

PFAS in M&A Due Diligence

February 27, 2025

SUPPORTING

[DOING]

LEADING

Why PFAS in M&A?

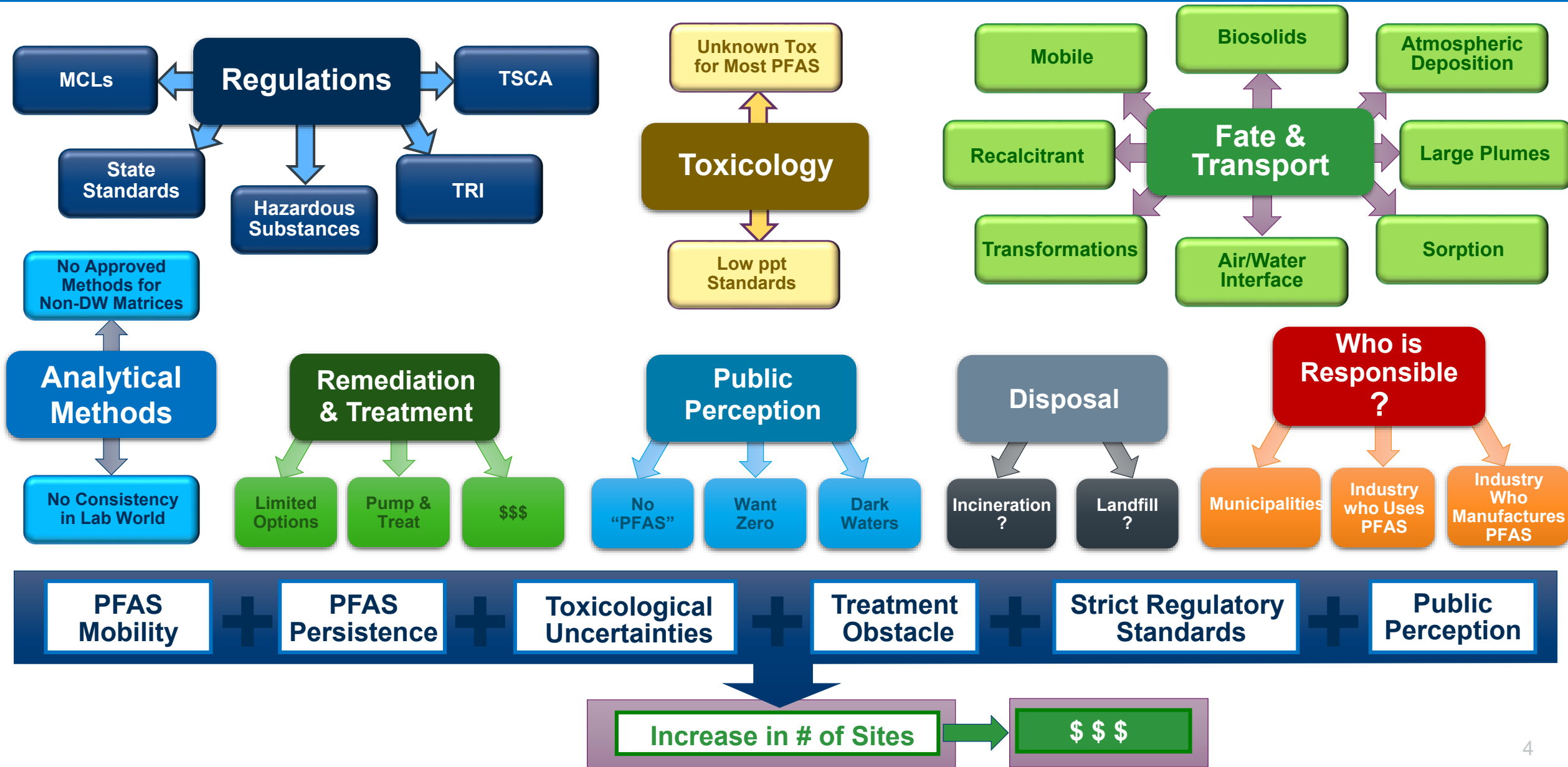
Why now in Due Diligence?

