

Contaminated Land Inspection Strategy Review 2006



CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006

CONTENT

1. INTRODUCTION

2. IMPLEMENTATION

- 2.1 Consultation
- 2.2 Publication
- 2.3 Characterisation of the Borough
- 2.4 Information collection, storage and dissemination
- 2.5 Prioritisation
- 2.6 Inspection
- 2.7 Remediation
- 2.8 Procedures for the implementation of Part IIA

3. RESOURCES

4. PERFORMANCE MONITORING

5. NON-PART IIA CONTAMINATED LAND ACTIVITIES

- 5.1 Planning
- 5.2 Major development schemes
- 5.3 Understanding the Factors Affecting Health in Halton Report

6. REVISED OBJECTIVES AND TIMESCALES

APPENDICES

I. INTRODUCTION

Under the contaminated land provisions contained in Part IIA of the Environmental Protection Act 1990, each local authority has to “cause its area to be inspected from time to time for the purpose of identifying contaminated land” (Section 78b). If contaminated land is identified that local authority must ensure that it is managed in an appropriate manner. The Secretary of State has issued Statutory Guidance to local authorities on the implementation of Part IIA in England. Part B of this Statutory Guidance requires local authorities to take a strategic approach to inspecting their areas and to describe and publish this in a written strategy.

The inspection strategy sets out how Halton Borough Council proposes to implement its inspection duties under Part IIA. The strategy provides inspection arrangements and procedures, but also a justification for and transparency in Halton’s decisions on how they will inspect their areas for contaminated land. The strategy also sets out to ensure that all those affected by the inspection process have the same clear understanding of the rationale for inspection, how this will be carried out and over what time-scale.

The Inspection Strategy document was published in July 2001. Included in the document is a requirement to review progress within four years of publication. Although the review was commenced within that period, major site developments have delayed its publication. Within that time there has been significant developments in implementation of the strategy, several major new guidance and best practice documents and growing pressures relating to land contamination outside of the Strategy. This supplementary document presents the first formal review of the strategy. It details progress made in all areas of the planned implementation of Part IIA, the results and experiences of implementation and sets out the revised objectives.

The main Inspection Strategy document is still current and it should be read in conjunction with this review. It is intended that the Inspection Strategy will cover a five-year period, this review and associated revised work programme will take the Strategy document to 2010. A new annual review will take place to take progress into account and any major changes in practice or policy.

2. IMPLEMENTATION OF THE INSPECTION STRATEGY

The review of the implementation of the Inspection Strategy will look at the key work areas defined in the original document.

- Consultation
- Publication
- Information collection, storage and dissemination
- Characterisation of the Borough
- Prioritisation
- Inspection
- Remediation
- Procedures for the implementation of Part IIA

2.1 CONSULTATION

The Strategy was developed over the fifteen months allocated by the Statutory Guidance from the April 2000 implementation date of the Contaminated Land Regime. The document was widely distributed amongst statutory and non-statutory consultees. A broad a range of local stakeholders and interested parties as possible was included in this process. The Strategy includes a comprehensive list of those consulted. The consultation document was also made available for comment via the Council's website.

The consultation process received a limited response, however where comments were received the views, where appropriate were reflected in the final document.

2.2 PUBLICATION

The Statutory Guidance required that all Local Authorities in England publish their strategy for the implementation of the Contaminated Land Regime within fifteen months of the issuing of the guidance.

Halton Borough Council successfully published the Contaminated Land: Strategy for Inspection in July 2001. Copies of the document were sent to the relevant government department and the Environment Agency. Copies were also made available at local libraries and through the Council's website.

2.3 CHARACTERISATION OF THE BOROUGH

The Strategy sets out the broad characteristics of the Borough of Halton, in terms of environmental setting, land use, historical background and population. Since publication there have not been any major changes to the overall make up of the Borough, and therefore there is no need for revision.

It is worth making reference to the broad re-development objectives in the borough. The Widnes Waterfront Economic Development Zone, the Ditton Strategic Rail Freight Village and the Mersey Gateway river crossing are all key re-development catalysts in Halton that will bring large areas of derelict or underused land into productive use. Section 5 considers the implications of these developments and other factors on the implementation of the Strategy.

2.4 INFORMATION COLLECTION AND DISSEMINATION

The collation, generation and storage of large amounts of information relating to potentially hundreds of parcels of land is a fundamental element of the Inspection Strategy. It is therefore vital that all the information is handled in a

manner that enables it to be used, interrogated and disseminated in an ordered and rational way.

2.4.1 INFORMATION COLLECTION

The Strategy describes that process of collecting information on potential sources, pathways and receptor to facilitate the identification of areas that may be Contaminated Land and to determine which areas are the priorities for detailed inspection.

Since the publication of the Strategy the Environmental Health Division has reviewed and collated available information held by internal departments relating to the identification and assessment of Contaminated Land. External datasets have also been acquired from individuals, companies and other organisations. The tables in appendix 2 list the full range of datasets now available for use and stored within the Environmental Health Division's Contaminated Land Information Management System.

A significant dataset is now available and contains all the main anticipated data types from all the key sources. This work was completed in the first quarter of 2003, two months behind the original milestone date. This was due to under estimating the time required to identify potentially contaminated land from historical plans, the fact that this stage of the work was integrated with other work elements (prioritisation) and pressures on resources outside of the core Strategy implementation work.

To ensure the Contaminated Land Team maintains the integrity and relevance of the database an annual review of the data sets will be undertaken. It is also likely that from time to time new datasets or sources will become available or accessible. When this occurs the Contaminated Land Team will ensure that the new data is collected and added to the system.

2.4.2 INFORMATION STORAGE

The Inspection Strategy requires that an appropriate system for the storage and accessing of the all the information generated through the implementation of the Contaminated Land Regime in Halton be developed and maintained.

The core of this system has been developed in line with the Corporate Geographical Information System (GIS). As described in the Strategy document the use of a GIS is a highly effective method for the types of data used in contaminated land assessment.

Since the publication of the Strategy the storage of information has been developed in two parallel streams. Firstly, multiple data layers have been created within the GIS and stored on a central server location. This allows for the rapid display and interpretation of all data referencing sources, pathways and receptors in the Borough. The central server storage adds functionality through allowing access by multiple users from varied location within the Council structure, and security in reducing the likelihood of catastrophic losses of data.

Secondly, a database, the Contaminated Land Information Management System (CLIMS), has been developed. The core of the database was developed in partnership with the Greater Merseyside Local Authorities using best practice and key guidance documents on the management of Part IIA and Contaminated Land. Subsequently the Halton Borough Council Contaminated Land Team within the Environmental Health Division has refined the database to reflect the exact system requirements for Halton.

The CLIMS database is designed to record all actions, decisions and documents associated with individual sites as they progress through the Part IIA process. It will provide clear chains of evidence and decision processes, which are vital to the effective management of Contaminated Land and in particular, the Regulatory requirements of implementing Part IIA.

Further development of the CLIMS database will occur over the next twelve months to take the recently published guidance into account and to reflect the practical, day-to-day experiences of the implementation of Part IIA.

2.4.4 INFORMATION DISSEMINATION

The Contaminated Land Team within Environmental Health undertakes the core of all Part IIA work. However, there is a clear need to ensure that there is effective route to communicating the results of Part IIA assessments and the broader information on land contamination both internally and externally.

Internally the Contaminated Land Team has set up links with all departments that have an input to the management of Contaminated Land. This enables a simple two way process for the sharing of information and advice. The Planning, Highways and Landscape Services Departments have been the most involved and strong links at management and individual officer level have been forged.

The Council has developed a Contaminated Land Communication Strategy (presented in Appendix 1) to enable a clear and consistent approach to be taken when dealing with external parties. Key to this Communication Strategy is the early involvement of all stakeholders in the process, particularly at critical decision stages.

The creation of the CLIMS database and GIS layers has enabled the development of a fast and effective external contaminated land information service. External requests received by the Contaminated Land Team are responded to by producing an individual report including information on land use, known site investigation details and an overall assessment of the potential risks associated with the queried site or property. This ties into the recently enacted Freedom of Information Act and the Access to Environmental Information Regulations. The application developed by the

section is also being used as a model for other Local Authorities across the region.

The Council also maintains a Public Register of regulatory actions under Part IIA as required by the legislation.

There is a need to further develop the information sharing protocols and to raise the degree of public involvement and ownership of the Contaminated Land Inspection Strategy. The first stages have been to raise awareness through public forums (the Council's system of Area Panels). However, further awareness of the Strategy and the associated work must be developed and improved over the next five years. A key task for the next twelve months is to improve the relevant sections of the Council website. This will include full details of the Strategy, guidance documents, how to obtain further information and online forms for requesting information and making comments. It is still extremely important to be considered at all stages of the implementation of the Strategy the potential effects of uncontrolled and poorly interpreted information. The Council must ensure that unnecessary blighting of land and prejudicing of development does not occur.

2.5 PRIORITISATION

The Strategy describes in broad terms the methodology for the prioritisation of the potentially contaminated sites identified in the information collection stage. Since its publication Halton Borough Council has worked in partnership with the Greater Merseyside Local Authorities, through the Contaminated Land Officers Group, to develop a suitable system.

The system has several stages that needed to be completed systematically for the whole borough. It was decided not to sub-divide the borough into different priority zones, because the overall area of the Borough is not that great and, although there are parts of the borough where it is more likely that contamination is present, there is the potential for significant problems in any

ward. The methodology developed is a screening level risk assessment that prescribes to the source-pathway-receptor concept in determining the whether land is contaminated.

