

Contaminated Land in South Ribble

Final report

Paul Mobbs, Mobbs' Environmental Investigations
3 Grosvenor Road, Banbury OX16 8HN.
Phone/fax: (01295) 261864
Email: mobbsey@gn.apc.org

July, 1994

**NOTE: THIS REPORT WAS CONVERTED
FROM OLD FILE FORMAT, SO
TEXT/COLUMN FORMATTING'S A LITTLE
WIGGY!**

Compiled for an on behalf of

**FRIENDS *of the*
earth**

Contaminated Land in the South Ribble Borough Council Area

Final report - July, 1994

Paul Mobbs, Mobbs' Environmental Investigations
3 Grosvenor Road, Banbury OX16 8HN.
Phone/fax: (01295) 261864
Email: mobbsey@gn.apc.org

Contents

1. Introduction/summary	3
2. An overview of South Ribble Borough	5
3. Contaminated land - an overview	6
4. South Ribble sites search	10
5. Results of the search	14
6. Conclusions	16
Appendices	
App1: List of Sites Found in Search	17
App2: Land uses	33
App3: Sites Selected for Inspections and Sites Visited	38
App4: Planning Policy Guidance No.23 - 'Planning and Pollution Control'	45

1. Introduction/summary

General

1.1 This reports review the findings of my study of ‘potentially’ contaminated sites in South Ribble Borough, Lancashire, carried out on behalf of Friends of the Earth Ltd during the months of April to July this year. It includes some background information on South Ribble Borough itself, a description of the process by which sites were found, and a detailed list of the sites found giving where possible the site’s grid reference, information on the contaminative use(s) on the site, and an indication of the current use of the site.

1.2 The aim of the study was to produce a list of sites within the Borough which had been subject to contaminative use. Rather than set a list of contaminative uses, the search considered all forms of ‘contaminative use’ so that the scale of land contamination in the area could be properly assessed.

Report structure

1.3 The report is divided into sections, each considering a different aspect of the study...

- Section 2 of this report gives a general overview of the Borough;
- Section 3 examines the background information available on contaminative uses, and the risks presented by certain types of industrial processes;
- Section 4 discusses the methods used to locate sites;
- Section 5 looks at the results of the search;
- Section 6 considers the implications of the study, and makes recommendations for further action.

1.4 The appendices of this report list the results of the survey, and other relevant information...

- Appendix 1 lists all sites alphabetically by site name.
- Appendix 2 lists sites by the ‘class’ of contaminative use.
- Appendix 3 notes the sites which were selected for visiting to establish current use.
- Appendix 4 reproduces the parts of Planning Policy Guidance No.23 relating to contaminated land.

Results

1.5 The search showed that a large number of potentially contaminated sites exist in the Borough. After analysis of the map and text searches, 183 sites were located. These sites can be broken down into the following eighteen categories...

Category	No.
Abattoirs	1
Airfields	1
Auto-mechanics/petrol stations	32
Blacksmiths	30
Bleaching/dying works	2
Brick and tile works	6
Cemeteries	1
Chemical, paint and varnish works	15
Engineering and metals	34
Gas works	2
Hospitals	1
Landfill and waste transfer sites	32
Power stations	1
Paper mills	2
Printing works	4
Rubber works	7
Sewage treatment works	5
Vehicle manufacturers	7
Total	183

Further action

1.6 The results of this study show that, even in an area with only a recent industrial history, there is a significant legacy of contaminated land. South Ribble Borough Council are currently reviewing their local plan. Given the requirements of PPG23, they should consider undertaking a wider study of contaminative use in the area.

1.7 From the results of this study I suggest that...

- further work should be undertaken to pinpoint the location of those sites 'not found' in the study;
- the current use of each site not considered in the study should be found out;
- the study only considered contaminative uses up until the end of the 1960s; A review of recent land use needs to be carried out;
- some of the sites which will be 'very' contaminated should be sampled to assess the level of contamination that exists, e.g. the gasworks, metals sites, chemical works and vehicle manufacturing works.

2. An overview of South Ribble Borough

The area

2.1 South Ribble is one of fourteen district/borough councils in Lancashire, covering an area of 43 square miles. From my searches of old texts, the whole area was predominantly rural until the turn of this Century - at which point the industrial overspill from Preston invaded the central strip of the area. The borough still keeps this split with the centre 'third' of the borough being urban and industrialised, and the east and west 'thirds' being predominantly rural and undeveloped; the eastern third is mainly peat-moss and tidal marshes, the western third is agricultural.

Geology

2.2 The geology of the borough is Permian and Triassic sandstones underlying much of the central and western area, with Triassic mudstones in the south-west and Carboniferous millstone grits in the east. The surface drift cover is predominantly sands/gravels laid down in the Pleistocene, with a small area of raised peat bog to the west of Leyland.

2.3 Water is abstracted from the sandstones and gritstones for industrial use, the main aquifer running beneath the central 'urban strip' of the borough. there are four private water supplies. The mostly likely result of contaminants causing problems will be in surface streams/excavations, as the pollutants travel through the highly permeable drift deposits. Annual average rainfall is between 900mm and 1000mm

Environmental pollution

2.4 The northern edge of the borough is made up by the River Ribble. This is contaminated with uranium from the BNFL Springfields works, and by other radionuclides (Sellafield originated) brought in on the flood tides. the other major rivers and streams of the borough, from data in the Lancashire Green Audit, vary between quality classifications 2 and 4.

2.5 From the information provided in the Lancashire Green Audit, there are no hospital incinerators or crematoria in the borough - but there are two HMIP registered sites.

Local history:

2.6 The whole area was once dominated by the cotton industry, as was much of Lancashire. As this collapsed in the early part of this Century the mills were used by heavy industries such as iron-founding, and in particular the automobile and rubber industries. Leyland Motors and Atkinson Lorries are still in existence, and there are some rubber plants remaining. But the level of industrialisation was much less than neighbouring Preston which, as it had a large port complex, had many primary manufacturing industries using ferrous and non-ferrous metals, chemicals, and asbestos, as well as being a major freight distribution centre.

3. Contaminated land - an overview

Local authorities and contaminated land

3.1 The true extent and effects of contaminated land in the UK. has only become truly understood within the past decade, due in part to detailed studies undertaken in the USA. by the Environmental Protection Agency from the 1960s onwards, and also following on from the work of the Department of the Environment's Interdepartmental Committee on the Redevelopment of Contaminated Land (ICRCL).

3.2 The ICRCL produced a number of documents in the early 1980's setting out the best practice for the redevelopment of contaminated land, taking specific types of contaminated site such as gasworks and sewage works. The eleventh report of the Royal Commission on Environmental Pollution¹ highlighted the topic of contaminated land. This led to research being commissioned, and eventually the DoE/Welsh Office produced a circular² explaining procedures and existing best practice in the redevelopment of contaminated land. The ICRCL then revised some of their previous notes. The requirement to put much of this work into a formal regulatory framework led to its addition to the Environmental Protection Bill.

3.3 To date, most local authority powers to deal with contaminated land have come from their public health role; powers under the Public Health Acts, and powers to abate nuisances under the Environmental Protection Act are the only measure available to deal with land contamination. The problem with this approach is that the pollution must actually be causing damage. This situation was due to be changed by section 143 of the Environmental Protection Act.

3.4 Section 143 of the Environmental Protection Act, 1990, requires that local authorities set up public registers listing land which has, at some time in the past, been utilised for a purpose which may have caused its contamination with noxious substances. Following on from a consultation document in May 1991³ regulations were drafted for implementation in April 1992, but were abandoned shortly before this date due to pressure from property developers and the construction industry. The regulations have been redrafted, following a second consultation period⁴, and the reissued proposals covered only 15% of the land area that the original regulations would have covered. However, the Department of the Environment still received objections from the major developers, and so on 24th March, 1993, they abandoned all plans of implementing Section 143, and announced that it would begin a review of the powers of regulatory bodies to control the pollution of land. There followed a further consultation paper⁵, further diluting the requirement for surveys.

¹ "Managing Wastes: The Duty of Care", eleventh report of the Royal Commission on Environmental Pollution, 1985.

² Dept. of the Environment Circular 21/87 (Welsh Office 22/87), 'Development of Contaminated Land', August 17th, 1987. (Now cancelled by PPG23)

³ "Public registers of land which may be contaminated: a consultation paper", DoE/Welsh Office, May 1991.

⁴ "Environmental Protection Act 1990, Section 143 registers", DoE circular letter, 31st July 1992.

⁵ "Paying for our Past", Dept. of the Environment, March 1994.

Planning law and contaminated land

3.5 Until now, local authority planners have been restricted from taking action to remediate land contamination. This is because, until now, contaminated land has been regarded as an environmental health responsibility, and as directed by Planning Policy Guidance No.1⁶ (PPG1), planning policy cannot enforce actions achievable under other legislation. In effect local authority planning departments were not in a position to enforce the clean up of contaminated land - that was a matter for the environmental health department.

3.6 The only consideration of contaminated land in the planning process was under the guidance in DoE Circular 21/87. This Circular has now been updated and incorporated into the text of the new planning guidance on 'Planning and Pollution Control'⁷. PPG23 was issued in July 1994 and, in a more detailed manner than Circular 21/87, brings the assessment of contaminated land within the scope of local planning control.

