

Marking 10 Years of Investigation and Mitigation of PFAS Releases from the Saint-Gobain Performance Plastics Facility in Merrimack, NH. An Overview of Work Completed, Next Steps, and Lessons Learned

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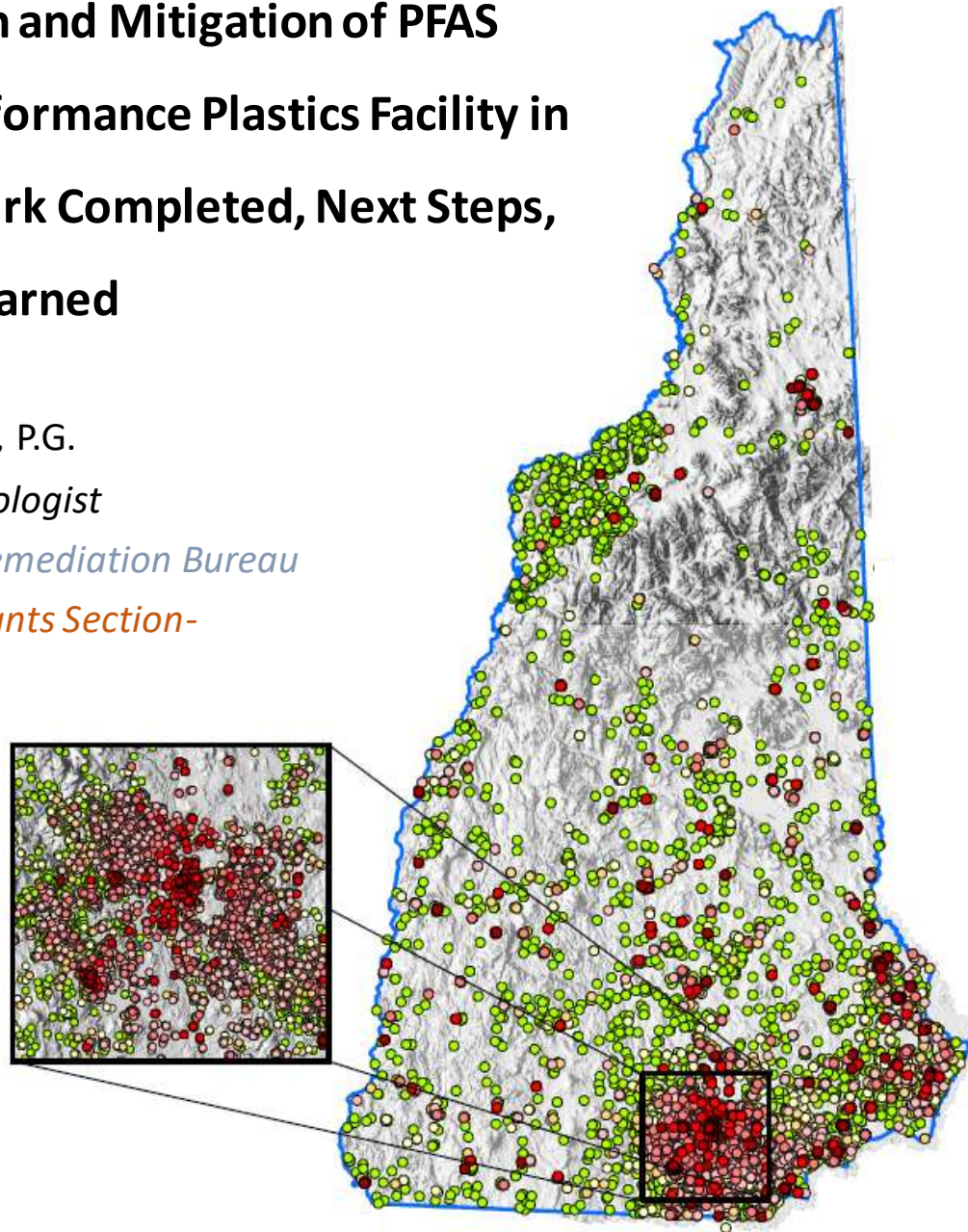
NHDES Hazardous Waste Remediation Bureau

