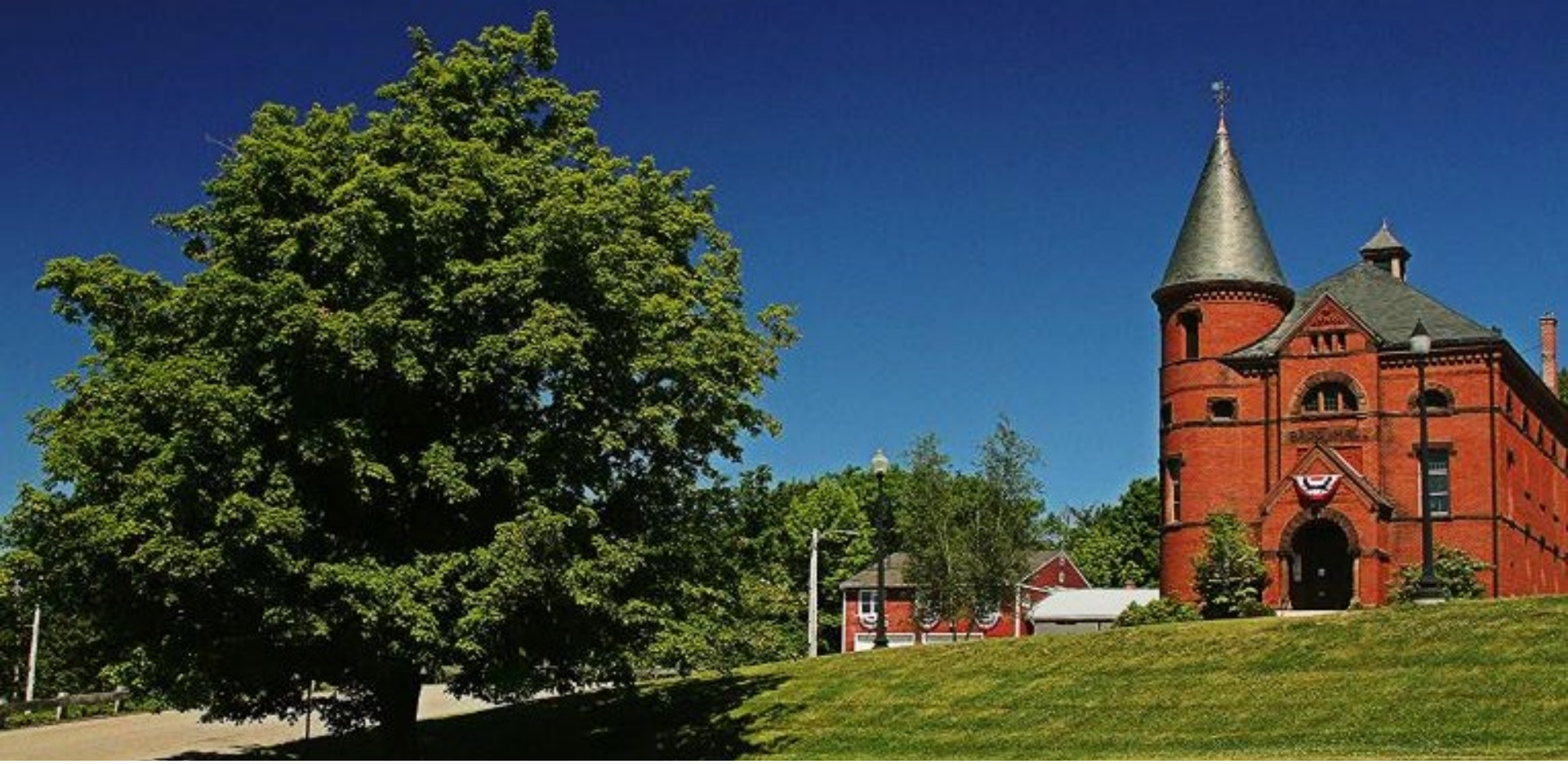


PRINCETON PFAS UPDATE – FALL 2023

Jeffrey Arps, LSP

Tighe&Bond

PROJECT STATUS FALL 2023

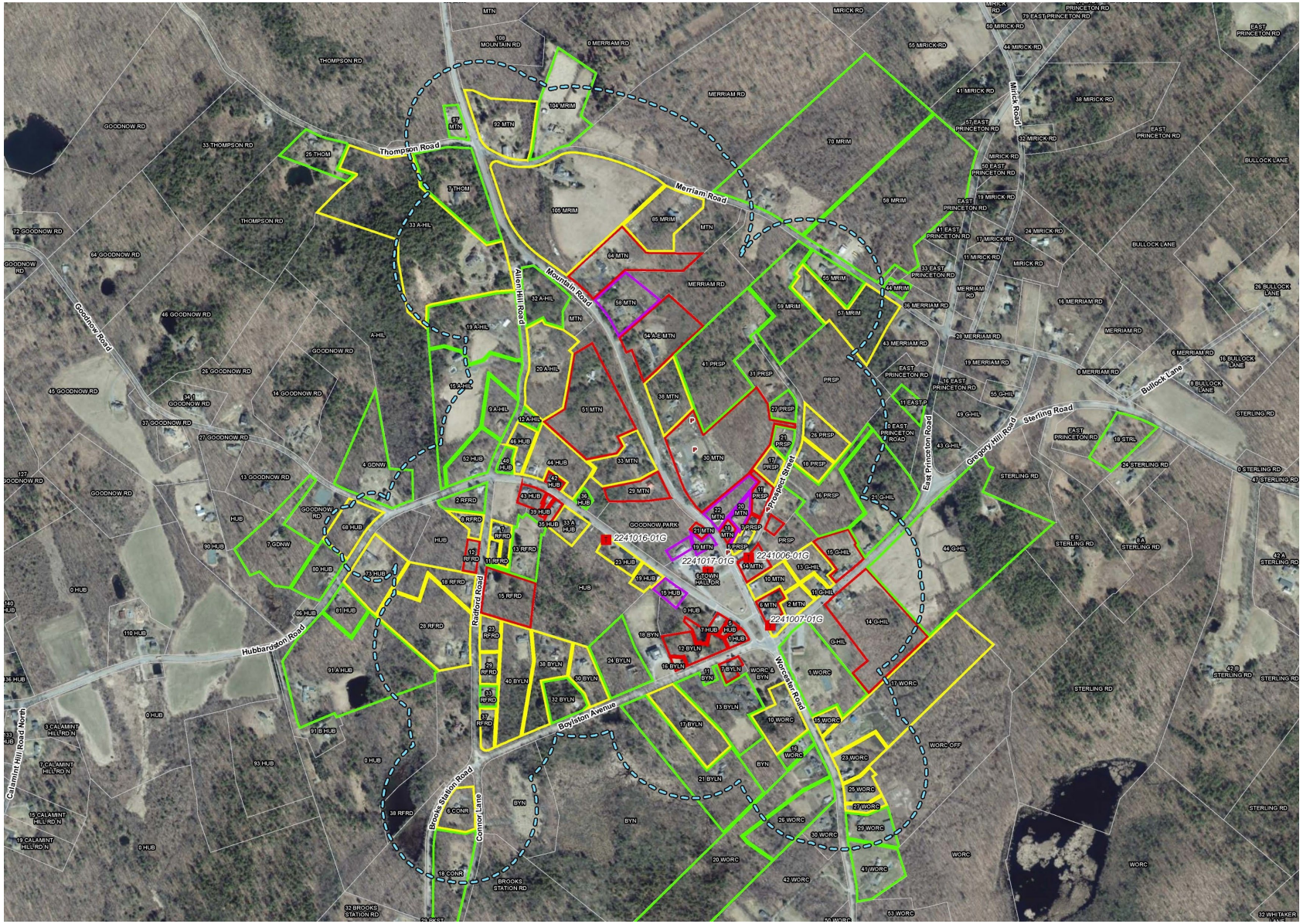
- On-going IRA for monitoring private wells and POET systems
  - Two new locations identified in April 2023 sampling round
  - October sampling round begins next week - will include influent
  - POET carbon vessel breakthrough detected at a second location (20 Mountain Rd)
  - Single-vessel POETs installed where possible at all locations with detections (four locations require plumbing modifications and four owners opted to continue with bottled water)
- Phase II activities – soil and surface water sampling completed
- Runoff Treatment System – In operation at 30 Mountain Rd.