3.7 PPG23 now gives planners the power to demand information on the likely contamination of a site where there is evidence that the site was subject to contaminative uses in the past. Where this information indicates that contamination exists, conditions can be made with the planning permission that a full site investigation be carried out, and any problems be remediated, before development can begin. This in effect achieves more than the Section 143 registers would have achieved since a register only pin-points land - there was no requirement in Section 143 for remediation.

3.8 This still leaves the problem; the developer must admit that contamination exists. As pointed out in the guidance, in areas with a long history information should be requested by the local authority with every application. But in rural areas, which may not have an obvious industrial history, contaminated sites may be missed.

3.9 Given that the requirement exists to check sites for contamination as part of the planning process it would not be unreasonable for every planning application to be challenged by the public on the grounds that the planners must be certain that contamination is not likely to exist. This would in effect represent a 'register by stealth', since it would require local authorities to review each permission where there is reason to assume that the land may be contaminated.

3.10 The guidance sets out the requirements for local authorities to review the 'potential' for land to be contaminated in the following terms...

Paragraph 4.4: 'Although contamination is subject to controls under pollution control legislation, it or the potential for it, can be a material planning consideration and should be taken into account at various stages in the planning process, including the preparation of development plans and the determination of planning applications. In carrying out those duties local planning authorities should consider whether there is, or might be, a contamination hazard on a site, what further information they would need to decide that question, whether a proposed use or development of the site could give rise to unacceptable risks to health or the environment, and if so, what steps by way of restrictions on the proposed use or other development of the land should be taken to reduce those risks. Care should be taken to make sure that planning powers complement and do not substitute for, pollution control arrangements'.

Paragraph 4.10-4.12: 'While it would generally be sensible for planning authorities to be aware, as far as possible, that land allocated for development in the plan is actually capable of development, the responsibility for providing information on whether it is contaminated rests

⁶ Planning Policy Guidance No.1, "General Policy and Principles", Dept. of the Environment March 1992. Paragraphs 35-37, 'Other Legislation'.

⁷ Planning Policy Guidance No.23, "Planning and Pollution Control", Dept. of the Environment, July 1994.

primarily with the developer. In any case, it is in the developer's interests to do so since the presence and extent of any contamination will affect the value of the land and the costs of developing the site. When determining a planning application for land which might be contaminated, the local planning authority will need to consider whether the proposal takes proper account of contamination.

Investigations into the site, appropriate to the proposed use and likely impact of development on surrounding land and the environment, may need to be carried out before the application can be decided. In certain circumstances, it may be appropriate to make detailed investigation or specific remedial measures a condition of the planning permission. Alternatively a reserved matter following outline planning permission should enable cost-effective solutions to be devised, to deal with contamination, so reducing the need for urgent and expensive emergency action at a later date.

Investigative works on a contaminated land site should be carried out with care, and in consultation with the relevant pollution control authority, to avoid causing contamination (e.g. drilling investigation boreholes which could result in groundwater being contaminated). The findings of the investigation should enable appropriate treatment and the selection of the most suitable use; the development should then be designed to minimise the risks. The specific precautions needed will depend on the degree of risk and the circumstances of the case'.

Annex 10, paragraph 9-11: 'In other cases, particularly where there is only a suspicion that the site might be contaminated, or where the evidence suggests that there may be only slight contamination, planning permission may be granted but conditions should be attached to make it clear that development will not be permitted to start until a site investigation and assessment has been carried out and that the development itself will need to incorporate all the measures shown in the assessment to be necessary.

If the information provided by the applicant is insufficient to enable the authority to determine the application, the authority may request further information. Should the degree of contamination be such that remedial action is required to safeguard future users or occupiers of the site or neighbouring land, or protect any buildings or services from the hazards, then planning permission may be granted subject to conditions specifying the measures to be carried out.

Conditions might also be imposed that require the developer to draw to the attention of the planning authority the presence of significant unsuspected contamination encountered during redevelopment'

3.11 The provisions of PPG23 give local authorities great powers to identify and demand the cleaning up of contaminated sites, as they are redeveloped. This is of course reliant on planning permissions coming forward to redevelop these areas of land - the effect of PPG23 may achieve the opposite effect since developers may now choose not to redevelop 'brownfield' sites, and instead opt for 'greenfield' ones, because of the risk of incurring extra costs to pay for cleaning the site.

3.12 With regard to this investigations, some of the potentially 'worst' contaminated sites are either derelict or have been cleared and are marked on the Derelict Land Register. These new guidelines will require South Ribble Borough to investigate the extent of contamination before granting permission for these sites, and any of the other sites listed in this report.

4. South Ribble sites search

4.1 Before beginning a search for sites in South Ribble it was necessary to identify types of contaminative use to include in the study. The original consultation paper on contaminated land registers defined a 'contaminative use as, "any use of land which may cause it to become contaminated with noxious substances". Also, the definition of land includes any ground, soil or earth, the structure of the building, and any land or buildings used for ancillary processes to the contaminative use.

4.2 In the second consultation paper, the original list was reduced to give a basic set of uses. These were...

- * The manufacture of gas, coke or bituminous materials from coal;
- * The manufacture or refining of lead, steel, or an alloy of lead or steel;
- * The manufacture of asbestos;
- * The manufacture, refining or recovery of petroleum or its derivatives (other than extraction from petroleum bearing ground);
- * The manufacture, refining or recovery of other chemicals, excluding minerals;
- * The final deposit, in or on land, of household, commercial or industrial waste other than ash, slag, clinker, rock, wood, gypsum, railway ballast, peat, bricks, tiles, concrete, glass, other minerals or dredging spoil, or where waste is used as a fertiliser or to improve/condition land;
- * The treatment at a fixed installation of household, commercial or industrial waste by chemical or thermal means;
- * The use of land as a scrap metal store.

4.3 Another guide is the British Standard governing the identification and decontamination of land. The draft DD 175, 'Practice for the identification of potentially contaminated land and its investigation'⁸. The land uses it highlights are shown in table 2.

4.4 Given all these possible examples of contamination, I chose a broad a range of land uses as possible, representing the whole range of possible contaminants after conducting some initial searches and establishing the range of 'potentially contaminative' land uses present in the area. The land uses chosen are listed in table 3.

4.5 During April I visited Preston and Leyland to conduct library searches. I also visited the offices of Lancashire County Council and South Ribble Borough Council to talk to officers and assess the range of information they already held on contaminated land. These searches concentrated on historical materials and lists of 'identified sites'. There were a number of sources.

⁸ "Practice for the identification of potentially contaminated land and its investigation", Draft for Development DD 175, British Standards Institute 1988.

Table 2: BS Draft DD-175 suggested ‘contaminative uses’

Industry.	Examples.	Likely contaminants.
Chemicals.	Acid/alkali works. Dyeworks. Fertiliser/ pesticides works Pharmaceutical wks.. Paint works. Wood treatment plants.	Acids, bases, metals, solvents, phenols and other organic compounds.
Petrochemicals.	Oil refineries. Tank farms. Fuel storage sites. Tar distilleries.	Hydrocarbons, phenols, acids, bases and asbestos.
Metals.	Iron/steelworks. Foundries/smelters. Electroplating, anodising and galvanising wks.. Engineering works. Shipbuilding/breaking. Scrap reduction plants.	Heavy metals, especially iron, copper, nickel, chromium, zinc, cadmium, lead and asbestos.
Energy.	Gasworks. Power stations.	Combustibles (coal/coke) phenols, cyanides, sulphur compounds and asbestos.
Transport.	Garages. Vehicle builders. Railway depots.	Combustible substances, hydrocarbons and asbestos.
Mineral extraction/land reclamation.	Mines/spoil heaps. Quarries. Filled sites.	Heavy metals, gases and leachates.
Water supply/ treatment.	Waterworks. Sewage works.	Metals (in sludges), micro-organisms.
Others.	Docks, wharfs and quays. Tanneries. Rubber works. Military lands.	Heavy metals, organic compounds, methane and other gases, toxic, flammable/explosive sub- stances, micro-organisms and asbestos.

Table 3: Contaminative uses selected in sites search

Use	Examples of contaminants
Abattoirs:	Animal carcasses and pathogens/micro-organisms.
Airfields:	Spilt fuel oil, fire-fighting chemicals, buried metals and possibly explosive substances on old wartime airfields.
Auto-mechanics:	Vehicle repair and servicing premises. Spilt oils, metals and acids.
Blacksmiths:	Toxic metals, combustion products, perhaps some chemicals from metal treatment/painting.
Bleaching/dying:	Sites which processed cloth. Bleaching agents, chemicals and dyes.
Brick and tile manufacture:	Combustion products, potential for infilling with waste in clay pits.
Cemeteries:	Buried bodies.
Chemicals/paint and varnish works:	This category covers a number of uses from chemical manufacture to timber impregnation works. A wide range of chemicals and hydrocarbon based liquids.
Engineering/metals:	Foundries, metals processing and scrap yards. Toxic metals, hydrocarbons/oils and chemicals.
Gasworks:	Wide range of hydrocarbons and toxic inorganic compounds.
Hospitals:	Old 'pesthouse' hospitals - usually associated with burial of 'diseased' bodies and pathogens/micro-organisms.
Landfill/waste transfer:	Landfill sites and waste transfer stations. Potentially a wide range of toxic metals, chemical and organic pollutants.
Paper mills:	Bleaching agents, possible dyes and organic by-products of paper manufacture/bleaching.
Petrol stations:	Hydrocarbons from spills or leaking underground storage tanks.
Power station:	Products of combustion, spilt oils and even PCBs from transformer coolant.
Rubber works:	Organic and inorganic pollution from rubber processing (e.g. vulcanising) and moulding.
Sewage works:	Toxic metals, pathogens/micro-organisms.
Vehicle manufacturers:	Wide range of toxic metals, chemicals and oils.