-Emerging Contaminants Section-

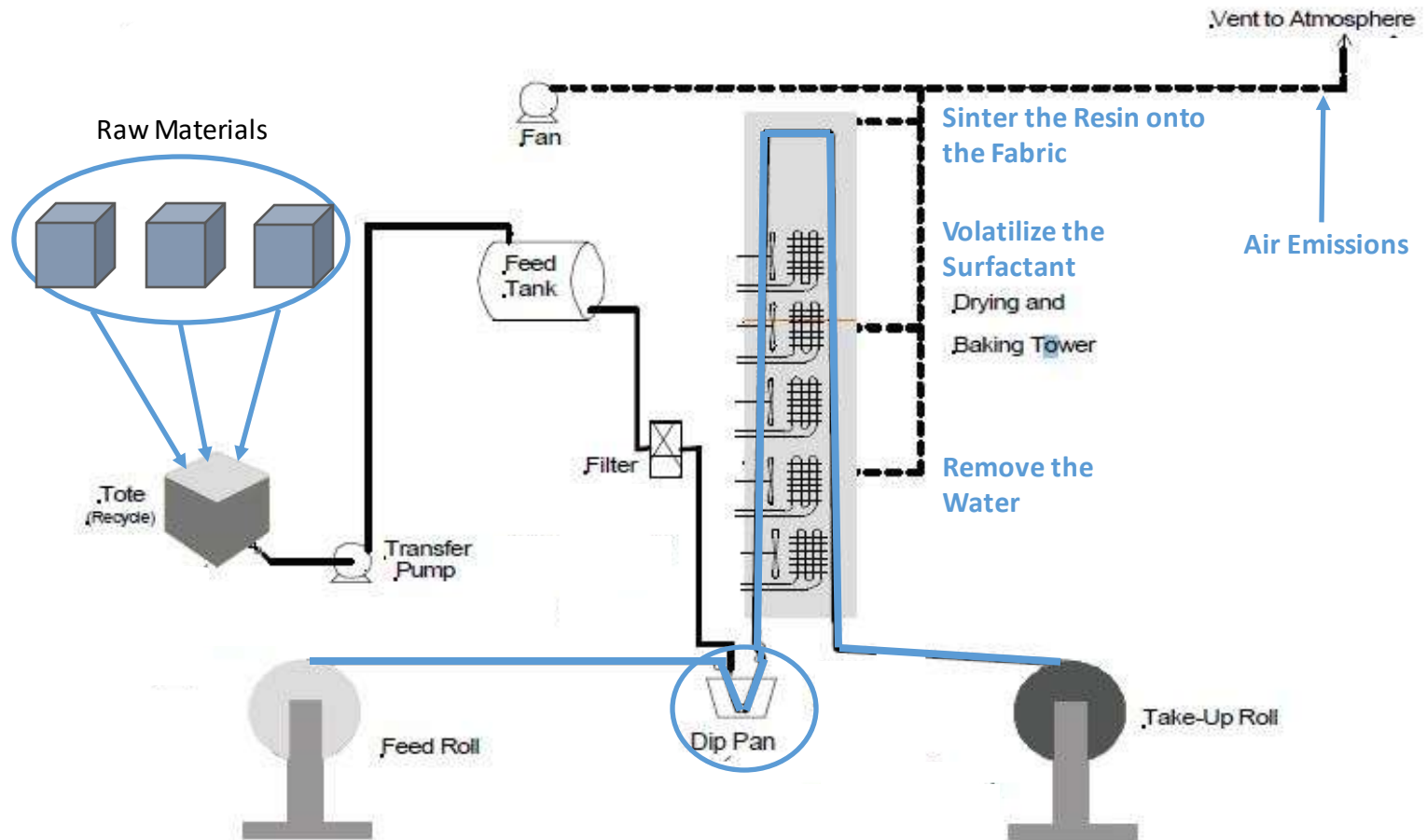
***NEWMOA 2026 Northeast Conference on
the Science of PFAS:***

Public Health & The Environment

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TYPICAL GLASS CLOTH PROCESS DIAGRAM



— Path of Glass Cloth through process

Partial Timeline – 2016 to Present

- 2016 – PFAS discovered in water sample collected at a coating facility
 - *No Enforceable Standard To Start (400 parts per trillion (ppt)?, 100 ppt?.....)*
 - *Prompts investigation that included sampling private water supply wells*
 - *USEPA Lifetime Health Advisory Issued / NH Adopted as AGQS (70 ng/L for PFOA and PFOS, combined)*
- 2018 – NH Legislature determines Saint-Gobain subject to additional regulation and required Best Available Control Technologies (BACT)
- September 30, 2019 – Effective date for four new PFAS Ambient Groundwater Quality Standards (AGQS)/MCL
 - *PFOA – 12 ng/L (ppt)*
 - *PFOS – 15 ng/L*
 - *PFHxS – 18 ng/L*
 - *PFNA – 11 ng/L*
- July 2020 – PFAS AGQS/MCL's adopted as a matter of law.
- April 2024 – USEPA establishes MCL for six PFAS
 - *PFOA – 4 ng/L*
 - *PFOS – 4 ng/L*
 - *PFHxS – 10 ng/L**
 - *PFNA – 10 ng/L**
 - *HPFO-DA (GenX) - 10 ng/L**
 - *Hazard Index MCL**
- December 2024 – Soil Remediation Standards (SRS) for Soil
- February 2025 – Env-Wq 1700 – Surface Water Criteria for PFAS



