



Southern New Hampshire PFOA Investigation:
Public Meeting
in
Amherst, NH

September 26, 2016

Agenda

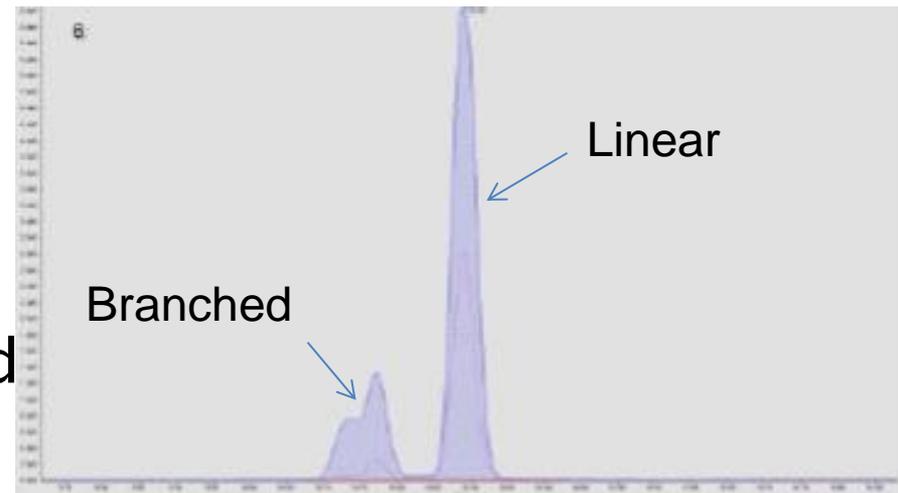
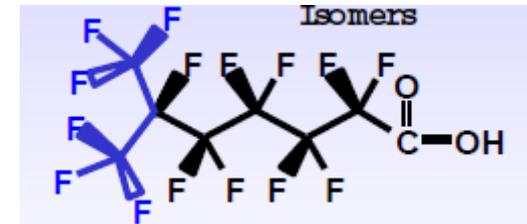
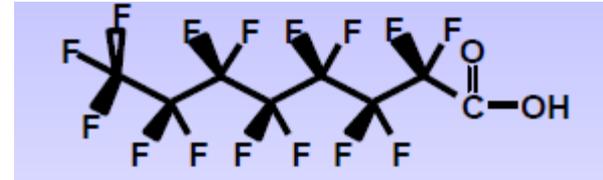
- **Introduction, Regulatory Actions, and Laboratory Reporting**
 - Mike Wimsatt, Director Waste Management Division/DES
- **Water Supply Results, Soil Sampling, and Site Investigation**
 - LeaAnne Atwell, Project Manager, HW Remediation Bureau
- **Alternate Water**
 - John Regan, Administrator, HW Remediation Bureau
- **Blood Testing Program**
 - Rick Cricenti, Chief, Emergency Services Bureau, DHHS
- **Next Steps/ Communication** – Mike Wimsatt
- **Questions and Answers**

Regulatory Actions

- ▶ May 19, 2016 - EPA issued lifetime health advisories for PFOA and PFOS
 - PFOA 70 ppt/PFOS 70 ppt/Combined PFOA and PFOS 70 ppt
- ▶ May 31, 2016 - NHDES filed an emergency rule to adopt ambient groundwater quality standards (AGQS)
- ▶ September 23, 2016 – NHDES filed final AGQS proposal to Joint Legislative Committee for Administrative Rules
- ▶ Soil guidance – direct contact
 - PFOA – 0.5 mg/kg (500 ppb)
 - PFOS - 0.5 mg/kg (500 ppb)

Laboratory Discrepancies

- ▶ Two types of PFOA – linear and branched
- ▶ Different manufacturing processes
 - 3M (30% branched / 70% linear)
 - Dupont (linear only)
- ▶ Qualified labs calculate PFOA concentrations differently
 - Some report linear only
 - Some report both
 - 20–40% difference when branched not included





Laboratory Discrepancies cont.

