



BROCHURE

Engineered PFAS Treatment Solutions for Groundwater Systems



Helping utilities navigate PFAS treatment with practical, proven groundwater treatment expertise.

ATEC Water Systems provides engineered PFAS treatment solutions for groundwater systems facing new regulatory requirements. By combining proven treatment technologies with decades of groundwater treatment experience, ATEC helps utilities identify practical, cost-effective paths to compliance.

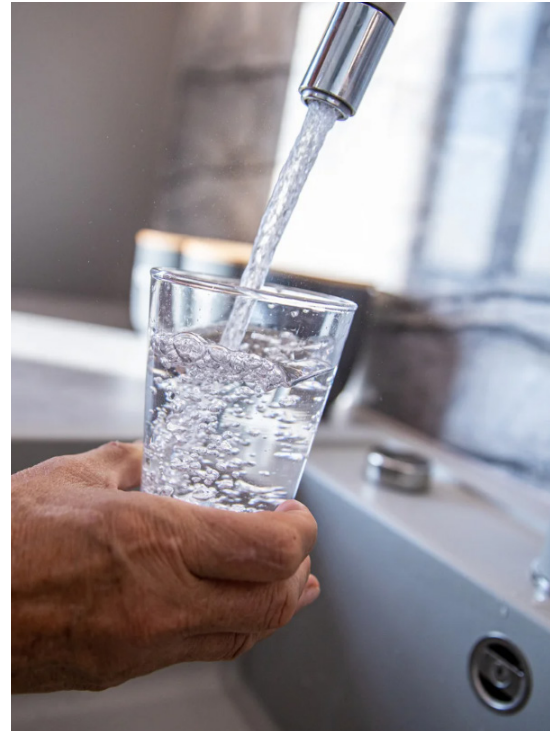
Why PFAS Matters

PFAS are a large family of synthetic compounds commonly used in industrial processes, firefighting foams, consumer products, and manufacturing. Because they do not readily break down in the environment, PFAS have become widespread contaminants in groundwater supplies throughout North America.

In 2024, the U.S. Environmental Protection Agency finalized federal drinking water standards for several PFAS compounds, establishing new compliance requirements for water systems nationwide. As monitoring efforts expand, many utilities are discovering PFAS contamination in both groundwater and surface water sources.

Why Water Systems Choose ATEC

- **500+ Installations Across North America** – A trusted name in groundwater treatment.
- **EPA- and State-Regulation Ready** – Confidence in achieving and maintaining compliance.
- **Pilot-Validated Performance** – Supported by RSSCT testing, pilot studies, and full-scale operating facilities.
- **Modular & Scalable Design** – Systems ranging from 20 GPM to more than 100 MGD.
- **Lifecycle Cost Focused** – Designs optimized for both capital efficiency and long-term operational performance.



Our Solution: Integrated PFAS Treatment Platforms

ATEC provides engineered PFAS treatment systems utilizing a range of proven technologies, including:

- **Surface-Modified Clay Adsorption** – Advanced adsorption media designed for both long- and short-chain PFAS compounds.
- **Ion Exchange Resin** – High-performance treatment for a broad range of PFAS contaminants with compact system footprints.
- **Granular Activated Carbon (GAC)** – A proven and widely deployed PFAS treatment technology with a long operating history in drinking water applications.
- **Hybrid Treatment Systems** – Custom treatment trains designed to address PFAS alongside other groundwater contaminants.

Key Advantages

- **Proven PFAS Removal** – Effective treatment of both short-chain and long-chain PFAS compounds.
- **Cost-Effective** – Low capital and O&M costs compared to alternative technologies.
- **Scalable Design** – Treatment systems from small rural wells to large municipal facilities.
- **Reliable Operation** – Automated controls and long-life media reduce operator burden.
- **Lower Lifecycle Costs** – Optimized media selection and replacement strategies.

Beyond PFAS: Full-Spectrum Groundwater Treatment

ATEC systems are engineered to address a wide range of groundwater contaminants commonly found alongside or independent of PFAS. Our treatment platforms can be tailored to meet site-specific requirements for both primary and secondary contaminants.



Iron & Manganese – Frequently present in groundwater, these aesthetic contaminants contribute to discoloration, taste, odor, and scaling. ATEC's systems routinely co-treat iron and manganese alongside Cr(VI) using oxidation and filtration processes.

Hexavalent Chromium (Cr(VI)) – A naturally occurring contaminant linked to serious health effects and now regulated at 10 ppb in California. ATEC's DDW-approved Reduction-Coagulation-Filtration (RCF) technology reliably converts Cr(VI) to Cr(III) and filters it out, achieving compliance with high removal efficiency and low lifecycle cost.

Boron – Found in agricultural regions and some groundwater basins, boron can affect crop irrigation suitability and human health at elevated levels. ATEC offers specialized solutions for boron removal, including ion exchange and selective adsorption systems.

Nitrates – A widespread contaminant in agricultural and rural areas, nitrate poses significant health risks, especially for infants. ATEC systems can incorporate ion exchange or biological denitrification modules to bring nitrate levels within compliance.

Arsenic – A naturally occurring contaminant regulated at 10 ppb. ATEC offers oxidation, adsorption, and filtration technologies to achieve reliable arsenic compliance.

Why ATEC for PFAS?

PFAS Treatment Is More Than Media Selection

Successfully treating PFAS requires more than choosing an adsorption media. Water quality, contaminant profile, pretreatment requirements, disposal strategies, and long-term operating costs all influence project success.

ATEC brings decades of groundwater treatment experience to every PFAS project, helping utilities evaluate technologies, understand lifecycle costs, and implement practical treatment solutions that support long-term compliance.

The ATEC Approach

Evaluate the Entire Water Chemistry

PFAS rarely occurs in isolation. Iron, manganese, arsenic, nitrates, dissolved organic carbon, and other constituents can influence treatment performance and operating costs. ATEC evaluates the complete water quality profile before recommending a solution.

Select the Right Treatment Technology

ATEC supports multiple PFAS treatment technologies, including surface-modified clay adsorption, ion exchange, GAC, and hybrid treatment approaches. Technology selection is driven by site conditions, not a one-size-fits-all approach.

Design for Long-Term Performance

Treatment systems are engineered around operational simplicity, maintainability, media replacement strategies, and lifecycle cost optimization.

Scale to Meet Community Needs

ATEC systems range from small rural wells and HOA systems to large municipal groundwater facilities serving hundreds of thousands of residents.

Partner With ATEC

Whether you're addressing PFAS compliance or modernizing aging infrastructure, ATEC provides the expertise, technology, and support to deliver safe, compliant water - today and into the future.

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Let ATEC design a system that delivers results for your water system.

