



P F A S

PER- AND POLY-FLUOROALKYL SUBSTANCES

Per- and Poly-Fluoroalkyl-Substances or 'PFAS', is an emerging contaminant. Because of this, PFAS is a difficult contaminant to quantify, risk assess and subsequently remediate.

The uniquely engineered properties for PFAS mean that conventional technologies stop well short in effectively addressing this contaminant.

AECOM is providing clients with long-term PFAS solutions having worked on over 200 PFAS projects globally, and successfully managed two of Australia's precedent setting PFAS investigations.

PFAS CONTAMINATION IN AUSTRALIA

PFAS have been used in a wide range of industries and can be found in carpets and upholstery, stain resistant items, non-slip applications as well as within fire fighting foams like Aqueous Film Forming Foams (AFFF). There is limited toxicological understanding on how these 'emerging contaminants' impact on human health and the environment making them the subject of ongoing research across the world. PFOS is listed on the Persistent Organic Pollutant (POP) Register of the Stockholm Convention and PFOA has been recommended to be listed.

Given the persistent nature of PFAS and their ability to travel through soil and water, many properties in the surrounding areas close to historical training sites where PFAS was once used are now contaminated. The health and economic impact on local communities in surrounding areas has resulted in two legal class actions underway, with additional cases pending.



The use of PFAS in Australia has resulted in a contamination legacy with unknown human health and environmental impacts. PFAS are highly soluble, mobile, persistent and bioaccumulative in the environment. While there is no proven or consistent research that PFAS causes adverse human health impacts it is now recognised that perfluorooctane sulphonate (PFOS) and perfluorooctanoic acid (PFOA) compounds can represent potential risks to human health and environmental receptors.



The industrial use of PFAS was common in the following industries



Aviation



Defence



Oil + Gas



Property +
Construction



Manufacturing

MANAGING PFAS

AECOM has been helping clients tackle PFAS contamination globally since 2001, working on over 100 Australian PFAS projects, and 200 globally. Sites contaminated with PFAS have complex technical, community and legal issues. Recently, sites contaminated with PFAS have received extensive media coverage given the adverse impact on many local communities.

Environmental consultants are required to not only be responsive and technically up to date, but must be capable of taking a leading role in government, stakeholder and community interactions. AECOM has experience navigating clients through the appropriate technical and regulatory processes to find the best long-term solution for businesses and the community.



AECOM has been helping clients tackle PFAS contamination globally since 2001.



We draw on local and global experience and work with clients to:

Deliver complex PFAS contamination projects exploring innovative solutions.

Minimise risk from an approach that integrates our understanding of technical requirements, timeline imperatives, reputational risk, legislative requirements and budget constraints.

Deploy responsive and cost effective local office resources for field work, community engagement and project management tasks, supplemented with national technical leaders in hydrogeology, risk assessment, toxicology, community engagement and PFAS remediation.

Ensure value for money from a carefully optimised investigation program that focuses on key long term objectives all based on National Environment Protection Measure (NEPM).