- ▶ Labs did nothing wrong & can go back and re-report values using saved computer files
- ▶ EPA will provide official guidance soon
- ▶ NHDES has used two labs for PFC analyses
 - ALS – reported both linear and branched PFOA
Revised reporting not required
 - Nelson/RWA – reported only linear PFOA
Revised reporting to residents will occur
Results will increase on average by 20–40%
 - Note: Residential wells with results from RWA over 40 ppt were retested using ALS and results were reported to homeowners

TCI AMHERST
Updated 9/22/2016



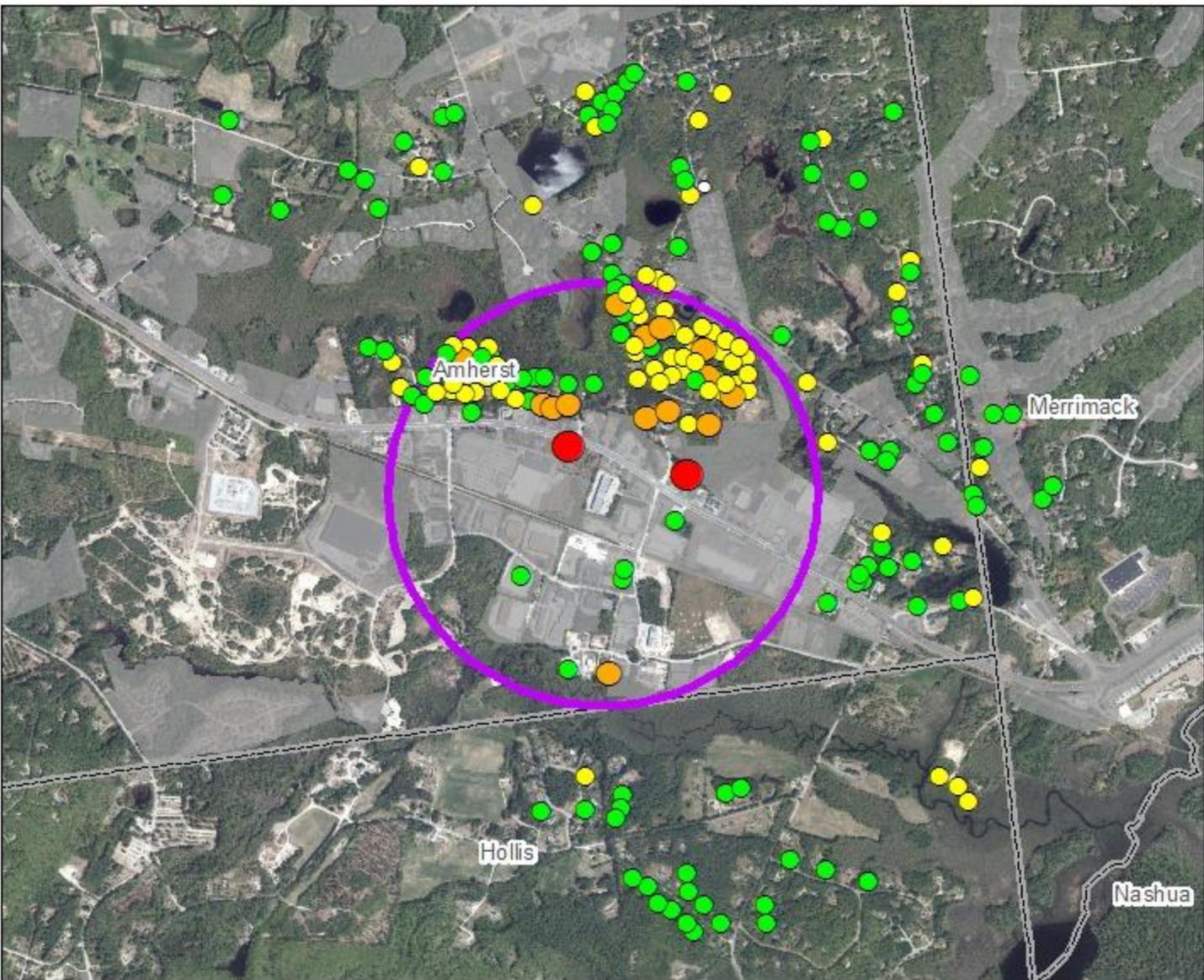
PFOA + PFOS (PPT)