4.6 Maps: The collection of maps held by the Harris Reference Library in Preston had some sheets missing - however most of the sheets I needed were there. The 1847 first survey revealed very little as the area was still strongly rural. The 1890s 6-inch surveys reveal much more detail. The next surveys were carried out around the 1930s, the 1950s and 1974. The current OS maps were revised in the early '80s. The maps searched were...

Year surveyed and scale	Sheet reference
1891 6"	No.69 NE, NW
1893 6"	No.69 SW
1938 6"	No.69 NE, NW, SW
1955 6"	SD52 NW, SW
1974 1:10,000	SD52 NE
1980s 1:25,000	SD42/52 No.688, SD62/73 No. 689, SD63/73 No.680
1980s 1:50,000	Sheet 102

4.7 Historical texts: I concentrated my searches on industrial/commercial directories and from the references in these consulted a few other 'local history' texts to find additional details. the directories consulted were...

Directory	Year
Pigot's Directory of Lancashire	1834
Mannex Directory of Preston	1881
Barrett's Directory of Preston and District	1898
Barrett's Directory of Preston and District	1913
Barrett's Directory of Preston and District	1922
Barrett's Directory of Preston and District	1932
Barrett's Directory of Preston and District	1940
Barrett's Directory of Preston and District	1948
Barrett's Directory of Preston and District	1952
Barrett's Directory of Preston and District	1960
County and Borough Directory of Preston	1968

4.8 Local authority information: The following information was provided by/purchased from local authorities...

Lancashire County Council WRA licensed sites in South Ribble, 1993.
Lancashire County Council GDO Consultation Sites in Lancashire, 1992.
South Ribble Borough Council Derelict Land Survey, 1993.
Lancashire County Council Green Audit, 1991.

4.9 From these materials a list of potentially contaminated sites was produced. Then, using maps, the location of each one was determined as precisely as possible, and were possible fixed with a six-figure map reference. Later, a number of sites were selected by Friends of the Earth to be 'visited' to determined the current land use.

5. Results of the search

Information processing/organisation

5.1 As each site was found, the details were entered onto a database in a standardised format. Well over 200 'sites' were highlighted from the study, but by a process of elimination this was sorted to a total of 183 sites, covering a wide range of contaminative land uses. Each entry lists the following information where it is available...

- 'Site:': This is the name of the site, either its 'name' or an address;
- 'Address:': This is the area, address, or the address of the site owner.
This reference also notes whether the exact location of the site was found during the search;
- 'NGR:': The six-figure grid reference for the site;
- 'Type:': The contaminative land use type;
- 'Sel:': Whether the site was selected, or not, for a site visit as part of the study (either yes or no);
- 'Vis:': Whether the site was visited during the study (either yes or no);
- 'Sources:': The sources of information which identified the site;
- 'Info:': Other information about the site;
- 'Status:': The current status of the site.

5.2 Where a site is said to have been 'not found', this refers to the exact position and grid reference. In most cases there is a street name and building number or title which will identify the exact site, but for the purposes of this study such detail was not sought. The 'unknown' status of a site means that the current use of the building/site is not known - whether the site is still intact or has been cleared is given under the 'info' reference.

5.3 Once complete, the 'site list' was indexed by land use 'type' and by 'site' name. These lists were then exported as a document. Appendix 1 is the full list of sites with all the information collected. Appendix 2 lists the sites by land use category. Appendix 3 lists those sites selected for visiting, and indicates those which were inspected.

5.4 The number of sites found were as follows...

<u>Table 1: Results of sites search</u>	
Category	No.
Abattoirs	1
Airfields	1
Auto-mechanics/petrol stations	32
Blacksmiths	30
Bleaching/dying works	2
Brick and tile works	6
Cemeteries	1
Chemical, paint and varnish works	15
Engineering and metals	34
Gas works	2
Hospitals	1
Landfill and waste transfer sites	32
Power stations	1
Paper mills	2
Printing works	4
Rubber works	7
Sewage treatment works	5
Vehicle manufacturers	7
Total	183

5.5 During the site visits no sites of ‘immediate’ risk were noted, but some sites do give cause for concern - in particular those sites which will have a high probability of contamination such as the vehicle manufacturing works, the gas works, and some the chemical/paint works. These sites generally fall into four categories...

- * Sites such as the Leyland Bleach Works, and the tannery at Tardy Gate, both of which have been redeveloped for residential use, may still present a risk. Unless these sites present a risk to public health there is no way of achieving testing or remediation, unless the local authority chose to commit funds to fund such work;
- * Sites such as the two gas works, which have been cleared and now are listed on the Derelict Land Register (land prioritised for redevelopment) should be investigated further before any redevelopment works are carried out. These sites can be investigated, and if necessary remediation can be carried out, as part of the planning permission to redevelop;
- * Sites which are derelict, such as the ‘Municipal Appliances’ Works, or the old parts of the Leyland works on the north side of Leyland. These sites may be re-let or reused without development taking place, and so unless they presented a hazard to workers or public, they would receive no attention;
- * Operational sites. here, testing and remediation would be a matter for the site operator.

6. Conclusion

6.1 This study can be regarded as a 'start point' from which developers and the local authorities can take action - it in no way can be considered to confirm the presence of contamination, or the scale of concentration. It is up to the 'responsible authorities' to take the findings of this study further.

6.2 As outlined in section 3, there are a number of mechanisms by which contaminated land can be investigated. Local authorities can carry out sampling and remediation under role of the 'protector of public health'. PPG23 now confirms local authority's powers to request that developers provide information, and carry out works where it is considered necessary, as sites are redeveloped. Other bodies too, such as the National Rivers Authority, also have the power to commit funds to site testing and remediation. This study has identified sites and this work now need to be 'progressed' by a systematic examination of the sites to determine the scale of contamination.

6.3 it is unlikely that the 183 sites identified in this study will all require some form of remediation, but some will, and some by the nature of the previous land use will present a hazard if redeveloped without remediation for an inappropriate use, for example residential developments. This is particularly a problem for the sites such as gas works, and the scrap yards/heavy engineering works.

6.4 As stated in PPG23, the principle of sustainable development means that, where practicable, brownfield sites, including those affected by contamination, should be recycled into new uses and the pressures thereby reduced for greenfield sites to be converted to urban, industrial or commercial uses. Such recycling can also provide an opportunity to deal with the threats posed by contamination to health or the environment. The only way to proceed is to test sites as soon as practicable, and undertake remediation works where immediately necessary, or as part of redevelopment schemes.

Appendix 1: List of Sites Found in Search

A total of 183 'sites' were found in the search, covering a wide range of contaminative land uses. Each entry lists the following references..

- 'Site:': This is the name of the site, either its 'name' or an address;
- 'Address:': This is the area, address, or the address of the site owner. This reference also notes whether the exact location of the site was found during the search;
- 'NGR:': The six-figure grid reference for the site;
- 'Type:': The contaminative land use type;
- 'Sel:': Whether the site was selected, or not, for a site visit as part of the study (either yes or no);
- 'Vis:': Whether the site was visited during the study (either yes or no);
- 'Sources:': The sources of information which identified the site;
- 'Info:': Other information about the site;
- 'Status:': The current status of the site.

Where a site is said to have been 'not found', this refers to the exact position and grid reference. In most cases there is a street name and building number or title which will identify the exact site, but for the purposes of this study such detail was not sought.

The 'unknown' status of a site means that the current use of the building/site is not known - whether the site is still intact or has been cleared is given under the 'info' reference.

The sites found are as follows:

Site: AA Packaging
 Address: Walmer Bridge, Lancs.
 NGR: SD478242 Type: landfill
 Sel: yes Vis: yes
 Sources: WRA GDO sites list
 Info: Site ref 7/019. 'L' series file ref 365.
 Status: Visited site - commercial premises (packaging/distribution company). No obvious sign of landfilling.

Site: Abattoir, Clayton Brook
 NGR: SD571245 Type: abattoir
 Sel: no Vis: no
 Sources: OS map; 1977, 1:25,000 Pathfinder No. 688
 Status: Unknown

Site: Able Skip Hire
 Address: Unit 12, Centurion Way, Leyland, Lancs.
 Tel 0772 622342
 NGR: SD545233 Type: transfer station
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/494 GSY.
 Info: Status 'B'. Skip hire company - takes soil, clay, natural sand, rock, glass, concrete, brick, ceramics, cement, plaster, plasterboard, cardboard, paper, paper pulp, textiles, fibres, solid polymerised materials, non-hazardous metals, timber and rubber.
 Status: Commercial site

Site: Ajax Works, Golden Hill Lane, Leyland
 Address: Site not located in search.
 NGR: not found Type: rubber works

Sel: yes Vis: no
 Sources: Directories; 1913, 1922, 1948, 1952
 Info: Wood Milne Ltd (1913 & 1922). British Goodrich Rubber Co (1948 & 1952)
 Status: Unknown

Site: Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: brick & tile mfrs
 Sel: no Vis: no
 Sources: Directories; 1834, 1881
 Info: John Barnett. William Abram. William Jackson. Richard Stirzacker. 4 separate works, none of which can be found.
 Status: Unknown

Site: Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: metals broker
 Sel: no Vis: no
 Sources: Directories; 1922
 Info: John Pearson
 Status: Unknown

Site: Bamber Bridge cemetery
 Address: Bamber Bridge
 NGR: SD565251 Type: cemetery
 Sel: no Vis: no
 Sources: OS map; 1891 6" No.69 - NE. OS map; 1938 6" No.69 - NE
 Status: Unknown

Site: Bamber Bridge engineering works
 Address: not found
 NGR: SD565257 Type: engineering
 Sel: yes Vis: no
 Sources: OS map; 1891 6" No.69 - NE. OS map; 1938 6" No.69 - NE
 Status: Unknown

Site: Bank Head Lane (No. 87)
 Address: Gregson Lane, Lancs.
 NGR: SD587263 Type: landfill
 Sel: yes Vis: no
 Sources: WRA GDO sites list
 Info: Site ref 7/006. 'L' series file ref 268.
 Status: Unknown

Site: Bannister Hall Works, Higher Walton
 Address: Higher Walton
 NGR: SD577277 Type: dyeing
 Sel: no Vis: no
 Sources: Directories; 1940 (E. Spinner). Directories; 1913, 1922, 1932, 1940, 1948, 1952 (F. Gatty)
 Info: E. Spinner and Co. F.A. Gatty and Co
 Status: Housing - needs to be checked with old OS survey to get outline.

