

REGENESIS Statement of Qualifications (SOQ)

Full-Spectrum PFAS Remediation Solutions



Introduction

REGENESIS Provides Proven and Effective Remediation Solutions for Department of Defense and Federal Facilities

At REGENESIS®, we are strategically positioned in the remediation industry to develop world-class groundwater and soil remediation technologies, supported by unparalleled technical assistance. Our dedication to soil and groundwater remediation enables us to effectively partner with and support leading Environmental Engineering and Consulting (E&C) firms worldwide, contributing to the restoration of some of our environment's most sensitive and valuable natural resources.

Technical credibility and project success are central to our mission. We understand that each technical design and remediation project involves collaboration with highly qualified and experienced environmental remediation

professionals. These professionals depend on us to deliver cost-effective results for their clients.

REGENESIS is committed to performing at the highest technical and professional levels to consistently exceed customer and project-specific expectations. Our initiatives are guided by key factors including technology performance, cost-effectiveness, customer needs, and site-specific goals. We thrive on technical challenges, innovation, and problem-solving, fostering a reputation that is unparalleled in the environmental industry for partnering with leading E&C firms to implement advanced *in situ* groundwater and soil remediation technologies, particularly for PFAS.

Full Range of Capabilities Ready to Deploy

Environmental Remediation

PFAS-Specific Remediation

- *In Situ* PFAS Remediation
- PFAS Soil Stabilization

General Remediation

- Enhanced *In Situ* Bioremediation
- Enhanced Reductive Dechlorination (ERD)
- *In Situ* Chemical Oxidation (ISCO)
- *In Situ* Sorption
- *In Situ* Chemical Reduction (ISCR)

Safety Culture Ingrained in Our Approach

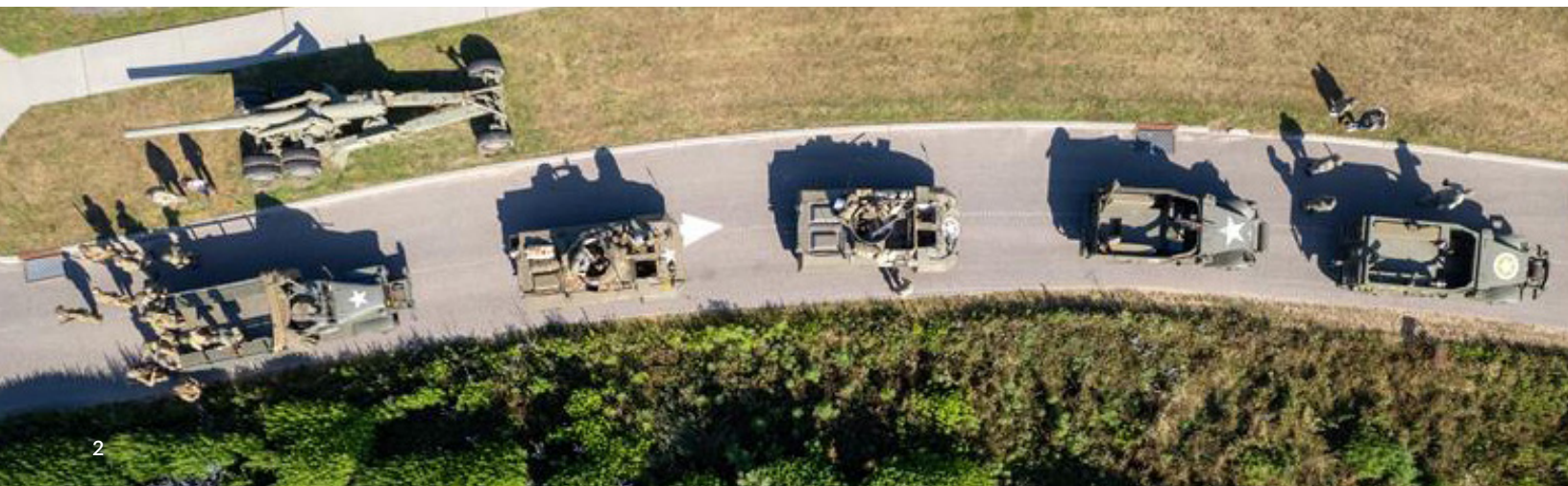
Required Health & Safety Training

- Health and Safety OSHA-Required 40-Hour and Annual 8-Hour Update
- Drug and Alcohol Awareness Training
- Associate Orientation
- Supervisor Training
- Defensive Driving
- Driver Preparation and Hazard Recognition
- Heat Stress Prevention

Medical Surveillance & Testing

- DOT and non-DOT medical surveillance comply with State and Federal law.
- Drug and alcohol testing support REGENESIS's efforts to maintain a drug-free workplace and are conducted in accordance with applicable laws.

