

# PFAS Effluent Treatment System (PETS)

***Mobile system remediates Per-Poly-fluorinated alkyl substances (PFAS) contamination***



*PETS can operate as a trailer-mounted mobile unit or remotely, greatly increasing its versatility and portability*

ERDC has developed a mobile water/wastewater treatment system that remediates sites containing water-based PFAS toxic contaminants. Used in a wide variety of industrial, agricultural, and commercial applications, PFAS "forever" chemicals are a significant source of environmental contamination. ERDC's PFAS Effluent Treatment System (PETS) offers a portable and cost-effective alternative to current methods of bringing PFAS-contaminated water to EPA standards.

PETS's compact design allows it to operate anywhere as a trailer-mounted mobile unit and monitor and remediate contamination remotely. In addition, PETS can be deployed and re-deployed, making it up to 90 times less expensive over a five-year period than traditional cleanup efforts such as industrial-scale systems or incineration. Furthermore, PETS (designed to treat smaller quantities of less than 250,000 gallons) makes it economically feasible to address environmental hazards in smaller areas. ERDC's PETS is set to play a critical role in protecting human health and the environment for current and future generations.

### **Benefits:**

- **Robust:** Demonstrated treatment of PFAS-contaminated sites that contain high sediment, high organic content, and high salinity
- **Versatile:** Control system allows for remote monitoring and operation
- **Low-cost:** 90 times less expensive than traditional cleanup methods
- **Portable:** Mobile unit is easily transported with a medium-sized forklift
- **Safer:** Reduces water-based PFAS contamination to non-detectable levels eliminating the threat to human health and the environment

### **Applications:**

- Environmental remediation (e.g., wastewater treatment, groundwater treatment)
- Water filtration (e.g., treatment, purification)
- Disaster relief
- Investigative Derived Waste (IDW)
- Public works (e.g., water treatment, water purification, wastewater treatment, water recycling)
- Textile industry
- Construction (e.g., site dewatering operations)

- Firefighting (e.g., Aqueous Film Forming Foam (AFFF) training areas)
- Military (e.g., bases, expeditionary forces)

## Patents

- [US2021/0322951](#)

## Resources

- [Informational video](#)
- [ResearchGate article](#)

## Awards

- [2021 FLC Regional Award for Excellence in Technology Transfer](#)

## Technology Category

[Environment & Energy](#)

## Tags

[Environmental Remediation](#), [Groundwater](#), [PFAS](#), [Remediation](#), [Wastewater Treatment](#), [Water Filtration](#), [Water Purification](#), [Water Recycling](#), [Water Treatment](#)

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