What to Expect?

What Happens?

Why PFAS in M&A?

PFAS Uncertainties / Challenges = Perceived Risk

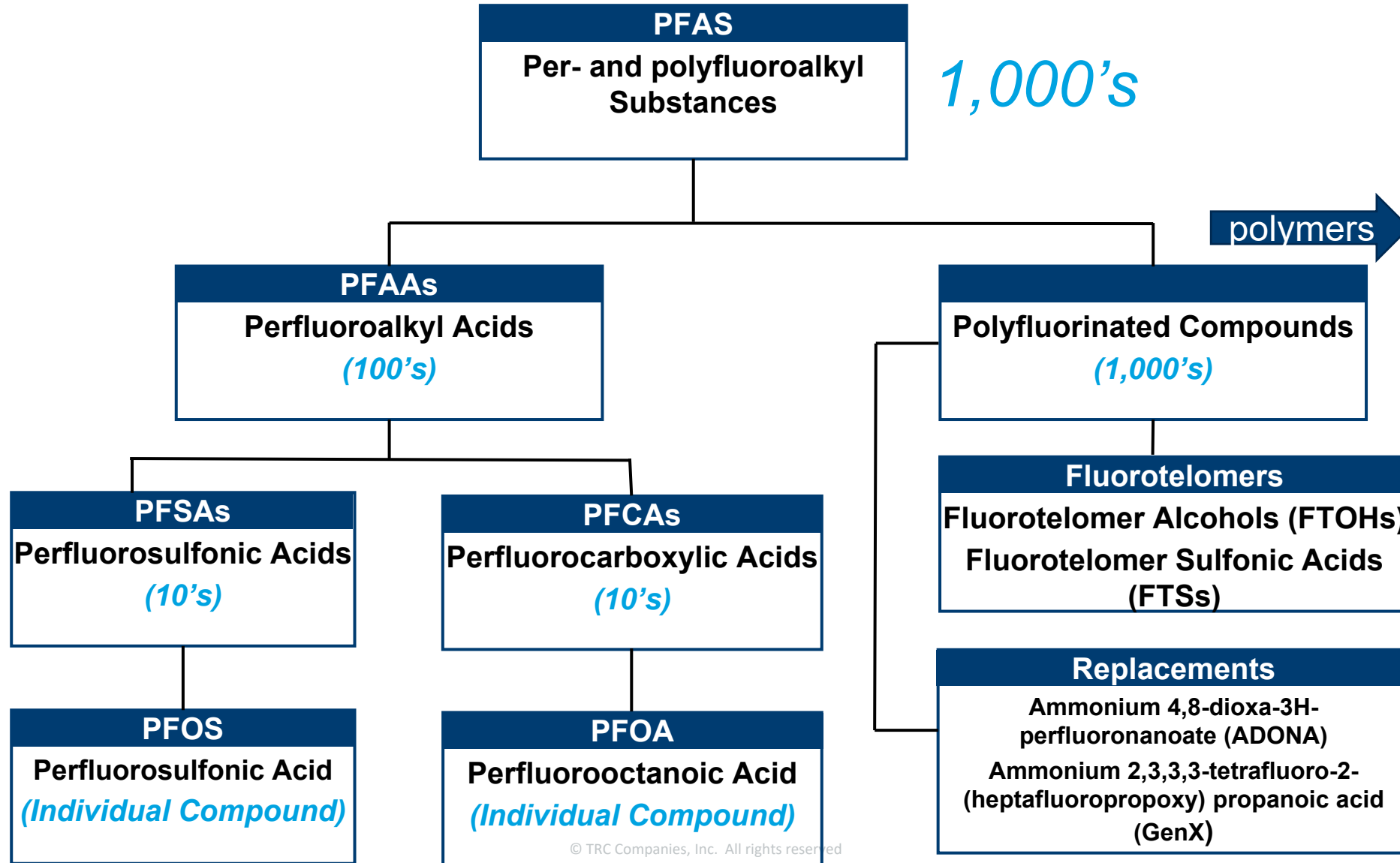


What Are Per- and Polyfluoroalkyl Substances (PFAS)?