- Public/Private Well
- ≥400
 - 70 - <400
 - 10 - <70
 - < 10
 - Result Pending

Public Water Supplies

- Water Distribution
- Political Boundary

1:24,000



WELLS SAMPLED	RESULTS RECEIVED	PFOA & PFOS ABOVE 70 PPT	APPOINTMENTS SCHEDULED
198	195	16	1



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Sampling Status

- Sampled
- No Response
- Undevelopd Lot
- On Public Water

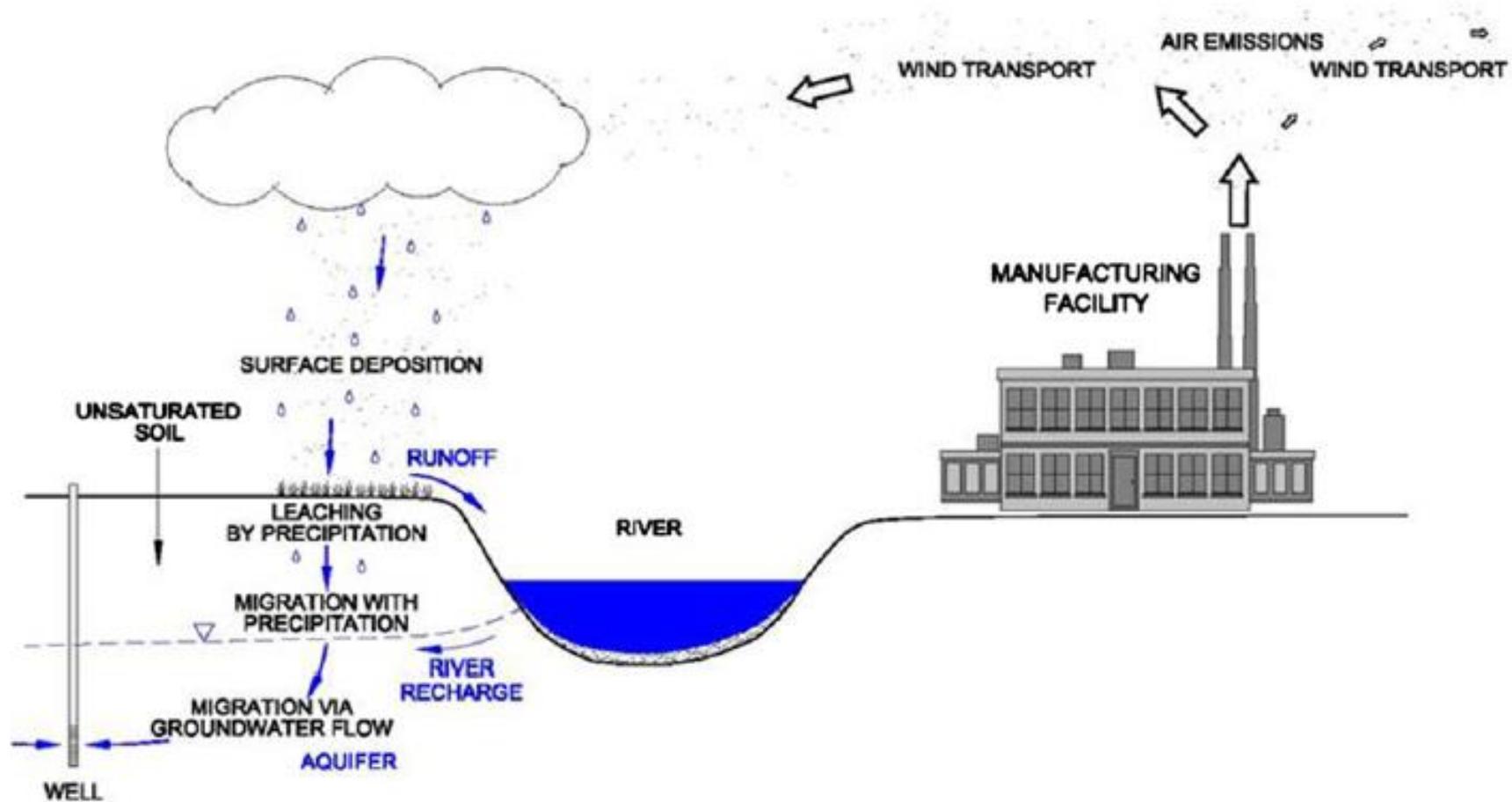
Public Water Supplies