The first stage was the identification of potentially contaminative land uses from the historical ordnance survey plans. A GIS tool was developed to allow this to be completed in a set manner and as consistently as possible. The process generated a site within each period, or epoch, of mapping and an associated land use hazard score. In total, across all nine epochs, in excess of 20000 features have been identified. The full list of land uses and their hazard scores is contained in Appendix 2.

The second phase of the prioritisation methodology involved comparing the potentially contaminative land uses to information on pathways and receptors. Using the hazard score and the proximity to sensitive receptors each polygon was assigned to either Group A, B or C, depending on the level of risk. The Group A sites are the highest risk category, Group B medium and Group C the lower risks sites. The prioritisation methodology is reproduced in Appendix 3.

These data contain some duplication of individual sites, as the information was captured from the different map series, so in order to convert it into a single data layer the information was combined to produce a 'risk contour' map for the Borough. The plan showing the Group A areas is presented in Appendix 4.

These risk zones were then compared to present day boundaries and individual sites created. Given the size of the data set the Group A sites were characterised first. This process has, to date, identified a risk ranked list of approximately 200 sites. This list forms the highest priority sites to be taken forward to detailed inspection.

The original scheduled completion date for prioritisation of all identified potentially contaminated sites was July 2003. To date this task has not been completed. This is part due to the task being considerably more complex than originally predicted and additionally the nature of the Borough and the method used has made it difficult to define individual sites from the risk-contoured plan of the Borough. Also the number of reactive cases, from a Part IIA perspective and development control, redirected resources away from the process.

To date the highest scoring sites from Group A and Group B have been identified. Within each risk group each site is assigned a score between 1 and 15, 15 being the highest risk (sites with scores between 4 and 15 have been formally identified). Appendix 5 contains a plan of the priority sites in Runcorn and Widnes. Group A and B site identification will be completed by July 2006.

A new target of July 2007 has been set for the completion of the identification of the Group C sites.

2.6 INSPECTION

2.6.1 DETAILED INSPECTION OF SITES

The methodology and procedures for undertaking the detailed inspection of potentially contaminated land that Halton Borough Council will follow are set out in the Local Authority Guide to the Application of Part IIA and the Model Procedures for the Management of Contaminated Land. These documents have been published since the Inspection Strategy was originally produced. The section on procedures gives further details.

The detailed inspection under Part IIA has been completed for one area, Oakfield Drive and Lakeside Close, Widnes. This inspection was initiated in response to information gained from re-development on neighbouring land, rather than from the prioritisation method as described in the preceding section. However, the appropriate actions were taken within the Part IIA regulatory framework. The investigations resulted in 13 separate determinations of Contaminated Land, and ultimately formal remediation.

A further four inspections are currently ongoing as a result of long-term problem sites. Whilst these sites were not formally derived from the Inspection Strategy prioritisation, as Council involvement pre-dates the writing of the Strategy, they all feature highly on the priority list.

Three sites have also been selected from the priority list for detailed inspection as a result of the recommendations contained within the 'Understanding the factors effecting health in Halton' research document commissioned by Halton Borough Council in 2004.

Sites pre-dating the Inspection Strategy	St Michael's Golf Course
	Johnsons Lane Landfill
	Weston Quarries
	Hedco Landfill
New sites scheduled for detailed inspection	Runcorn Hill Quarry
	Stenhills Quarry
	Waterloo Road area

The original schedule for initiating detailed inspections of key sites was set at commencing in July 2003. Detailed inspection resulting from the prioritisation of the borough was commenced in January 2005. However, four inspections had been initiated prior to July 2003 through reactive work or ongoing commitments to sites.

Practical experience of the inspection process to date has shown that twelve to eighteen months is reasonable to reach a point where a determination of land as Contaminated Land can be made. This period reflects the very complex and thorough nature of the Part IIA process. Therefore in setting out milestones for the detailed inspection of the high priority sites it is difficult to predict the likely timescales required to complete each inspection. With current resources it is practicable to manage eight to ten sites at any given time.

At this stage the key milestone for the next five years is to have initiated and completed the detailed inspection of 25% of the highest priority sites. Projecting that requirement over the next five years gives a target of achieving the inspection of ten sites per year.

A critical point is that the priority list includes several sites that are likely to be assessed outside of Part IIA. For example the requirements placed on sites though the planning regime will ensure appropriate assessment is undertaken allowing them to be included in the total list of inspected sites.

2.6.2 INSPECTION OF SPECIAL SITES

Many of the potentially contaminated land sites in Halton have pollutant linkages that require investigation that may make them Special Sites (as defined by the legislation). This is largely due to potential effects on watercourses and the major aquifer in the Sherwood Sandstone Group lithologies under much of the borough. Special Sites are ultimately regulated

by the Environment Agency and they may in fact undertake the inspection process on behalf of the Council. Therefore, it is possible that the inspection of a high proportion of higher risk sites will be closely linked to the workload and resources available to the local Environment Agency office.

Halton is working with the Environment Agency in order to highlight as early as possible those sites where their involvement is required, however there may be situations where Halton's resources and work programme do not match up with those available from the Environment Agency. This should be noted as a potential issue in progressing inspections at the projected rate.

2.7 REMEDIATION

The overarching concepts for the regulation and the standard of remediation of Contaminated Land through the process of Part IIA have not changed since the first issue of the Strategy. Additional guidance and best practice on determining the most appropriate and cost effective form of remediation has been produced by the Environment Agency and the Department for Environment, Food and Rural Affairs, and changes in technology and legislation have made an impact on the remedial options available. However, there is no requirement for significant changes in the processes set in the Strategy document, as each site will have its own specific requirements for remediation.

Since the publication of the Strategy, Halton Borough Council has implemented the remediation of thirteen determined properties (Oakfield Drive and Lakeside Close). After a written agreement was completed, remediation was undertaken by the Council on behalf of the appropriate persons, in this case the owners of the properties. Remediation Statements for each of the remediated properties have been issued and copies placed on the Public Register.

The remediation strategy for the Oakfield / Lakeside properties was initiated in November 2003 and completed by June 2004.

Within the original Strategy document milestone it was anticipated that remediation of determined sites would commence in late 2003. In revising the objectives and timescales for the next five years it is impracticable to set dates for achieving remediation of sites as it is unknown how many will actually require remediation and if necessary the time for implementation will vary greatly from site to site.

2.8 PROCEDURES FOR THE IMPLEMENTATION OF PART IIA

The Council utilises the extensive national guidance contained within the Statutory Guidance and the Local Authority Guide to the Application of Part IIA (produced by DEFRA, the Environment Agency, the Local Government Association and the Chartered Institute of Environmental Health) in undertaking the specific stages and activities in implementing the Contaminated Land Regime. At this stage Halton Borough Council has not developed unique internal procedural guidance.

Halton Borough Council is currently working in partnership with a number of other local authorities in the region to develop a series of best practice notes and standard documents to compliment the national guidance. The development of these documents forms a rolling programme over the next one to two years. The first piece of work will cover the early stages of the Part IIA framework, site identification, investigation and determination.

3. RESOURCES

The Environmental Protection Group currently has three officers actively involved in Contaminated Land work.

- Contaminated Land Officer – main point of contact for land contamination and the implementation of Part IIA
- Technical Officer (Contaminated Land) – Part IIA project work and liaison with development control.
- Technical Support Officer (Contaminated Land) – management and development of the information systems used in the section

The present level of staffing resource is reflected in the planned objectives for the next five years.

It is impossible to assess at this stage in the strategy the detailed budgetary requirements needed to implement the contaminated land regime. Increased spending will be incurred in terms of officer time, inspection, investigations and where necessary remediation.

DEFRA maintains a fund for the investigation and remediation of Contaminated Land, the Contaminated Land Capital Projects Programme. Where appropriate bids under this programme will be made to implement the Strategy objectives. To date the Council has applied and successfully received funding for two sites, totalling £280,000.

Over the course of the current financial year it is expected that funding in excess of £750,000 will be sought for both investigations and remedial work.

The cost of preliminary non-intrusive investigations are not grant funded from central government and will need to be funded from revenue. Some will be undertaken in house using current resources but it is likely that a majority will need the assistance of external consultants costing up to £10,000 per site.

A budget review will be undertaken in the 2006/2007 fiscal year, identifying the financial resource requirements for the timetabled inspection of higher risk sites. With the current projected work load (see section 6) the cost of implementation of the Strategy could cost in the order of £30,000.

Annual review in November will allow for budgetary estimates to be made prior to the new financial year and allow for better estimate to be made for the upcoming work each year.

4 PERFORMANCE MONITORING

Section 6 sets out the detailed targets for the progression of the Inspection Strategy, based on the key activities of prioritisation, detailed inspection of individual sites and the remediation of those identified as Contaminated Land.

In addition to Halton's specific Strategy targets, the Government has added two new Best Value Performance Indicators for Contaminated Land from the year 2005-06 onwards. All Local Authorities must record and report on the total number of Site of Concern, i.e. sites where it is suspected that there may be a land contamination issue, known to the Council at the beginning of the year and keep track of all the sites where enough information is gathered to allow a decision on whether remediation is required or not. The information on sites of concern can come from any source; therefore this will include sites assessed under the Part IIA regime and those dealt with through the Planning Process.

The indicators reported upon at the year-end are BV216a, the total number of sites of concern, and BV216b, the number of sites with sufficient information expressed as a percentage of the total.

As 2005-06 is the first year of reporting the new performance indicators there is not a clear baseline of data available to set the specific local targets. The

targets need to be realistically achievable, whilst showing genuine progression. Therefore based on the data currently held by the Environmental Health Section and rate of review and assessment of potentially contaminated sites, the table below presents the 1005-06 return and the targets for the next two years..