- A class of over 10,000 synthetic chemicals (EPA CompTox Lists)
- Developed commercially beginning in the 1940's
- Used in thousands of industrial and commercial products
- About 600 different PFAS compounds used domestically
- Ubiquitous in the environment
- Studies show adverse health effects in humans for some PFAS



Nomenclature: Class at Glance



Where are PFAS Found?

- Fire training facilities
- Fire stations
- Refineries
- **DoD sites/Military bases**
- **Commercial and private airports**
- **Landfills**
- Biosolids land application
- Rail yards
- Car washes
- Chemical facilities
- Plating facilities
- Textile/carpet manufacturers
- Residential areas with septic systems
- **Public water supplies**



Presence Across IL



Illinois EPA PFAS Sampling Network (2020-2021)

Overall Network
1,428

Total Sites with
Confirmed Detections
149

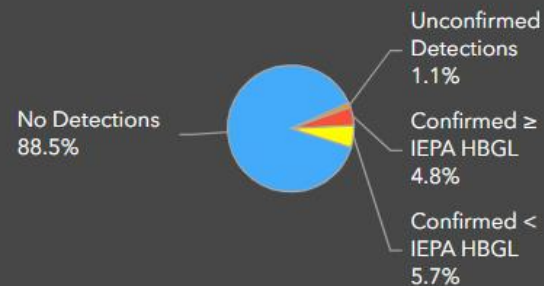
Confirmed \geq to IEPA HBGL
68

Confirmed $<$ IEPA HBGL
81

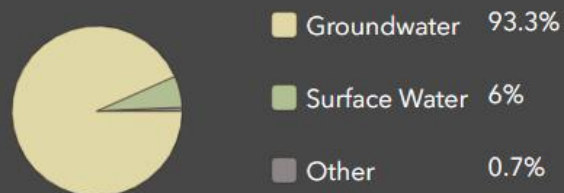
Unconfirmed Detections
15

No Detections
1,264

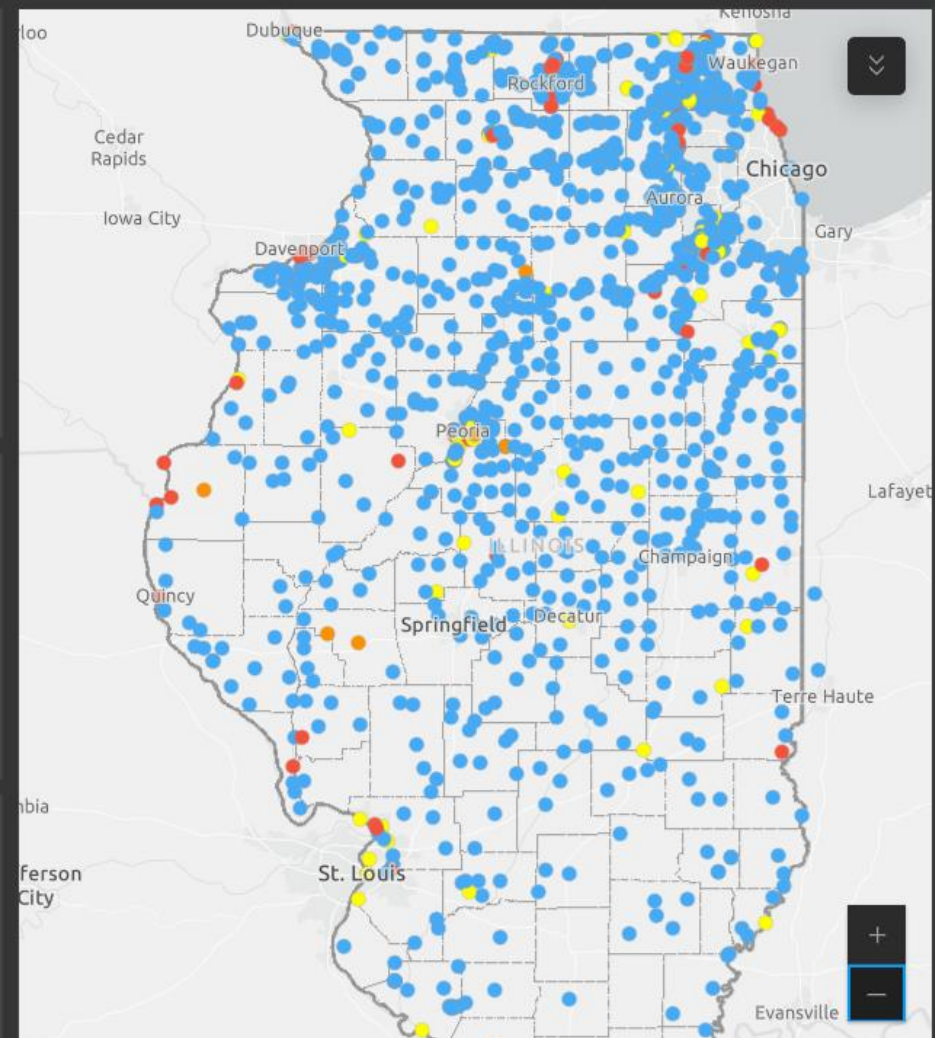
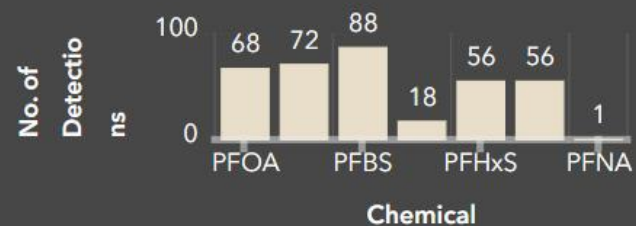
Results for PFAS Network in Illinois