* Please note that not all training topics are listed



Addressing DoD PFAS Priorities with REGENESIS Technologies

The Department of Defense (DoD) has outlined critical priorities in its recent briefing to the Committees on Appropriation of the Senate and the House of Representatives regarding PFAS contamination and risk

management.¹ REGENESIS addresses these pressing issues through innovative technologies and proven remediation strategies designed to ensure environmental compliance and safeguard public health.

Private Well Contamination

The DoD has identified high levels of PFAS in private drinking water wells near military installations as a critical concern. REGENESIS offers innovative solutions, such as PlumeStop® and SourceStop®, a colloidal activated carbon technology designed to rapidly adsorb PFAS compounds

from groundwater. By deploying PlumeStop in targeted areas, REGENESIS can effectively mitigate contamination and prevent further migration of PFAS into private wells, safeguarding community health and ensuring clean drinking water.

Regulatory Compliance

With the recent establishment of stringent EPA drinking water standards for PFAS, compliance has become imperative for the DoD. REGENESIS technologies not only meet but exceed these regulatory requirements. Our remediation strategies are built upon robust scientific research and field validation, ensuring that all treatments

align with current regulations. For instance, SourceStop® provides a proactive approach to managing PFAS at the source, effectively lowering concentrations to below detection limits, thereby facilitating compliance with regulatory standards.

Prioritization of Cleanup Actions

The DoD's focus on prioritizing cleanup actions at locations with the highest known levels of PFAS contamination is vital for effective resource allocation. REGENESIS employs advanced site characterization techniques, such as FluxTracer® Flux Mapping Tools, to accurately identify and quantify PFAS plumes. This data-driven approach

allows us to prioritize remediation efforts where they are most needed, optimizing project outcomes and minimizing environmental impact. Our agile response capabilities ensure timely interventions, addressing the DoD's most pressing contamination challenges.

SERDP/ESTCP Research

SERDP and ESTCP fund research to validate the effectiveness of various PFAS treatment technologies and strategies. REGENESIS is working on ongoing research

projects focusing on the *in situ* remediation of PFAS utilizing colloidal activated carbon to remediate a wide range of sites.

Proven, Award-Winning Technologies



SourceStop named to TIME's Best Inventions of 2024 List



REGENESIS named to Fast Company's Most Innovative Companies of 2024



REGENESIS Named Winner of Fast Company's World Changing Ideas Award 2024

1. U.S. Department of Defense. (2024, August). Preparations for incorporation of Environmental Protection Agency's national drinking water standards: Briefing for the Committees on Appropriation of the Senate and the House of Representatives pursuant to Senate Report 118-81, page 54, accompanying the Department of Defense Appropriations Bill 2024.



Leadership

Global Leader in Environmental Remediation Technologies

REGENESIS is recognized as a global leader in environmental remediation technologies for the treatment of contaminated groundwater and soil resources. With over 30,000 sites successfully remediated globally, our organization is known for innovation, quality, service, and effective action. REGENESIS leads the global environmental remediation industry in:

- Providing turnkey groundwater and soil remediation planning, design verification, and application services under fixed-price contracts.
- Dedicated research and development of quality specialty chemical technologies designed to treat a wide range of environmental contaminants, including petroleum-based compounds, chlorinated contaminants, and metals.
- Advising regulatory bodies throughout North America, Europe, Asia, and Australia on the most effective application methods specific to the use of REGENESIS technologies to maximize project success.
- Partnering with leading environmental remediation equipment companies to develop specialized tools used worldwide to successfully apply injectable specialty chemical technologies on *in situ* remediation projects.
- Publishing recommendations and standards to the remediation industry on the proper design and delivery of specialty chemical technologies to ensure effective product distribution and placement.
- Sponsoring and providing consistent participation in key industry-specific technical conferences.



