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noon CT

WEBINAR:

PFAS for Decision Makers:

Managing PFAS Risk in Today's Deals –
While Preparing for What's Next

PRESENTERS:



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Distracted Driving Increases Safety Risks

- Keep your phone out of reach
- Set your music, climate, and maps before driving
- Take breaks if you feel drowsy or to eat food
- Watch for other cars weaving, or speeding up and slowing down, and keep a safe distance



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ENR RANKINGS 2025

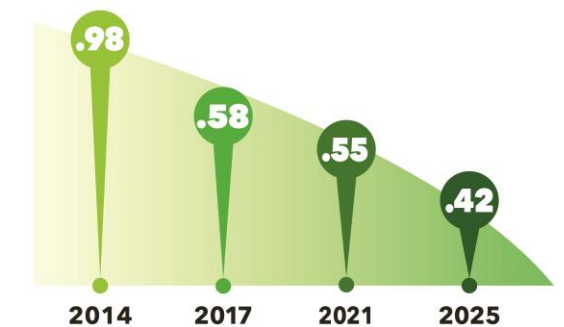
#19 TOP 500
DESIGN FIRMS

PROJECTS
IN ALL



EMPLOYEE-OWNED

TRIR



**What has actually changed
- and how is it affecting
deal dynamics?**



Understanding Risks to Inform Decision Making

We look at the risks associated with PFAS through a variety of lenses:

- Risk to human health
 - On and off-site receptors
- Transactional risk
- Regulatory risk
- Litigation risk

Each one of these risks should help inform a stakeholder's response and potential obligations



Image credit: [Ladysmith News](#)



Who are Stakeholders?

- Clients
- Equity partners
- Lenders
- Considerations of future stakeholders (prospective purchasers)

"OKAY, SIMMS, WE HAVE A VERBAL AGREEMENT, BUT I'D
LIKE MY LAWYER TO CHECK IT OUT."

CartoonStock.com



Considerations Regarding Potential Off-site Receptors

Considerations regarding nearby municipal water supply sources and potable off-site wells

Desktop review to determine potential risk level:

- Potential for AFFF or other PFAS use at the facility
 - How much?
 - When?
- Distance of the facility from public water supplies and private wells
- Apparent gradient in relation to the off-site water supply
- Depth to groundwater
 - If private wells are nearby, are they screened in shallow groundwater?
- Other sources of PFAS in the area



Image credit: [Bangor Daily News](#)



Phase I Protection?