Contaminated Site Management – Env-Or 600

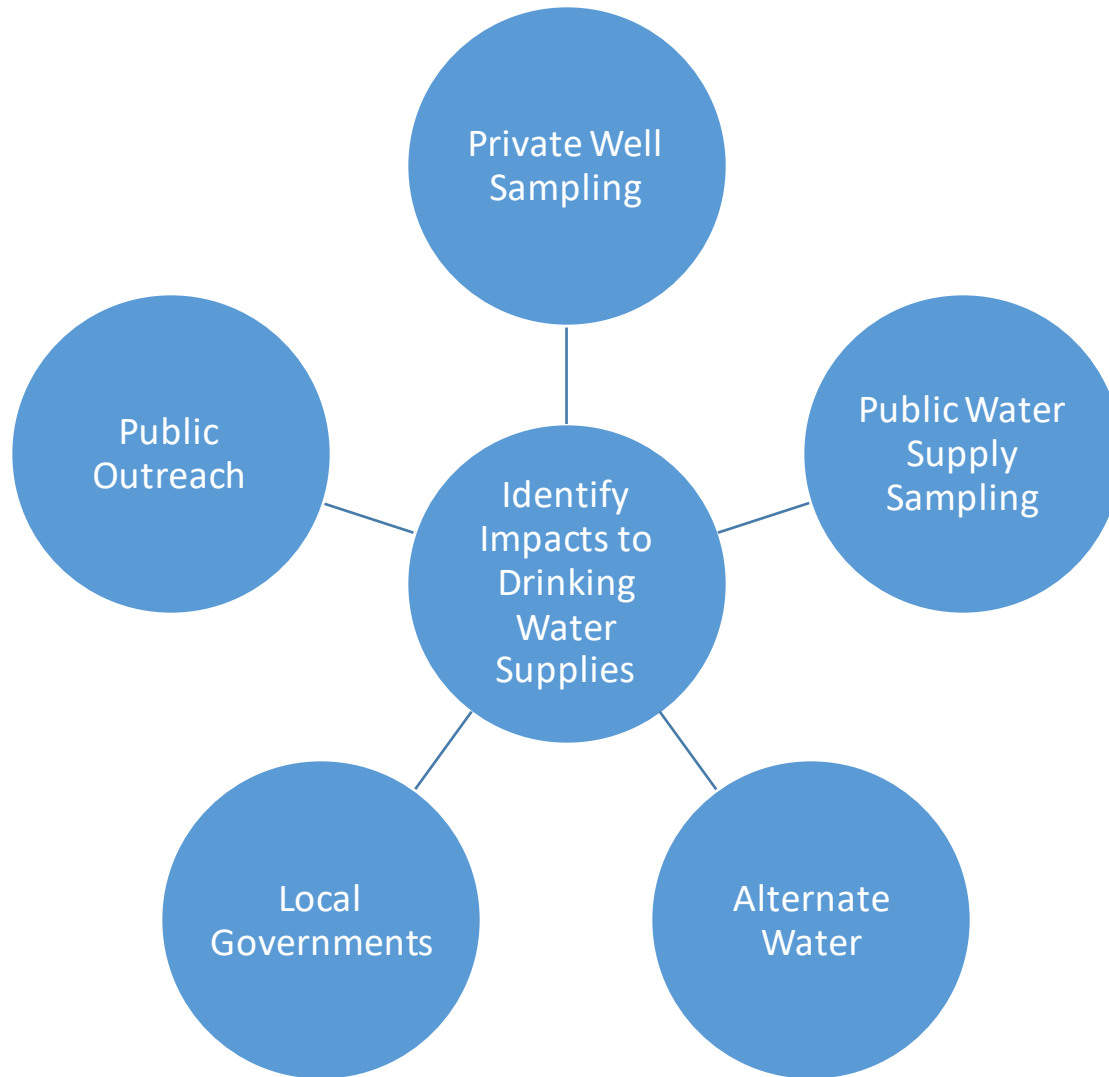


Site Discovery

- Sample Results Reported by SGPP
- Initial Response, Notification and Coordination

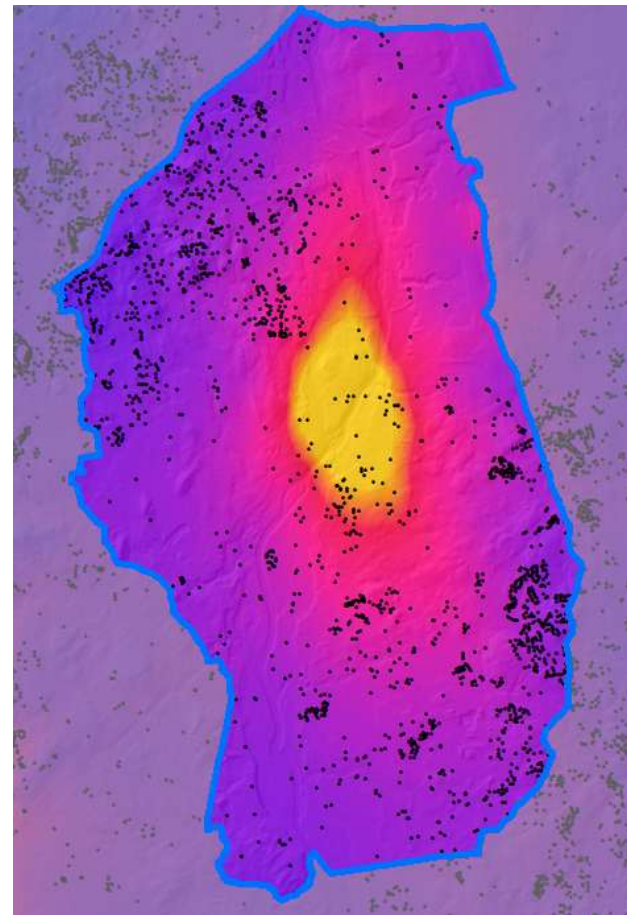


Emergency Response Components



Investigation

- Evaluate source, nature, location, and full extent of contamination
 - DW/GW/SW/Soil
- Evaluate fate and transport mechanisms
 - Air Modeling
- Identify receptors and potential receptors
- Evaluate further investigation, remedial action, and/or no further action