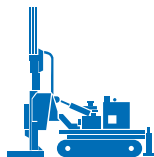
Experience

30 Years of Innovation and Successful Application on >30,000 Remediation Projects

Since the company's inception in 1994, REGENESIS technologies have successfully remediated over 30,000 groundwater and soil remediation projects worldwide. To achieve this outcome, we build project teams with the experience, discipline, and dedication to work together with our clients to address the unique requirements of each project site. Technical insight, timely response, and direct, honest communication are all hallmarks of the REGENESIS team. Our involvement on many of these projects has included:



Remediation design development, including amendment dosing and application design



On-site soil and groundwater remediation



Remediation project oversight (when required on-site)



Performance evaluations supporting our applications



Educating and interfacing with regulators and responsible parties

PFAS Remediation

Proven Experience, Long-Term Success, and Global Leadership Applied to DoD's PFAS Priorities

REGENESIS leads the industry in effective PFAS groundwater treatment and is the only company with a proven, sustainable solution (e.g., not requiring mechanical groundwater pumping) to this global problem.

Our colloidal activated carbon technologies have been used on DoD, municipal, and commercial sites globally, and are the subject of multiple ongoing ESTPC and Strategic Environmental Research and Development Program (SERDP)-funded studies for PFAS remediation efficacy.

Independent modeling experts have demonstrated how PlumeStop barriers retard PFAS in groundwater, effectively immobilizing these plumes for decades without pumping or waste generation. Sustainability research efforts have shown PlumeStop barriers compared to *ex situ*, pump-and-treat alternatives reduce greenhouse gases by >95% reduction and are 1/3 the cost.

Beginning with the first *in situ* PFAS remediation project ever conducted in 2016, which has continued to remain below detection levels after over seven years, our PFAS remediation portfolio has now grown to over 50 sites treated worldwide.

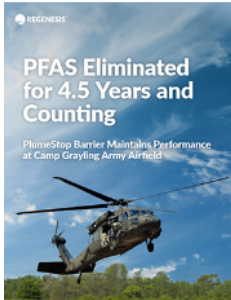
These applications have achieved an unprecedented level of success in the field, eliminating PFAS in groundwater within weeks, sustaining these results for years and eliminating risk.

✓ "...PlumeStop barriers compared to *ex situ*, pump-and-treat alternatives reduce greenhouse gases by >95% reduction and are 1/3 the cost."



Recent PFAS Projects

PFAS Treatment Applied at More Than 50+ Sites Globally



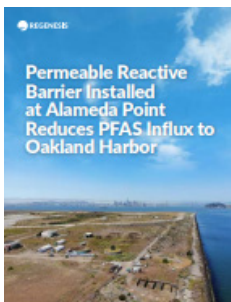
PFAS Eliminated for 4.5 Years and Counting

As a pilot test demonstration, RRS injected PlumeStop to halt PFAS migration in groundwater at a former Army airfield in Michigan, U.S., marking one of the first *in situ* treatments for PFAS. Following treatment, PFAS were eliminated in groundwater within 30 days. These results have been maintained over the 4.5 years of monitoring completed thus far.



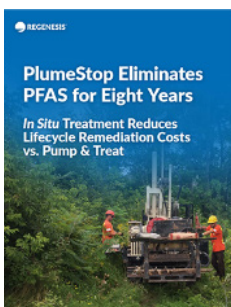
PlumeStop Successfully Remediates PFAS at Alaska Airport

PlumeStop® Colloidal Activated Carbon was applied to treat PFAS resulting from aqueous film-forming foam (AFFF) usage at an airport facility in Alaska. The application has reduced the five targeted PFAS below detection limits and applicable cleanup levels in a challenging hydrogeologic environment over a sampling period now approaching two years.



Permeable Reactive Barrier Installed at Alameda Point Reduces PFAS Influx to Oakland Harbor

Past firefighting drills at Alameda Point (Former Naval Air Station Alameda Site 14) resulted in concentrations of up to 300,000 nanograms per liter of PFAS in groundwater. A 720-foot-long permeable reactive barrier was designed and implemented in response to prevent PFAS migration via groundwater into the Oakland Inner Harbor of San Francisco Bay. In less than nine months, the barrier reduced PFAS concentrations by more than 99% in five of the six in-barrier performance monitoring wells. Significant PFAS reductions (up to 77%) were also observed in the downgradient wells during the early performance monitoring phase.



