



## **Examples of how E-Clay Remediation can result in significant cost saving in comparison to alternative remediation approaches.**

### E-Clay Stabilisation.

Enviro-treat undertook the E-Clay Stabilisation of 600m<sup>3</sup> of contaminated soils associated with a former gas works in the East Midlands to make way for a new residential development. The cost to the client for the remediation package was in the order of £36k, this cost not only included the excavation (including validation testing), remediation and re-instatement, but in addition up-front design work, gaining all regulatory approvals, planning sign-off on completion, validation testing and reporting. The estimated equivalent off-site disposal costs were in the order of £90k based on hazardous waste classification; this cost would not include all the excavation, associated validation of excavations and associated import of equivalent clean fill material. Greater savings can be achieved on larger volumes where economies of scale kick in.

### E-Clay Permeable Reactive Barrier.

Similarly Enviro-treat installed an E-Clay Permeable Reactive Barrier around part of the perimeter of a former industrial site to protect off-site receptors (nearby river) from hydrocarbon impacted groundwater. The alternative strategy was off-site disposal, bioremediation or stabilisation of hydrocarbon impacted soils. The extent of the contamination was uncertain due to the size of the site; however, a conservative estimate being that there was a requirement to remediate circa 25,000m<sup>3</sup>, the remediation cost for this ranged from £1millions to £3.6millions for off-site disposal. The barrier design and installation costs were circa £140k, which in addition included gaining regulatory approvals, monitoring, validation and planning sign-off. The client was also able to negate the need to breaking up of the existing floor slab prior to future commercial development.