Source of Water Sampled



Number of Confirmed Detections by Chemical



Missouri DNR, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, US... Powered by Esri

Last update: 4 minutes ago

Why now in Due Diligence?

Basic Environmental Due Diligence Risk Drivers

- Known Liabilities and Releases
- Potential Releases and New Liabilities
- Historic Unknowns
- Compliance Risk
- Supply Chain uncertainty

Environmental Due Diligence Drivers

- Evaluation by AAI /ASTM E1527-21 (E2247)
 - AAI promulgated in 2005
 - Defines steps and investigation to qualify for CERLA/Superfund Liability Protections
 - CERLA Defined Hazardous Substances and Petroleum Products
 - ASTM E1527 – Consensus driven methodology for meeting AAI
 - E1527-21 – revised in 2021, deemed AAI compliant in 2022
 - Revisions included clarification on Emerging Contaminants, including PFAS

E1527-21: REC Definition

1.1.1 *Recognized Environmental Conditions*—The goal of the processes established by this practice is to identify *recognized environmental conditions*. The term *recognized environmental condition* means (1) the presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* due to a *release* to the *environment*; (2) the likely presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* due to a *release* or *likely release* to the *environment*; or (3) the presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* under conditions that pose a *material threat* of a future *release* to the *environment*. A *de minimis condition* is not a *recognized environmental condition*.

E1527-21: Emerging Contaminants

- Non-Scope Items

▪ **X6.10 Substances not defined as *hazardous substances***. As defined in Section 3.2.36 of this standard, *hazardous substance* means “those substances defined as a *hazardous substance* pursuant to CERCLA 42 USC § 9601(14), as interpreted by EPA regulations and the courts.” There are some substances that non-*environmental professionals* and others may assume to be *hazardous substances that are not defined (or not yet defined) as hazardous substances* under CERCLA, through interpretation by EPA regulations and the courts. These substances may include: (i) some substances that occur naturally or through biological digestion (for example, methane), and (ii) substances about which human understanding is evolving (for example, per- and polyfluoroalkyl substances, also known as “PFAS”). These and any other “emerging contaminants,” where they are not identified as a *hazardous substance* by CERCLA, as interpreted by EPA regulations and the courts, are not included in the scope of this standard. Some of these *substances may be considered a “hazardous substance” (or equivalent) under applicable state laws*. In those instances, where a *Phase I Environmental Site Assessment* is performed to satisfy both federal and state requirements, or as directed by the *user* of the report, it is permissible to include analysis and/or discussion of these substances, in the same manner as any other Non-Scope Consideration. *If and when such emerging contaminants are defined to be a hazardous substance under CERCLA, as interpreted by EPA regulations and the courts, such substances shall be evaluated within the scope of this standard.*

