



Status Update: Baird & McGuire Superfund Site Randolph Town Council Meeting

December 8, 2025

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U.S. EPA – Region 1

Site Background

- 1912-1983: Baird & McGuire, Inc. operated a chemical mixing and batching facility at the Site.
- 1983: Designated a Federal Superfund Site.
- 1986: EPA issues cleanup plan for groundwater, surface water, and soil.
- 1993: Groundwater Treatment Facility (GWTF) completed.
- 2004: Commonwealth of Massachusetts assumed sitewide operations and maintenance responsibilities from EPA.
- 2013: EPA remedy optimization review completed.

Site Background (continued)

- 2018: All planned land use controls implemented for the Site.
- 2019: MassDEP updates the Conceptual Site Model (CSM) in support of remedy optimization.
- 2020: MassDEP completed a Shutdown Test for the GWTP.
- 2021: MassDEP initiated field pilot tests for in-situ treatment of arsenic and hydrocarbons in Site groundwater.
- 2023: MassDEP drafted a Focused Feasibility Study (FFS) for Site groundwater.

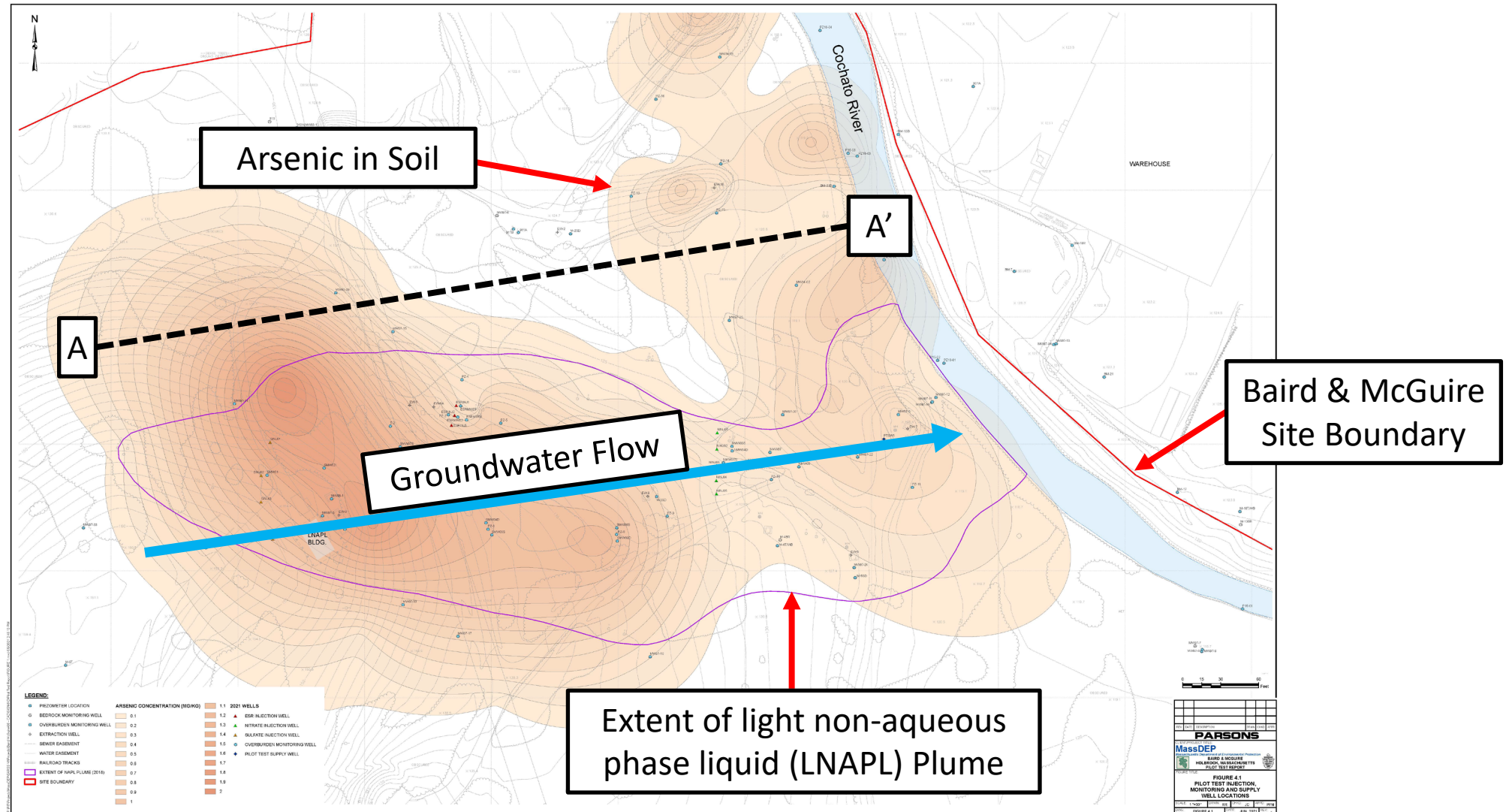
Current Site Status (Unchanged from 2024)

- The GWTP remains in standby posture.
 - Groundwater and surface water continue to be monitored by MassDEP contractors.
 - The GWTP undergoes regular maintenance and system cycling to ensure readiness if a restart is necessary.
- MassDEP contractors continue to batch and inject sulfate into the groundwater aquifer.
 - The field Pilot Test was nominally completed in 2022.
 - Routine and Pilot Test-specific groundwater and surface water monitoring is ongoing.
 - Progress reports are submitted to EPA on a regular basis (monthly, quarterly, annually).