- Water Distribution

- Political Boundary

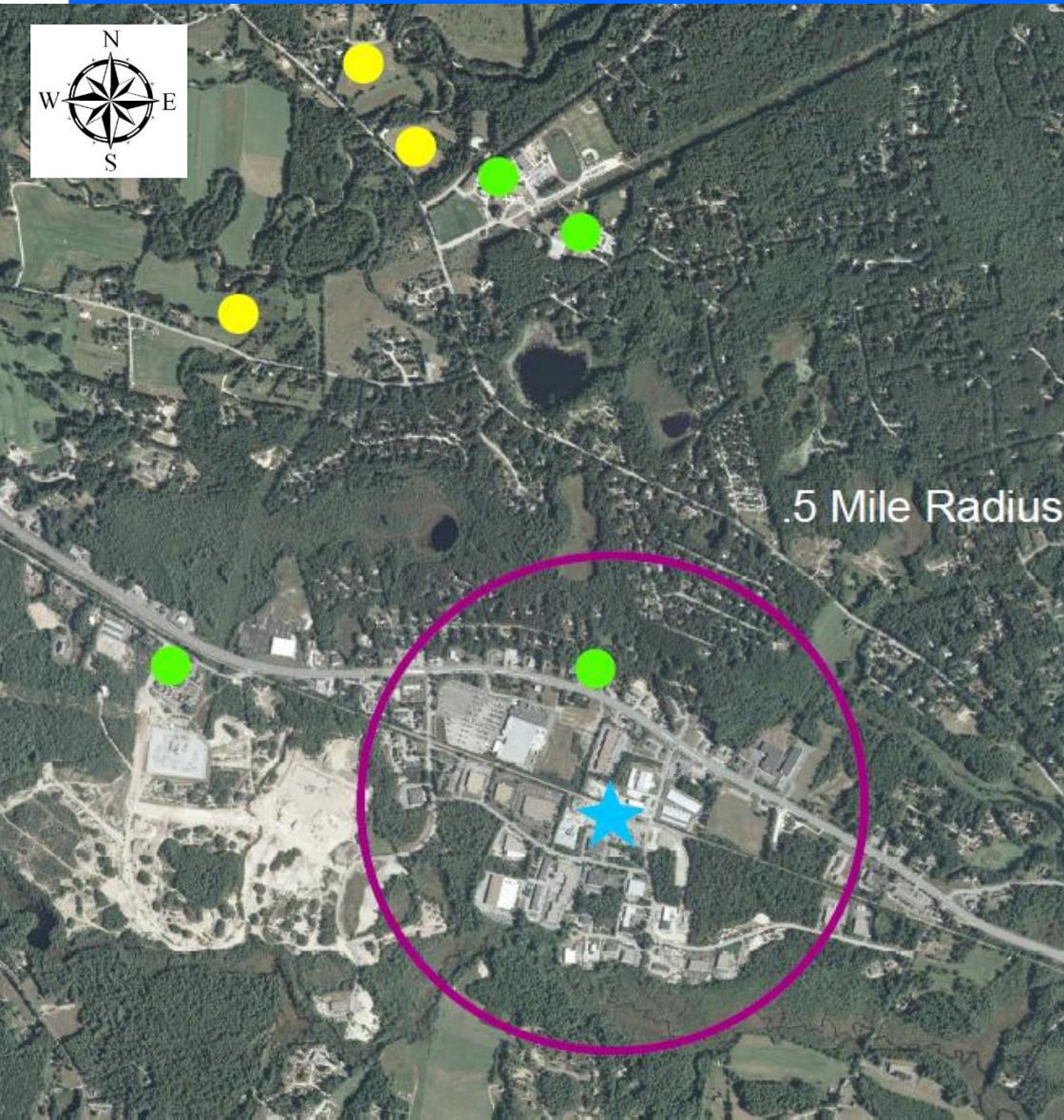
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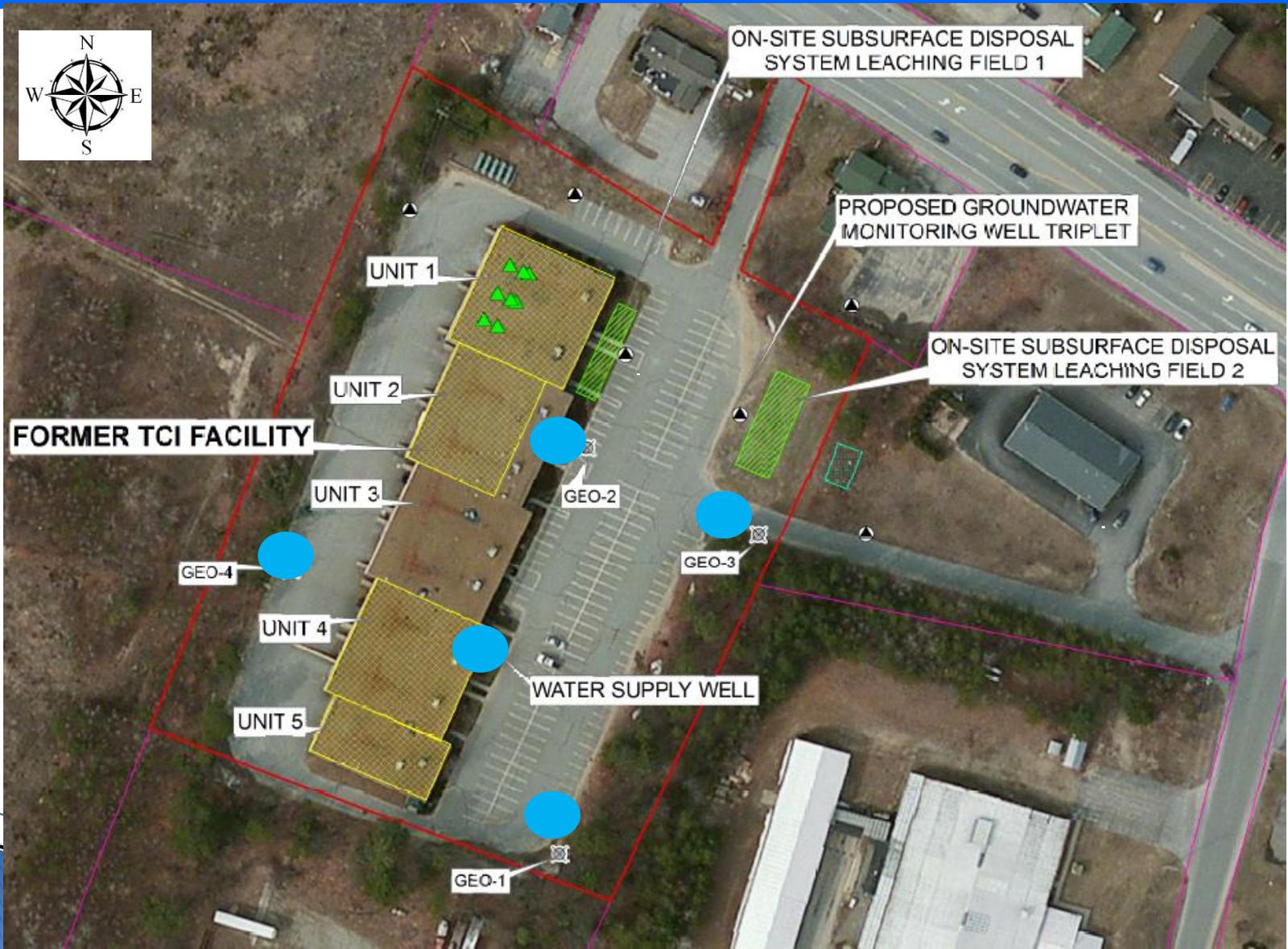
Davis et al., 2007, *Chemosphere*

