

Chapter 4 – Procedures

Procedures have been drawn up, following consultation with Officers making up the Steering Group and Working Party, to manage contaminated land within the Borough. They are described below:

4.1 – Internal management arrangements for inspection and identification.

- 4.1.1 – Identification of land.

The Council will take a systematic and logical approach to deal with contaminated land. Using current and historical information, sites within the Borough will be prioritised based on “Risk.” The Council will follow detailed Guidance issued by the Department of the Environment (DOE – now DETR) in its “Prioritisation and Categorisation Procedure for Sites which may be Contaminated” – CLR Report No 6. (“CLR6”) and CIRIA Report C552 - 2001 "Contaminated land risk Assessment" - A Guide to Good Practice.

CLR 6 advocates a staged approach to the identification of land. The approach is simple but systematic in deciding which priority to give to action on a site which may be contaminated. This staged approach is based on the following:

- Detailed Desk Top Study
- Site specific Risk Assessments
- Site investigation
- Development of a remedial strategy.

Other publications that should be used in conjunction with CLR 6 to fully evaluate the condition of land in the Borough are:

- DETR – CLR 11 – Handbook of Model Procedures for the management of Contaminated Land.
- DOE – Industry Profiles.
- EA – The Policy and Practice for the Protection of Groundwater (1998).
- EA – Methodology for the Derivation of Remedial Targets for Soil and Groundwater to Protect Water Resources.
- Various ICRCL Publications.
- EA/SNIFFER – Communicating Understanding of Contaminated Land Risks.
- EPP Publications – A review of full Scale Technologies for the Remediation of Contaminated Soil.
- Building Research Establishment (BRE) – Construction of new buildings on gas-contaminated land.

- Stanger Science – Contaminated Land Guidance and Risk Assessment.
- CIEH – Desk Reference Guide to potentially Contaminative Land Uses.
- DOE – CLR 3 – Documentary Research on Industrial Sites.
- DOE – CLR 1 – A Framework for assessing the impact of Contaminated land on Groundwater and Surface Water.
- BRE – Measurement of gas emissions from contaminated land.
- Institute of Petroleum – Code of Practice for the Investigation and Mitigation of Possible Petroleum-Based Land Contamination.
- BSI10175:2001 – Investigation of Potentially Contaminated Land Sites – Code of Practice.
- EA - Guidance for the Safe Development of Housing on Land Affected by Contamination - R & D Publication 66 - 2000.

The procedures described above will be used to build up a profile of contaminated land in the Borough and if will be used to supplement the GroundView model once loaded onto the Corporate GIS.

Key Staff:

Caroline Storer – Housing and Health Department.
Peter Estcourt – LES – Civil Engineers.

- 4.1.2 – Responsibilities and Timescales.

In order to undertake the above, it is anticipated that various Departments will have key roles to play. This should be supported by achievable timescales.

The Council has set out its arrangements and timescales as follows:

- **Undertaking Desk Top Study**

Officers in the Housing and Health Department and the Engineering Section will undertake this work. This work will commence in October 2001 and take approximately 6 months. It will involve the review and documentation of all current and historical information held within the Council. Officers will report to the Steering Group and Working Party.

Key Staff:

Caroline Storer – Housing and Health Department
Peter Estcourt – LES – Civil Engineers.

The compilation of the DeskTop Study will be systematic and involved; using information from a variety of sources such as those detailed below:

Source	Specific information	Use
1. Historic maps	Old OS maps as well as new digital maps to be imported onto GIS.	To identify sources
2. Geological maps	From BGS 1:50,000 solid and drift geology maps.	To provide information on geological characteristics for potential pathways.
3. Hydrogeological information.	Provided by the EA.	To identify receptors – controlled waters.
4. Source Protection Zones	Provided by the EA	To identify receptors – controlled waters.
5. Environmental Health Records	Information on site investigations carried out as well as complaints, investigations and Authorised Processes.	To identify known information on contamination.
6. Engineers/Planners and Building Control	These Departments hold detailed information on development in the area.	To identify known information on contamination.
7. Unitary Development Plan (UDP)	Gives information on current and proposed land use in the Borough. (Currently being revised.)	To identify receptors.
8. Integrated Pollution Control Register	Information held on a public register about authorised industrial processes within the Borough.	To identify sources of contamination and “Special Sites.”
9. Waste Management Licences.	EA has a public register of sites licensed for waste management activities.	To identify sources of contamination.
10. Register of closed landfill sites.	Held by the EA and LA.	To identify sources of contamination.
11. Local Archives/museums.	Historical information.	Identify sources of information.