Site: Blackburn WWT Works.
 Address: Cuerdale Lane, Samlesbury, Lancs.
 NGR: SD603299 Type: treatment works
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/610 GTE
 Info: Status 'A'. Owned by North West Water. Treats water and aqueous based sludges and liquids.

Status: Still in use

Site: Blackledge Plant Hire
 Address: Unit 505, Green Place, Walton Summit, Bamber Bridge, Lancs. Tel 0772 38339
 NGR: SD574245 Type: transfer station
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/530 GTB.
 Info: Status 'B'. Licensed for soil, clay, natural sand, rock, glass, slate, concrete, brick, ceramics and tarmac.
 Status: Commercial premises.

Site: Bradkirk Hospital for Contagious Diseases
 Address: Bamber Bridge
 NGR: SD574254 Type: hospital
 Sel: no Vis: no
 Sources: OS map; 1891 6" No.69 - NE. OS map; 1938 6" No.69 - NE
 Status: Building possibly still intact (still on current survey). Use unknown

Site: Bridge Garage, Higher Walton
 Address: Site not located in search
 NGR: not found Type: petrol station
 Sel: no Vis: no
 Sources: Directories; 1960
 Info: Atherton and Whittle
 Status: Unknown

Site: Brookfield Iron Works
 Address: Quinn Street, Leyland
 NGR: SD542224 Type: metals/engineering
 Sel: yes Vis: yes
 Sources: Directories; 1898, 1913, 1922, 1940, 1948, 1952 (iron works). Directories; 1913, 1922, 1948, 1968 (rubber machinists)
 Info: Iddon Brothers (engineers). Iddon Brothers (rubber machinists)
 Status: Intact and still run by same company

Site: Browndge Road, No. 150, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1948, 1952
 Info: Lansdown Garage
 Status: Unknown

Site: Butlers' Farm Scrap Yard
 Address: Paul Rhodes Car Breakers, Butlers' Farm, Leyland Lane, Leyland PR5 3LA. Tel 0772 422601
 NGR: SD528211 Type: scrap yard
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/622 GTC
 Info: Status 'A'. Scrap vehicles/car breaking.
 Status: Operational

Site: Canberra Road, Leyland
 Address: Site not located in search
 NGR: not found Type: petrol station
 Sel: no Vis: no
 Sources: Directories; 1960
 Info: George Damp & Sons (filling station)

Status: Unknown

Site: Cann Bridge Street, No. 100, Higher Walton
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: Jackson's Garage Co
 Status: Unknown

Site: Carr Wood rifle range
 Address: Lostock Hall/Farington
 NGR: SD544274 Type: metal/engineering
 Sel: no Vis: no
 Sources: OS map; 1891 6" No.69 - NW
 Status: Still wooded (on current OS survey), status unknown

Site: Centurion Way, Farington
 Address: Site not located in search
 NGR: not found Type: rubber works
 Sel: yes Vis: no
 Sources: Directories; 1968
 Info: BTR Industries
 Status: Unknown

Site: Chapel Brow blacksmiths
 Address: Leyland
 NGR: SD546255 Type: blacksmith
 Sel: no Vis: no
 Sources: OS map; 1893 6" No.69 - SW. Directories; 1898, 1913 (C. Singleton). Directories; 1913 (J. Robinson). Directories; 1922 (Foster & Wilson). Directories; 1922 (J&R Singleton).
 Info: Two sites, shared by a number of blacksmiths...
 No. 6, Chapel Brow - Mrs Catherine Singleton and John & Robert Singleton. No. 7, Chapel Brow - John H. Robinson. Another reference also exists for Chapel Brow, without a house number - Foster & Wilson.
 Status: Unknown

Site: Charnley Fold, Bamber Bridge
 NGR: SD567270 Type: brick & tile mfrs
 Sel: no Vis: no
 Sources: Directories; 1952
 Info: Premier Tile Co.
 Status: Unknown - possibly still a commercial site

Site: Chorley Road, No 194, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1898
 Info: Thomas Calvert
 Status: Unknown

Site: Chorley Road, No. 10a, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: dental wax mfrs
 Sel: no Vis: no

Sources: Directories; 1948, 1952, 1960
 Info: Ongley and Co
 Status: Unknown

Site: Chorley Road, No. 188, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1940, 1948, 1952, 1960
 Info: Dodgson's Service Station
 Status: Unknown

Site: Chorley Road, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1932, 1940, 1948, 1952, 1960
 Info: Fred Coupe
 Status: Unknown

Site: Chorley Road, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1932, 1948, 1952
 Info: John Crook
 Status: Unknown

Site: Chorley Road, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1932
 Info: James Rafferty and Co
 Status: Unknown

Site: Chorley Road, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1948, 1952, 1960
 Info: Hardman Brothers
 Status: Unknown

Site: Chorley Road, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1913, 1922
 Info: Hardman Brothers
 Status: Unknown

Site: Church Road, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1898
 Info: T.J. Phillipson
 Status: Unknown

Site: Climor Garage, Liverpool Road, Penwortham

Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1960
 Info: A.C. Morrison
 Status: Unknown

Site: Clive Hurt Plant Hire
 Address: Unit 31, Talbot Road, Leyland PR5 2ZJ.
 Tel 0772 432475
 NGR: SD531228 Type: transfer station
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/514
 GSZ.
 Info: Status 'B'. Licensed for soil, clay, natural sand
 and rock, concrete, brick, flagstones, clean and
 coated aggregates, stone setts and cobbles.
 Status: Operational

Site: Cookson Aluminium (North Western) Ltd.
 Address: Station Yard, Golden Hill, Leyland, Lancs.
 Tel 0772 422166.
 NGR: SD540220 Type: scrap yard
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/7
 GST
 Info: Status 'A'. Ferrous scrap, non-ferrous scrap,
 metal swarf and batteries.
 Status: Operational

Site: Coupes Foundry
 Address: Higher Walton, Lancs.
 NGR: SD575275 Type: landfill
 Sel: yes Vis: no
 Sources: WRA GDO sites list
 Info: Site ref 7/014
 Status: Unknown

Site: CRAK Glass Transfer Station
 Address: CRAK, Farington Business Park, Golden
 Hill Lane, Leyland, Lancs.
 NGR: SD543228 Type: transfer station
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/442
 GSW
 Info: Status 'C'. Glass collection and recycling.
 Status: Operational

Site: Croston Road, Farington
 Address: Site not located in search
 NGR: not found Type: paint/varnish
 Sel: no Vis: no
 Sources: Directories; 1968
 Info: Autosprays Ltd
 Status: Unknown

Site: Cuerden Mill
 Address: Bamber Bridge
 NGR: SD557254 Type: motor mfrs
 Sel: no Vis: no
 Sources: OS map; 1891 6" No.69 - NE. OS map;
 1938 6" No.69 - NE. Directories; 1948, 1952.
 Directories; 1948
 Info: Cuerden Motors Ltd (1948, 1952). Loxham
 Coach Works Ltd (1948)

Status: Unknown - building still intact on current
 survey.

Site: Darwen Villa, Chorley Road, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1898
 Info: Jasper Blackwell
 Status: Unknown

Site: Distillex Transfer Station
 Address: Unit 120, Clydesdale Place, Moss Side
 Industrial Estate, Leyland, Lancs. Tel Leyland
 454129
 NGR: SD524227 Type: transfer station
 Sel: no Vis: no
 Sources: WDA licensed sites lists. WDA ref L1/7/248
 GSG
 Info: Status 'B'. Treats halogenated solvents,
 distillation residues and laboratory chemicals.
 Status: Operational

Site: Dunkirk Lane, Leyland
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: Autochassis Spares Ltd
 Status: Unknown

Site: Dunkirk Lane, Leyland
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1898
 Info: William Nelson
 Status: Unknown

Site: Dunkirk Lane, No. 34, Leyland
 Address: Site not located in search
 NGR: not found Type: vehicle mfrs
 Sel: yes Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: John Balshaw (coach builder)
 Status: Unknown

Site: Dunkirk Lane, No. 52, Leyland
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1913, 1922
 Info: William Nelson
 Status: Unknown

Site: Dunkirk Road
 Address: Leyland, Lancs.
 NGR: SD506222 Type: landfill
 Sel: yes Vis: yes
 Sources: WRA GDO sites list
 Info: Site ref 7/020.
 Status: Grassed over field - no development.