	2005-06	2006-07	2007-08
BV216a	283	250	500
BV216b	9%	8%	5%

For the 2007-08 it is expected that the total number of 'Sites of Potential Concern' will rise significantly as the prioritisation work is completed over the next twelve months.

The rate of assessment of sites is predicted to be in the order of 25 sites per annum. This is based on the experience to date of the very thorough, complex and slow process of assessing sites through Part IIA and the rate of sites passing through the planning system that have potential land contamination issues.

The targets will be reviewed on an annual basis, the second year of reporting will be particularly important as at this point there will be both a baseline of sites and practical experience of the reporting process allowing a better assessment of the targets set.

5. NON-PART IIA CONTAMINATED LAND ACTIVITIES

5.1 PLANNING AND DEVELOPMENT

New development and the associated Planning Processes are a major contributing factor in the management and remediation of land contamination. It is nationally anticipated that a significant proportion of all contamination issues will be dealt with in this way.

As a result of the information and expertise held within the Contaminated Land Team, officers are closely involved in the Planning process at each key stage. Officers have been involved in the production of the emerging Unitary Development Plan, a standard condition for planning approvals has been developed and the Contaminated Land Team provides daily support to Planning Officers, Building Control Consultants and to applicants and their agents.

The Contaminated Land Team commits significant amount of its resource to the Planning Process in reviewing and approving investigations and remediation schemes, providing in depth consultation with Planning Applicants and their agents, as well as site visits and monitoring of progress and adherence to agreed working plans.

Although this process has led to the effective remediation of many sites without the need for the use of Part IIA, it has placed a considerable workload on the Contaminated Land Team, diverting resources away from the specific objectives of the Contaminated Land Inspection Strategy. However, in order to maintain the steady progress being made on site investigation and remediation through development the Contaminated Land Team will continue to deliver this high standard of support to the process.

5.2 MAJOR DEVELOPMENT SCHEMES

Linked to the re-development and the planning process described in the preceding section are the major re-development schemes emerging in the Borough. These include the Widnes Waterfront Economic Development Zone, the Ditton Strategic Rail Freight Park and the Mersey Gateway bridge proposals. These are all major schemes that have significant land contamination issues. The Contaminated Land Team has contributed to each scheme, often in close liaison with the Regeneration Department. It is anticipated that a continuing commitment to these will be required over the next five years.

5.3 UNDERSTANDING THE FACTORS AFFECTING HEALTH IN HALTON REPORT

In August 2003 Lancaster University published its report on the research commissioned by the Halton Health Partnership to understand the factors causing the poor quality health statistics in the Borough.

The report covered a wide range of issues, and land contamination was considered. Although the report did not identify any direct health consequences of land contamination (this was outside the scope of the research), it did make a key recommendation.

The report specifically set out a requirement to accelerate the programme of inspection and assessment of the borough as set out in the Inspection Strategy. It also recommended that detailed assessments of the identified high-risk areas must be started within two years of the publication date of the report.

In order to assist in this process some funding has been made available for the two-year period following the report publication. However this funding is limited and the requirement to fulfil the recommendation means there are additional pressures on the Contaminated Land Team.

6 REVISED AIMS, OBJECTIVES AND TIMESCALES

From the review and assessment of the original document taking into account the achievements to date, the practical experiences of implementing the Contaminated Land Regime, the current resource levels and the predicted non-Part IIA workload, the following section sets out the revised aims and the projected work programme for the next five years.

AIM	TIMEFRAME
Complete the identification of the Group A sites from the risk contour maps	July 2006
Complete the identification of the Group B sites from the risk contour maps	July 2006
Complete the identification of the Group C sites from the risk contour maps	July 2007
Complete the Detailed Inspection of 25% of the Group A sites	March 2010
Complete and refine the CLIMS database	July 2006
Develop standard procedures based on CLR II and the Local Authority Guide	March 2007
Develop Standard Documents the key stages of Part IIA	March 2007
Develop improved public consultation and communication process and tools, including advice leaflets and website.	July 2006
Seek the timely remediation of site formally determined as Contaminated Land	Rolling target dependant site specifics (see individual annual objectives)

6.1 2006-07 WORK PROGRAMME

The following work objectives are the key outcomes for the 2006-07 year for Part IIA activities. Note that this does not include the expected workload from development and other major schemes within the borough.

OBJECTIVE	DETAIL
1	Issue determination as Contaminated Land for St Michael's Golf Course
2	Issue determination as Contaminated Land for Weston Quarries
3	Complete second phase of detailed inspection for Waterloo Road area
4	Complete second phase of detailed inspection for Stenhills Quarry
5	Complete second phase of detailed inspection for Runcorn Hill Quarry
6	Complete second phase of detailed inspection for Hedco Landfill
7	Complete first phase of detailed inspection for Johnson's Lane Landfill
8	Complete first phase of review for 2 Group A sites

APPENDIX I
CONTAMINATED LAND COMMUNICATIONS STRATEGY

COMMUNICATIONS STRATEGY CONTAMINATED LAND

1.0 STAKEHOLDERS

1.1 Who must we talk to in the first instance?

- Local residents immediately affected
- Relevant HBC staff
- Health
- Ward councillors, Executive Board member and Leader

1.2 Who else may we need to communicate with?

- Media
- The wider community
- Partners / developers
- Pressure groups
- Previous residents

2.0 KEY THEMES FOR MESSAGES

2.1 What are the main headings for messages that need to be considered?

- The legislation
- Halton Borough Council's role
- How it affects the residents
- Health implications and advice
- Liability
- Financial implications
- Next steps
- How will be communicate
- Contact information

3.0 HOW WILL WE COMMUNICATE AND WHEN?

The key to successful communications is that messages must be **clear, consistent, timely** and **regular**.

It is therefore vital that prior to **any** form of communication taking place, there is clarity over what information is being provided.

3.1 With residents?

Methods

Personal visits

Letters

Information leaflet

Telephone calls

Once a concern has been identified by the Borough Council, and where it is feasible, **personal visits** should be undertaken to individual residents to explain the situation.

*Bullet points should be prepared in advance so that the messages remain consistent. These bullet points should form part of a **letter** that can either be left with the resident or mailed shortly afterwards.*

Areas to include;

- A summary of the legislation
- Halton Borough Council involvement
- Next steps, incl. requests for testing
- Health implications and advice (in general terms at this stage)
- Contact details

It is important to consider timing here. Try to avoid visits or letters arriving on Fridays as it leaves residents with a weekend where they cannot contact anyone for further information, advice or reassurance.

Once more information about what substances are involved, test results and potential remediation is known, an **information leaflet** should be drafted and given to residents for reference.

It is preferable not to give test results in isolation. A generic leaflet can be established and specific information then added as required. This should be given to residents with **written confirmation** of their results.

The information leaflet would include:

- Work to date
- What the results mean
- Health & safety advice
- Remediation possibilities
- Liability
- Financial implications
- Contact information

It is vital that residents do not feel abandoned so an **update letter** at regular intervals (to be determined) should be issued regardless of whether there is any fresh information. A simple reiteration of contact details would remind residents that we are still aware of and working on the situation.

Issues surrounding **liability and finance** are best dealt with **in writing** to avoid any confusion or doubt with letters approved by the Legal department. However, the principles of liability will have already been covered in the information leaflet.

A **letter** explaining the remediation process should also be drafted detailing what will happen, when, who is carrying it out, how long it will take, what will be replaced and contact details.

Once remediation has taken place, a final **personal visit** should be arranged to ensure residents are comfortable with what has happened. This should be accompanied by a **letter** of thanks for their patience and again reiterating contact details should they have any concerns or questions in the future.

3.2 With Halton Borough Council Staff

Methods

E-mail
Telephone
Briefings

Contact should be made as soon as possible with the Press & PR and Risk & Emergency Planning departments.

However, it may also be necessary, depending on the site of the contamination, to contact other departments whose staff may come into contact with the contaminate through their work.

3.3 With Health

Methods

Through established links.

Any statements we wish to include in our communication material that relate to the nature of the substances and potential health implications and advice should be approved by a health rep.

3.4 With Elected Members

Methods

Letter
Telephone
E-mail

Ward councillors, the appropriate Executive Board member and the Leader (for information only purposes) should be advised of the initial situation. As not all are regular users of the e-mail, a letter is preferable.

3.5 With the Media

Although a proactive approach would be preferable in terms of explaining why the Council is taking a particular line of action, this is complicated by issues of resident confidentiality.

This ultimately means that in such situations, we will have to be reactive. Generic statements can be prepared in advance, however.

3.6 With the Wider Community

Methods

Letters
Personal Visits
Civic Magazine

This stakeholder group can be split into two parts – the wider community in terms of extensions to testing regimes and in terms of the community of Halton as a whole.

In the first instance, a **letter** should be prepared and delivered by hand if feasible to residents whose properties may need to be included in the testing regime.

Any further communication should follow the procedures outlined earlier.

In terms of advising the community as a whole about the legislation and our involvement in it, it would be worth considering an in-depth feature in the Council's **civic magazine** at an appropriate time (perhaps in the September edition).

3.7 With Previous Residents

Methods

Letter

It may be necessary in some cases to contact ex-residents of properties to advise them of any potential health implications. A letter should be drafted where appropriate and in conjunction with a health representative.

3.8 With Remaining Stakeholders

Communication may need to be carried out with other stakeholders and should be co-ordinated as and when necessary.

4.0 GENERIC COMMUNICATION MATERIAL TO DEVELOP

4.1 The Press & PR Unit will help to develop these forms of communication based on information provided by Environmental Health Officers.

