PFAS Regulatory Landscape

State and Federal Standards:

- Soil – Sediment – Surface Water – Groundwater:
  - No promulgated regulatory standard
- Drinking Water:
  - No promulgated regulatory standard (e.g. Maximum Contaminant Level (MCL))
  - USEPA Health Advisory: Lifetime Health Advisory (LHA) of 70 parts per trillion (ppt) for PFOA and PFOS in drinking water (non-enforceable guidance value) https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos

Alabama Regulatory Framework for Site Investigation & Remediation

- Alabama Environmental Investigation and Remediation Guidance
  http://adem.alabama.gov/programs/land/landforms/AEIRGInvestigation.pdf
  - Provides framework/process for conducting a site investigation and the design/ implementation of a final remedy
- Alabama Risk-Based Corrective Action Guidance Manual
  http://adem.alabama.gov/programs/land/landforms/arbcamanual.pdf
  - Provides framework/process to determine site-specific risk-based target levels (RBTLs) protective of current and future human health and the environment that can be used as remedial clean-up objectives

Components of the Alabama Environmental Investigation and Remediation Guidance

http://adem.alabama.gov/programs/land/landforms/AEIRGInvestigation.pdf

Preliminary Investigation (PI)

Purpose – identify conditions indicative of releases or threatened releases

Components of a PI include, but are not limited to:

- Submittal of PI Work Plan
- Evaluate surrounding land use
- Water use survey of nearby residential properties
- Site preparations (i.e., tree clearing)
- Installation of groundwater monitoring wells
- Surface water, sediment, soil and groundwater sampling
- Development of Conceptual Site Model
- Comparison of concentrations to applicable & appropriate screening levels
- Identification of compounds of potential concern
- Submittal of PI Report summarizing findings to ADEM for review/comment

Comprehensive Investigation (CI)

Purpose – determine full horizontal and vertical extent of impacts

Components of a CI may include, but are not limited to:

- Submittal of CI Work Plan
- Potential installation of additional monitoring wells
- Potential additional surface water, sediment, soil and groundwater sampling
- Update of Conceptual Site Model
- Collection of site-specific data to aid in risk assessment
- Submittal of CI Report summarizing findings to ADEM for review/comment

Risk Assessment

Purpose – develop site-specific risk-based target levels (RBTLs) that are protective of human health and the environment

Components of an RA may include, but are not limited to:

- Human-health risk assessment based on specific chemicals
- Human-health risk assessment based on site-specific parameters
- Ecological risk assessment to protect animal populations

Remediation Plan

Purpose – develop a plan to mitigate sources of contaminants to achieve RBTLs

Components of a Remediation Plan include, but are not limited to:

- Evaluation of possible remedial alternatives
- Description of the cleanup objectives (i.e., RBTLs)
- Discussion of the alternative(s) selected to remediate contaminants detected above the RBTLs
- Design plans of the remedial alternative for soils, sediments, and groundwater, as needed to achieve the RBTLs
- Submittal of a Remediation Plan to ADEM for review/comment