Site: Dunthorp, Sandy Lane, Leyland
 Address: Site not located in search
 NGR: not found Type: engineer

Sel: yes Vis: no
Sources: Directories; 1922
Info: George Birthill
Status: Unknown

Site: Duxon Hill Quarry
Address: Hogton, Lancs.
NGR: SD611257 Type: landfill
Sel: yes Vis: no
Sources: WRA GDO sites list
Info: Site ref 7/007
Status: Unknown

Site: Edward Street, No. 13, Leyland
NGR: SD541219 Type: blacksmith
Sel: no Vis: no
Sources: Directories; 1922
Info: Thomas Wilson
Status: Unknown

Site: Emnie Lane STW
NGR: SD520209 Type: sewage works
Sel: no Vis: no
Sources: WRA GDO sites list
Info: Site ref 7/011.
Status: Unknown

Site: Factory Lane, Penwortham
NGR: SD535275 Type: rubber works
Sel: yes Vis: yes
Sources: Directories; 1968
Info: Goodyear Tyre and Rubber Co
Status: Cleared - used as car and lorry hire yard.

Site: Fairfield Garage, Bamber Bridge
Address: Site not located in search
NGR: not found Type: auto-mechanic
Sel: no Vis: no
Sources: Directories; 1940
Info: John Cowley
Status: Unknown

Site: Farington Household Waste Disposal Centre
Address: Lancashire Waste Services, Flensburg Way,
Farington, Lancs.
NGR: SD529243 Type: transfer station
Sel: no Vis: no
Sources: WDA licensed sites list. WDA ref J1/7/1
GAB
Info: Status 'A'. Transfer station for general
household, commercial and garden wastes.
Status: Operational

Site: Farington iron foundry
NGR: SD544231 Type: metals/engineering
Sel: no Vis: no
Sources: OS map; 1938 6" No.69 - SW
Status: Unknown

Site: Farington Naptha Works
Address: Leyland Moss

NGR: SD523247 Type: chemical mfrs
Sel: yes Vis: no
Sources: OS map; 1891 6" No.69 - NW
OS map; 1938 6" No.69 - NW
Info: "Naptha Cottage" still stands on the site.
Status: Unknown

Site: Farington STW
NGR: SD534238 Type: sewage works
Sel: no Vis: no
Sources: OS map; 1938 6" No.69 - SW
Info: Redeveloped as housing.
Status: Unknown

Site: Flats Mill, Victoria Road, Walton-le-Dale
NGR: SD554283 Type: paper mill
Sel: no Vis: no
Sources: Directories; 1948, 1952, 1960
Info: Ribble Paper Mills
Status: Commercial site

Site: Forge Street, Leyland
NGR: SD541220 Type: auto-mechanic
Sel: no Vis: no
Sources: Directories; 1940, 1948, 1952
Info: Leyland Garage Co
Status: Unknown

Site: Fox Lane, Leyland
Address: Site not located in search
NGR: not found Type: blacksmith
Sel: no Vis: no
Sources: Directories; 1940
Info: John C. Miller
Status: Unknown

Site: Fox Lane, Leyland
Address: Site not located in search
NGR: not found Type: blacksmith
Sel: no Vis: no
Sources: Directories; 1948, 1952
Info: John Hart
Status: Unknown

Site: Gas Terrace, Leyland
NGR: SD545225 Type: blacksmith
Sel: no Vis: yes
Sources: Directories; 1940
Info: Thomas Wilson
Status: Unable to establish exact location in Gas
Terrace - mixture of derelict buildings and
shops/housing

Site: Gillibrand Street, Walton-le-Dale
Address: Site not located in search
NGR: not found Type: auto-mechanic
Sel: no Vis: no
Sources: Directories; 1960
Info: R. Little (motor body works)
Status: Unknown

Site: Gillibrand Street, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: engineers
 Sel: yes Vis: no
 Sources: Directories; 1948, 1952
 Info: Moore and Scholes Ltd
 Status: Unknown

Site: Golden Hill
 Address: Site not located in search
 NGR: not found Type: scrap yard
 Sel: no Vis: no
 Sources: Directories; 1968
 Info: Leyland Metals Co Ltd
 Status: Unknown

Site: Golden Hill Lane
 Address: Leyland
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: Walter M. Jolly
 Status: Unknown

Site: Golden Hill Lane, Leyland
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: William Stazicker
 Status: Unknown

Site: Golden Hill Lane, Leyland
 Address: Site not located in search
 NGR: not found Type: engineers
 Sel: yes Vis: no
 Sources: Directories; 1948, 1968
 Info: Halstead Engineers Ltd
 Status: Unknown

Site: Golden Hill Lane, Leyland
 NGR: SD543225 Type: rubber works
 Sel: yes Vis: no
 Sources: OS map; 1938 6" No.69 - SW. Directories;
 1913, 1922, 1940, 1952, 1968 (J. Baxter). Directories;
 1940 (British Tyre). Directories; 1940 (Respirator
 Assembly). Directories; 1968 (BTR Industries)
 Info: Four operators noted on this site...
 J. Baxter and Co (1913 - 1968). British Tyre and
 Rubber Co (1940). Respirator Assembly Factory
 (1940). BTR Industries (1968)
 Status: Commercial site.

Site: Golden Hill Metals
 Address: Golden Hill Metals, Braconash Road,
 Leyland, Lancs.
 NGR: SD535228 Type: scrap yard
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/6
 GSP
 Info: Status 'A'. Ferrous and non-ferrous scrap and
 batteries.
 Status: Operational

Site: Golden Hill Rubber Works, Leyland
 NGR: SD540227 Type: rubber works

Sel: yes Vis: no
 Sources: OS map; 1893 6" No.69 - SW. OS map;
 1938 6" No.69 - SW. Directories; 1898. Directories;
 1913, 1940, 1948, 1950, 1968
 Info: Leyland Rubber Co (1989). Leyland and
 Birmingham Rubber Co (1913 - 1968)
 Status: Commercial site

Site: Golf Club Practice Ground
 NGR: SD563215 Type: landfill
 Sel: yes Vis: yes
 Sources: WRA GDO sites list
 Info: Site ref 7/010.
 Status: Unknown - private land, no access

Site: Gregson Lane, No. 273, Higher Walton
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1948
 Info: William Gamble
 Status: Unknown

Site: Gregson Lane, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1940
 Info: William Draper
 Status: Unknown

Site: Gregson Lane, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: metals/engineering
 Sel: no Vis: no
 Sources: Directories; 1948
 Info: Robinson and Co
 Status: Unknown

Site: Hall Lane Tip
 Address: Leyland, Lancs.
 NGR: SD535237 Type: landfill
 Sel: yes Vis: no
 Sources: WRA GDO sites list.
 Info: Site ref 7/004. 'L' series file ref 35/177.
 Status: Unknown

Site: Hastings road, Leyland
 NGR: SD545226 Type: vehicle mfrs
 Sel: yes Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: W & H Fowler (coach builders)
 Status: Unknown

Site: Haven Works, 145-147 Towngate, Leyland
 Address: Site not located in search
 NGR: not found Type: metals/engineering
 Sel: yes Vis: no
 Sources: Directories; 1940, 1948 (blacksmiths).
 Directories; 1940, 1948, 1952, 1960, 1968 (engineers)
 Info: George Damp and sons
 Status: Unknown

Site: Heatherfield Works, Church Lane, Farington
 Address: Site not located in search
 NGR: not found Type: chemical mfrs

Sel: yes Vis: no
 Sources: Directories; 1960
 Info: Whitfire Firefighters Ltd
 Status: Unknown

Site: Hecla Works, Mounsey Road, Bamber Bridge
 NGR: SD565257 Type: metals/engineering
 Sel: yes Vis: yes
 Sources: Directories; 1932, 1940, 1948, 1952
 Info: Municipal Appliances Ltd (company name still faintly visible on building). 'Road and Quarry Plant Engineers' now painted on side of building.
 Status: Derelict - 'to let' signs on buiding.

