

SOIL

PFAS

IN SOIL

PFAS compounds have been widely used in domestic, commercial and industrial products, including:



FIREFIGHTING FOAMS



**FOOD PACKAGING AND
NON-STICK COOKWARE**



STAIN-REPELLENTS



COSMETIC PRODUCTS



PFAS compounds are not manufactured in Australia, but have and continue to be imported in consumer products, or for commercial and industrial uses.

Because of their widespread use and presence in a range of products, PFAS have become widely distributed in the global environment. PFAS impacts in soil can leach into surface water and groundwater, and may also bioaccumulate in food produced in the affected area. Management and remediation of PFAS-impacted soil may therefore be necessary to protect human health and the environment.

Various innovative technologies can be applied to manage or remediate PFAS-impacted soil.

Arcadis focuses on providing our clients with reliable, safe and cost-effective solutions. Management of soil impacts may include options such as onsite containment, or off-site disposal to landfill.



OUR SOLUTIONS



More active soil treatment technologies are currently being developed for management of high-risk sites, and include:

SOIL IMMOBILISATION

Immobilisation of PFAS in soil can be achieved by applying fixing agents such as organoclays, proprietary soil amendments or powdered activated carbon. Immobilisation can reduce or prevent PFAS leaching from soil and can assist with off-site disposal at a suitably licenced landfill, or with other soil management options such as on-site containment.



SOIL WASHING

Soil washing is a separation process that employs a range of physical and chemical separation techniques to remove PFAS impacts from soil. This is done by transferring contamination into the liquid phase, where it can be more readily treated using a variety of water treatment technologies. Once treated, the washed soil may then be suitable for reuse.

ONSITE MANAGEMENT / CONTAINMENT OPTIONS

Regulatory hierarchy of management options for soils usually prefer onsite management options before offsite treatment or disposal. Onsite options could take the form of onsite caps and/or containment cells.

Arcadis engineers and scientists have extensive experience in the design and construction of caps and containment cells that can be used in conjunction with the above treatment options.



THE ARCADIS STORY

Arcadis has a long history of management and remediation of PFAS impacts, starting over 14 years ago with our first projects in Belgium, Germany and the UK. Arcadis now has **more than 75 projects** in our portfolio, representing **over 300 individual sites** in **12 countries**. Our expert team consists of **over 100 innovators**, including chemists, toxicologists, hydrogeologists, geologists, risk assessors and remediation engineers.

Arcadis is the leading global Design & Consultancy firm for natural and built assets, tracing its roots back to the Association for Wasteland Redevelopment in the Netherlands in 1888. Applying our deep market sector insights and collective design, consultancy, engineering, project and management services, **we work to deliver exceptional and sustainable outcomes.**

With over 27,000 people in over 70 countries and a generated €3.3 billion in revenue, Arcadis' rich history lends the perfect foundation for the innovative solutions we have now become renowned for.

27,000

PEOPLE



**WE WORK
TO DELIVER
EXCEPTIONAL
— & —
SUSTAINABLE
OUTCOMES**

70

COUNTRIES

€3.3

BILLION IN REVENUE

MINIMISE YOUR IMPACT TODAY

David Raftery

Sector Managing Director - Environment

David.Raftery@arcadis.com

T: +61 (3) 8626 6820



Level 16, 580 George Street, Sydney, NSW, 2000

02 8907 9000

aus@arcadis.com

arcadis.com/au