Prior to 2024 – Confusion and Inconsistency

- Not a CERCLA hazardous substance, not subject to AAI per the rule
- “Non-Scope”
- Environmental Business Risk vs. Recognized Environmental Condition (REC)
- Silent on PFAS

2024 Developments

- Designation as Hazardous Substance, effective July 8, 2024
- Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) only
- Now standard subject to Phase I ESA inquiries
- Do they pose a risk to the Subject Property?

What to expect?

E1527-21: REC Definition

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Due Diligence – Phase I ESA Research

PFAS Screening – Methodology

- Primary Producers – fluorochemical manufacturers, AFFF manufacturers
- Secondary Users (likely use, apply, and process)
 - Coated cookware - Plastics/ polymers - Semiconductors and wire
 - Paint/ varnish/ sealant - Textile/ leather/ carpet - Coated paper
 - Wax coating - Metal coating/ plating/ etching - Aviation sites
 - Oil recycling - Ag. Fields (biosolid/ sludge) - Fire history
 - Petroleum refineries - AFFF storage - Railyard/ Military/ DOD
- Receivers – Landfills, WWTPs, Recycled material handling

https://dnr.wisconsin.gov/sites/default/files/topic/Brownfields/bsg/BSG_PFAS_PhaseI_ESA_SupplementProposal.pdf

Due Diligence – Phase I ESA Research

- Records Review
- Historical Research
- Interviews
- Site Reconnaissance

Due Diligence – Phase I ESA Research

- Records Review – State, Federal and Tribal Databases (site and surrounding)
 - Hazardous Waste Generators (TSD, etc)
 - Releases and Remediation Sites (State, NPL, CERLA, etc)

 - *Reviewing for incidents that may have contained PFAS*
 - *Investigated or Unaddressed*

- Historical Research
- Site Reconnaissance
- Interviews

Due Diligence – Phase I ESA Research

- Records Review
- Historical Research
 - Aerial Photography, Fire Insurance Maps, Historical Topographic Maps
 - *Reviewing for uses that are indicative of PFAS use*
- Site Reconnaissance
- Interviews

Due Diligence – Phase I ESA Research

- Records Review
- Historical Research
- **Site Reconnaissance**
 - Inspection of Subject Property
 - *Reviewing for uses that are indicative of PFAS use*
 - *Review of SDS for material currently stored and used*
- Interviews