Site: Hennel Lane Tip/Sand Quarry
 Address: Lostock Hall, Lancs.
 NGR: SD548274 Type: landfill
 Sel: yes Vis: no
 Sources: Tip no. 1471, DoE 1972-74 landfill sites list (via FoE). FoE gassing landfill sites survey. WRA GDO sites list
 Info: DoE sites list; groundwater risk G3 WDA monitored - methane detected, adjacent to housing. GDO sites list ref. 7/009.
 Status: Unknown

Site: Higher Barn Farm
 Address: Higher Barn Farm, Roach Road, Samlesbury, Lancs. Tel 0254 852384
 NGR: SD605274 Type: landfill
 Sel: yes Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/10 GSR
 Info: Status 'B'. Inert landfill - soil, clay, natural sand, rock and clean hard-core.
 Status: Unknown

Site: Higher Walton iron foundry
 Address: Site not located in search
 NGR: not found Type: metals/engineering
 Sel: no Vis: no
 Sources: OS map; 1891 6" No.69 - NE. OS map; 1938 6" No.69 - NE
 Status: Unknown

Site: Higher Walton Road, No. 289, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1932
 Info: Jackson & Co
 Status: Unknown

Site: Hopwood Street, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1948, 1960
 Info: Joseph Nickson
 Status: Unknown

Site: Hopwood Street, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1913
 Info: Robert Baldwin
 Status: Unknown

Site: Hopwood Street, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1922, 1932, 1940
 Info: Peter Haythornthwaite
 Status: Unknown

Site: Hopwood Street, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1948, 1952, 1960
 Info: Joseph Nickson
 Status: Unknown

Site: Hough Land iron works/Leyland Motor Works
 NGR: SD541224 Type: metal/engineering
 Sel: yes Vis: no
 Sources: OS map; 1893 6" No.69 - SW. OS map; 1938 6" No.69 - SW
 Info: On 1893 survey, marked as an iron works. On 1938 survey it is marked as part of the Leyland works.
 Status: Unknown

Site: Hough Lane, No. 52-58, Leyland
 Address: Site not located in search
 NGR: not found Type: printer
 Sel: no Vis: no
 Sources: Directories; 1948
 Info: Leyland Printing Co
 Status: Unknown

Site: Ivy Garage, Chorley Road, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: Robert Winterbottom
 Status: Unknown

Site: John Street, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: chemical mfrs
 Sel: yes Vis: no
 Sources: Directories; 1968
 Info: Industrial Chemicals (Preston) Ltd - same company located in Charnley Fold during site visits (see 'Stone Mill', Charnley Fold, Bamber Bridge).
 Status: Unknown

Site: Land by 3B shed

Address: Samlesbury, Lancs.
 NGR: SD637311 Type: landfill
 Sel: yes Vis: no
 Sources: WRA GDO sites list
 Info: Site ref 7/008. 'L' series file ref 93.
 Status: Unknown

Site: Leyland Bleach Works
 NGR: SD532220 Type: bleaching/dying
 Sel: yes Vis: no
 Sources: OS map; 1893 6" No.69 - SW. OS map;
 1938 6" No.69 - SW. Directories; 1898, 1881, 1913,
 1922, 1940, 1948, 1952, 1968
 Info: John Stanning and Sons. Site redeveloped as
 housing and a school (on most recent 1:25,000 OS
 survey).
 Status: Unknown

Site: Leyland gas works
 Address: End of 'Gas Terrace', Leyland.
 NGR: SD544225 Type: gasworks
 Sel: yes Vis: yes
 Sources: OS map; 1893 6" No.69 - SW. OS map;
 1938 6" No.69 - SW. Directories; 1898
 Info: Leyland and Farington Gas Co. Site listed on
 the derelict land survey.
 Status: Site cleared and derelict

Site: Leyland Goods Yard
 NGR: SD546227 Type: scrap yard
 Sel: no Vis: no
 Sources: Directories; 1968
 Info: Leyland Metals Co Ltd
 Status: Unknown

Site: Leyland Motor Works, Meadow Lane, Leyland
 NGR: SD543221 Type: vehicle mfrs
 Sel: no Vis: no
 Sources: OS map; 1938 6" No.69 - SW. Directories;
 1913, 1960
 Info: Leyland Motor Co Ltd
 Status: Developed as the Leyland Motor Museum

Site: Leyland Pet Crematorium
 Address: Freshfields, Wigan Road, Leyland PR5
 2DS. Tel 0772 622466
 NGR: SD207553 Type: transfer station
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/601
 GTD.
 Info: Status 'A'. Collection of animal carcasses for
 incineration and burial.
 Status: Operational

Site: Leyland Road Garage, Penwortham
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1960
 Info: Calvert Brothers
 Status: Unknown

Site: Leyland Road, No. 138, Penwortham
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no

Sources: Directories; 1960
 Info: Middleforth Garage Ltd
 Status: Unknown

Site: Leyland Truck Works, Farington
 NGR: SD540237 Type: vehicle mfrs
 Sel: no Vis: no
 Sources: OS map; 1986 1:25,000 Pathfinder
 Info: Leyland DAF Ltd.
 Status: Operational

Site: Leyland Works, Farington
 NGR: SD545230 Type: vehicle mfrs
 Sel: no Vis: no
 Sources: OS map; 1938 6" No.69 - SW
 Info: Partly derelict - buildings still standing
 Status: Unknown

Site: Limekiln, Old Limekiln Farm
 NGR: SD551268 Type: chemical mfrs
 Sel: yes Vis: yes
 Sources: OS map; 1891 6" No.69 - NW. OS map;
 1938 6" No.69 - NW
 Info: Still open field. Development on north side -
 possibility of future 'infilling' development
 Status: Undeveloped - grassy field.

Site: Little Hoole Marsh Landfill
 Address: Station Road, Little Hoole, Lancs.
 NGR: SD460244 Type: landfill
 Sel: yes Vis: yes
 Sources: Tip no. 1200, DoE 1972-4 landfill sites list
 (via FoE)
 Info: Groundwater risk G1
 Status: Unknown - this area inaccessible

Site: Liverpool Road, Penwortham
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1960
 Info: Howick Cross Garage
 Status: Unknown

Site: Liverpool Road, Penwortham
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1960
 Info: J Smith Ltd
 Status: Unknown

Site: Longton Brickcroft
 NGR: SD479251 Type: landfill
 Sel: no Vis: no
 Sources: WRA GDO sites list
 Info: Site ref 7/012.
 Status: Unknown

Site: Longton Scrap Yard
 Address: Longton Motor Salvage, Longton Hall
 Lane, Longton, Lancs. Tel 0772 612294
 NGR: SD471252 Type: scrap yard
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/3
 GSN.

Info: Status 'A'.
Status: Operational

Site: Longton STW
NGR: SD468251 Type: sewage works
Sel: no Vis: no
Sources: OS map; 1986 1:25,000 Pathfinder
Status: Unknown - presumed operational

Site: Lostock Hall engine shed
NGR: SD546254 Type: metal/engineering
Sel: yes Vis: yes
Sources: OS map; 1938 6" No.69 - NW
Info: Engine sheds which used to be part of local rail network. Listed on derelict land survey for redevelopment.
Status: Cleared - derelict.

Site: Middle Shuttling Fields
Address: Houghton, Lancs.
NGR: SD582267 Type: landfill
Sel: yes Vis: no
Sources: WRA GDO sites list
Info: Site ref 7/001. 'L' series file ref 192.
Status: Unknown

Site: Miniature rifle range, Leyland
NGR: SD533213 Type: metals/engineering
Sel: no Vis: no
Sources: OS map; 1938 6" No.69 - SW
Info: Redeveloped as housing.
Status: Unknown

Site: Moors Mill Foundry, Higher Walton
Address: Site not located in search
NGR: not found Type: metals/engineering
Sel: yes Vis: no
Sources: Directories; 1940, 1948, 1952, 1960, 1968
Info: William Coupe and Sons
Status: Unknown

Site: Morley Smithy
Address: Site not located in search
NGR: not found Type: blacksmith
Sel: no Vis: no
Sources: OS map; 1891 6" No.69 - NE. OS map; 1938 6" No.69 - NE
Status: Unknown

Site: Moss Lane, Leyland
Address: Site not located in search
NGR: not found Type: rubber works
Sel: no Vis: no
Sources: Directories; 1922
Info: Victory Rubber Co
Status: Unknown

Site: Mount Pleasant Mill, Dunkirk Lane, Leyland
NGR: SD527217 Type: printer
Sel: no Vis: no

Sources: OS map; 1893 6" No.69 - SW. OS map; 1938 6" No.69 - SW. Directories; 1960
Info: Two printers are listed on this site in 1960... Leyland Printing Co. John Heaton and Sons. Building still intact - use unknown.
Status: Unknown

Site: Much Hoole Landfill Site
Address: Lancashire Waste Services, Station Road, Much Hoole, Lancs. Tel 0772 880044
NGR: SD460242 Type: landfill
Sel: yes Vis: yes
Sources: WDA licensed sites list. WDA ref L1/7/1 GAA. FoE gassing landfill site survey. WRA GDO sites list.
Info: Status 'A'. Construction, demolition, domestic, commercial and industrial wastes. WDA monitoring - 4% methane. GDO list ref 7/002. 'L' series file ref 001.
Status: Operational

Site: N. of Spurrier Works
Address: Leyland Test Track, Leyland, Lancs.
NGR: SD537241 Type: landfill
Sel: no Vis: no
Sources: WRA GDO sites list
Info: Site ref 7/005. 'L' series file ref 206.
Status: Unknown

Site: Naylors Yard Transfer Station
Address: Righton Insulation Services Ltd., Unit 122, Moss Side Industrial Estate, Leyland, Preston, Lancs. Tel: Leyland 454111
NGR: SD525230 Type: transfer station
Sel: no Vis: no
Sources: WDA licensed sites list - status 'B'. WDA ref L1/7/277 GSH
Info: Transfer station for solid asbestos wastes.
Status: Operational

Site: New Briton Recycling
Address: Unit 514, Four Oaks Road, Walton Summit, Bamber Bridge, Preston, Lancs. Tel 0771 30504.
NGR: SD545233 Type: transfer station
Sel: no Vis: no
Sources: WDA licensed sites list. WDA ref L1/7/548 GTA.
Info: Status 'B'. Glass, steel and aluminium can recycling.
Status: Operational

Site: New Inn Works, Leyland
Address: Site not located in search
NGR: not found Type: brick & tile mfrs
Sel: no Vis: no
Sources: Directories; 1898
Info: Blowling and Houlden
Status: Unknown

Site: Nook Farm
Address: Bamber Bridge, Lancs.

