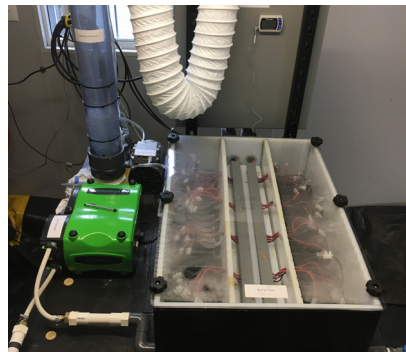


AECOM Technical Innovation and Digitization

REMEDIATION / HAZARDOUS WASTE

DE-FLUORO™ PFAS Treatment Technology



DE-FLUORO™ is a viable PFAS destruction technology that builds upon successful bench trials, field pilots, as well as large-scale demonstration and commercial programs in Europe, the U.S. and Australia. It has been commercially deployed on-sites to treat a variety of PFAS-impacted liquids, which has primarily focused on decontamination of firefighting infrastructure and hazardous waste treatment. These commercial programs undertaken on behalf of federal government and oil and gas clients include treatment of AFFF concentrate, AFFF infrastructure wash water, as well as fire-training and spill recovery wastes.

Integrated Restoration and Remediation of Mercury-Contaminated Riverbanks



AECOM developed an integrated remedial strategy to reduce migration and exposure pathways along the banks of a mercury-contaminated river. An amendment layer of biochar was added to a bank stabilization cap to 'treat' ground water/surface water in the bank, and form a barrier against soil erosion and direct contact by potential receptors.

In Situ Wetland Remediation



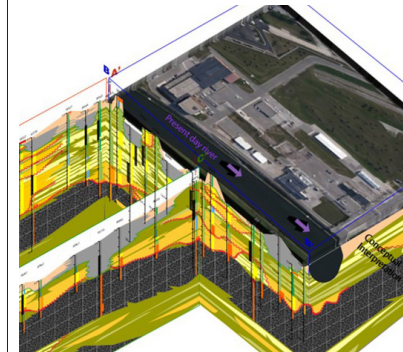
AECOM led one of the pioneering demonstration-scale field studies evaluating the use of amendments to treat *in situ* contaminated sediments in wetland environments. This widely cited study demonstrated reductions in PCB bioavailability following treatment, resulting in risk reduction at a fraction of the cost of conventional remedies.

In Situ Treatment of 1,4-Dioxane



AECOM implemented an innovative *in situ* biological approach for treating 1,4-dioxane. *In situ* bioreactors (ISBRs) were seeded with *Pseudonocardia dioxanivorans*, CB1190 which utilizes 1,4-dioxane as its sole carbon and energy source. The ISBRs were deployed down wells and fed oxygen and nutrients to support CB1190 growth and biodegradation of 1,4-dioxane.

Predictive Integrated Stratigraphic Modeling (PRISM™)



AECOM's PRISM™ Conceptual Site Model has been endorsed by the USEPA as a remediation best practice! This tool uses Environmental Sequence Stratigraphy (ESS) to reduce life-cycle costs, streamline investigations, and optimize long-term monitoring and remediation.

Harmful Algae Bloom Mitigation and Prevention



AECOM's algae harvesting program is a viable and scalable solution that physically removes excessive nutrients from water and, simply put, leaves clean water in its place. Recovered algae biomass can be treated with a hydrothermal liquefaction process that can generate fuel and employ algae biofoam as a supplement to reduce the use of ethylene and vinyl acetate in the footwear and foam industries. AECOM's algae harvesting program was effectively used last year to mitigate the algae bloom crisis in the state of Florida.

DNAPL "Chemometrics"

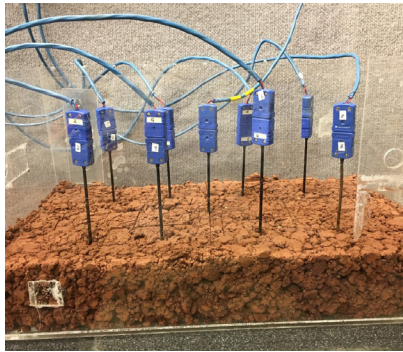


AECOM is collaborating with an industrial partner to pilot a forensics/fingerprinting technique for DNAPL that uses compound-specific isotope analysis. The targeting of specific remedies based on this fingerprinting strategy reduces overall remediation costs substantially.

AECOM Technical Innovation and Digitization

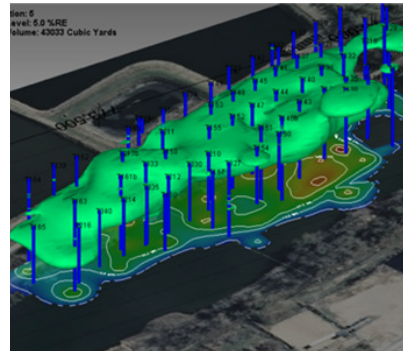
REMEDIATION / HAZARDOUS WASTE

High-Concentration Explosives Remediation



AECOM has pioneered the use of a resistive heating process to address challenges associated with heterogeneity in explosive contaminant sizes in soils. Resistive heating of high concentrations of nitroaromatics in soils facilitates subsequent treatment using alkaline hydrolysis.

Sub-Aqueous Sediment Stabilization



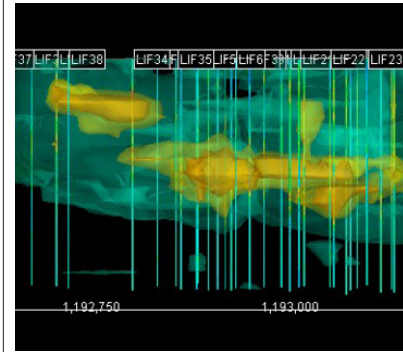
AECOM is pioneering the use of *in situ* stabilization to address contaminated sediments at a former MGP site. This project, the first full scale application of its kind, involves mixing of stabilization agents and sediment with augers through the water column, and will decrease the likelihood of sediment movement and resuspension, eliminate human and ecological exposure pathways, and result in substantial cost savings relative to conventional technologies.

In-House Treatability Laboratories Support Remedial Innovation



AECOM's in-house treatability laboratories support pilot or full scale, project specific, innovative remedy development. *In situ* chemical oxidation (ISCO) treatability studies allow for performance and efficacy evaluation of single and multiple oxidants on target contaminants.

Automated LNAPL Sensing



AECOM developed a patent-pending device that automatically measures and records light nonaqueous phase liquid (LNAPL) thicknesses in wells. The device greatly enhances the physical understanding of LNAPL occurrence, mobility, and recoverability by safely acquiring high-resolution data at a lower cost than manual fluid level measurement.

Reef Balls Support a Living Shoreline to Eliminate Exposure



AECOM designed an innovative 'living shoreline' using prefabricated 'reef balls' to eliminate exposure to contaminated sediments along a high energy estuarine shoreline. The reef balls created a partial barrier acting to slow down the wave action, allow sediment accretion covering the contaminated sediment, and prevent further erosion of the dunes.

Biooxidation for Risk-Based Management of Complex NAPLs



AECOM built a novel remediation simulation model that evaluates the applicability and effectiveness of aerobic biooxidation at complex sites. We use engineered aerobic biooxidation to cost-effectively treat coal tar and creosote. Rapid biooxidation enhances contaminant removal and substantially improves groundwater quality.

Chlorpyrifos Destruction in Soils



AECOM demonstrated destruction of chlorpyrifos using a patented commercially available *in situ* chemical oxidant. AECOM scientists and engineers developed the testing protocol, and successfully demonstrated treatment and efficacy of this technology.