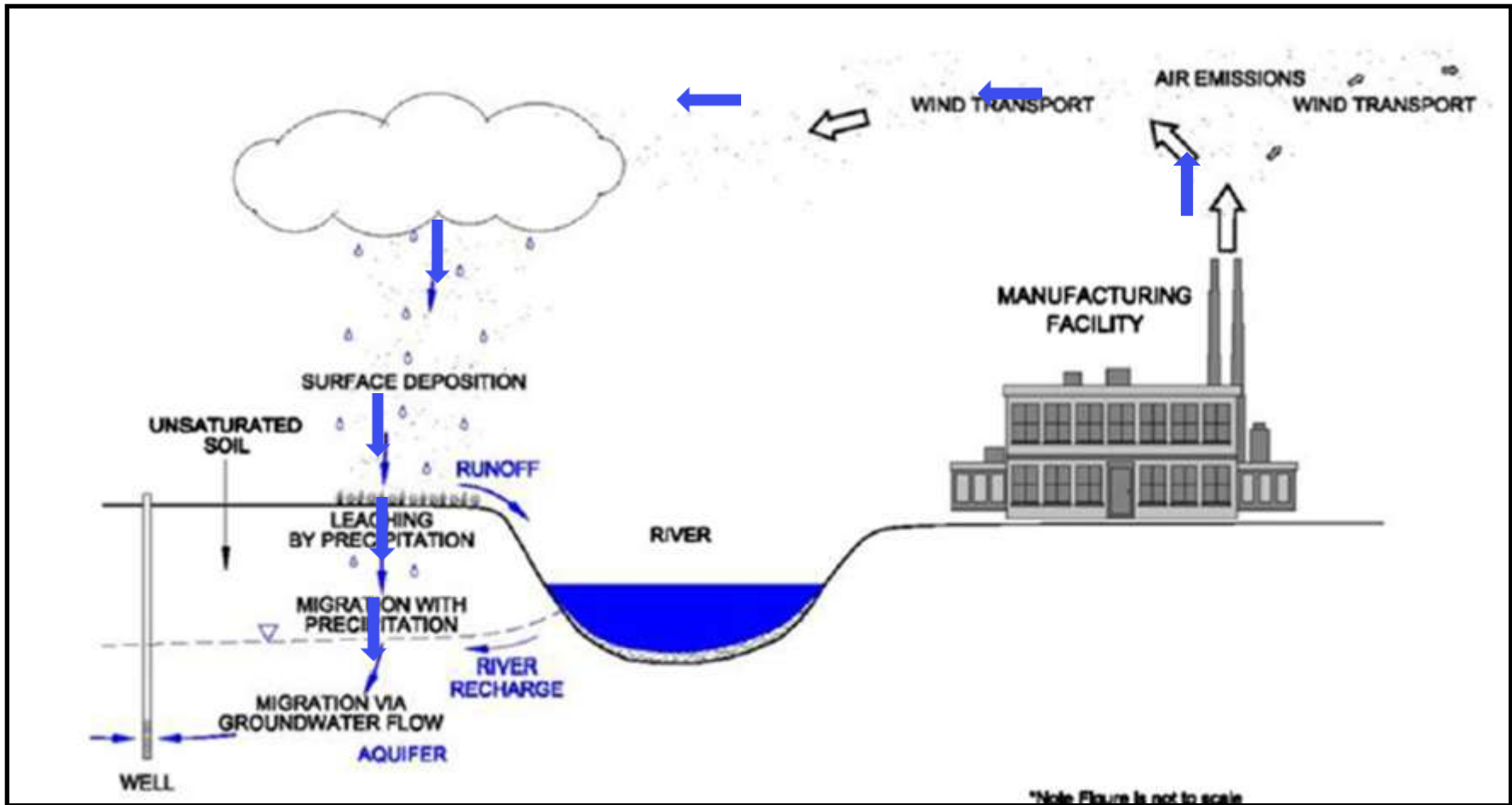


Environmental Media



Air Release

Conceptual Pathway to Groundwater Contamination



Challenges Associated with the Investigation and Mitigation of PFAS Air Releases

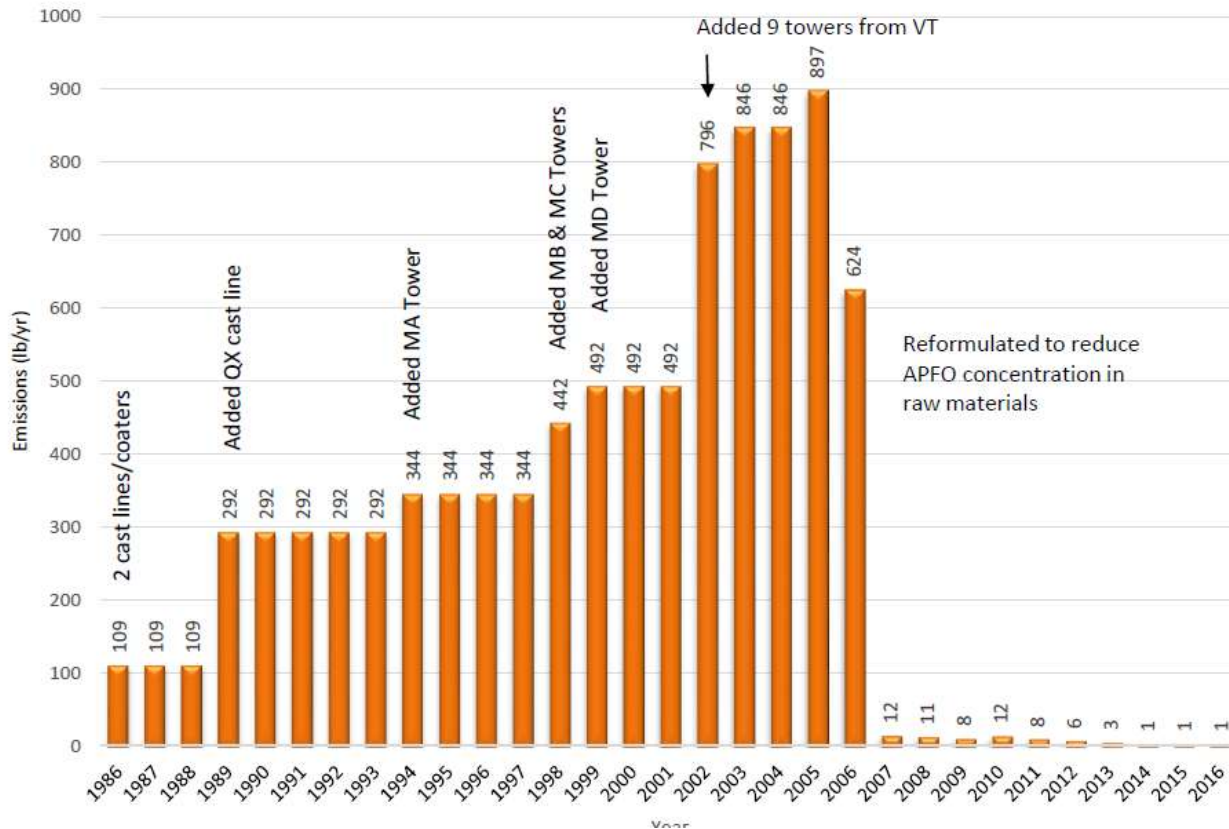
- Wide geographic area involved
- Numerous impacted public and private wells
- Changes in PFAS composition released to the air over time spanning years to decades
- Multiple geologic settings
- Potential for co-mingled plumes
- Release/transformation of precursors
- Changes in target analytes/reporting limits/methods



PFAS Emissions History

Variable Over Time

ESTIMATED HISTORICAL PFOA AIR EMISSIONS



Reformulation of ingredients in the mid-2000's reduced PFOA emissions, but the history of other PFAS emissions is not known.

