



## CASE STUDY

**Client:** Pharmaceutical Sector

**Date:** 2019-2020

**Nature of works:** Permeable Reactive Barrier (PRB) Decommissioning

**Contract Value:** £600k

# Permeable Reactive Barrier (PRB) Decommissioning

South-Eastern UK

Soilfix were contracted to carry out the decommissioning of Europe's longest Permeable Reactive Barrier (PRB) at a former pharmaceutical manufacturing plant.

## THE CHALLENGE

An 800m long PRB was installed directly adjacent to a live railway along the site boundary in 2000, prior to the cessation of site operations activities in 2013. The system was designed to treat a suite of groundwater contaminants of concern and reduce the potential for their off-site migration while site-wide remediation works were carried out.

Following confirmation that groundwater quality had improved to an acceptable standard, the PRB became redundant and required decommissioning in a safe, sustainable and cost-effective manner.

## OUR SOLUTION

Soilfix designed and implemented a multi-disciplinary decommissioning scheme, including:

- Dewatering, excavation and breakout of 22nr. concrete treatment chamber caissons housing the GRP treatment vessels;
- Dewatering, cleaning and removal of equipment from 20nr. further recharge chambers;
- Pumping of 300 tonnes of spent granular activated carbon (GAC) from treatment vessels and removal off-site for sustainable regeneration;
- High-pressure cleaning of caissons, cutting of pipework /infrastructure and grouting all inlets under confined-space entry procedures;
- Safe lifting and high-pressure cleaning of the GRP treatment vessels prior to off-site disposal once rendered 'environmentally clean';
- Breaking through the low-permeability barrier to re-establish groundwater flow at 19 locations;
- Import/placement of clean permeable backfill to meet the client's strict compliance criteria;
- Disposal of all soils, contaminated liquids/sediments off-site under full Duty of Care; and,
- Health, Safety & Environmental controls to meet the client's exacting standards.

All works were completed on programme and to budget, with zero lost time incidents / accidents, in spite of significant hazards including solvent contamination, confined space entry, temporary works, lifting operations and the adjacent live railway.



## FOR FURTHER INFORMATION

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