- Initial letter to residents
- Information leaflet
- Written confirmation of results and implications
- Update letter
- Liability & financial implications letter
- Remediation process letter
- Closure letter (at end of process)
- Media statements
- Letter to previous residents

APPENDIX 2

DATASETS HELD WITHIN THE CONTAMINATED LAND INFORMATION SYSTEM

A. Receptors

I Groundwater

"Ground Water Source Protection Zones"
"Abstraction"
"Grnd Water Abstractions"
"Aquifer Designations"

II Controlled Surface Water

"Landline Surface Water"

III Development

"Schools"
"Allotments"
"Play Areas"
"Open Spaces"
"Residential Developments"
"Industrial Development"
"SSSI"
"Locally designated sites"
"Forestry"
"Agricultural"
"Buildings (listed)"
"Ancient woodland"
"Recreation Areas"

B Sources

"Epoch 1 Landuse History"
"Epoch 1 (6 Inch Scale Map) Landuse History"
"Epoch 2 Landuse History"
"Epoch 3 Landuse History"
"Epoch 4 Landuse History"
"Epoch 5 Landuse History"
"Epoch 6 Landuse History"
"Epoch 7 Landuse History"
"Epoch 8 Landuse History"
"Epoch 1 Landuse History"
"PartA processes"
"PartB processes"
"Landfill Sites"

Environmental Search System

A. Historic Datasets

"Epoch 1 Landuse History"
"Epoch 1 (6 Inch Scale Map) Landuse History"
"Epoch 2 Landuse History"
"Epoch 3 Landuse History"
"Epoch 4 Landuse History"
"Epoch 5 Landuse History"
"Epoch 6 Landuse History"
"Epoch 7 Landuse History"
"Epoch 8 Landuse History"
"Historic Landfill Sites"

B. Current Processes Datasets

"Derelict Land Survey (1993) Listed Sites"
"Brownfield Sites"
"Part A Processes"
"Part B Processes"
"Registered Radioactive Sources"
"HSE Registered Hazardous Sites"
"EVC Operational Pipelines"
"ICI Operational Pipelines"
"Shell Operational Pipelines"
"Transco Operational Pipelines"
"Other Operational Pipelines"
"Private Water Abstractions"
"Licensed Water Abstractions"

C. Environmental Datasets

"Site Investigations Carried Out"
"Fluvial Flood Risk Zones"
"Tidal Flood Risk Zones"
"Drift Geology"
"Solid Geology"
"RAMSAR Sites"
"Nature Conservation Sites"

APPENDIX 3

RISK PRIORITISATION MODEL

MERSEYSIDE CONTAMINATED LAND INFORMATION MANAGEMENT SYSTEM: ANALYSIS MODULE

RISK PRIORITISATION MODEL: SPECIFICATION

The aim of the model is to identify areas of land which could pose a threat to human health or environmental receptors-either from current or historical use-and then to prioritise these areas in order to plan further investigations and assessments in a systematic way. The approach is a probabilistic one rather than proving.

The model will utilise the pollutant linkage concept (source-pathway-receptor) generating potential pollutant linkages by investigating the spatial correlation between potential contamination sources and receptors. The correlation maybe:

- coincidence (occupying the same space); or
- influential (assumed or known zone of influence)

Information Requirements

Source Datasets

These shall include all datasets in the Local Surveys set outlined in the MIS project brief.

Receptor Datasets

These shall include all sets (except Groundwater Vulnerability) in the Hydrogeology and Land-Use datasets, as outlined in the brief. Ground water vulnerability maps are available in digital form, although the 1:100,000 scale effectively renders them unsuitable for use within this module. Mapping of source protection zones is only available off the Environment Agency's web site. If vector data for groundwater vulnerability and source protections zones become a feasible option they could be included in the system at a later date.

Pathway Datasets

There are likely to be difficult problems in mapping pathways on a GIS. Drift and solid geological maps at the 1: 10000 scale lack sufficient detail at site specific level to warrant their purchase and use within the module. Thus, for the time being, geological datasets shall not be included in this model.

Classification of Datasets

A first stage in the analysis will be to classify both source and receptor datasets. Potentially contaminative land-uses will be classified into three risk categories, which shall be re-named as Priority Classes, based upon an index of perceived risk (Syms, 1999) These classes (High, Medium & Low) shall represent the potential for contaminative substances to be present at concentrations which are likely to require remedial action if the site is to be redeveloped and have been established using formalised professional

CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006

judgement based on the industries concerned and indicate the likelihood of contaminative substances being present at concentrations which may result in 'significant harm' being caused, or may result in pollution of controlled waters.

Industries have been categorised with regard to the guidance in the Syms document. Those industries not listed in the latter text but included within the keycode list have been assigned a category based upon comparison with industries of similar polluting potential. Table 1 below shows an amended form of the EAS keycodes incorporating the risk classification (amendments are in bold italics).

Code	Keywords	Description	Priority Class
AB	ABATTOIR	Animal slaughtering and basic processing	HIGH
AF	ANFOD	Manufacture of pet foods or animal foodstuffs	HIGH
AN	ANIMAL	Animal by-products (i.e. animal parts) e.g. soap, candles & bone works	HIGH
AS	ASBESTOS	Asbestos Manufacture and use.	HIGH
BU	BURAN	Burial of diseased livestock	HIGH
CH	CHEM	Manufacture of cosmetics, manure, fertilizers & pesticides, detergents, oil, organic-based pharmaceuticals, other incl. glues, gelatines, recording tapes, photographic film	HIGH
DT	DRUM	Drum and tank cleaning	HIGH
FY	FOUNDRY	Furnaces & Metal processing/casting/forges/smelting-Ferro and Aluminum Alloys-Manganese Works, Slag Works	HIGH
GA	GAS	Gasworks, coke works, coal carbonisation and similar sites. Production of gas from coal, lignite, oil or other carbonaceous material other than waste	HIGH
	OR	Oil Refining Petrochemical production and storage.	HIGH
	OIL		
HM	HM WORKS	Heavy product manufacture-rolling & drawing of iron, steel & ferroalloys-includes major Tube Works	HIGH
MD	MOD	All Military Establishments incl. Firing Ranges (if not specified as Civilian)	HIGH
MG	MAG	Civilian manufacture & storage of weapons, ammunition, explosives & rockets, incl. ordnance	HIGH
OL(<i>this is an EAS modification</i>)	OIL	Major oil & petrol storage (not including refining or production) and all gasometers which are not in gasworks	HIGH
PA	PAINT	Paints, varnishes, printing inks, mastics, sealants & creosote	HIGH
PL	PLATING	Electro-plating, Galvanising & Anodising	HIGH
RA	RADIO	Storage, processing or disposal of radioactive material	HIGH
SP	SCRAP	Recycling of metal waste incl. scrapyards and car breakers	HIGH
TY	TANNERY	Tannery, leather goods and skinnery	HIGH
XI	LAND INCIN	Incinerators-waste management operations	HIGH
TA	TAR	Tar, bitumen, linoleum, vinyl and asphalt works.	HIGH
TR	TIMBER	Timber treatment.	HIGH
XL	LANDFILL	Landfill waste-the deposit of waste in, on or above land	HIGH
BK	BRICK	Manufacture of clay bricks & tiles, including assoc. activities e.g. brickfields, also solitary kilns (other than limekilns)	MEDIUM
BT	BATT	Batteries, accumulators, primary cells, electric motors, generators & transformers	MEDIUM
CC	C&C	Coal storage/depot	MEDIUM
CE	CEMENT	Concrete, cement, lime & plaster products, also includes solitary lime kilns	MEDIUM
CR	CERAMICS	Tableware & other ceramics	MEDIUM

CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006

CY	COLLIERY	Coal mining. Areas include assoc. surface activities in area but not including spoil heaps or coal mine shafts (<i>this is an EAS modification</i>)	MEDIUM
DE	DEGREASING	Premises housing surface cleaning and degreasing operations	MEDIUM
DK	DOCKS	Boat-building, wharf and quays, cargo/transport handling facilities - marine or inland	MEDIUM
DP	DEPOT	Transport Depot, Road Haulage, Corporation Yards, Commercial vehicle fuelling.	MEDIUM
DY	DYE	Dye & pigments	MEDIUM
FU	FUEL	Sale of automotive fuel	MEDIUM
GG	GARAGE	Repair & sale of (i) cars & bikes (ii) parts (iii) motorway services	MEDIUM
GL	GLASS	Flat glass and glass products manufacture	MEDIUM
HS	HOUSE	Manufacturing of electrical and electronic appliances	MEDIUM
HT	HEAVY TRANS	Manufacturing & repair incl. (i) ships (ii) aerospace (iii) rail engines and rolling stock	MEDIUM
LT	L TRANS	Manufacture of cars, lorries, buses, motorcycles & bicycles	MEDIUM
LY	LAUNDRY	Laundries & dry cleaning (larger scale not usually "high street")	MEDIUM
MA	MACH	Manufacturing of engines, building & general industrial machinery, incl. nuts & bolts, gas fittings, wire rope/cable and ordnance accessories	MEDIUM
MN	MINE	Areas of mining and single or a group of shafts other than coal, or not specified-incl. levels, adits, etc. Also areas assoc. with Mineral Railways	MEDIUM
MP	METAL PROD	Constructional steelwork, metal structures & products & building materials	MEDIUM
NW	NEWS	Printing of newspapers	MEDIUM
OF(<i>this is an EAS modification</i>)	OUTFALL	Outfalls incl. Warm water, industrial effluent, etc. unless directly attached to other feature e.g. end of sewer pipe	MEDIUM
PN	PRINTERS	Printing other than News Print	MEDIUM
PR	PAPER	Pulp, paper & cardboard manufacture	MEDIUM
PS	PLASTICS	All plastic goods, incl. building, packaging, tubing, moulding and extrusion, fibre glass and fibre glass resin and products, excluding the manufacture of Tar, Bitumen & Asphalt	MEDIUM
PW	POWER	Electricity generation and distribution, incl. large Transfer Stations	MEDIUM
QU	QUARRY	Quarrying of all stone (incl. limestone, gypsum, chalk & slate) and ores, includes all opencast mining & slant workings also slate/slab works, flint works, stone yards	MEDIUM
RB	RUBBER	Natural and Synthetic Rubber Products incl. tyres and rubber products	MEDIUM
RL	RLAND	Rail sidings, Yards, Rail Wharf, Goods Depot, Station etc.	MEDIUM
RW	RAILWAY	Railway Tracks-up to 4 tracks wide or 30m.	MEDIUM
SL	SLUDG	Storage treatment or disposal of sludge including sludge from water treatment works	MEDIUM
SW	SEWERAGE	Sewerage, septic-tanks, effluent-incl. all filter beds	MEDIUM
TX	TEXTILES	Natural and man-made textile manufacture and products including Hemp rope and linoleum	MEDIUM
XO	OTH LNDFIL	Other waste facilities (e.g. clean and dirty manufacture)	MEDIUM
XT	LAND TRAN ST	Waste transfer stations	MEDIUM
WR	WIRES	Insulated wire & cable for electrical/telephone purposes	MEDIUM
AP	AIRPORT	Air & space transport	LOW
AR	AIR	Air Shafts	LOW
BW	BREW	Brewing and malting	LOW
CS	CO MN SHAFT	Coal mine shafts	LOW

CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006

DG	D GROUND	Disturbed ground >200m in one dimension	LOW
DL	DISTILL	Spirit distilling & compounding	LOW
DM	DEMOL	Demolition of building, plant or equipment used for any of the activities in the schedule	LOW
ES	ELSUB	Electricity sub-station	LOW
FD	FOOD	Major food processing includes large Dairies. Exceptionally large scale Corn/Flour milling	LOW
FL	FLOOD	Areas 'Liable to Flood'-shown as point features central to flooding area	LOW
GV	GRAVE	Cemetery, modern burial grounds and grave yards	LOW
HE	HEAVY ELEC	Manufacturing of distribution, telecomms, medical, navigation, metering & lighting	LOW
HL	HOSPITAL	All Hospitals including sanatoriums but not lunatic asylums	LOW
HP	HEAP	Must be assoc. with relevant industry-incl. spoil & slag-use symbology and assoc. features to identify heap boundary (except for colliery spoil heap- <i>this is an EAS modification</i>)	LOW
LB	LAB	Various-technical & environmental testing & analysis	LOW
LE	LIGHT ELEC	Computers, office machinery, business/industrial electrical goods	LOW
ML	MINERALS	Abrasives, and products (not including Asbestos)	LOW
MR	MRAIL	Mineral Railways also known as 'Tramways' or inclines-not incl. urban passenger 'Tramways'	LOW
PD	P PROD	Paper, card, etc. products (e.g.packaging)	LOW
PP	P	Above ground pipelines other than sewerage	LOW
WA	D DITCH	Drainage ditches are often identified by straight parallel lines creating a boundary line of a field or fields	LOW
WC	CANAL	Canals are often identified by OS text (e.g. Leeds & Liverpool Canal)	LOW
WD	WOOD	Sawmills and manufacture of wood products (excluding treatment).	LOW
WO	OTH WAT	All other water features on the site incl. marshes, wells, springs and sluices	LOW
WP	POND	Surface ponds often located within a field surrounded by trees	LOW
WS	STREAM	Surface streams are often identified by irregular parallel lines and an arrow to show directional flow of the stream	LOW
WV	RIVER	Rivers are often identified by OS text (e.g. River Mersey)	LOW
WK	WORKS	Factory & Works-use not specified	LOW
PT	PIT	Extraction of alluvial sediments (sand, clay, peat, marl and gravel) (not used as conflicts with QU QUARRY- <i>this is an EAS modification</i>)	*
RF	REFUSE	Refuse and waste disposal incl. Incinerators & sanitary depot (not uses as not sufficient detail- <i>this is an EAS modification</i>)	*

Table 1: Priority Classification of Land Uses

Method

The qualitative risk-based functionality of this module broadly follows the Part I prioritisation scheme outlined in the CLR 6 report, (DoE, 1995), (currently under review) and will, at least initially, focus on sensitive exposure scenarios e.g.

- producing a list of all contaminative uses within a user defined area
- whether a potentially contaminated site is within a specified radius of

- certain critical land-use areas e.g. schools
- all contaminative uses within a specified distance of certain pathways (to be considered for the future)

Proposed algorithms for an inspection prioritisation procedure for development, surface waters and ground waters are shown in at the end of this document.

To enable users of the procedure to monitor progress through their individual districts, MapInfo can run the algorithms for distinct areas or quadrants in a logical manner. For example, such areas could be based upon ward boundaries, police sectors or user-defined grid squares. For each designated area the system will place sites in one of three groups. Sites placed in Group A are subjected to further assessment first, followed by sites in Group B and then those in Group C. The further Part II assessment will place the sites into further priority categories using more detailed information about each site. Part II should follow established guidance, including CLR6, and could include a more detailed desktop study, further site investigation, site-specific risk assessment or development of a remedial strategy. If the land is subject to a combination of uses, the whole site should be placed in the highest possible group. e.g. if a site comprises residential development (Group A) and a park (Group B), the whole site should be classified as Group A. If the site has been subject to more than one potentially contaminative use, the module should place the site in the highest priority class produced and then proceed with the rest of the prioritisation procedure.

At the end of the Part I assessment sites should be placed in the highest group identified under either Development, Surface Waters or Groundwater. For example, if assessment under "Development" results in the placement of a site in Group A and assessment under "Surface Waters" results in Group B, then the site should be placed in Group A. Where one or more sources affect the same receptor, given the potential for additive effects, the relative priority of the source sites will be increased. Following the initial Part I assessments, MapInfo could run a subroutine identifying any receptor within a set distance (50m?) of more than one site, whether it be Group A, B or C. In this case the lower ranked site should then be upgraded. Thus, if there is a Group B and a Group C site within 50m of the same school, the Group C site should then be placed in Group B.

For user-defined areas the module could produce a significant number of sites within the same group. How then do we prioritise intra-group? Using the 'Index of Perceived Risk', Syms (1999), contaminative categories can be assigned a 'Hazard Rank', a number between 1 and 39 (Syms uses 39 land use categories). It should be stressed that the ranking is a generalisation that should be used in the context of site specific factors. Those categories in the EAS codes not used in Syms have been allocated a ranking based upon professional judgement. Table 1 above can then be sorted upon the Hazard ranking within each risk category, as shown below.

CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006

Code	Hazard Rank	Description	Priority Class
AS	1	Asbestos Manufacture and use.	HIGH
BU	2	Burial of diseased livestock	HIGH
CH	2	Manufacture of cosmetics, manure, fertilizers & pesticides, detergents, oil, organic-based pharmaceuticals, other incl. glues, gelatines, recording tapes, photographic film	HIGH
RA	3	Storage, processing or disposal of radioactive material	HIGH
GA	4	Gasworks, coke works, coal carbonisation and similar sites. Production of gas from coal, lignite, oil or other carbonaceous material other than waste	HIGH
DT	5	Drum and tank cleaning	HIGH
XI	5	Incinerators-waste management operations	HIGH
XL	5	Landfill waste-the deposit of waste in, on or above land	HIGH
OR	6	Oil Refining Petrochemical production and storage.	HIGH
OL(<i>this is an EAS modification</i>)	6	Major oil & petrol storage (not including refining or production) and all gasometers which are not in gasworks	HIGH
PA	10	Paints, varnishes, printing inks, mastics, sealants & creosote	HIGH
TA	10	Tar, bitumen, linoleum, vinyl and asphalt works.	HIGH
AB	11	Animal slaughtering and basic processing	HIGH
AF	11	Manufacture of pet foods or animal foodstuffs	HIGH
AN	11	Animal by-products (i.e. animal parts) e.g. soap, candles & bone works	HIGH
TR	12	Timber treatment.	HIGH
TY	12	Tannery, leather goods and skinnery	HIGH
FY	13	Furnaces & Metal processing/casting/forges/smelting-Ferro and Aluminum Alloys-Manganese Works, Slag Works	HIGH
PL	13	Electro-plating, Galvanising & Anodising	HIGH
MD	14	All Military Establishments incl. Firing Ranges (if not specified as Civilian)	HIGH
MG	14	Civilian manufacture & storage of weapons, ammunition, explosives & rockets, incl. ordnance	HIGH
HM	15	Heavy product manufacture-rolling & drawing of iron, steel & ferroalloys-includes major Tube Works	HIGH
SP	16	Recycling of metal waste incl. scrapyards and car breakers	HIGH
LT	17	Manufacture of cars, lorries, buses, motorcycles & bicycles	MEDIUM
MA	17	Manufacturing of engines, building & general industrial machinery, incl. nuts & bolts, gas fittings, wire rope/cable and ordnance accessories	MEDIUM
RB	18	Natural and Synthetic Rubber Products incl. tyres and rubber products	MEDIUM
BK	20	Manufacture of clay bricks & tiles, including assoc. activities e.g. brickfields, also solitary kilns (other than limekilns)	MEDIUM
CE	20	Concrete, cement, lime & plaster products, also includes solitary lime kilns	MEDIUM
CR	20	Tableware & other ceramics	MEDIUM
CY	21	Coal mining. Areas include assoc. surface activities in area but not including spoil heaps or coal mine shafts (<i>this is an EAS modification</i>)	MEDIUM
QU	21	Quarrying of all stone (incl. limestone, gypsum, chalk & slate) and ores, includes all opencast mining & slant workings also slate/slab works, flint works, stone yards	MEDIUM
PW	22	Electricity generation and distribution, incl. large Transfer Stations	MEDIUM
PN	25	Printing other than News Print	MEDIUM
PR	25	Pulp, paper & cardboard manufacture	MEDIUM

CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006

NW	25	Printing of newspapers	MEDIUM
GL	26	Flat glass and glass products manufacture	MEDIUM
OF(<i>this is an EAS modification</i>)	29	Outfalls incl. Warm water, industrial effluent, etc. unless directly attached to other feature e.g. end of sewer pipe	MEDIUM
SL	29	Storage treatment or disposal of sludge including sludge from water treatment works	MEDIUM
SW	29	Sewerage, septic-tanks, effluent-incl. all filter beds	MEDIUM
FU	30	Sale of automotive fuel	MEDIUM
GG	30	Repair & sale of (i) cars & bikes (ii) parts (iii) motorway services	MEDIUM
HT	30	Manufacturing & repair incl. (i) ships (ii) aerospace (iii) rail engines and rolling stock	MEDIUM
CC	31	Coal storage/depot	MEDIUM
DP	31	Transport Depot, Road Haulage, Corporation Yards, Commercial vehicle fuelling.	MEDIUM
MN	32	Areas of mining and single or a group of shafts other than coal, or not specified-incl. levels, adits, etc. Also areas assoc. with Mineral Railways	MEDIUM
MP	32	Constructional steelwork, metal structures & products & building materials	MEDIUM
RL	32	Rail sidings, Yards, Rail Wharf, Goods Depot, Station etc.	MEDIUM
RW	32	Railway Tracks-up to 4 tracks wide or 30m.	MEDIUM
BT	33	Batteries, accumulators, primary cells, electric motors, generators & transformers	MEDIUM
HS	33	Manufacturing of electrical and electronic appliances	MEDIUM
DY	34	Dye & pigments	MEDIUM
TX	34	Natural and man-made textile manufacture and products including Hemp rope and linoleum	MEDIUM
DE	35	Premises housing surface cleaning and degreasing operations	MEDIUM
LY	35	Laundries & dry cleaning (larger scale not usually "high street")	MEDIUM
XO	35	Other waste facilities (e.g. clean and dirty manufacture)	MEDIUM
XT	35	Waste transfer stations	MEDIUM
PS	36	All plastic goods, incl. building, packaging, tubing, moulding and extrusion, fibre glass and fibre glass resin and products, excluding the manufacture of Tar, Bitumen & Asphalt	MEDIUM
DK	37	Boat-building, wharf and quays, cargo/transport handling facilities - marine or inland	MEDIUM
WR	37	Insulated wire & cable for electrical/telephone purposes	MEDIUM
WD	38	Sawmills and manufacture of wood products (excluding treatment).	LOW
BW	38	Brewing and malting	LOW
DL	38	Spirit distilling & compounding	LOW
FD	38	Major food processing includes large Dairies. Exceptionally large scale Corn/Flour milling	LOW
GV	38	Cemetery, modern burial grounds and grave yards	LOW
HE	38	Manufacturing of distribution, telecomms, medical, navigation, metering & lighting	LOW
HL	38	All Hospitals including sanatoriums but not lunatic asylums	LOW
ML	38	Abrasives, and products (not including Asbestos)	LOW
MR	38	Mineral Railways also known as 'Tramways' or inclines-not incl. urban passenger 'Tramways'	LOW
PD	38	Paper, card, etc. products (e.g. packaging)	LOW
WA	38	Drainage ditches are often identified by straight parallel lines creating a boundary line of a field or fields	LOW
WK	38	Factory & Works-use not specified	LOW

CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006

AP	39	Air & space transport	LOW
AR	39	Air Shafts	LOW
CS	39	Coal mine shafts	LOW
DG	39	Disturbed ground >200m in one dimension	LOW
DM	39	Demolition of building, plant or equipment used for any of the activities in the schedule	LOW
ES	39	Electricity sub-station	LOW
FL	39	Areas 'Liable to Flood'-shown as point features central to flooding area	LOW
HP	39	Must be assoc. with relevant industry-incl. spoil & slag-use symbology and assoc. features to identify heap boundary (except for colliery spoil heap- <i>this is an EAS modification</i>)	LOW
LB	39	Various-technical & environmental testing & analysis	LOW
LE	39	Computers, office machinery, business/industrial electrical goods	LOW
PP	39	Above ground pipelines other than sewerage	LOW
WC	39	Canals are often identified by OS text (e.g. Leeds & Liverpool Canal)	LOW
WO	39	All other water features on the site incl. marshes, wells, springs and sluices	LOW
WP	39	Surface ponds often located within a field surrounded by trees	LOW
WS	39	Surface streams are often identified by irregular parallel lines and an arrow to show directional flow of the stream	LOW
WV	39	Rivers are often identified by OS text (e.g. River Mersey)	LOW
PT		Extraction of alluvial sediments (sand, clay, peat, marl and gravel) (not used as conflicts with QU QUARRY- <i>this is an EAS modification</i>)	*
RF		Refuse and waste disposal incl. Incinerators & sanitary depot (not uses as not sufficient detail- <i>this is an EAS modification</i>)	*

Table 2. EAS keycodes sorted by Hazard Rank

Thus, all of the sites within a certain group (A, B or C) and within a specific user-defined area could be further prioritised using a sort procedure based on this ranking of hazard, further refining the prioritisation procedure.

Therefore, the outcome of running the module for each designated area within a LA would be a map showing the individual sites, possibly colour coded for each group, and a more detailed schedule highlighting the groupings and assigned hazard ranking of each potentially contaminated site. Where identified sites overlap selected areas, the site shall be placed in the quadrant where the majority of the site area lies.

A sub module should be able to answer such queries as 'What are the potentially contaminated sites within a certain user-defined distance of a sensitive receptor'? A list of likely queries needs to be further developed by the CLOG sub-group.

The procedure outlined above and shown in the following flowcharts is a simple and systematic approach to deciding what priority to give certain sites when implementing an Inspection Strategy, based upon an assessment of the proximity of a potential target. This document is an initial draft of the prioritisation procedure and as such is open for discussion and modification

by members of the CLOG and the GIS sub-group.

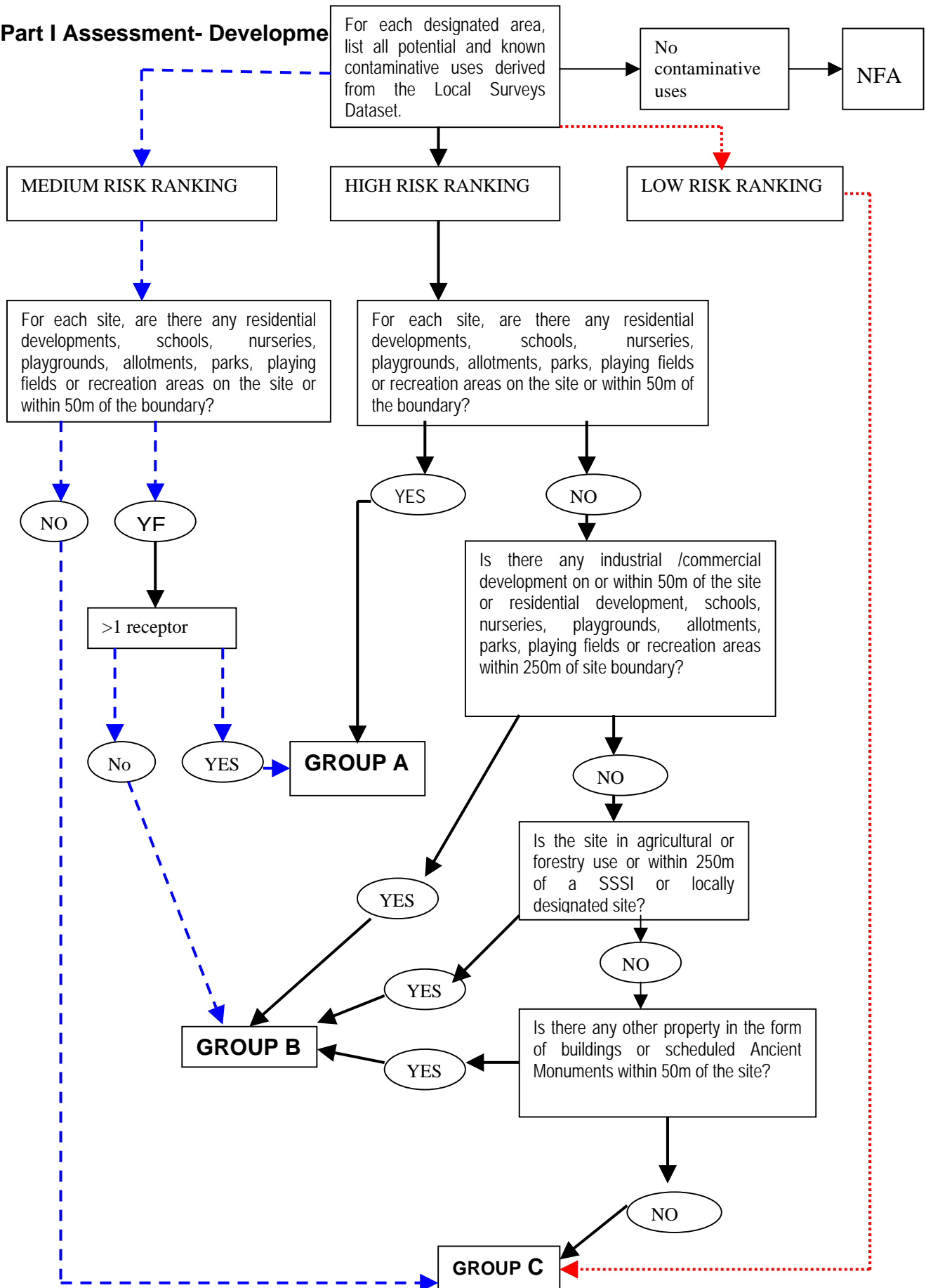
References

DoE, Department of Environment, (1995). *Contaminated Land Research Report No.6, Prioritisation and Categorisation Procedure for Sites which may be Contaminated*. DoE, London.