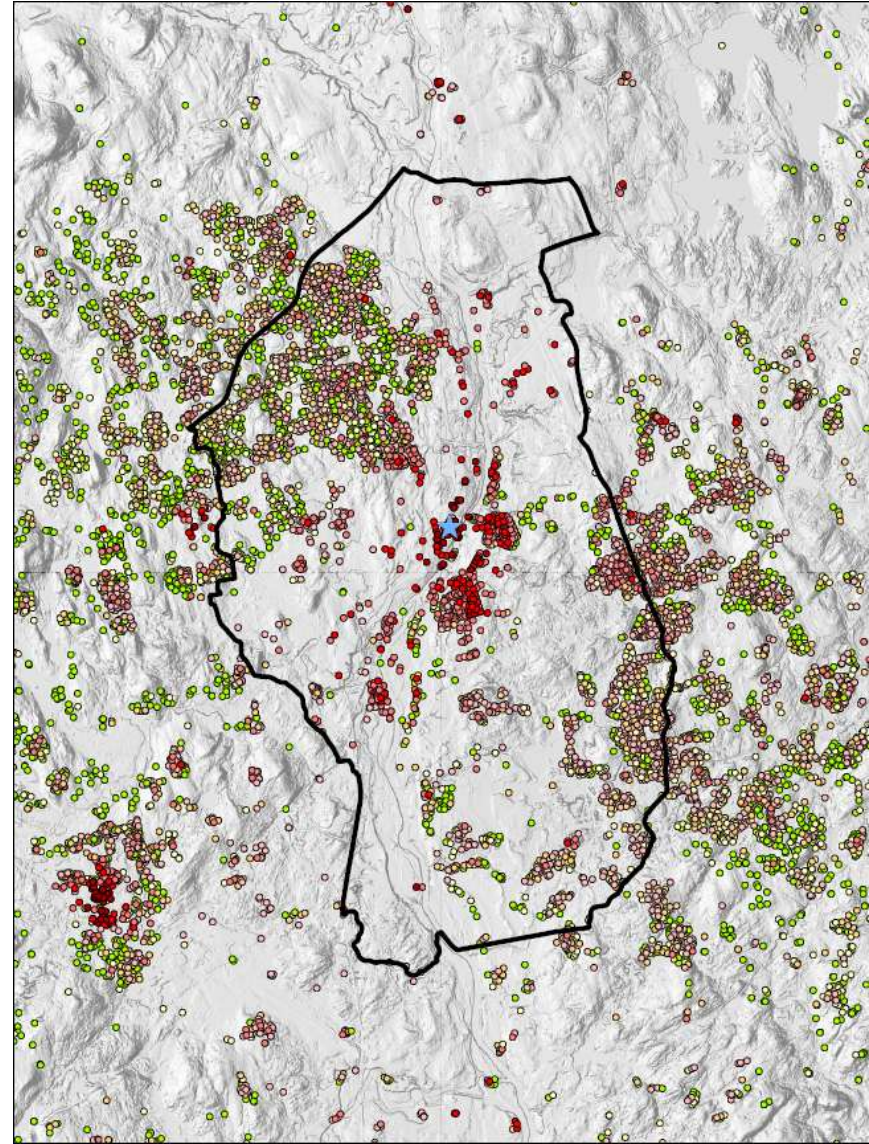


- NHDES ARD
- History – Chemfab/SGPP
- Emission Controls/BACT
- RTO – 2021
- Facility Closure - 2023



Drinking Water Sampling

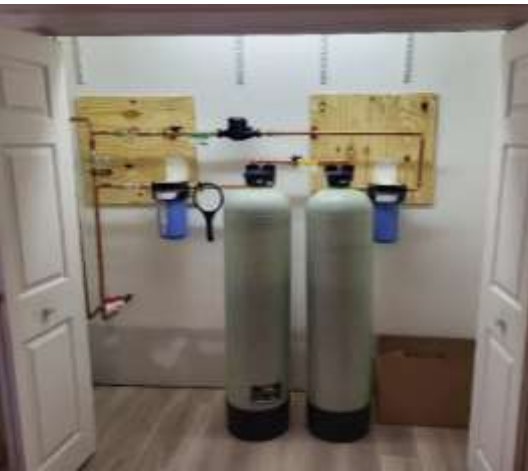
- Initial Response – pre-2018
- 2018 Consent Decree
 - Pre-GMZ and Outer Boundary
 - 65 Square Miles
 - >1,500 Samples
- 2019 Work Plan
 - >2,500 Samples
- GMZ Work Plan 2024
 - >1,600 Samples





Remedy of DW Supplies

- Env-Or 603.04 - *Safe Alternate Water*
- Provision of bottled water
- POU's
- POETS (>900)
- Municipal Water (>1,100)