In September 2000 the Environment Agency provided a CD-ROM which contains information of IPC and RAS sites, licensed waste management sites and some closed landfills. This information will also be loaded onto the Corporate GIS.

- **Site Prioritisation**

Once the DeskTop Study has been completed it should be apparent which sites should be prioritised first based on “Risk.” Again CLR 6 details how this should be done. The timescale for this work to be completed is 5 years. This work should have regard to any Strategic Regeneration initiatives that are current or planned for example the Barking Reach development.

This work will be co-ordinated by the Housing and Health and Civil Engineering Sections. Specific information from the Planning and Chief Executives Departments will be required on any regeneration/planning issues that may bring forward sites for prioritisation purposes.

Key staff:

Caroline Storer – Housing and Health Department

Peter Estcourt – LES – Civil Engineers.

Jeremy Grint – Chief Executives Department – Head of Strategic Regeneration

Tim Johnson – LES – UDP/Thames Gateway

Chris Howl/Bernadette McGuigan – LES – Urban Regeneration

- **Procedures for site investigation**

Where land is thought to be contaminated, a site investigation should be undertaken to determine what contamination is present. Where a Planning Application is made for a development a Condition or Section 106 Agreement should be incorporated. Where land is already developed then site investigations should be recommended to prevent recourse to legal action – such as the service of a Remediation Notice.

Site investigations need to be thorough and adequate. A detailed site investigation will look at issues such as current and past historical use, ground conditions, water quality and gas issues.

In most cases site investigations are carried out by Environmental Consultants with adequate Public Indemnity Insurance, who will follow guidance from a variety of sources such as the DETR, ICRCL and CIRIA.

Site investigations will be subject to Council “Standing Orders.” As such the following requirements will have to be followed:

- Form of agreement
- Conditions of Contract
- Standard Specification
- Site Specific Specification
- Bill of Quantities.

The ICE Conditions of Contract for Ground Investigation will be incorporated.

It should be noted that the Council already has several Environmental Consultancies on its selected list of contractors. It is envisaged that this list will be expanded if necessary and/or required.

The DETR has produced technical guidance for local authorities on site investigations.

The Council will have regard to this guidance when undertaking site investigations which is detailed below:

- Site Characterisation Strategies for Contaminated Land – Characterising Site Soils.
- Site Characterisation Strategies for Contaminated Land – Groundwater Sampling and Characterisation.
- Characterisation of Gas Affected Land – Strategies for Investigation.

Key staff:

Caroline Storer – Housing and Health Department

Peter Estcourt – LES – Civil Engineers.

Tim Lewis – LES – Town Planning

Bob Weaver – LES – Building Control.

- **Remediation**

At the present time once contaminated land is identified – usually as a result of a site investigations done via the Planning process – the engineers/environmental consultants acting for the developer normally prepare a remediation scheme.

In order to establish Best Practice an Officer Working Group – led by the Civil Engineering Section – will be set up to monitor remediation schemes and decontamination works. This is targeted for October 2001.

Key Staff:

Peter Estcourt – LES – Civil Engineers

Caroline Storer – Housing and Health Department

Bob Truman – Building Control.

- **Legal issues**

Legal issues in relation to contaminated land will be complex to qualify and quantify. The Councils' Legal Section will be responsible for identifying who are "Appropriate persons" for a particular area of land. Where land is deemed to be Statutorily contaminated then the Legal Section will have to give advice on the most appropriate course of action.

The Housing and Health Department has produced an Enforcement Policy detailing the principles and practices that the Council will apply when deciding what enforcement action is to be taken. This is documented in Appendix D.

As a result of the new contaminated land legislation a new Local Land Charges form, the “CON29”, has been produced by the Law Society to address the issue of Contaminated land. The Councils Land Charges Section will need to have access to information held on the GIS to answer any enquiries.

The Corporate GIS system will allow access to designated users to gain information on land within the Borough.

Key Staff:

Brian Jones – Chief Executives Department – Head of Property Law and Conveyancing.

Chief Executives Department – Head of Land and Property Information.

Jennie Duffy – Housing and Health Department – Head of Health and Consumer Services Department.