- New York – BFPP Order
- New Jersey – Preliminary Assessment

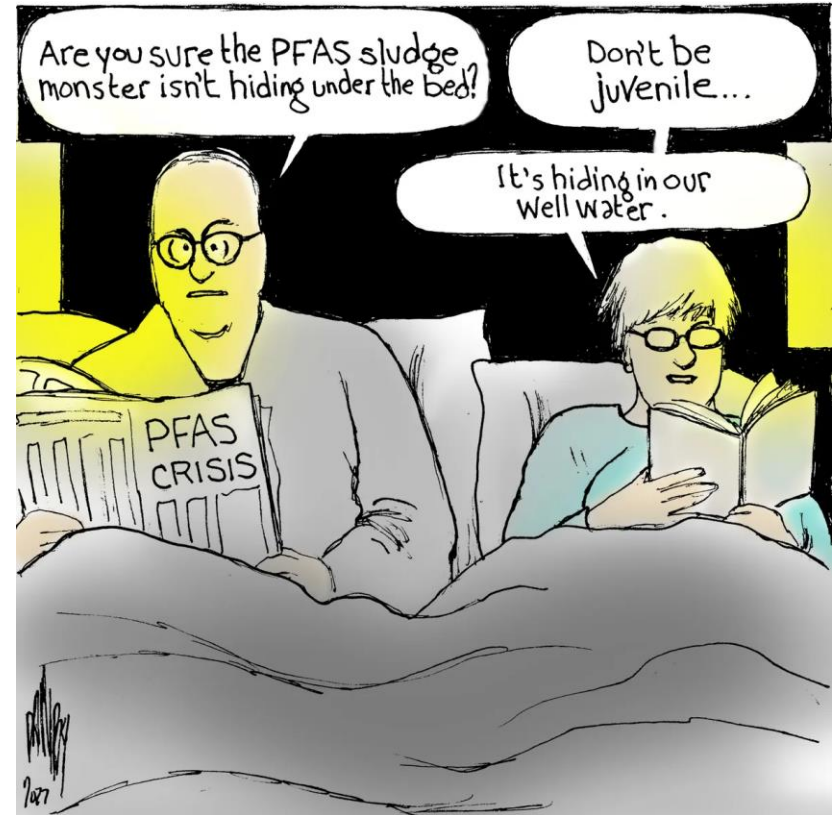


Image credit: [Bangor Daily News](#)



Case Study: Huntington Beach, CA

Can't Escape the California Water Quality Control Board

- Former Plating Company, out of business since 1992; then became a mixed-use facility, mostly kids' martial arts
- During DD in 2008, CVOCs identified:
 - Went into the state CLRRRA program (of note, still not fully done with that program)
 - DTSC oversight agency
- Property fully redeveloped as a Class A apartment community
 - Excavation, groundwater treatment, vapor mitigation
- Letter from the Water Quality Control Board demanding that the owner test for PFAS based on "owner's previous use of PFAS"





Case Study: Christiana, WI

Danger of Representations Regarding Absence of Hazardous Substances

- Client sold an electrical generating facility in 2015 with no history of PFAS in its processes
- In 2020, the Buyer sent a demand letter saying that they had found PFAS in the supply well as well as in shallow and deep monitoring wells (100 feet bgs) installed at the Site
- The supply well was extracting at 250 bgs
- Further investigation identified that the AFFF system had been tested at the Site but never deployed for a fire
- Facility is in the middle of farmland
- What's the source of such deep PFAS?





