



The National Groundwater  
and Contaminated Land Centre

# **CONTAMINATED LAND REMEDIATION**

**Innovative treatment methods, design,  
assessment and validation**



**ENVIRONMENT AGENCY**



## CONTAMINATED LAND REMEDIATION

### Innovative treatment methods, design, assessment and validation

One of the Environment Agency's principal aims, set out in its strategy, is to "secure, in co-operation with others, the remediation of contaminated land". The Agency recognises that this can only be achieved by working in close partnership with local authorities (as the prime regulators of land contamination) and others who have an interest in this issue. It is important to encourage best practice, consistency in assessment and remediation, and to promote the use of sustainable remediation techniques.

Increasingly, process-based remediation technologies for contaminated land and groundwater contamination represent an alternative to the more traditional engineering methods. They may also provide a more sustainable approach for many contaminated sites. These techniques, such as bioremediation, soil

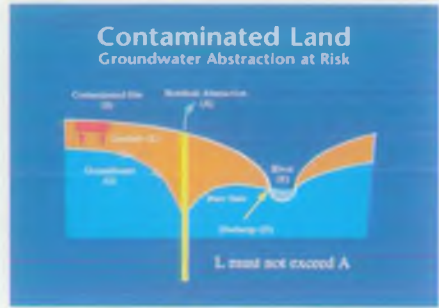
washing, soil vapour extraction etc, can provide flexible, cost effective solutions to the problems of land contamination. The National Groundwater and Contaminated Land Centre is monitoring and evaluating the rapid development and use of these technologies in the UK and overseas. This will help the Agency and its staff to be well informed for their involvement in remediation of existing land contamination and in the redevelopment of contaminated sites. Issues which the National Centre is currently examining through R&D projects and collaboration with external bodies include:

- Novel approaches to ground water treatment including natural attenuation and in situ reactive walls;
- Mechanisms for incorporating sustainability criteria into the process of selecting remedial options;
- The dissemination of information on available remedial techniques in the UK;
- Validation methods and criteria for assessing the performance of remedial action;



The Environment Act, 1995 Section 57, once implemented, will provide new powers and responsibilities for local authorities and the Agency regarding the identification and remediation of sites which meet the statutory definition of contaminated land. In particular, the Agency will be responsible for regulating those sites which fall within the categories of 'special sites', as defined in Regulations. These will include certain specified land uses, for example where the Agency already has a regulatory responsibility, and particular circumstances where the Agency's expertise or historical involvement make it the more appropriate regulator or where pollution of controlled waters is occurring.

The Centre is actively developing its existing experience of remedial technologies in particular on bioremediation, soil washing, stabilisation, barrier walls and natural attenuation. Staff are involved with projects such as:



- Bioremediation of coal tars and phenols from a tar distillery
- Natural attenuation of groundwater contaminants
- Validation of treatment performance (has it done what it advertised?).

The Centre provides technical advice and support to Agency Regional and Area staff and to Agency Land Quality Policy staff on the remediation of land and groundwater contamination. Centre staff are available to advise on site-specific issues, both those being handled through Agency regulatory and duties Capital Fund Projects.



## MANAGEMENT AND CONTACTS:

The Environment Agency delivers a service to its customers, with the emphasis on authority and accountability at the most local level possible. It aims to be cost-effective and efficient and to offer the best service and value for money.

Head Office is responsible for overall policy and relationships with national bodies including Government.

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For general enquiries please call your local Environment Agency office. If you are unsure who to contact, or which is your local office, please call our general enquiry line.

## ENVIRONMENT AGENCY GENERAL ENQUIRY LINE

# 0645 333 111

The 24-hour emergency hotline number for reporting all environmental incidents relating to air, land and water.

## ENVIRONMENT AGENCY EMERGENCY HOTLINE

# 0800 80 70 60

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