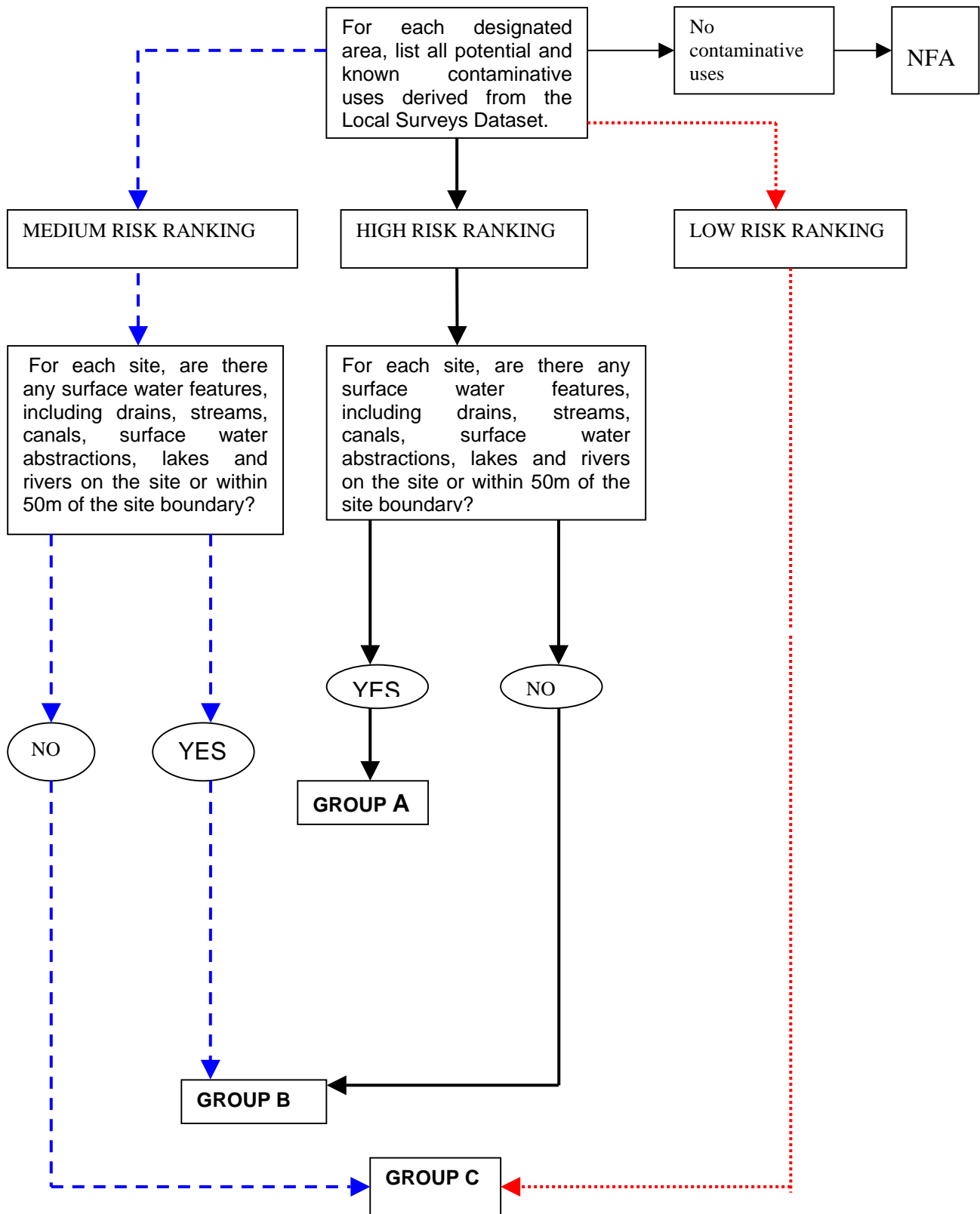
Syms, P. (1999). *Desk Reference Guide to Potentially Contaminated Land Uses*. IVSA.

**CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006**

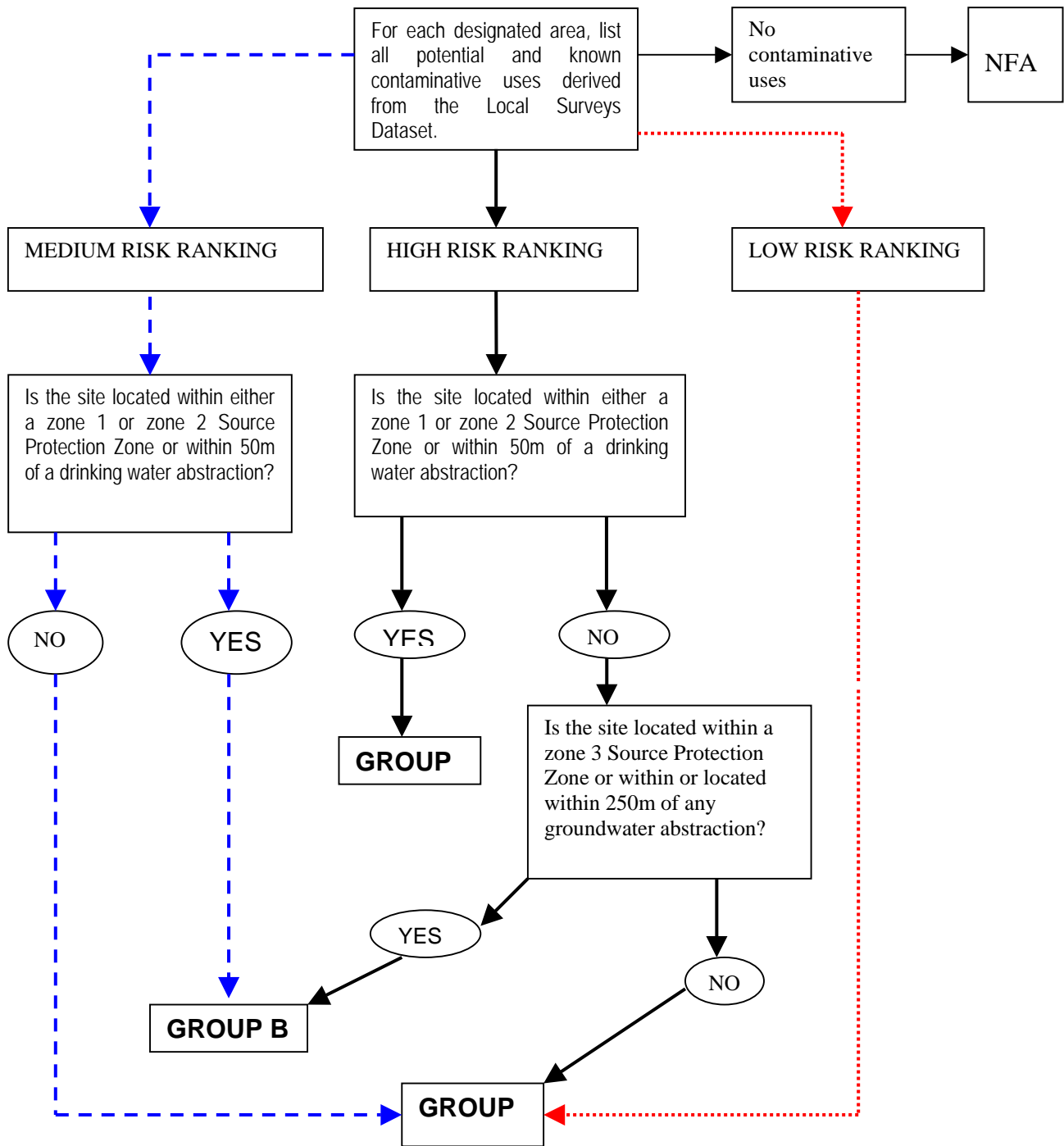
Part I Assessment- Developme



Part I Assessment- Controlled Surface Waters



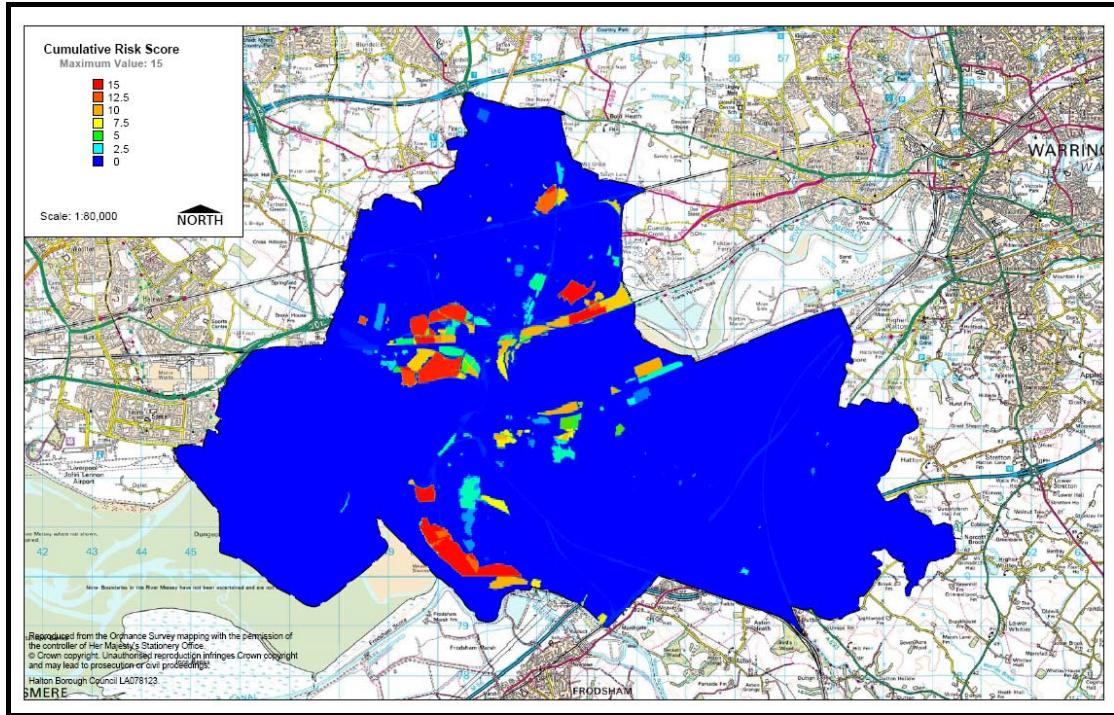
Part I Assessment- Controlled Ground Waters



APPENDIX 4

HIGH RISK CONTOUR PLAN

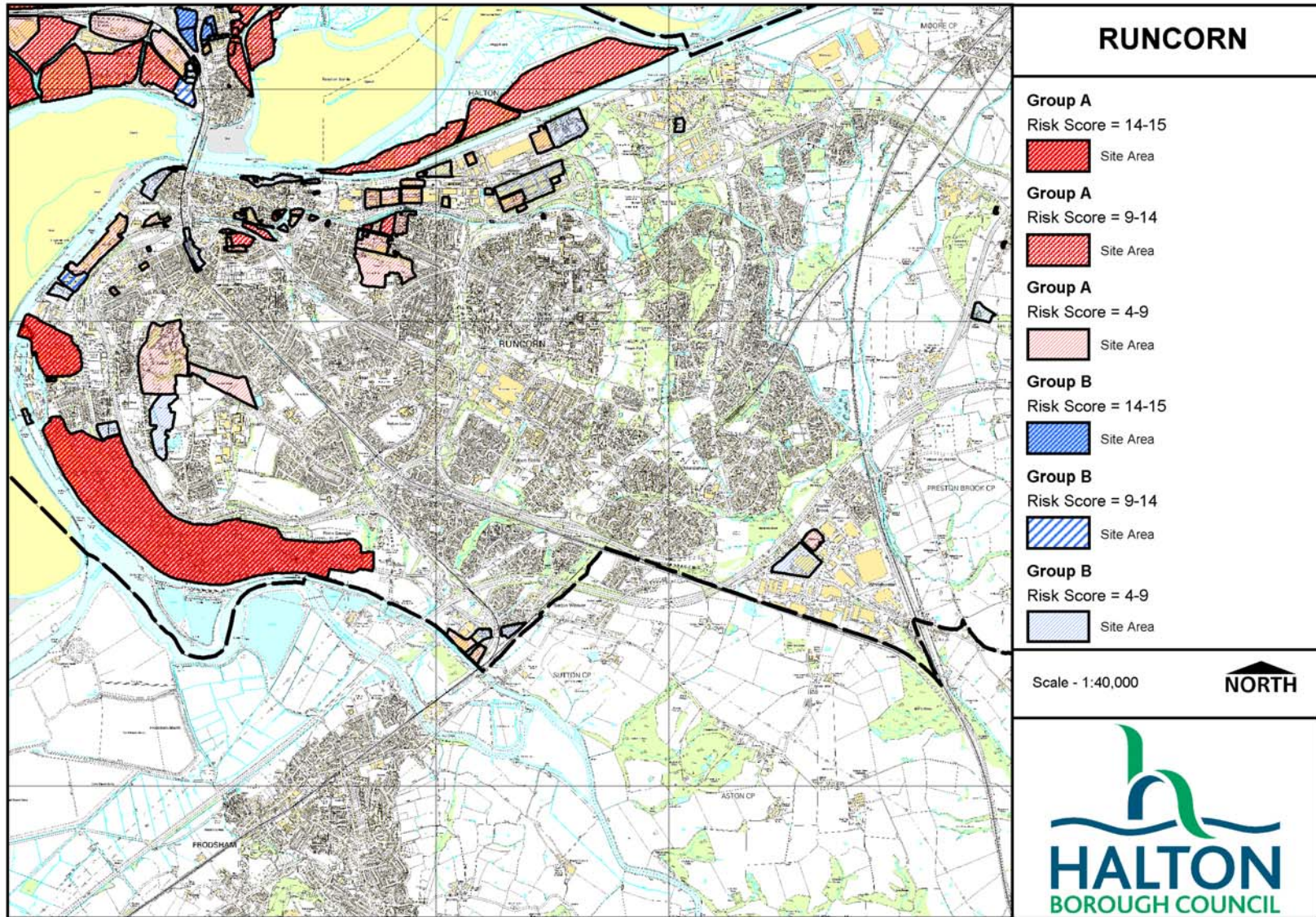
CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006



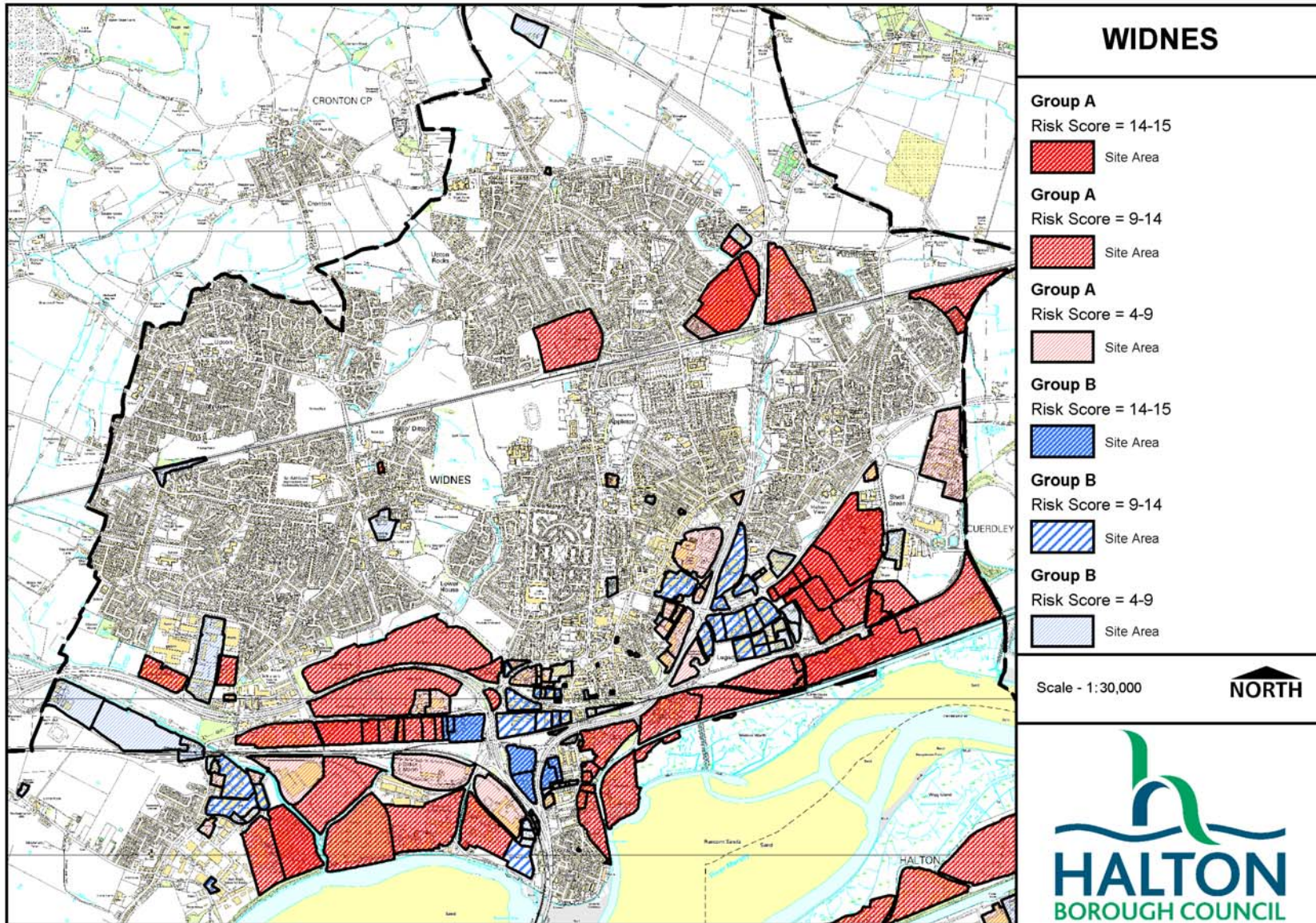
APPENDIX 5

GROUP A AND B PRIORITY SITES LOCATION PLAN

CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006



CONTAMINATED LAND INSPECTION STRATEGY
REVIEW 2006





Environment and Regulatory Services Department
Rutland House,
Halton Lea,
Runcorn,
Cheshire WA7 2GW
Telephone: 0151 424 2061
Fax: 0151 471 7314
www.halton.gov.uk