Adding variables to the Risk Algebra since 2024 ...

- PFAS/PFOA/PFOS Risks do not "travel solo"
- Implications to ProForma
- Site Development Uncertainties
- Soil Management & Disposal
- Desired Clarity on Paths to Closure & "Costs to Cure"
- Clients/Buyers accustomed to high levels of confidence estimating closure timelines and estimated mitigation costs for VOCs, SVOCs, metals
- Typical scenario of property purchase/DD when PFAS were Emerging Contaminants (pre-2024) to desire to transact under current regulatory and liability environment



A photograph showing the rear of a dark-colored car being washed by a large, green, rotating brush. The car is positioned on a brick-paved surface, and the background is slightly blurred, showing more of the car wash structure.

Case Study: Former Car Wash

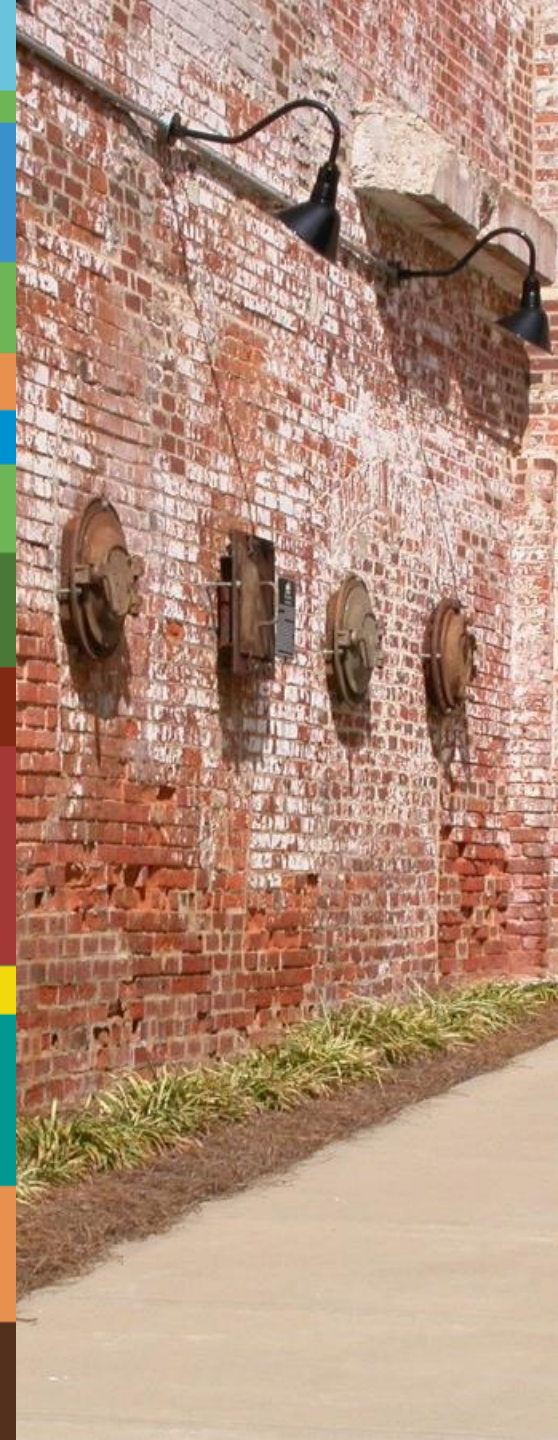
- North Carolina site
- Former Car Wash Operation being purchased for new use
- Co-located soil and groundwater sampling
- Investigation of Oil-Water Separator, piping, and background for PFAS
- Results: Soils consistent with background conditions
- Results: Groundwater -> PFOS & PFOA above Standards: 10 ppt to 30 ppt
- Slight exceedances of State GW Standards and Drinking Water MCLs
- ProForma adjusted for PFAS-impacted soil management and estimated costs for the likely closure path with NCDEQ