PRIVATE WELL SAMPLING RESULTS

- One new location with a PFAS detection -105 Merriam Rd
  - New radius added 92 and 97 Mountain Rd & 104 Merriam Rd
  - 97 Mountain Rd and 104 Merriam Rd results = ND
  - 92 Mountain Rd had low PFAS detection, but no homes within 500 feet of this location

- Identified six properties adjacent to a detection where the dwelling is >500 feet away:
  - 11 East Princeton Road ND
  - 91A Hubbardston Road ND
  - 25 Thompson Road ND
  - 44 Merriam Road ND
  - 43 Merriam to be sampled soon
  - 36 Merriam – being scheduled

AUGUST 2023 RADIUS MAP



RUNOFF TREATMENT SYSTEM – 30 MTN RD

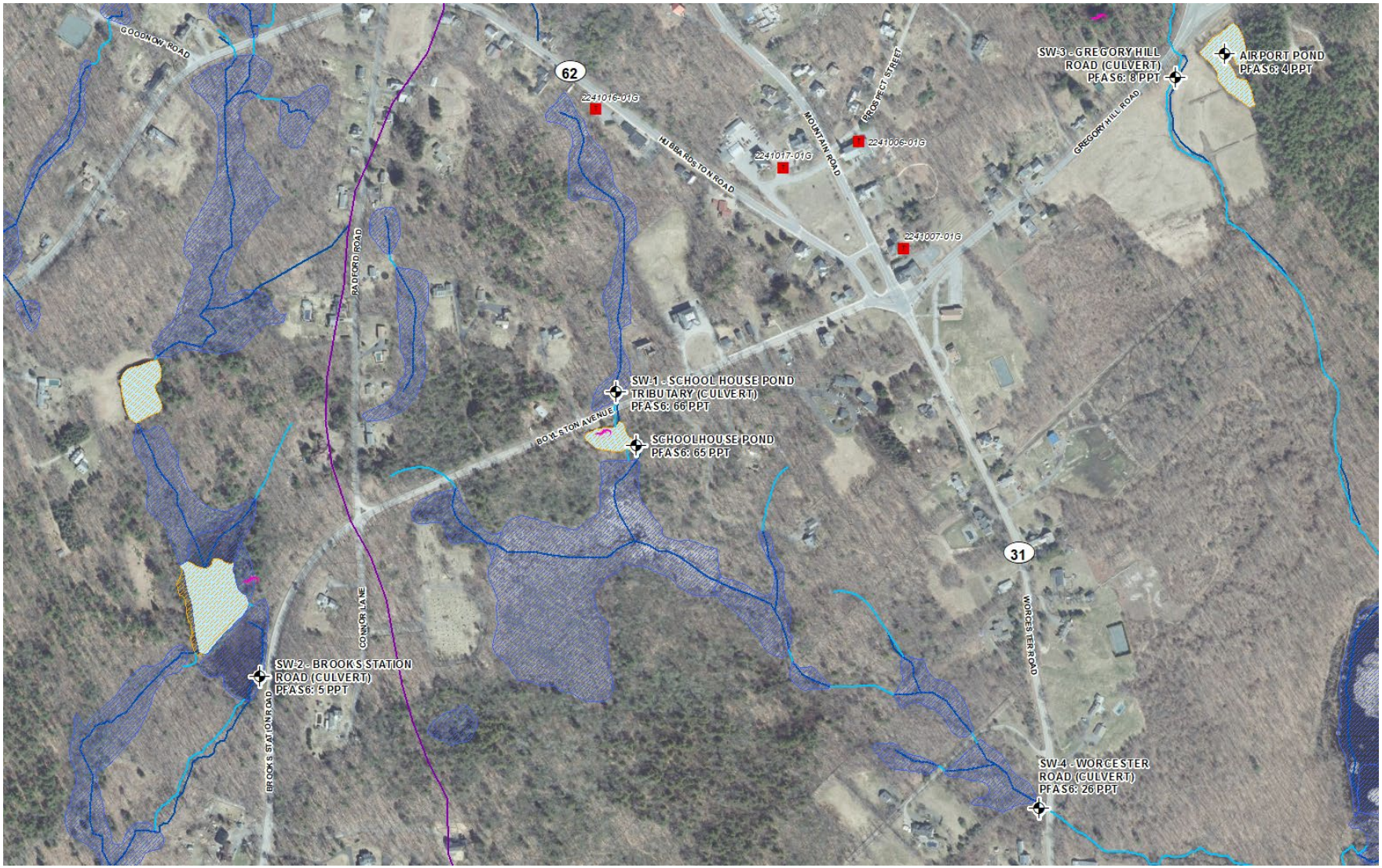
- System began operating on September 11
  - Through October 3, 37,949 gallons have been treated
  - Influent and effluent samples were collected September 15; laboratory results are pending
  - Treated water is infiltrating to subsurface next to the sidewalk
  - System will remain in operation until sub-freezing temperatures are forecast. System will be shut down and returned to operation when temperatures will remain above freezing.
  - Since the system began operating, significantly less runoff has been observed flowing over the top of the bedrock outcrop during rain events.