- **Contaminated Land “Register”.**

As part of the new Part IIA legislation the Council is duty bound to set up a “Register”. The information required to held on the Register is as follows:

- Remediation Notices – served by the enforcing Authority.
- Remediation Declarations – recording any remediation actions that were ruled out.
- Remediation Statements – usually voluntary remediation action or remediation being carried out the Council itself.
- Other environmental controls – detailing action under powers, such as waste management controls or the new integrated pollution prevention and control regime.
- Appeals against Remediation Notices and appeals decisions.
- Appeals against charging Notices – where the Council is seeking to recover the costs of remediation they have carried out.
- Designation as a “Special Site” – where the EA rather than the Council acts as the enforcing Authority. (The EA is required to keep its own Register as well.)
- Notifications of claimed remediation – voluntary details supplied by the person and what they claim to have done by way of remediation, whether voluntary or not.
- Convictions under Part IIA – covering offences of not complying with a Remediation Notice.
- EA site specific guidance – guidance given to the Council where the EA sees a particular need.

The Register will be custom built and added to the GroundView package. It will enable other Departments – such as the Land and Property Section – to access it as well as other interested parties. The Register will be a public open document.

However there are provisions for exclusion from the register on the grounds of **national security** or **commercial confidentiality**.

Key Staff:

Caroline Storer – Housing and Health Department.

Chief Executives - Land and Property Information Section.

Brian Jones – Chief Executives – Head of Property Law.

Duncan Blackie – Chief Executives – Valuation and Development.

4.2 – Considering Local Authority interests in land.

As detailed in Chapter 2.4 the Council has extensive landholdings in the Borough. The identification of Council owned land will follow the principles and procedures for all land within the Borough. As a result of the DeskTop Study a thorough picture of potentially contaminated land will be available after six months. This screening exercise will highlight any land that is owned by the Council.

As part of the Site Prioritisation procedure, internal arrangements will have to be made to find who in the Council bears responsibility for the land. At the present time there are various Stakeholders – for example Housing and Health, Property Services, Social Services, Education etc.

A notification procedure will be formulated using GIS and the “GroundView” model. The procedure will document the following:

- The land in question – Name/Address/ TQ Grid Reference.
- Who is the owner of the land – i.e. which Department.
- What type of contamination is present (if any).
- What Risk it poses and to whom (if any).
- What further works should be done, and by when. For example site investigations etc.
- What remediation (if any) is proposed.

In all situations the Council will be open and transparent.

Land will also be included where we currently have on-going monitoring works in progress.

Key staff:

Brian Jones – Chief Executives – Land and Property Information Section.

Duncan Blackie – Chief Executives – Valuation and Development.

Caroline Storer – Housing and Health.

Peter Estcourt – LES – Civil Engineers.

4.3 – Information collection

It is expected that the DeskTop study will produce a lot of detailed information. Most of it will be in a paper form. This information will need to be handled and stored so that

it can be inputted onto the GIS. It is vital that all Departments in the Council are able to share data to ensure a consistency of approach.

A screening exercise was carried out in December 2000 to establish what environmental data is available throughout the Council. The result of this exercise showed that the Council has a lot of historical information – much of it duplicated – throughout the Council. As a result of this it is proposed to archive all information into one central library. This will make datacapture easier for eventual inclusion onto the GIS system.

The EA guidance – “Some guidance on the use of digital environmental data” will be used to establish best practice.

Key staff:

Caroline Storer – Housing and Health Department
Peter Estcourt – LES – Civil Engineers.
Environmental Consultants.

4.4 – Information management

As mentioned previously the Councils aim for dealing with the information found relating to contaminated land is to develop a fully integrated Corporate GIS system.

In principle, this type of data management means that it will make it easier to evaluate ground conditions within the Borough as well as facilitate transmission of information to outside bodies such as the EA.

It is expected that the general benefits of using GIS are as follows:

- Provides a digital system for systematic data entry and storage; providing quality control. GIS is a highly efficient way of storing huge amounts of data.
- Provides integrated data layers for easier management; different layers of information can be superimposed simultaneously for a given area.
- GIS can be addressed linked to bring up a whole series of different databases.
- GIS can be customised for automatic report generation.
- GIS offers an accessible system for answering enquires from other Departments.
- GIS is useful when interpreting compiled data e.g. the spatial relationships between land use and any soil contamination present can be explored making the identification of pollution linkages easier.
- GIS provides a sound basis for site Risk Assessments. Other models can be “bolted” on and customised.
- GIS can provide overall cost savings for the Council by having a more efficient management of environmental information.