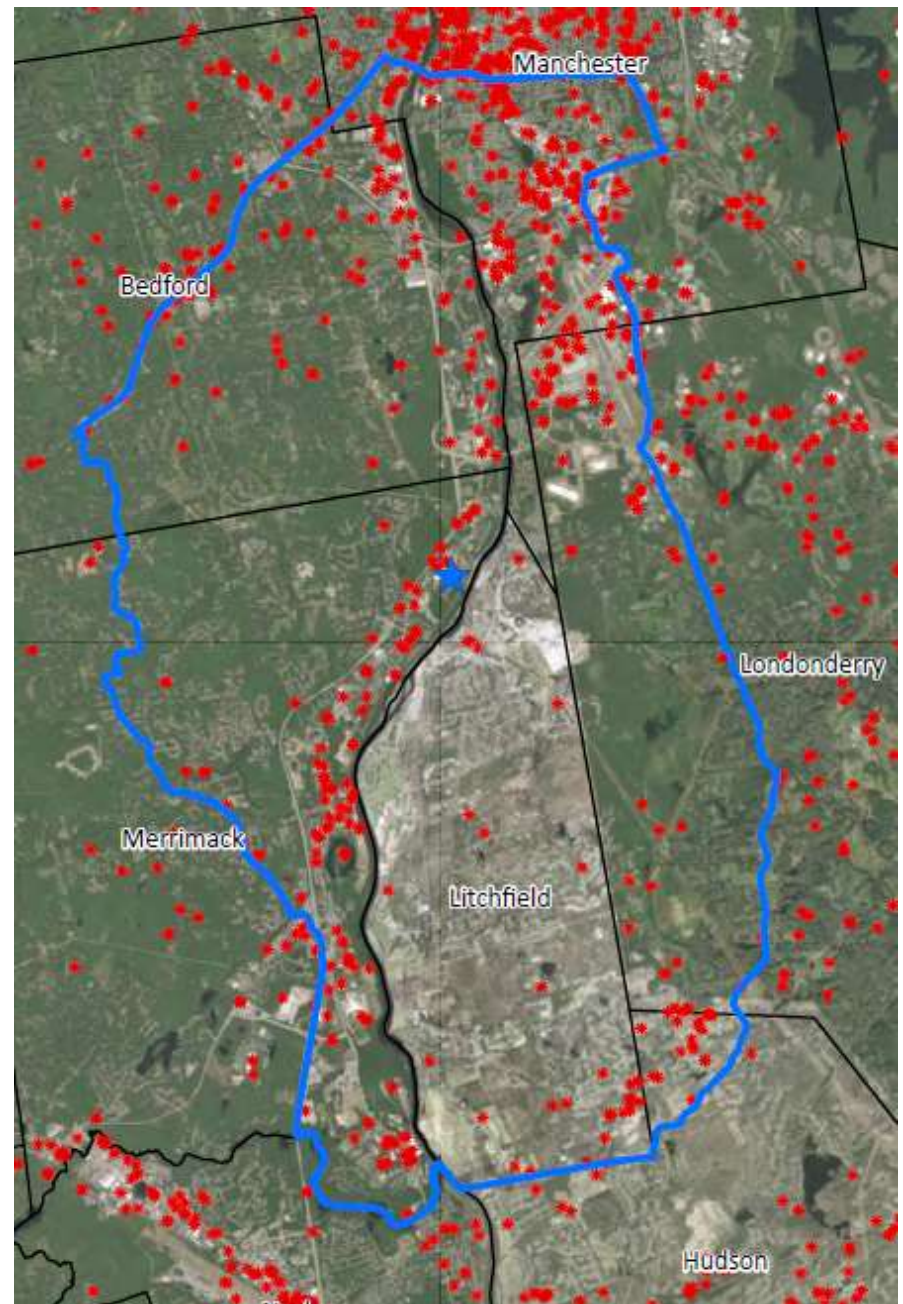
Facility Closure and Demo

- August 2023 – Announced Closure
- October 2024 – Demo Plans
- 2025 – Removed Structure Leaving Pad
- Current Status



On-Going Work

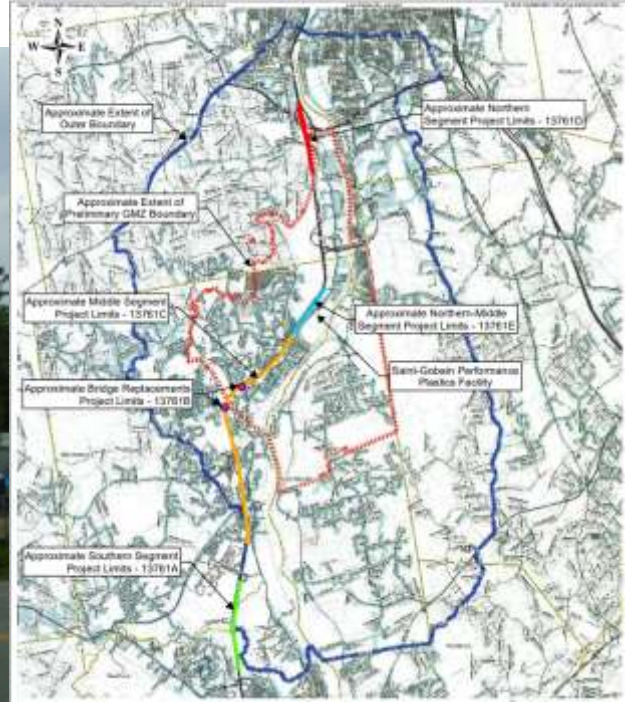
- DW Monitoring
- Alternate Water
- Soil Sampling
- GMZ/GMP
- RAP
- Other Sources/
Disputed Areas