Changes in Deal Dynamics: Developer

- New regulations have resulted in further scrutiny of sites previously not known for high risks
- Potential new risks with assets purchased prior to PFAS regulations
 - Sites could be reopened per new regulations
 - Unexpected remediation costs are potentially to be accounted for
- New look at purchasing environmental insurance policies for sites
- PFAS regulations can also affect the refinancing of sites per lender requirements





Case Study: Commercial Property in Minnesota

- Ryan purchased the site in early 2022. PFAS was not addressed in the Phase I ESA at that time
- Prior to the sale of property in 2026, PFAS regulations were developed
- Buyer's 2026 Phase I showed PFAS risk from former site operations and nearby properties
- Recommended soil sampling beneath the building and along the property boundaries
- Buyer's Phase II sampling did not identify PFAS contamination at the site



What does appropriate due diligence and decision-making look like in a varied regulatory environment?

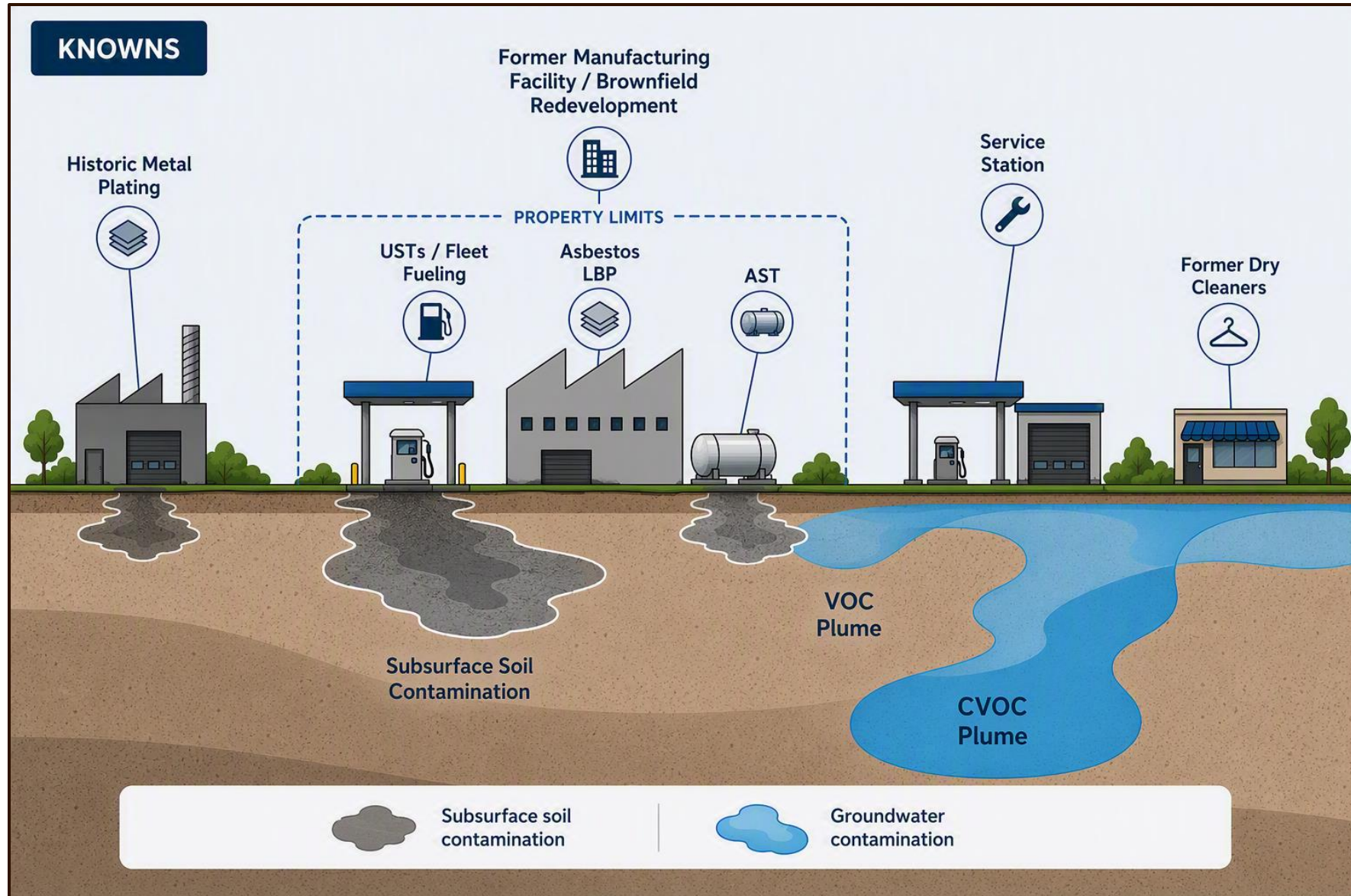


Sampling with a Purpose

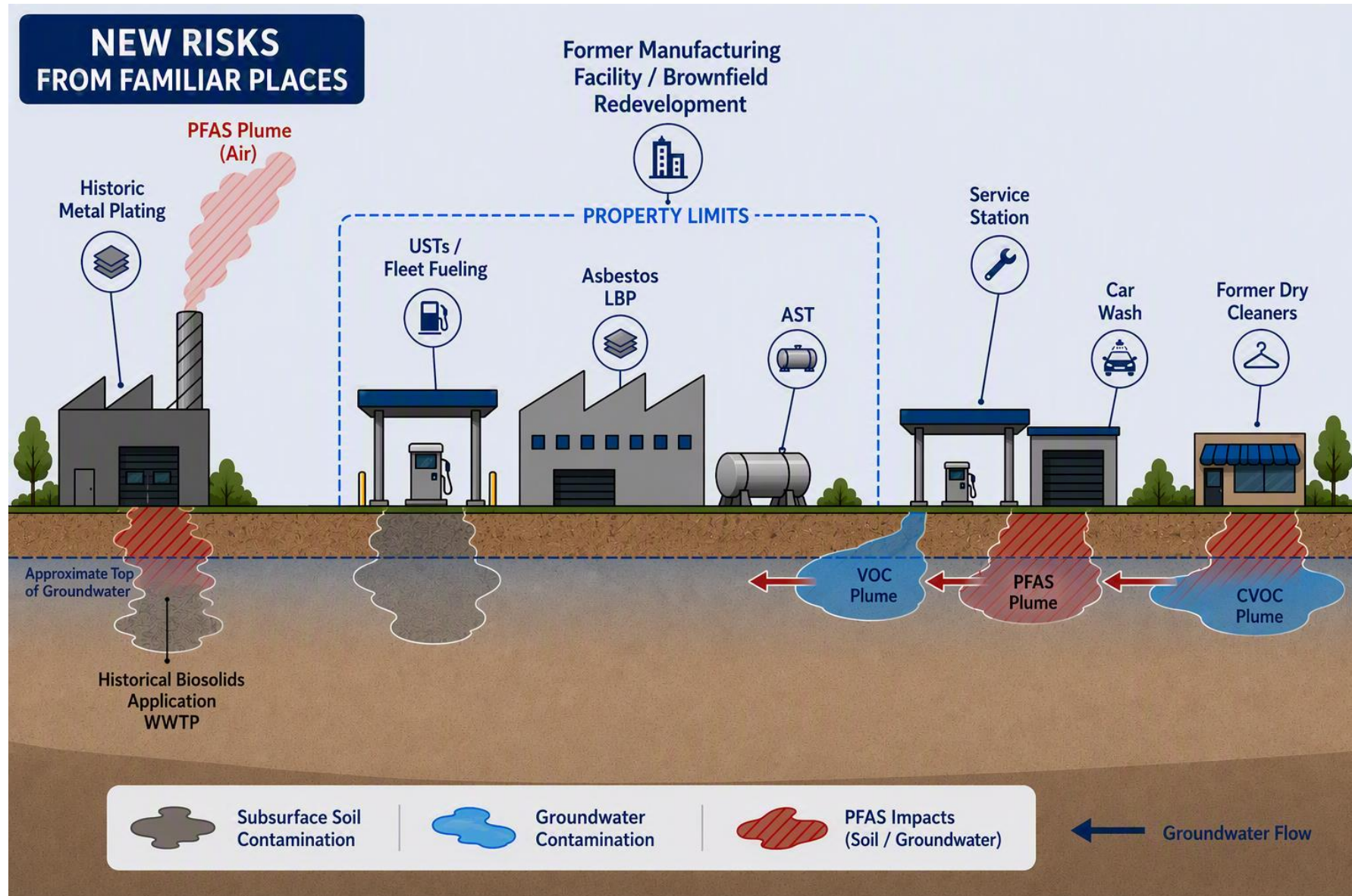
- Many sites have been tested for PFAS
- We "inherit" prior PFAS data sets that do not provide clarity to Stakeholders for decision-making
- Understanding the regulatory context is critical
- State standards and/or Drinking Water MCLs
- EPA Method 1633A – Report all 40 PFAS?
- Are we testing the site at locations the PFAS should and shouldn't be?
- Lack of onsite "background" samples is too common
- Understanding the "where" is based on expertise and experience ...