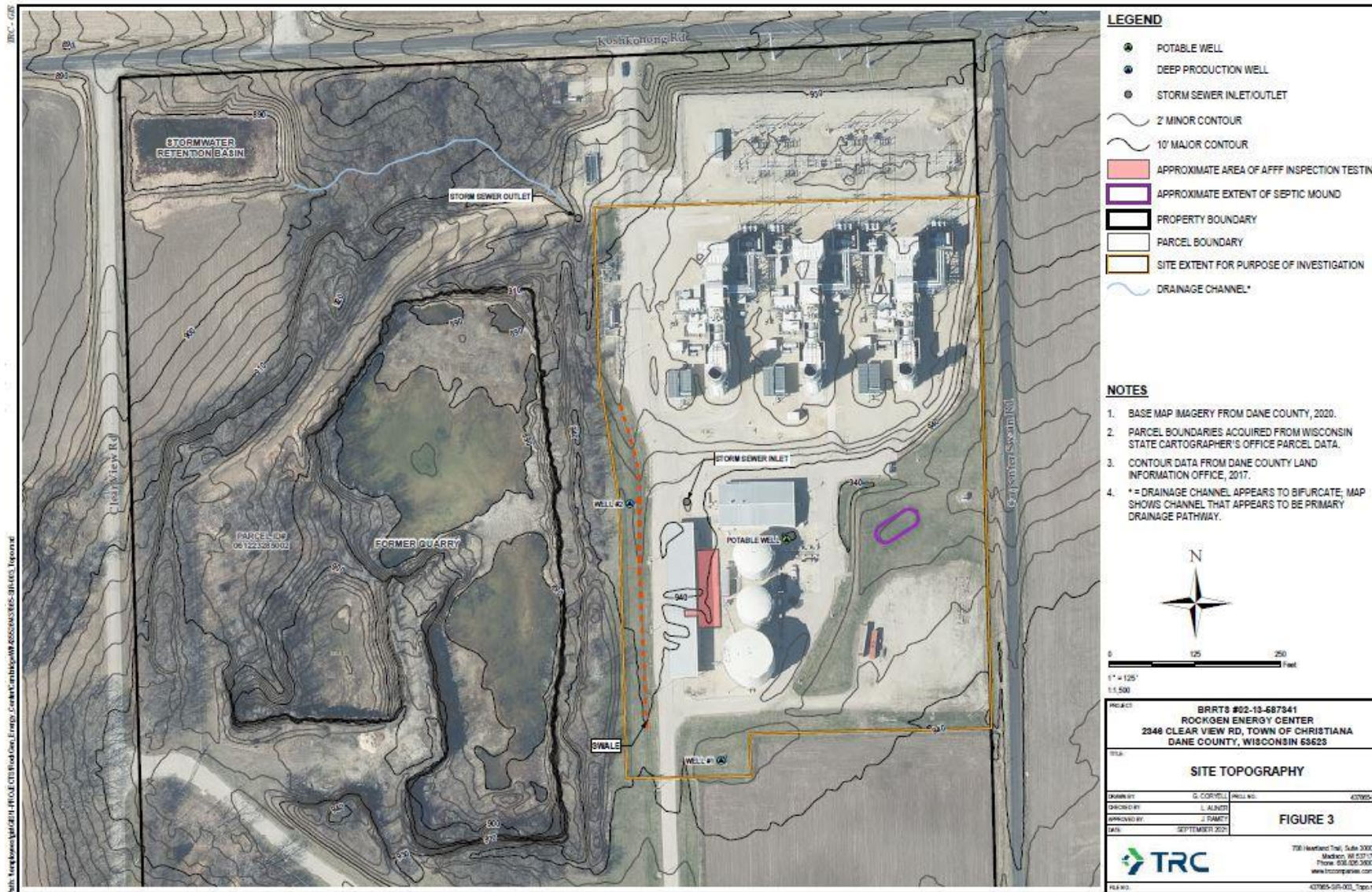
Due Diligence – Phase I ESA Research

- Records Review
- Historical Research
- Site Reconnaissance
- Interviews
 - Current and Former Owners/Operators
 - Local Agency FOIAs (Fire, Health Department, etc)

 - *Reviewing for uses that are indicative of PFAS use*
 - *Known prior use of potentially PFAS containing substances*
 - *Questions about storage procedures and releases*