2024 Five-Year Review (FYR) Summary

Issues	Recommendations	Actions Taken since 2024
Groundwater cleanup not occurring in reasonable timeframe.	Complete the groundwater FFS and evaluate additional response action(s).	EPA and MassDEP will finalize the FFS and intend to issue an amended Record of Decision (ROD) in September 2026. [In Progress]
Per- and polyfluoroalkyl substances (PFAS) nature and extent not fully characterized.	Continue monitoring groundwater for PFAS.	MassDEP collected an additional round of groundwater PFAS data; results were consistent with past events. PFOA and PFOS exceedances of the Federal Maximum Contaminant Level (MCL) ranged from 8.8 to 19.3 ppt. Additional monitoring may not be necessary. [In Progress]
Uncertainty about achieving groundwater cleanup levels.	Evaluate current groundwater cleanup levels for appropriateness.	EPA and MassDEP will establish interim Remedial Action Objectives for groundwater to allow for future flexibility in attaining cleanup goals. [Complete]
Possibility of emerging contaminant 1,4-dioxane to be present in site groundwater.	Sample groundwater for 1,4-dioxane.	MassDEP collected groundwater 1,4-dioxane data in spring 2025. Results ranged from non-detectable to 0.2 ppb, which is below EPA's tapwater screening level. No further monitoring for 1,4-dioxane is planned at the Site. [Complete]

Groundwater Plume Overview



Basic Overview of Preferred Piloted Treatment Technologies

Sulfate Amendment

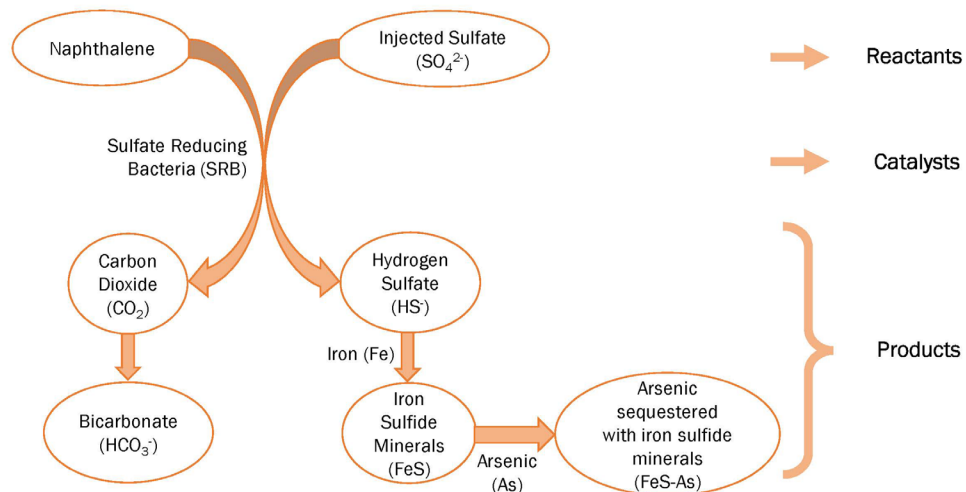


Figure 5.1. Process Reactants, Catalysts, and Products of Sulfate Pilot Test



Enhanced Sulfate Reduction (ESR)

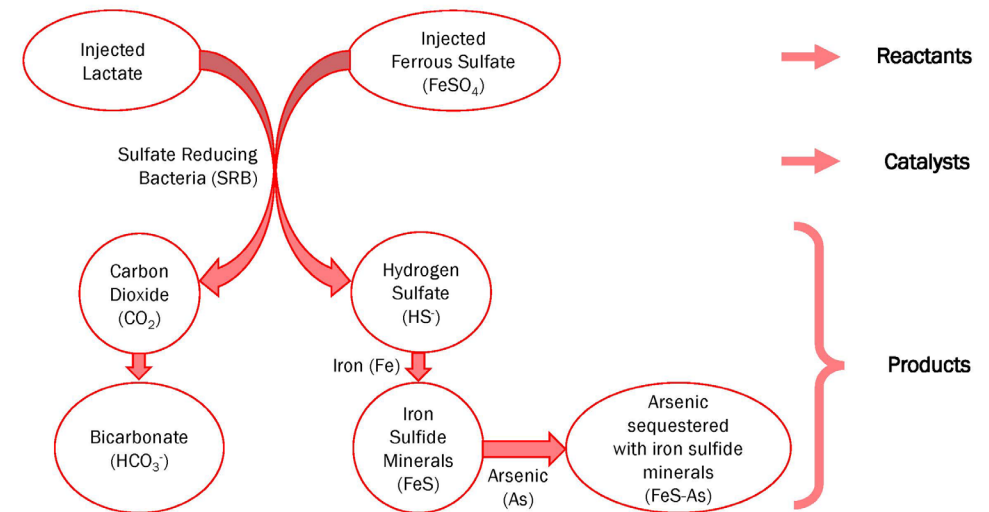


Figure 6.1. Process Reactants, Catalysts, and Products of Enhanced Sulfate Reduction (ESR) Pilot Test





Figure 4.6. Photographs of Sulfate and Nitrate Pilot Test Components Outside NAPL Building

Planned Work for 2025/2026

- Field
 - Continue post-Pilot Test maintenance and reporting.
 - Continue Pilot Test-specific groundwater and surface water monitoring.
 - Continue established long-term monitoring program.
 - Continue GWTP maintenance activities.
- Desktop
 - Revise, finalize, and issue the FFS for public inspection.
 - Develop and release a Proposed Plan for amending the groundwater ROD.
 - Answer questions and solicit public input on the Proposed Plan.
 - Develop and release a ROD Amendment for groundwater.



Thank You

Questions?

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