- Do you fully understand your Reporting Requirements?



Typical DD Scenario Familiar "Knowns"



New Risks From Familiar Places





Due Diligence and Decision Making

- What is the regulatory environment in the state, and what are the development/construction requirements of the project?
- Consider changes in the regulatory framework from when the asset is purchased to when it is sold
- Soil management on a site can dictate levels of investigation during due diligence
- Tend to be conservative – anticipate possible risks for future sale/refinancing
- At a minimum, if PFAS soils are left on site, eliminate exposure pathways



Case Study:

Former Ag Sites Industrial Development

- Located in states that do not have PFAS regulations – relying on EPA RSLs
- Client did not want PFAS-containing soil present where employees could be exposed
- Both cases of PFAS-containing soils were placed in berms away from buildings
- Due to historical land uses in the area, clean non-PFAS containing import topsoil could not be found
- Client ultimately conducted a study for site-specific levels that were acceptable to use material onsite
- What will happen if states create regulations down the road that are more stringent than the EPA RSLs?



Case Study: Florida 2022



- Former Wastewater Treatment Facility
- Permitted facility for the Town
- Hopeful redevelopment
- Our due diligence identified PFOA, PFOS, and nitrates, phosphorus
- Nitrates phosphorous were permitted; PFAS compounds were not
- PFOA apparently going off-site
- Took it to FDEP
- And....