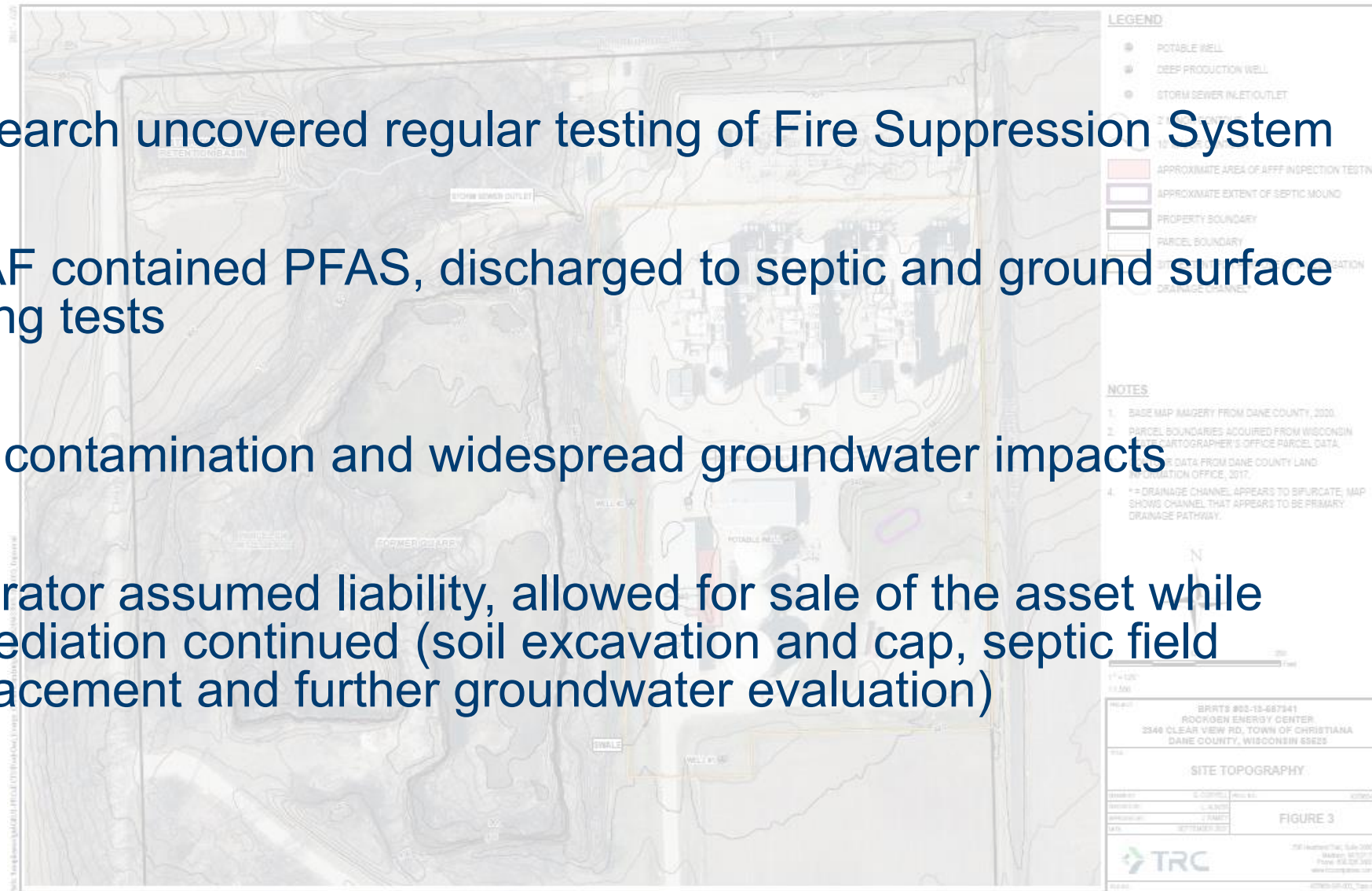
What Happens? (Case Studies)

Case Study 1: RockGen Energy Center – Cambridge, WI



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- Research uncovered regular testing of Fire Suppression System
- AAAF contained PFAS, discharged to septic and ground surface during tests
- Soil contamination and widespread groundwater impacts
- Operator assumed liability, allowed for sale of the asset while remediation continued (soil excavation and cap, septic field replacement and further groundwater evaluation)



Case Study 2: Aerospace Manufacturer, Portfolio Acquisition

- **Operations:** Understanding the historical and current use of PFAS substances in operations and potential risks to POTWs and ground water resources in the vicinity of plants across the globe.
- **Compliance:** Understanding any compliance related reporting requirements that may be applicable to the portfolio of facilities that otherwise the seller was not aware of or was just beginning to understand the potential costs to meet certain requirements.
- **Potential Remediation Liabilities:** Deep dive into key on-going remediation sites where PFAS liability could exist from seller operated facilities and evaluation of potential cost liability be over the next 5 to 10 years?
- **Supply Chain:** Understanding how far the Company is in assessing the presence of PFAS substances in certain chemicals and products that are in the Company's supply chain and what is being done to obtain Disclosure Declarations and other non-PFAS containing statements from suppliers.
- **Outcome:** Buyer understood the risks and built them into an offer that was accepted

Questions?

Thanks!



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