Helping you deliver safe, clean water

Harmful pollutants, and limited industry research and funding continue to challenge how agencies can deliver a reliable water supply. Partnering with an organization with extensive applied experience in PFAS contamination and other emerging health-related concerns can help develop best-in-class solutions for water treatment.
Black & Veatch has provided innovative integrated engineering, planning, design and construction solutions for federal projects around the world. Leveraging the expertise of over 10,000 experienced professionals, we have conducted detailed research and provided cutting-edge treatment technologies to allow more than $1 billion in projects to be completed on time and on budget.

**Soil and Groundwater Contamination Solutions**
- Research and Development
- Planning/Studies (PFAS Assessments/Investigations)
- Remedial Design/Remedial Action (RD/RA)
- Consulting
- Design/Construction/Construction Management
- Startup and Commissioning
- Asset Management

**MITIGATING HEALTH AND ENVIRONMENTAL IMPACTS**

Black & Veatch’s Water Technology Group partners with clients to develop tailored solutions based on specific water quality requirements, keeping health and environmental impacts top of mind. Utilizing initial bench scale testing on a variety of technologies not only adds value to projects, but ensures the most beneficial solutions for each community.

Black & Veatch experts have been involved in coordinated PFAS research opportunities, including projects focused on the advancement of new and innovative treatment technologies for removal of short-chain perfluorinated compounds — the most difficult to remove through traditional adsorption techniques. Project design considerations provide flexibility for use of both granular activated carbon and ion exchange adsorbents in traditional gravity filter style basins and pressure vessels.

**REMOVING EMERGING CONTAMINANTS THROUGHOUT THE UNITED STATES**

We deliver specialized expertise in granular activated carbon (GAC), ion exchange (IX), and reverse osmosis (RO) processes and technologies.
Success Stories

CITY OF FOUNTAIN
Fountain, CO

In 2016, PFAS groundwater contamination plagued public and private wells outside of Colorado Springs, Colorado, affecting water safety for more than 50,000 local residents. Through a pilot testing program, feasibility of GAC and ion exchange treatment technologies were evaluated to determine what solution would best suit the City of Fountain’s needs for the short- and long-term.

Black & Veatch provided engineering support throughout the pilot program, including procurement, installation and commissioning of two pre-fabricated GAC wellhead treatment systems. GAC technology will also be applied in a permanent treatment facility currently in the design phase.

GENX/PFAS & EMERGING CONTAMINANTS TREATMENT STUDY
Cape Fear Public Utility Authority (CFPUA), Wilmington, NC

In 2016, public concern rose over the presence of GenX and other PFAS substances in Wilmington, North Carolina’s Cape Fear River, as well as surrounding counties’ water supply. The unregulated compounds, often linked to cancer, had been found in the region’s drinking water. This raised additional concern, drawing attention to treatment processes at the Sweeney Water Treatment Plant that were ineffective at removing perfluorinated compounds.

The Cape Fear Public Utility Authority (CFPUA) needed to quickly address the issue and develop a plan of action to enhance treatment technologies — all while engaging the community to alleviate growing concerns about water safety. Based on pilot testing, evaluation and consultation from Black & Veatch, CFPUA implemented post-filter deep-bed GAC contractors to remove GenX and PFAS from the local water supply. Black & Veatch was also selected to perform the subsequent design and construction phase services on the project, which began in July 2018.