The Council has purchased ArcView for its Corporate GIS. This will be used for contaminated land data handling. It is anticipated that ArcView will be up and running by October 2001. Data input can then begin as part of the DeskTop Study.

Specific advice from the EA on digital environmental data will be used to ensure that all information is handled correctly.

Key staff:

Chief Executives – Land and Property Information

Caroline Storer - Housing and Health Department

Peter Estcourt – LES – Civil Engineers.

Environmental Consultants.

4.5 – Complaints and voluntary information about contaminated land.

The Council may expect, from time to time, to receive a complaint regarding contaminated land from a member of the public, business or community group. The procedures to be adopted are as follows:

4.5.1 – Complaints

The Housing and Health Department has a set procedure for investigating complaints. All complaints are logged onto a FLARE database. Complaints are allocated to the appropriate Officer to deal with. Initial responses to complaints are made within two working days.

The Officer will then contact the client within this time to gain information and to visit if necessary. Full details can be kept on the database of all actions undertaken by the Officer.

It is proposed to keep this system to deal with contaminated land inquiries.

Every effort will be made to resolve complaints quickly and efficiently. However the new regime does present a number of obstacles to speedy resolution of some problems. They are:

- (a) Proof of a viable pollutant linkage before any formal designation, as contaminated land is required – which might only be possible with detailed investigation.
- (b) Prior consultation with interested parties before designation as contaminated land.
- (c) A minimum of a three month period between designation and serving of a Remediation Notice.
- (d) The requirement for the enforcing authority to make every effort to identify the original polluter of the land (or Class A person.)

The regulations allow conditions (b) and (c) to be waived in extreme cases, but not conditions (a) and (d).

If a person or organisation provides information relating to contaminated land that is not directly affecting their own health, the health of their families or their property, this will not be treated as a complaint. However the information will be recorded on the FLARE database and may be acted upon.

Key Officers:

Caroline Storer - Housing and Health Department

4.5.2 – Confidentiality

All complaints are treated as confidential. The only circumstances in which information may be made public would be in the case of a Remediation Notice being appealed in a court of law and an adverse effect on the complainant's health was an important reason for the original contaminated land designation.

All complainants must supply their names and addresses, as the Department does not normally deal with anonymous complaints. This may be waived in exceptional circumstances.

Key staff:

Caroline Storer - Housing and Health Department

4.5.3 – Anecdotal evidence

Any anecdotal evidence provided to the Council relating to contaminated land will be noted, but no designation of contaminated land will occur without following the principles outlined in Chapter 4.1.1.

Key staff:

Caroline Storer - Housing and Health Department

4.6 – Risk Assessment

Risk Assessment is systematic approach for estimating the probability that site specific hazards are realised. The risk assessment approach recognises that the consequences of soil contamination depends upon many site-specific factors.

Risk Assessments have been described as consisting of four main components:

- Hazard identification
- Hazard Assessment - assessing the degree of hazard through consideration of plausible hazard – pathway - receptor scenarios.
- Risk estimation – estimating the likelihood that an adverse effect will result from exposure to the hazard and the nature of the effect.
- Risk evaluation - where a decision is made regarding the significance of the risk and the measures to be taken in order to reduce the risk to an acceptable level.

The Council will have to undertake detailed Risk Assessments once specific data becomes available. Table 4.6 shows a schematic approach to managing contaminated land and will form the basis for Risk Assessment procedures.

The Council will have regard to CLR 6 – Prioritisation and categorisation procedures for sites which may be contaminated: CLR11 – Handbook of Model Procedures for

the Management of Contaminated Land. Also CIRIA Report C552 - 2001 "Contaminated land Risk Assessment" - A Guide to Good Practice will be used.

A new set of guidelines – the Contaminated Land Exposure Assessment or CLEA guidelines – are expected from the DETR shortly. Until these are available the Council will continue to evaluate all information against current guidelines such as the ICRCL guidelines.

Key staff:

Caroline Storer - Housing and Health Department

Peter Estcourt - LES - Engineers

External Environmental Consultancies specialising in Risk Assessment.

4.6.1 – Risk assessment for other substances

Risk Assessments may also be required for substances not covered by ICRCL or CLEA guidelines. In these cases, reference will be made to other specific guidance such as:

- Drinking water standards.
- Environmental Quality Standards (EQS) used in river/surface water assessments.
- Dutch Intervention Values.
- US Environmental Protection Agency data.
- Health and Safety Executive – Occupational Exposure levels.
- World Health Organisation guidelines.

