)

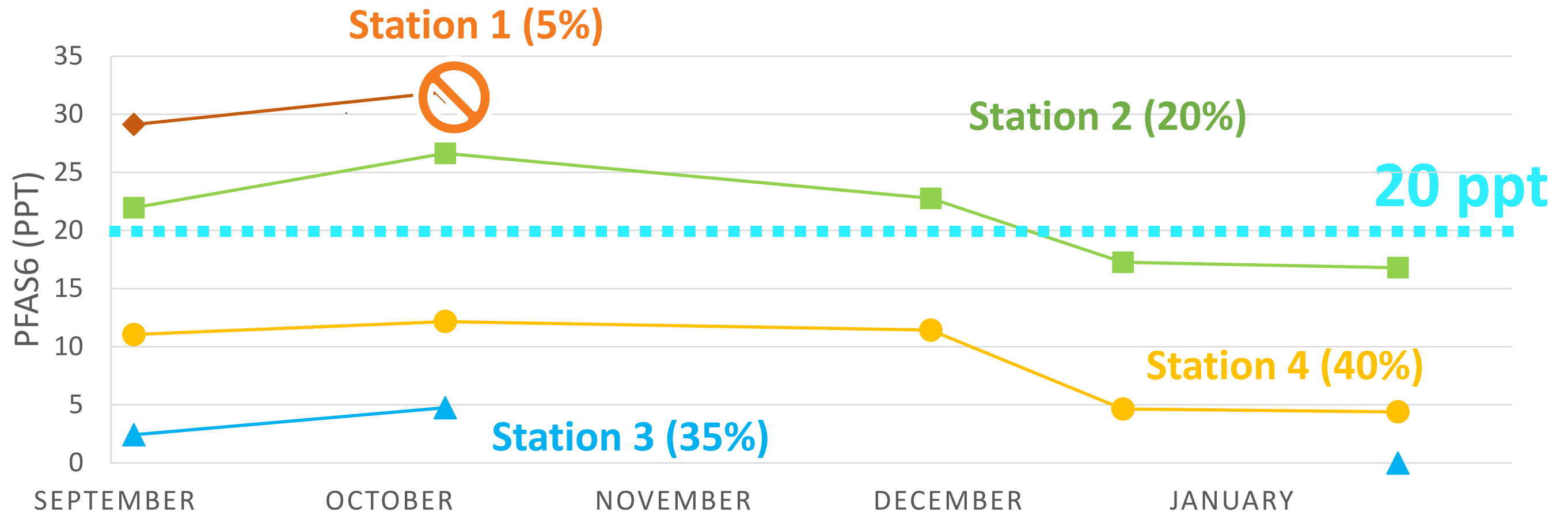
Water  
Storage Tank  
(Knoll Road)

Station 3  
(Phillips Deep  
Rock Wellfield)

Station 1  
(Phillips Tubular  
Wellfield)