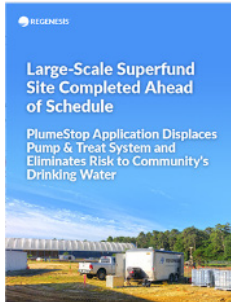
PlumeStop Eliminates PFAS for 8 Years

The first known full-scale *in situ* PFAS treatment worldwide was completed in 2016 at a manufacturing and former firefighting training site in Ontario, Canada, where AFFF were used. A single application of PlumeStop resulted in a significant reduction of contaminant concentrations to below standards for 8 years since the injection.



Martha's Vineyard Airport Successfully Treated Using PlumeStop to Eliminate PFAS Risk

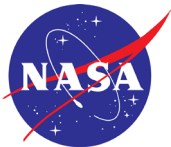
A PlumeStop barrier was used to treat PFAS at Martha's Vineyard Airport in Massachusetts. In less than four months, PlumeStop eliminated PFAS mass flux immediately downgradient of the barrier and significantly reduced PFAS concentrations in areas further away.



Large-Scale Superfund Site Completed Ahead of Schedule

REGENESIS Remediation Services completed a large-scale PlumeStop application to eliminate the risk of exposure to chlorinated solvents on a large federally operated Superfund site. Partnering with Amentum, a leading governmental and commercial services contractor, the team installed a resilient PlumeStop permeable reactive barrier (PRB) to address a range of contaminants including CVOCs, applying 224,800 lbs. of PlumeStop colloidal activated carbon into the target treatment zones. The PlumeStop PRB allowed for the shutdown of a pump-and-treat system that had operated onsite for years. The project's sensitive nature required an enhanced awareness of health, safety, and security issues and seamless coordination between RRS, Amentum, and the responsible party.

Our Clients



Remediation Products and Technologies

Lab-Tested and Field-Proven

REGENESIS is a leading environmental technology solutions company dedicated to providing remediation professionals with specialized, scientifically-based, and environmentally compatible products for the safe and cost-effective treatment of soil and groundwater contaminants. Over the years, REGENESIS has developed a comprehensive line of trusted remediation products and technologies, offering various amendment solutions for contaminants such as PFAS, chlorinated solvents, and petroleum products.

Since its inception in 1994 with the launch of the Oxygen Release Compound (ORC®) for petroleum hydrocarbon-impacted sites, REGENESIS has systematically introduced new products for remediating contaminated sites more effectively and efficiently. Our offerings fall into several categories, including enhanced aerobic biodegradation, enhanced anaerobic biodegradation, bioaugmentation, *in situ* chemical oxidation (ISCO), *in situ* chemical reduction (ISCR), and *in situ* sorption and metals immobilization.



PlumeStop® Liquid Activated Carbon™ is formulated with very fine (1-2 micron) activated particles suspended in water using a unique organic polymeric dispersion that prevents clumping and allows for effective permeation through aquifer materials. Upon injection, PlumeStop rapidly sorbs to the aquifer matrix, effectively removing contaminants from groundwater to eliminate risks. It can be co-applied with electron donors and acceptors or used as a stand-alone amendment to treat most organic groundwater contaminants.



SourceStop® is a colloidal activated carbon (CAC) amendment designed for application in the vadose zone, capillary fringe, and groundwater of PFAS source areas. It quickly removes high levels of PFAS from the dissolved phase. By sequestering PFAS, SourceStop significantly reduces the mass movement from the source area, thereby enhancing the natural attenuation of the plume and preventing impacts to downgradient receptors.



S-MicroZVI® is a colloidal suspension of sulfidated zero-valent iron that facilitates the degradation of various organic pollutants, including chlorinated solvents, pesticides, haloalkanes, and energetics. S-MicroZVI promotes rapid contamination degradation through multiple pathways, resulting in faster cleanups while minimizing the formation of daughter products. Its 2-3 micron-sized particles, suspended in a proprietary polymer, make it easy to handle and inject, leading to superior reagent distribution compared to larger particle size ZVI products.



PetroFix® is a colloidal activated carbon technology used for remediating total petroleum hydrocarbons (TPHs) from contaminated environments. This product employs a proprietary formula of activated carbon to adsorb TPHs, and it adds electron acceptors to stimulate hydrocarbon biodegradation.