4.6.2 – Risk Assessment for Controlled Waters

The role of the EA is vital for the accurate assessment of risk from substances entering Controlled waters.

Specific advice laid down in the “Methodology for the Derivation of Remedial Targets for Soil and Groundwater to Protect Water Resources” will be followed. In addition the Water Supply (Water Quality) Regulations 2000 will also be used to assess drinking water quality if necessary.

The Council will notify the EA and all water undertakers (including the Drinking Water Inspectorate) if pollution of controlled waters is being, or is likely to be caused – especially if pollution could impact on a water source.

Key staff:

Caroline Storer - Housing and Health Department

Peter Estcourt – LES – Civil Engineers.

Essex and Suffolk Water Company

Thames Water Utilities.

Environment Agency.

4.7 – Interaction with other Regulatory Regimes

There are other regulatory actions that can be taken to deal with the contamination of land. Overlaps with Planning, Building Control, water pollution and IPPC legislation are considered the most important.

4.7.1 – Planning

The vast majority of contaminated land issues come to light as part of the Planning process. Conditions and Section 106 agreements address the problem and the introduction of Part IIA will undoubtedly lead to the problems of additional sites being found. It is anticipated that the redevelopment of brownfield sites, and the associated planning controls, will remain the primary mechanism for dealing with contaminated land. Any remediation agreed as a planning condition will be dealt with under planning controls and not under Part IIA.

Key officers:

Tim Lewis – LES – Town Planning

Caroline Storer - Housing and Health Department.

4.7.2 – Water Pollution

For historic contamination where controlled waters are polluted, the Part II regime should be used where there are significant soil sources remaining. Other legislation, including the Water Resources Act 1991 and the Groundwater regulations 1998 should be used where there is ongoing pollution within controlled waters and where there is no significant soil sources remaining on site.

Consultation with the EA will be vital before the Council designates contaminated land as being a risk to controlled waters.

Key staff:

Caroline Storer - Housing and Health Department

Peter Estcourt – LES – Civil Engineers

Environment Agency.

4.7.3 – Integrated Pollution Prevention and Control (IPPC)

Under new legislation to regulate pollution from industrial processes, site operators are required to undertake a site condition survey prior to receiving a licence to operate. If the site condition is such that areas of land meet the definition of contaminated land, then submission of a site survey may trigger action under Part IIA. Existing process will be brought under this legislation in stages over the next seven years, although it will apply to any new processes or any substantial change to an existing process.

Any premises subject to IPPC controls will be entered onto the GIS database and will be assessed during the DeskTop Study and Risk Assessment process.

Key staff:

Robert Williams - Housing and Health Department
Environment Agency.

4.8 – Other key players

As well as the Local Authority and Environment Agency having the main role to play in dealing with contaminated land there are several other key players. They are:

- **The Government**

The Government is determined to limit the unnecessary development of Greenfield land, and has in particular set a target for 60% of new housing to be built on previously developed land. Various initiatives aimed at achieving the objective of increasing the recycling of land are outlined in *Planning for Communities of the Future*.

The Urban Task Force, chaired by Lord Rogers of Riverside, in its report - Towards an Urban Renaissance - has made further proposals for action. The Government has responded to these recommendations in its new Urban White Paper. The White Paper focuses on two different challenges:

- To achieve economic and social renewal in declining areas to reclaim land, restore economic and social renewal and;
- To provide for sustainable economic and social renewal in areas which are expanding but which may have land shortages.

- **Regional Development Agencies (RDA's)**

These Agencies were formally launched in eight English regions on 1st April 1999. The ninth, in London, (The London Development Agency) was established on 3rd July 2000. Their aim is to co-ordinate regional economic development and regeneration and:

- To promote business efficiency, investment and competitiveness
- To promote employment
- To enhance development and application of skills relevant to employment
- To contribute to sustainable development.

The LDA published a Draft Economic Strategy for London in December 2000. Following public consultation on the draft, the LDA expects to publish the final version in May 2001. The Agency will be working with key London organisations such as the London Boroughs, businesses, voluntary groups, regeneration partnerships and training institutions to deliver the Mayor's economic development strategy. It is

already managing various funding programmes and carrying out regeneration projects where it owns land.

- **The Development Industry**

The Development Industry has a vital part to play in the process of urban regeneration. Many developers will have land-banked sites which may have contamination problems or share brownfield characteristics. The Government is clearly expecting Developers to work together with Local Authorities to implement the new regime and to help improve environments through proper planning.