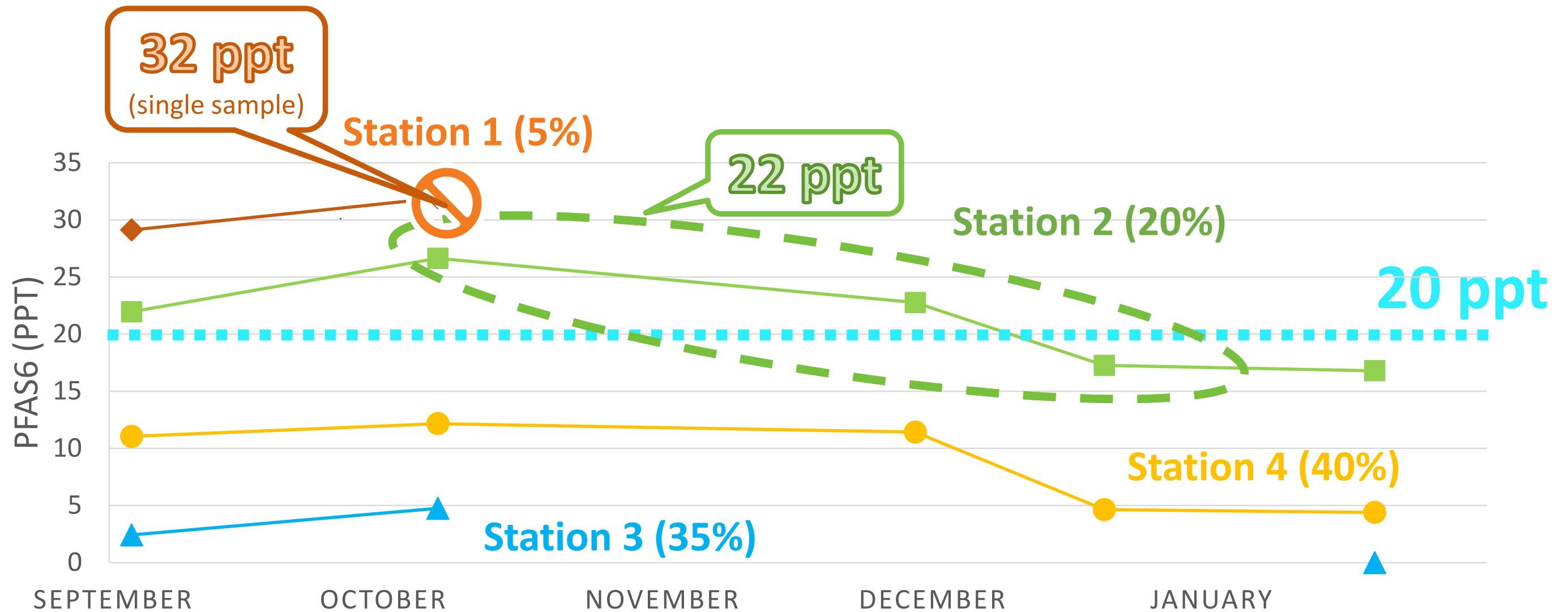
# LCWD PFAS Testing Results

- PFAS6 levels below 20 ppt at Stations 3 and 4 (75% of total production).
- PFAS6 found at levels above 20 ppt at Stations 1 and 2 (25% of total production).
- Small percentage of LCWD's total water supply comes from impacted sources



