

## CASE STUDY

## REMEDIATION OF HYDROCARBON CONTAMINATION

### PROJECT:

Former Swimming Pool Site, Elgin

### PROJECT VALUE:

£170,000

### PROJECT TIMESCALES:

18 MONTHS

### DATE AWARDED:

2006

### CHALLENGE:



**A former swimming baths site requiring remedial action to facilitate the new build of a supermarket. Hydrocarbon contamination was encountered across the site and offsite disposal was not possible.**

**The challenge was to remediate smear zone hydrocarbons potentially leaching to groundwater whilst the construction phase of the new supermarket was underway.**

### SOLUTION:



- ERS engineers designed a bespoke remediation system allowing remediation to be undertaken both whilst construction continued and once construction was complete and the site was operational.
- A bioslurping plant utilising high vacuum to control the water table, exposing the smear zone, enhancing volatilisation of the contaminants and encourage air flow to further enhance bioremediation. This was implemented using a permanent infrastructure of 36 wells focussed to the bioslurping plant.
- Monitoring of bio-activity was undertaken by in-situ respiration testing within monitoring wells. This monitored oxygen consumption rate post purge using remotely-situated monitors. This allowed the progress of biological remediation to be tracked enabling ongoing system optimisation.

### OUTCOMES:

Successful implementation of fixed lance bioslurping allowed reduction of local groundwater and facilitation of aerobic biodegradation of contamination to meet the target criteria.

Effective management of the installation and monitoring programme alongside construction and operation of the supermarket with minimal interference fulfilled local planning requirements, enabling construction to proceed to completion and occupation of the site without delay.