Case Study: Orange County, NY 2022



Image credit: Bridge Michigan

Client Weighed the Risks

- Client was interested in purchasing a landfill to redevelop into a warehouse complex
- State Superfund Site
- PFAS in soil and groundwater
- Phase I protections for the AAI and BFPP Order for State regulatory protections (but doesn't protect against lawsuits)
- Lawsuit by the Town and Water Authority against the Landfill operators
- Client still decided to buy the Site
- So far, so good – not named in a lawsuit



**Where are deals getting
'surprised' - and when does
PFAS become a 'no go'?**



PFAS – Surprises and No-Gos

- Former agricultural sites can surprise developers, particularly with former biosolid applications
- Former airports or adjacent, as well as sites where chemical fires occurred.
- Surprises can come from client-specific requests
 - Site and adjacent properties may not have a documented source or release of PFAS, but client requirements to sample may find PFAS anyway
- No-go decision usually comes down to time and money
 - Can the deal timing and structure still fit with environmental concerns?
 - What is the risk tolerance of the lender?
 - Forcing a deal schedule vs. the reality of regulatory agency timing



Case Study:

Commercial Site in an Urban Area

- Former server room at the site used an AFFF firefighting system
 - System was never discharged – no fires
 - No leaks found with the system
- Phase I did not call out PFAS as a REC or a BER for the site or any surrounding properties
 - Post-closing, the AFFF system was properly decommissioned, and the product was disposed of according to regulations
- Sold part of the site to a client. The client required sampling for PFAS based on their internal requirements
 - PFAS detected at low levels in soils, but below state regulatory levels
 - Altered the reuse of site soils because of this detection and the client's internal policies
 - Affected costs as this required additional imported soil to complete the project



Case Study: Florida Landfill

- Landfill
- Testing for everything from Dioxins to lead
- TBD



"OKAY, SIMMS, WE HAVE A VERBAL AGREEMENT, BUT I'D
LIKE MY LAWYER TO CHECK IT OUT."

Case Study: Massachusetts Property 2023



Image credit: PBS

Sometimes the Client Needs to Stay Put – Let the Science Catch Up

- Multifamily residential, a lovely property separated from the Charles River by a wooded area
- Client owns the property and was placing this and five other properties as collateral for a loan
- Lender conducted assessment
- History: Former centrifuge manufacturer from 1962 to 2004
- Redevelopment occurred from 2008-10
- RAO B-1 submitted in 1996 related to CVOCs in groundwater above the current Method 1 GW-2 standards
- Assessment performed in 2004, to confirm a condition of NSR for residential use
- Red flag memo identified the property on the ECHO database for potential PFAS use
- RECs related to PFAS led to a recommendation to perform additional subsurface investigation
- Given proximity to the River, relative novelty of PFAS, and potential for impacts to the River, I recommended that this property be pulled from the portfolio
- Why?
 - Hotel California
 - DEP seems to have no real guidance



Not So Surprising Surprises?

"There are surprising PFAS surprises, and then there are not-so-surprising PFAS surprises."

- **Recent Phase I ESAs that danced around PFAS/PFOA/PFOS risks**
- **Many Phase I ESAs prior to 2024 BERed it away ...**
- Reevaluation of sites can identify both underestimated and new sources of onsite and offsite PFAS impacts
- Phase II ESAs/Limited Site Investigations may identify not-so-surprisingly elevated PFAS/PFOA/PFOS impacts, typically in GW
- Elevated PFOS and PFOA in GW = Closure Uncertainty
- Regulatory uncertainty + Offsite PFAS Migration Concerns = Pain
- Clarity on Non-PFAS closure + PFAS Closure Uncertainty = Confusion





Case Study: Miami-Dade County UST Site with PFOA/PFOS Risks to Site Plan and Regulatory Closure

- Former Service Station and Auto Repair
- Offsite Concerns included Auto Repair and Dry Cleaners
- Elevated VOCs impacts in GW, but localized and with regulatory tools to define risk and path to closure
- PFAS testing discovered site-wide PFAS impacts ranging from 100s to 200s ppt of PFOA+PFOS
- Provisional Groundwater Cleanup Target Level = 70 ppt
- Defined VOC impacts + PFAS Uncertainty = **No Deal**
- Path to Closure Uncertainty and Offsite Migration Risks
- Impacts to Site Plan/stormwater management (exfiltration)
- Design and ProForma Uncertainties = **Next Site Please**

Q&A

Please type your questions into the Q&A feature at the top of your screen.



Thank You!