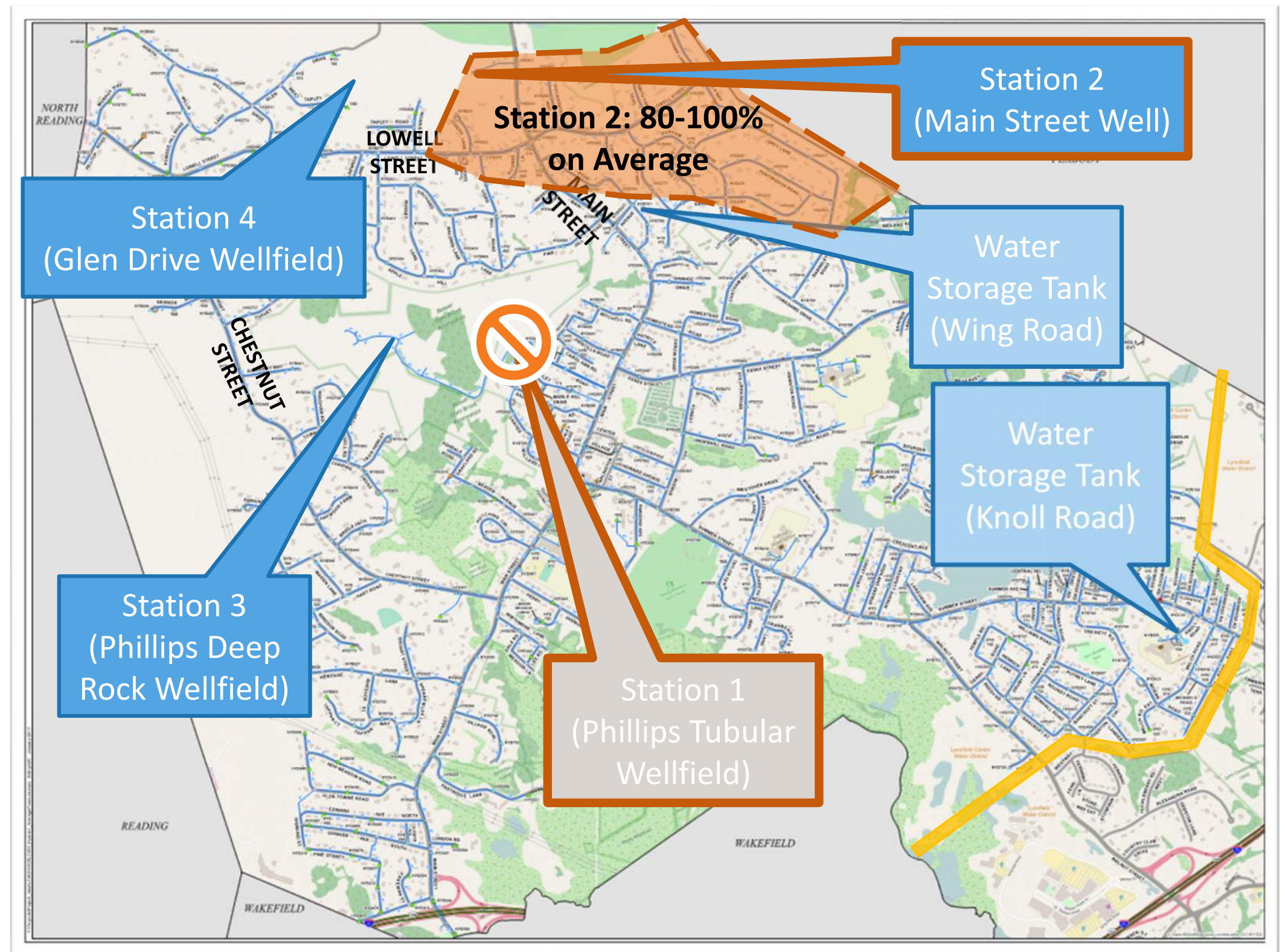
# LCWD PFAS Testing Results

- 2021 Quarter 4 compliance reporting results (October, November, December)



# Is your water safe to drink?

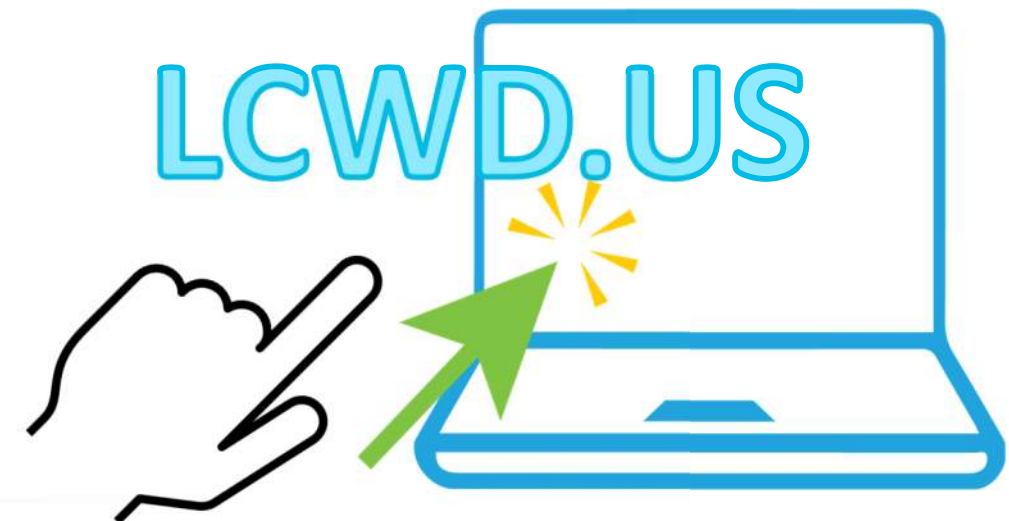
- Calibrated hydraulic model: tool with LCWD water sources, pipes and tanks
- Simulates flow patterns
- Estimated area majority served by Station 2