View of Consent Decree with Remediation Sites

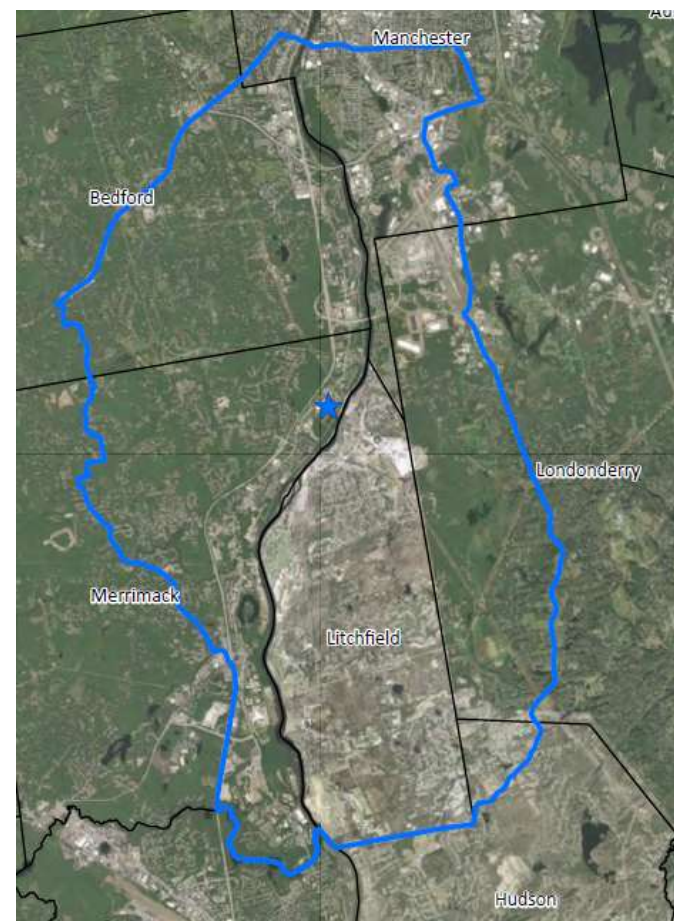
Other State Programs

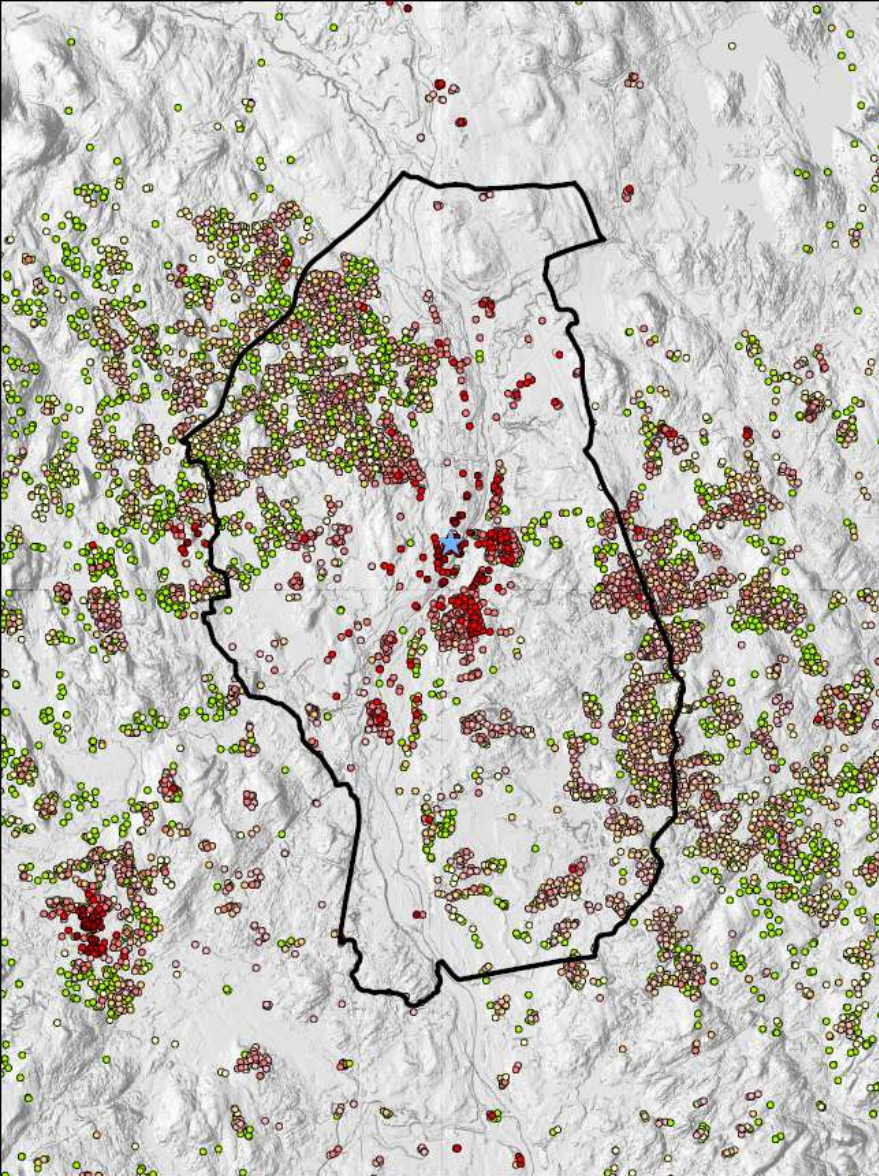
- NHDES Water/Air/Land/Waste
- Funding
 - PFAS Remediation Grant and Loan Fund
 - PFAS Removal Rebate Program for Private Wells
 - PFAS Compensation Fund for PWS
- NHDHHS
- NHDOT



Communication

- Public Outreach – 6 municipalities
 - ~19,000 properties
- Hotline
- Inter-Agency/State Coordination
 - No “Silos”
- Local Activists – State Reps
- Legislation
- Commission on the Environmental and Public Health Impacts of Perfluorinated Chemicals (HB737)
- Environmental Health Program





Thank You
Questions?
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MAX_PFOA_SYMBOL

- > 0 and <= 4
- > 4 and <= 8
- > 8 and <= 12
- > 12 and <= 30
- > 30 and <= 100
- > 100 and <= 500
- > 500