NGR: SD568274 Type: landfill
 Sel: yes Vis: yes
 Sources: WRA GDO sites list
 Info: Site ref 7/015
 Status: Unknown - private land, no access

Site: Northgate, Leyland
 Address: Site not located in search
 NGR: not found Type: paint/varnish
 Sel: no Vis: no
 Sources: Directories; 1968
 Info: Hartwood Engineers (coach painters)
 Status: Unknown

Site: Northgate, Leyland
 Address: Site not located in search
 NGR: not found Type: paint/varnish mfrs
 Sel: no Vis: no
 Sources: Directories; 1948, 1952, 1968
 Info: Leyland Paint and Varnish Co
 Status: Unknown

Site: Northwestern Gas Board works
 NGR: SD543266 Type: gasworks
 Sel: yes Vis: yes
 Sources: OS map; 1938 6" No.69 - NW. Directories; 1960
 Info: Part of site still used for gas storage/distribution. Cleared except for one small area at the S. end. The rest of the site is listed on the derelict land survey for redevelopment.
 Status: Mostly derelict - area signed as 'Silcock Express Distribution Centre' possibly used for vehicle storage.

Site: Old Oak Garage, Houghton Lane, Higher Walton
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: A.H. Burton
 Status: Unknown

Site: Orcol Fuels Depot
 Address: Orcol Fuels Ltd., Carr Lane, Farington, Lancs.
 NGR: SD545231 Type: transfer station
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/380
 Info: Status 'B'. Handling of waste oils.
 Status: Operational

Site: Penwortham Golf Club
 NGR: SD510290 Type: landfill
 Sel: yes Vis: yes
 Sources: WRA GDO sites list
 Info: Site ref 7/013. 'L' series file ref 470.
 Status: Unknown - private land, no access

Site: Penwortham Golf Club Landfill Site
 Address: William Pye Ltd., Shay Lane Industrial Estate, Shay Lane, Longridge, Lancs.
 NGR: SD511289 Type: landfill
 Sel: yes Vis: yes

Sources: WDA licensed sites list. WDA ref L1/7/470
 GAV
 Info: Status 'A'. Inert landfill - soil clay, natural sand, rock, slate, concrete, brick and ceramics.
 Status: Assumed operational - private land, no access.

Site: Penwortham Mill
 NGR: SD539273 Type: chemical?
 Sel: no Vis: no
 Sources: OS map; 1891 6" No.69 - NW
 OS map; 1938 6" No.69 - NW
 Info: Listed on maps as producing 'surgical dressings'
 Status: Unknown

Site: Penwortham Power Station (disused)
 Address: Penwortham, Lancs.
 NGR: SD522292 Type: landfill
 Sel: yes Vis: yes
 Sources: WRA GDO sites list.
 Info: Site ref 7/003. 'L' series file ref 311. Listed on derelict land survey for redevelopment.
 Status: Area completely redeveloped/landscaped as a river-front park, and some housing around the edge of the original power station site.

Site: Pilkington Works
 Address: Bamber Bridge
 NGR: SD560260 Type: metal/engineering
 Sel: no Vis: no
 Sources: OS map; 1938 6" No.69 - NE. Directories; 1922 (P. Pilkington). Directories; 1932, 1940 (R. Edwards). Directories; 1948 (T. Blackburn). Directories; 1940 (Stevenson). Directories; 1948, 1952, 1960 (Blackburn & Sons)
 Info: Five companies are listed for this site... Peter Pilkington. Russel Edwards & Co. Thomas Blackburn. Stevenson Ltd. Thomas Blackburn and Sons. Building intact, use unknown.
 Status: Unknown

Site: Prospect Avenue, No. 6, Leyland
 Address: Site not located in search
 NGR: not found Type: engineer
 Sel: no Vis: no
 Sources: Directories; 1922
 Info: Fred Bennett
 Status: Unknown

Site: Roach Road
 Address: Samlesbury, Lancs.
 NGR: SD601282 Type: landfill
 Sel: yes Vis: no
 Sources: WRA GDO sites list
 Info: Site ref 7/017.
 Status: Unknown

Site: Rose Whittles smithy
 NGR: SD554213 Type: blacksmith
 Sel: no Vis: no
 Sources: OS map; 1893 6" No.69 - SW. Directories; 1881. Directories; 1898
 Info: Two blacksmiths are listed at this site... John Swarbrick (1881). Robert Measden (1898). Buildings still there, use unknown.
 Status: Unknown

Site: Royal Ordnance Depot, Leyland
 NGR: SD558210 Type: chemical mfrs
 Sel: no Vis: yes
 Sources: OS map; 1990 1:50,000 Landranger
 Info: Royal Ordnance factory - makes bombs, bullets, landmines, etc.
 Status: Operational - although some parts are now derelict.

Site: Samlesbury airfield
 NGR: SD625310 Type: airfield
 Sel: no Vis: no
 Sources: OS map; 1990 1:50,000 Landranger
 Info: Semi-derelict. Part of it is listed on the derelict land survey.
 Status: Unknown

Site: Sandy Lane, Leyland
 Address: Site not located in search
 NGR: not found Type: metals/engineering
 Sel: yes Vis: no
 Sources: Directories; 1922
 Info: Leyland Construction Co
 Status: Unknown

Site: School Lane Works, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1960
 Info: R. Heaney
 Status: Unknown

Site: School Lane, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: chemical mfrs
 Sel: no Vis: no
 Sources: Directories; 1952
 Info: Sydney Charlesworth and Co
 Status: Unknown

Site: School Lane, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: metals/engineering
 Sel: no Vis: no
 Sources: Directories; 1948, 1952, 1960
 Info: Bamber Bridge Light Casting Co
 Status: Unknown

Site: SD Tyres
 Address: S D Tyres, Gillibrand Street, Walton-le-Dale, Lancs. Tel 0772 885860
 NGR: SD558271 Type: transfer station
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/478 GSX
 Info: Status 'B'. Tyres depot
 Status: Operational

Site: Slater Lane, Leyland

Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1940
 Info: William Nelson
 Status: Unknown

Site: St. Aidens Road, School Lane, Bamber Bridge
 NGR: SD564267 Type: chemical treatment
 Sel: yes Vis: yes
 Sources: Directories; 1968
 Info: Hickson's Timber Impregnation Co. Problem with this site of exactly which areas were used for the timber yard - unclear from available maps. May well have been the whole 'clear' area on the old OS maps.
 Status: Small part still in use, but may have been partly redeveloped as housing and the Chorley and S. Ribble NHS Trusts' "Pathways" centre.

Site: St. Mary's Road, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: metals broker
 Sel: no Vis: no
 Sources: Directories; 1913, 1922. Directories; 1922
 Info: Two metals brokers are listed at this site... No. 40 St. Mary's Street, Henry Vickers (1913, 1922). No. 36 St. Mary's Street, Thomas Vickers (1922)
 Status: Unknown

Site: Station Road, No. 150, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1932
 Info: Lancelot W. Bateman
 Status: Unknown

Site: Station Road, No. 201, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: chemicals/ironmonger
 Sel: no Vis: no
 Sources: Directories; 1898, 1922, 1932
 Info: Three references are listed for this site... NO. 201, Station Road, James Walmsley, paint & varnish mfrs (1898). No. 201-303 Station Road, Mrs Jane Walmsley, ironmonger (1922). No. 201 Station Road, Thomas Walmsley, ironmonger (1932)
 Status: Unknown

Site: Station Road, No. 321, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1898, 1913, 1922, 1932, 1940, 1948
 Info: Four references were found for this site... Henry Blackburn, blacksmith (1898). Richard Blackburn, blacksmith (1913). H. Blackburn & Sons, smith and ironmonger (1932). Robert Swarbrick, blacksmith and motor engineer (1940, 1948)
 Status: Unknown

Site: Station Road, No. 361-365, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1922, 1932
 Info: There are two listing for Richard Prescott. In 1922 its was an ironmongers, in 1932 a motor engineers.
 Status: Unknown

Site: Station Road, No. 68, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: brick & tile mfrs
 Sel: no Vis: no
 Sources: Directories; 1898
 Info: Charles Oakland
 Status: Unknown

Site: Stone Mill, Charnley Fold Road, Bamber Bridge
 NGR: SD566270 Type: engineers/chemicals
 Sel: yes Vis: yes
 Sources: OS map; 1891 6" No.69 - NE
 OS map; 1938 6" No.69 - NE
 Directories; 1948, 1952
 Info: Directory - Manhards Ltd. On visit building was marked as 'Industrial Chemical Co (Preston) Ltd'. Side door also had sign saying, 'paint stripping service'. Unsure whether the building was still in use. See also 'John Street, Bamber Bridge' reference.
 Status: Possibly still in use as chemical works.