DE-FLUORO™ PFAS DESTRUCTION TECHNOLOGY

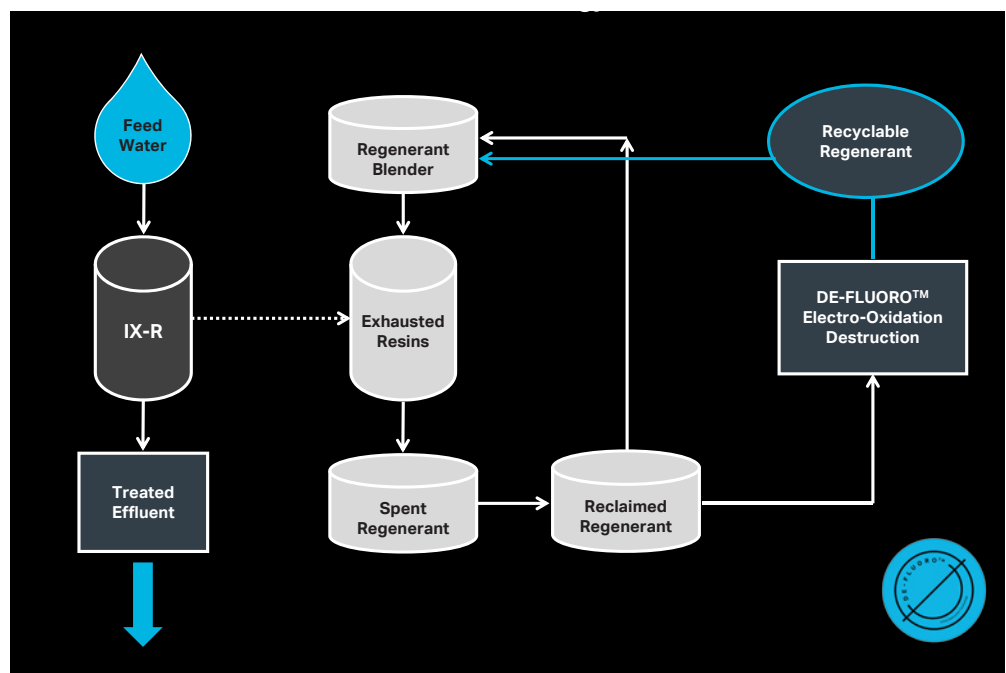
Whilst our work to date has focused on the investigation and management of PFAS, in 2018 AECOM formed a dedicated PFAS Response Team to strategically solve the challenging environmental issues that PFAS has created by developing a world-first, cost-effective, sustainable PFAS destruction solution.

Our technology – trademarked as DE-FLUORO™ – was developed by AECOM in collaboration with the University of Georgia in the United States. It is an economically and environmentally sustainable water treatment technology that destroys PFAS without generating any hazardous waste.

Unlike existing treatment technologies, DE-FLUORO™ offers a complete PFAS destruction solution through electrochemical oxidation. It can be coupled with existing technologies to deliver a ‘whole of life cycle’ solution, or as a stand-alone onsite destruction technology to avoid costly offsite disposal.

DE-FLUORO™ has been verified across a variety of industry sectors including Government, Aviation, Oil & Gas and Industrial, as well as with remediation water treatment contractors during our ‘Real World’ PFAS Destruction Program.

DE-FLUORO™ offers a whole of life cycle solution



DELIVERING LONG-TERM SOLUTIONS

AECOM is collectively focused on identifying long-term tailored solutions for our clients, for every project, big or small. Our team has been helping clients across Australia tackle these contaminants and can assist the industry with the identification, management and, if warranted, remediation of PFAS.

AECOM's capability is well established with all technical disciplines in Australia and globally. AECOM can provide suitably skilled resources across Australia to deliver multiple projects in a coordinated manner. This ensures consistent technical input and project governance, with field investigations and reporting cost effectively delivered from locally-based teams.



AECOM's capability is well established with all technical disciplines in Australia and globally.



Our contamination specialists have the ability to meet compressed schedules and respond rapidly to clients' requests for technical information (i.e. to assist in response to urgent government inquiries/requests). Given the paucity of broad scale treatment / remediation options of PFAS contamination, we believe that adopting a risk based approach to the identification and management of risks associated with PFAS contamination is the most sensible, cost effective and defensible course.

CONTACT THE TEAM

Gavin Scherer

PFAS Response Leader – ANZ

D +61 3 9653 8041

M +61 417 131 437

gavin.scherer@aecom.com

Rachael Casson

Director of International PFAS Program

D +61 2 8934 0142

M +61 413 645 857

rachael.casson@aecom.com



About AECOM

AECOM is the world's premier infrastructure firm, delivering professional services throughout the project lifecycle – from planning, design and engineering to consulting and construction management. We partner with our clients in the public and private sectors to solve their most complex challenges and build legacies for generations to come. On projects spanning transportation, buildings, water, governments, energy and the environment, our teams are driven by a common purpose to deliver a better world. AECOM is a Fortune 500 firm with revenue of approximately \$20.2 billion during fiscal year 2019. See how we deliver what others can only imagine at aecom.com and [@AECOM](https://twitter.com/AECOM).