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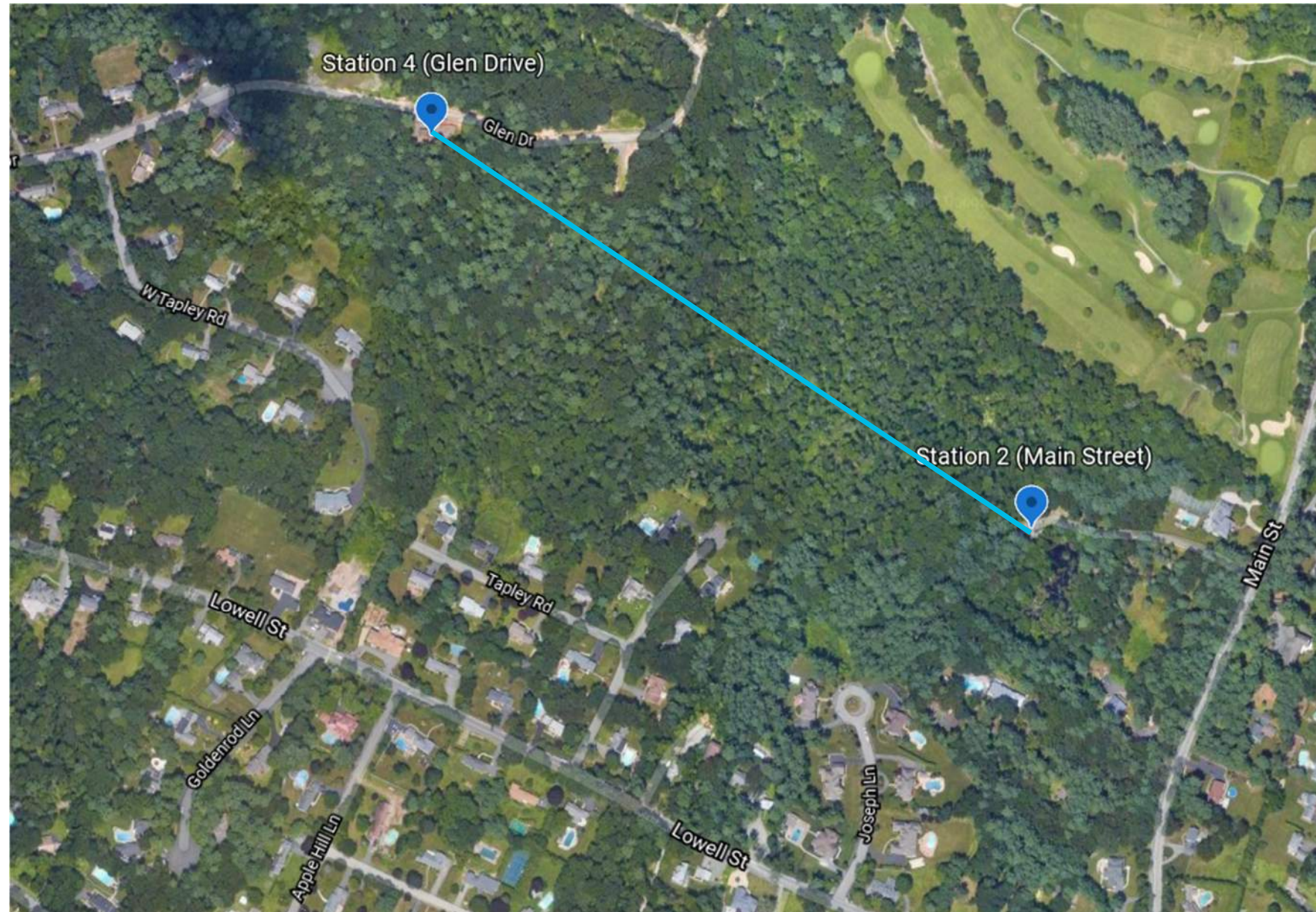


# What is LCWD doing about PFAS? *(continued)*

## Options for Station 2

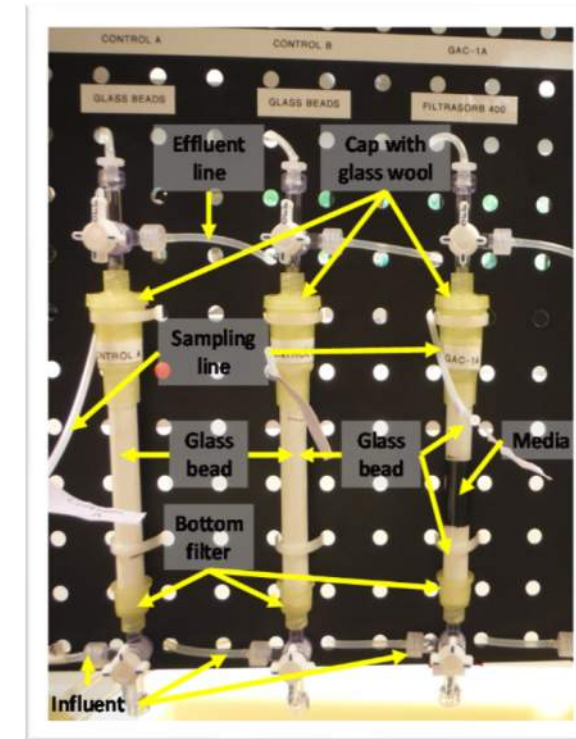
- ✓ Short Term: Temporary treatment at Station 2
- ✓ Long Term Options Under Evaluation:
  - Treatment at Station 2
  - Pipe to Station 4 (Glen Drive) and provide iron, manganese and PFAS treatment for both Station 2 and Station 4 wells
    - Adding testing of granular activated carbon (GAC)
    - Planning for permanent GAC treatment addition at Glen Drive
  - Increase MWRA water at the Wakefield interconnection, discontinue Station 2 use

# Station 2 (Main Street) Treatment at Station 4 (Glen Drive)



# PFAS Treatment at Glen Drive

- Granular activation carbon (GAC) media in pressure vessels
- Bench scale testing - Rapid Small-Scale Column Tests (RSSCTs)
- Testing both Station 4 (Glen Drive) and Station 2 (Main Street)





# LCWD PFAS Communication

## LCWD Website

- For ongoing PFAS communication
- Will be updated monthly
- Will include:
  - PFAS FAQs
  - PFAS Fact Sheet



## Social Media

- **Facebook:** will post updates at @LCWDInfo1
- **Twitter:** will tweet updates on handle @LCWDInfo



## WaterSmart

- Sign up and receive email updates