RUNOFF TREATMENT SYSTEM PHOTOS

PHASE II COMPREHENSIVE SITE ASSESSMENT

- Additional soil sampling in July at 18, 19, 21 and 22 Mountain Road where runoff from May 2017 fire was reported to flow
  - Results consistent with prior results at these properties
  - Deeper samples generally had lower concentrations
  - No direct exposure risk from detected levels in soil
- USEPA completed soil sampling at 30 Mountain Rd in April
  - Data not available yet – still undergoing validation by EPA
- Surface water sampling completed at four locations in downgradient streams
  - PFAS6 concentrations ranged from 5 to 66 ppt
- Additional surface water sampling will be conducted this fall to assess where groundwater may be discharging to surface water

SURFACE WATER SAMPLING



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CONCEPTUAL SITE MODEL (CSM)

- **Two PFAS Source Areas**
  - Southern area = AFFF used in May 2017 at 30 Mountain Road
    - Runoff of firefighting AFFF foam and water onto the surface of some adjacent properties
    - Testing indicated Town Hall campus not a PFAS "source area"
  - Northern area (54, 58, 64 Mountain Road) = *different PFAS*
    - 54 Mountain Rd. soil sampling showed low PFAS concentrations, but potential that a 1967 fire was a source remains unconfirmed

CSM (CONTINUED)

- **Groundwater**
  - Disposal Site Boundary is based on the extensive private well data
- **Surface Water**
  - Schoolhouse Pond (across from 24 Boylston Rd) – PFAS far below the surface water standards
  - Airport Pond (Gregory Hill Rd at Sterling/East Princeton Rd fork) - PFAS far below the surface water standards and below drinking water standard
  - Data for locations SW-1 and SW-4 show PFAS6 above 20 ppt
- **Phase II Risk Characterization**
  - Data for soil, groundwater and surface water are being evaluated using DEP's Method 1 Risk Characterization Standards
  - Preliminary risk evaluations indicate that groundwater used as drinking water is the only exposure pathway that requires remedial action and has feasible alternative remedies currently available

PHASE III REMEDIAL EVALUATION

As detailed in April 2023 presentation, in accordance with MCP criteria and definitions, there are no “feasible” methods currently available to remediate soil, surface water, or groundwater

Phase III will include an update of feasible methods, if any

Direct treatment of private well water will continue

- Protects human health and eliminates the water supply component of PFAS that may be discharged to septic systems

Treating surface runoff at 30 Mountain Rd removes the largest identified source of PFAS in the affected area

PROJECT ACTIVITIES IN THE NEXT SIX MONTHS

- Continue IRA monitoring of POETs and well water
- Complete Phase II sampling and risk assessment
- File Phase II/Phase III reports in November 2023
  - *Will schedule a hybrid public meeting in Dec/Jan*
- Semi-annual IRA status report due in March 2024
- Next IRA public information session in April 2024
  - *Meeting currently expected to be "in-person"*

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