Soil Testing



- ▶ 7 properties
 - 4 “sensitive receptors” 
 - 3 farms/agricultural 
 - ~100 shallow samples collected

Upcoming Site Investigation



SOUHEGAN LANDFILL
Updated 9/22/2016



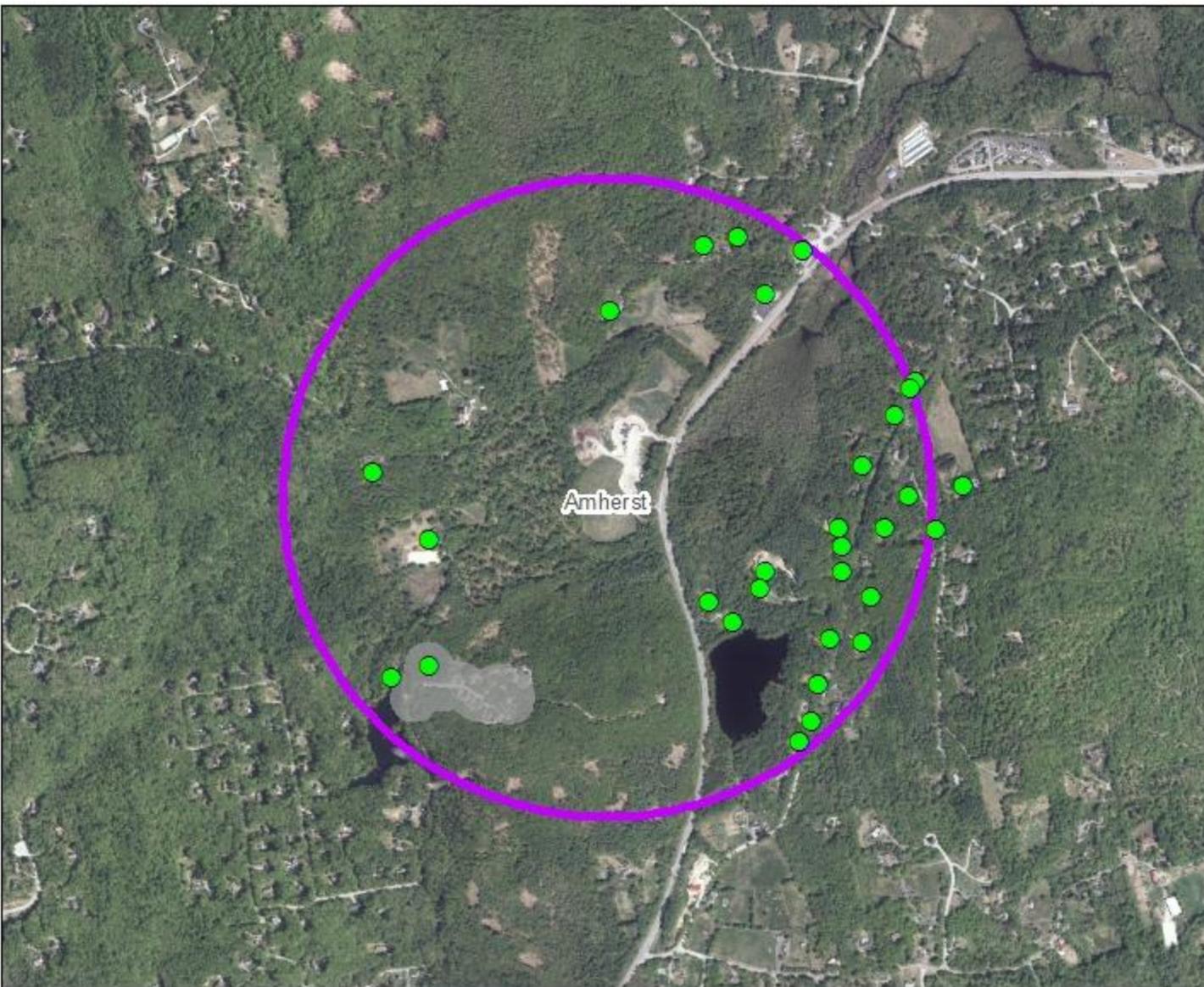
PFOA + PFOS (PPT)

- Public/Private Well
- ≥ 400
 - 70 - <400
 - 10 - <70
 - < 10
 - Result Pending

Public Water Supplies

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WELLS SAMPLED	RESULTS RECEIVED	PFOA & PFOS ABOVE 70 PPT	APPOINTMENTS SCHEDULED
30	30	0	0