RegenOx® is an *in situ* chemical oxidation (ISCO) reagent that directly oxidizes contaminants. Its unique catalytic component generates highly oxidizing free radicals that rapidly and effectively destroy a range of target contaminants, including petroleum hydrocarbons and chlorinated compounds. RegenOx is a two-part injectable ISCO reagent, combining a solid sodium percarbonate-based alkaline oxidant (Part A) with a liquid mixture of sodium silicates, silica gel, and ferrous sulfate (Part B), resulting in a powerful contaminant-destroying technology.



PersulfOx® is an advanced ISCO reagent that eliminates organic contaminants in groundwater and soil through abiotic chemical oxidation reactions. This all-in-one product features a built-in catalyst that activates the sodium persulfate component, generating contaminant-destroying free radicals without the need for an additional activator, thus reducing costs and potential hazards.



ORC Advanced® is an engineered oxygen-release compound designed for enhanced *in situ* aerobic bioremediation of petroleum hydrocarbon contaminants in groundwater and saturated soils. Comprising 17% by weight molecular oxygen, ORC Advanced facilitates a controlled release of molecular oxygen, which serves as an electron acceptor that optimizes microbial utilization in a treatment zone for up to 12 months after application.



3-D Microemulsion® is an innovative remedial amendment tailored for the *in situ* treatment of chlorinated solvent-contaminated aquifers. This patented technology is applied as a micellar suspension, providing a controlled, self-distributing hydrogen source that facilitates biologically mediated enhanced reductive dechlorination. The unique chemistry of 3-D Microemulsion allows for its distribution via naturally flowing groundwater, ensuring persistence for years post-injection. This results in significantly greater treatment coverage and accelerated degradation rates compared to other electron donor amendments.



AquiFix® is a solid, colloidal remediation amendment specifically developed for the *in situ* treatment of chlorinated solvent-contaminated aquifers. Designed for direct mixing and co-application with PlumeStop, this patent-pending formulation includes a nutrient-enriched, solid-phase fatty acid source that quickly establishes and sustains enhanced reductive dechlorination over extended timeframes (up to ten years post-injection). AquiFix's optimized hydrogen release profile notably enhances remediation efficacy while reducing life-cycle costs for treating these contaminants.



BDI PLUS® (Bio-Dechlor INOCULUM Plus) is an enriched natural consortium that includes Dehalococcoides sp. and other dechlorinating microbes, aimed at biologically augmenting enhanced reductive dechlorination remedies. When co-applied with electron donor amendments like 3-D Microemulsion and AquiFix, BDI PLUS has demonstrated its effectiveness in improving the efficiency of chlorinated solvent remediation.



FluxTracer® Flux Mapping Tools are user-friendly devices that provide vertical delineation of contaminant mass flux and groundwater velocity within existing monitoring wells, aiding site characterization and remedial designs. Unlike conventional methods (pump and slug tests), which yield a single groundwater velocity value, passive tools such as FluxTracer are engineered to differentiate individual zones within an aquifer. This high-resolution data is crucial for effective remediation design, enhancing the overall design and application of the remedial amendments.

Working with REGENESIS Remediation Services

At REGENESIS, we collaborate closely with environmental engineering and consulting firms to develop tailored remediation solutions that leverage our globally recognized advanced technologies. Our approach is characterized by a commitment to excellence and a focus on achieving optimal results for our clients.

To ensure successful project outcomes, we mobilize our state-of-the-art dosing and monitoring equipment. This advanced technology is integral to maintaining the highest standards of efficiency and effectiveness throughout the remediation process.

We also establish partnerships with experienced regional drilling and push contractors. This collaboration allows us to

ensure timely mobilization and cost-effective management, thereby enhancing overall project execution.

As a turnkey provider, we take full responsibility for meeting project objectives, delivering comprehensive design, advanced chemical technologies, and application services. Our clients can trust that we are dedicated to their success, from initial planning through to project completion.

Our strong reputation with insurance carriers underscores our commitment to quality. We work closely with our brokers to secure insurance policies from carriers with a minimum rating of "A" by the A.M. Best Company, Inc., providing peace of mind and financial security for all parties involved.



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Company Information

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NAICS Codes

325199 All Other Basic Organic Chemical Manufacturing
562910 Remediation Services