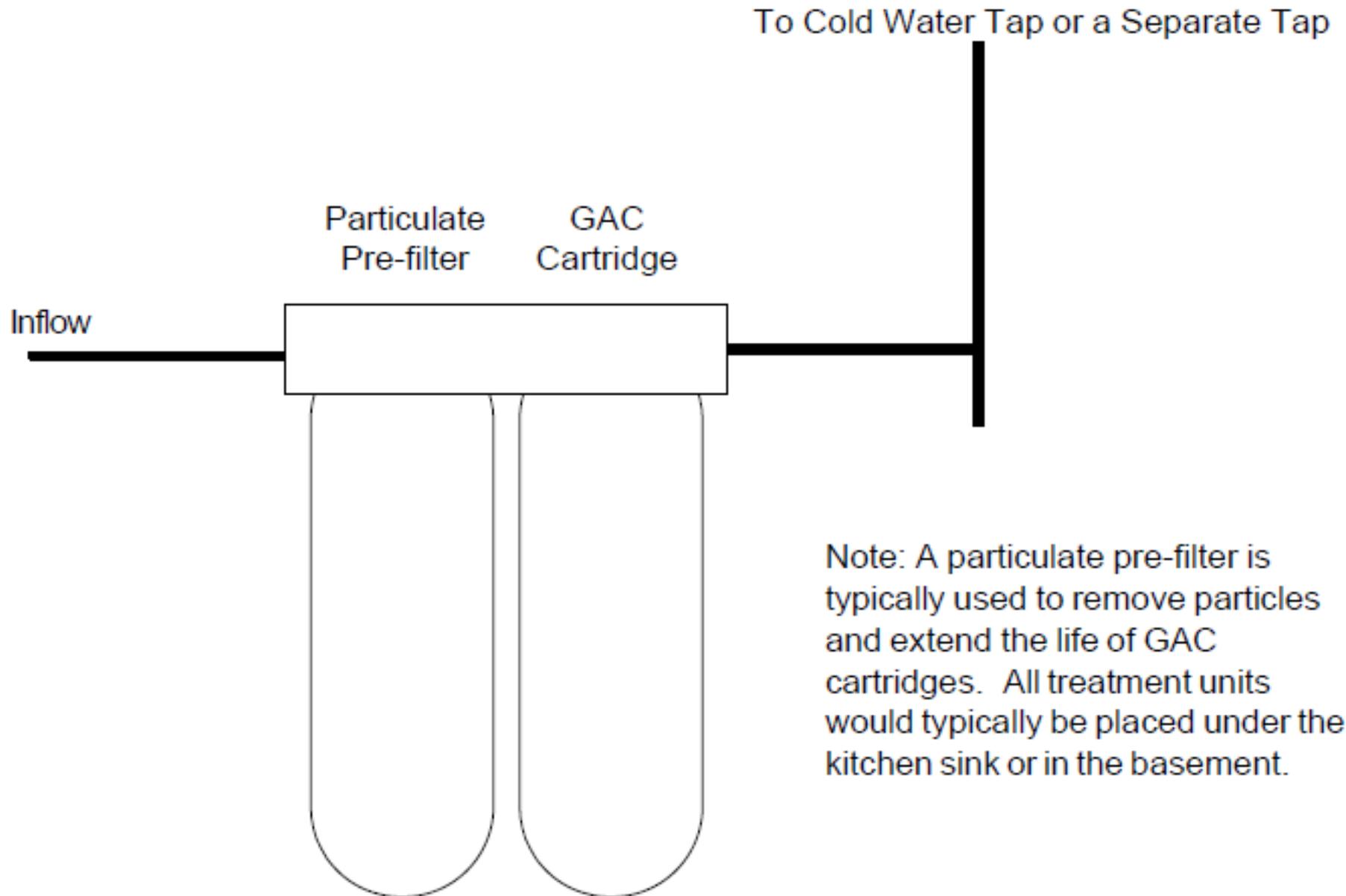


Alternate Water

- ▶ Available to properties within 0.5 radius
- ▶ Immediate – bottled water
- ▶ Mid-term – point of use systems (POU)



Typical Point of Use Granular Activated Carbon Filter



Note: A particulate pre-filter is typically used to remove particles and extend the life of GAC cartridges. All treatment units would typically be placed under the kitchen sink or in the basement.

Alternate Water – (cont.)

- ▶ Long-term/permanent – connection to municipal water
 - High level conceptual design
 - Detailed engineering design and bid specifications
 - Decision to proceed to construction



Southern New Hampshire Perfluorochemical (PFC) Blood Testing Program



Eligibility:

- Communities:
 - Amherst
 - Bedford
 - Litchfield
 - Manchester
 - Merrimack
- Private well owners of who live on streets served by private drinking water wells with PFC levels above 70 ppt.

Total Registered Participants: 245

Participants From Amherst: 10

Samples Received by NH Public Health Lab: 142

Public Inquiry Calls: 93 Total Calls, 9 in September

PFC Public Inquiry Line: **(603)271-9461** or
pfctesting@dhhs.nh.gov

Southern New Hampshire Perfluorochemical (PFC) Blood Testing Program



Merrimack Village District Community Exposure Assessment

Purpose:

- To assess PFC exposure to residents served by the MVD public water system.
- Known PFC contamination in some groundwater wells that feed the MVD system and in neighboring private wells.
- No known elevated PFC levels in Pennichuck Water.

Methodology:

- Program begins week of October 3rd
- 100 residential addresses randomly selected
- All occupants of the residence invited to participate.
- After the survey is complete, community results will be shared

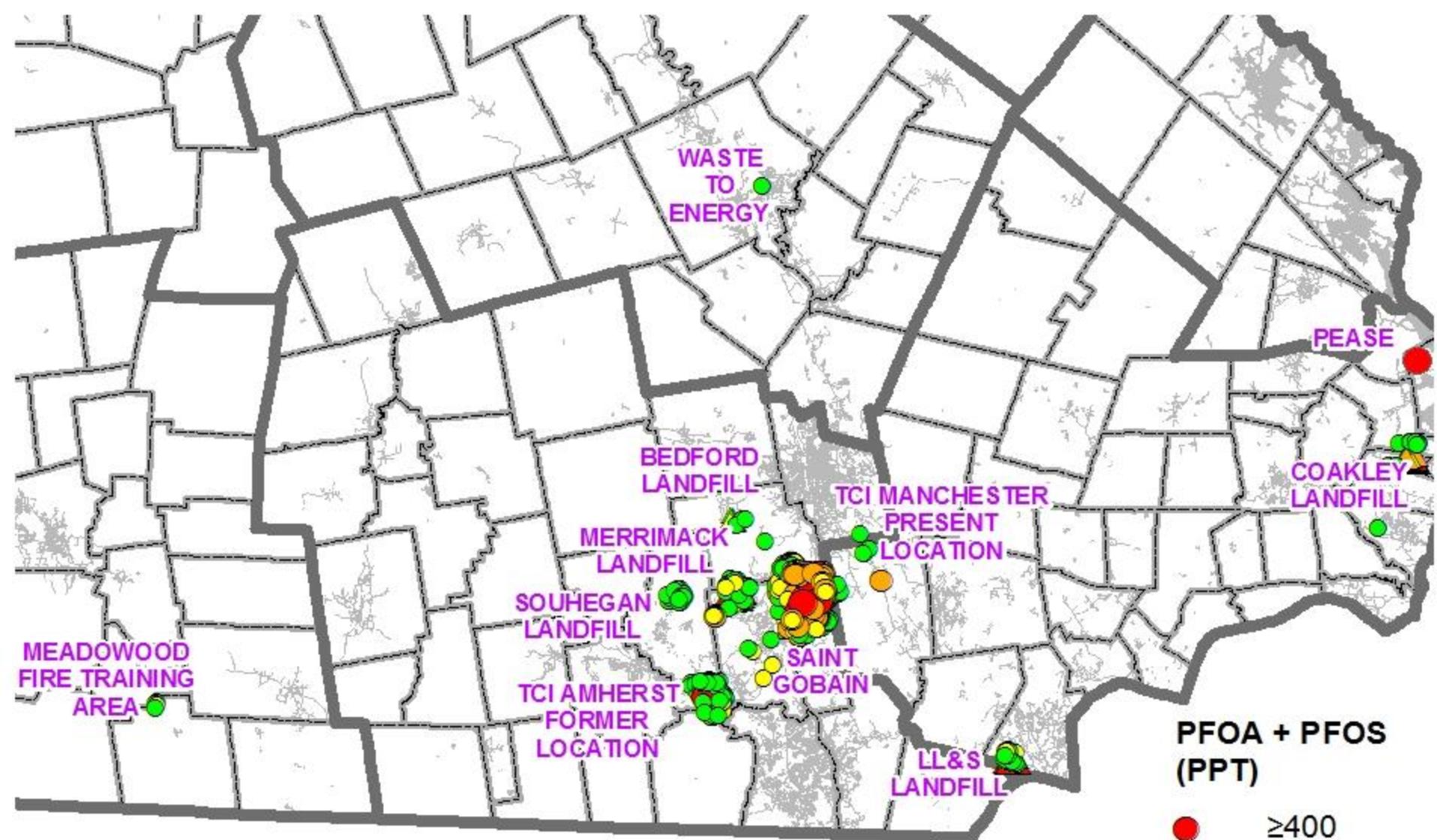
Summary / Next Steps

- ▶ Letters with updated sampling results
- ▶ Resampling of some wells
- ▶ Waterline design process to begin
- ▶ Bottled water to continue / POU pending
- ▶ Blood testing program underway
- ▶ Future Meetings
 - Waterline design process
 - Later update on waterline project





Questions and Answers



**Southern NH
PFC Investigation**

Water Distribution
 Political Boundary



1:500,000

**PFOA + PFOS
(PPT)**

- ≥400
- 70 - <400
- 10 - <70
- < 10
- Pending

SITE	WELLS SAMPLED	RESULTS RECEIVED	PFOA & PFOS ABOVE 70 PPT
SGPP	643	597	170
TCI AMHERST	197	195	16
TCI MANCHESTER	4	4	
MERRIMACK LF	108	75	1
LL&S LF	43	41	
SOUHEGAN LF	30	30	
COAKLEY LF	21	21	
BEDFORD LF	26	5	
MEADOWOOD	4	4	
OTHER SITES	59	33	2
TOTAL	1135	1005	189