Site: Stoney Lane
 Address: Farington, Lancs.
 NGR: SD551246 Type: landfill
 Sel: yes Vis: no
 Sources: WRA GDO sites list
 Info: Site ref 7/018
 Status: Unknown

Site: Stricklands Lane, Penwortham
 Address: Site not located in search
 NGR: not found Type: scrap yard
 Sel: no Vis: no
 Sources: Directories; 1968
 Info: Autowreckers Ltd
 Status: Unknown

Site: Sumner Street, No. 27, Leyland
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1922
 Info: John C. Miller
 Status: Unknown

Site: Tardy Gate
 Address: Site not located in search
 NGR: not found Type: brick & tile mfrs
 Sel: no Vis: no
 Sources: Directories; 1881
 Info: Jonathon Waddington
 Status: Unknown

Site: Tardy Gate
 Address: Site not located in search

NGR: not found Type: rubber works
 Sel: no Vis: no
 Sources: Directories; 1913
 Info: The Sombro Rubber Co
 Status: Unknown

Site: Tardy Gate Tannery
 NGR: SD543255 Type: tannery
 Sel: yes Vis: yes
 Sources: OS map; 1891 6" No.69 - NW. OS map; 1938 6" No.69 - NW
 Info: Site redeveloped as an old peoples' home - 'Lonsdale Chase'. Run by Collingwood Housing Association, Dickinson Chambers, 1 Central Street, Manchester M1 5WR.
 Status: Redeveloped within original boundary.

Site: Tardy Gate, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1898
 Info: William Marsden
 Status: Unknown

Site: Tom Martin & Co Ltd.
 Address: Unit 123, Seedlee Road, Walton Summit, Preston, Lancs. Tel 626828
 NGR: SD573250 Type: scrap yard
 Sel: no Vis: no
 Sources: WDA licensed sites list. WDA ref L1/7/10 GSS
 Info: Status 'A'. Ferrous scrap, non-ferrous scrap and metal swarf.
 Status: Operational

Site: Towngate, No. 2, Leyland
 Address: Site not located in search
 NGR: not found Type: metals/engineering
 Sel: yes Vis: no
 Sources: Directories; 1940, 1948, 1952, 1960, 1968
 Info: John Heaton and Sons
 Status: Unknown

Site: Towngate, No. 3, Leyland
 Address: Site not located in search
 NGR: not found Type: printer
 Sel: no Vis: no
 Sources: Directories; 1948
 Info: A. Earnest Threlfall
 Status: Unknown

Site: Union Street, Leyland
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1881, 1898
 Info: Owned by Richard Lazenby
 Status: Unknown

Site: Union Street, Leyland
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1913
 Info: John Miller

Status: Unknown

Site: Union Street, Leyland
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1922
 Info: J. Fenworth
 Status: Unknown

Site: Victoria Road, No. 158-162
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: James Rafferty and Sons
 Status: Unknown

Site: Victoria Road, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1932, 1940, 1948, 1952
 Info: John M. Kay
 Status: Unknown

Site: Victoria Road, Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1948
 Info: Gardner & Singleton Ltd
 Status: Unknown

Site: Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: brick & tile mfrs
 Sel: no Vis: no
 Sources: Directories; 1851
 Info: George Clark
 Status: Unknown

Site: Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: iron/brass foundry
 Sel: no Vis: no
 Sources: Directories; 1834, 1851
 Info: Robert Whittaker
 Status: Unknown

Site: Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: nail maker
 Sel: no Vis: no
 Sources: Directories; 1851
 Info: John Eccles
 Status: Unknown

Site: Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: printer

Sel: no Vis: no
 Sources: Directories; 1948, 1952
 Info: Frank Coupe and Co Ltd
 Status: Unknown

Site: Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: printer
 Sel: no Vis: no
 Sources: Directories; 1851
 Info: Swainson Charles & Co
 Status: Unknown

Site: Walton-le-Dale
 Address: Site not located in search
 NGR: not found Type: tin plate mfrs
 Sel: no Vis: no
 Sources: Directories; 1834
 Info: John Barratt
 Status: Unknown

Site: Walton-le-Dale STW
 NGR: SD544275 Type: sewage works
 Sel: no Vis: no
 Sources: OS map; 1986 1:25,000 Pathfinder
 Status: Presumed operational

Site: Water Street, Leyland
 NGR: SD541221 Type: blacksmith
 Sel: no Vis: no
 Sources: OS map; 1893 6" No.69 - SW. Directories;
 1881
 Info: Richard Sumner
 Status: Unknown

Site: Water Street, Leyland
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1913, 1922
 Info: George Damp & Sons.
 Status: Unknown

Site: Water Street, off School Lane, Bamber Bridge
 Address: Site not located in search
 NGR: not found Type: metals/engineering
 Sel: no Vis: no
 Sources: Directories; 1968
 Info: Bamber Bridge Steel Co Ltd
 Status: Unknown

Site: Watkin Lane, No. 21, Lostock Hall
 Address: Site not located in search
 NGR: not found Type: blacksmith
 Sel: no Vis: no
 Sources: Directories; 1913, 1932
 Info: William Marsden
 Status: Unknown

Site: Watkin Lane, Walton-le-Dale
 Address: Site not located in search

NGR: not found Type: auto-mechanic
 Sel: no Vis: no
 Sources: Directories; 1940, 1948, 1952
 Info: Thomas Marsden
 Status: Unknown

Site: Weir Bridge Mill
 NGR: SD596288 Type: paper mill
 Sel: no Vis: no
 Sources: OS map; 1990 1:50,000 Landranger
 Status: Unknown

Site: Wigan Road, Leyland
 Address: Site not located in search
 NGR: not found Type: petrol station
 Sel: no Vis: no
 Sources: Directories; 1940
 Info: William Ashton
 Status: Unknown

Site: Wigan Road, Leyland

Address: Site not located in search
 NGR: not found Type: petrol station
 Sel: no Vis: no
 Sources: Directories; 1948, 1952
 Info: Henry Lea
 Status: Unknown

Site: Winery Lane, Walton Flats
 NGR: SD552284 Type: vehicle mfrs
 Sel: no Vis: no
 Sources: Directories; 1948, 1960
 Info: Atkinson Vehicles Ltd
 Status: Unknown

Site: Wood Barn
 NGR: SD577287 Type: landfill
 Sel: no Vis: no
 Sources: WRA GDO sites list
 Info: Site ref 7/021. File ref 470.
 Status: Unknown

Appendix 2: Land uses

The following table lists all the sites found in the study grouped together according to the class of contaminative land use. Each entry has the following format....

Site name; grid reference; status

The groups are as follows...

Abattoirs:

Abattoir, Clayton Brook; SD571245; Unknown

Airfields:

Samlesbury airfield; SD625310; Unknown

Auto-mechanics:

Bridge Garage, Higher Walton; Not found; Unknown
 Brownedge Road, No. 150, Walton-le-Dale; Not found; Unknown
 Canberra Road, Leyland; Not found; Unknown
 Cann Bridge Street, No. 100, Higher Walton; Not found; Unknown
 Chorley Road, No. 188, Bamber Bridge; Not found; Unknown
 Chorley Road, Walton-le-Dale; Not found; Unknown
 Chorley Road, Walton-le-Dale; Not found; Unknown
 Chorley Road, Walton-le-Dale; Not found; Unknown
 Chorley Road, Walton-le-Dale; Not found; Unknown
 Climor Garage, Liverpool Road, Penwortham; Not found; Unknown
 Dunkirk Lane, Leyland; Not found; Unknown
 Fairfield Garage, Bamber Bridge; Not found; Unknown
 Forge Street, Leyland; SD541220; Unknown
 Gillibrand Street, Walton-le-Dale; Not found; Unknown
 Golden Hill Lane; Not found; Unknown
 Golden Hill Lane, Leyland; Not found; Unknown
 Higher Walton Road, No. 289, Walton-le-Dale; Not found; Unknown
 Hopwood Street, Bamber Bridge; Not found; Unknown
 Ivy Garage, Chorley Road, Walton-le-Dale; Not found; Unknown
 Leyland Road Garage, Penwortham; Not found; Unknown
 Leyland Road, No. 138, Penwortham; Not found; Unknown
 Liverpool Road, Penwortham; Not found; Unknown
 Liverpool Road, Penwortham; Not found; Unknown
 Old Oak Garage, Houghton Lane, Higher Walton; Not found; Unknown
 School Lane Works, Bamber Bridge; Not found; Unknown
 Station Road, No. 150, Bamber Bridge; Not found; Unknown
 Victoria Road, No. 158-162; Not found; Unknown
 Victoria Road, Walton-le-Dale; Not found; Unknown
 Victoria Road, Walton-le-Dale; Not found; Unknown
 Watkin Lane, Walton-le-Dale; Not found; Unknown
 Wigan Road, Leyland; Not found; Unknown
 Wigan Road, Leyland; Not found; Unknown

Blacksmiths:

Chapel Brow blacksmiths; SD546255; Unknown
 Chorley Road, No 194, Walton-le-Dale; Not found; Unknown
 Chorley Road, Walton-le-Dale; Not found; Unknown

Church Road, Bamber Bridge; Not found; Unknown
 Darwen Villa, Chorley Road, Walton-le-Dale; Not found; Unknown
 Dunkirk Lane, Leyland; Not found; Unknown
 Dunkirk Lane, No. 52, Leyland; Not found; Unknown
 Edward Street, No. 13, Leyland; SD541219; Unknown
 Fox Lane, Leyland; Not found; Unknown
 Fox Lane, Leyland; Not found; Unknown
 Gas Terrace, Leyland; SD545225; Unable to establish exact location in Gas Terrace
 Gregson Lane, No. 273, Higher Walton; Not found; Unknown
 Gregson Lane, Walton-le-Dale; Not found; Unknown
 Hopwood Street, Bamber Bridge; Not found; Unknown
 Hopwood Street, Bamber Bridge; Not found; Unknown
 Hopwood Street, Bamber Bridge; Not found; Unknown
 Morley Smithy; Not found; Unknown
 Rose Whittles smithy; SD554213; Unknown
 Slater Lane, Leyland; Not found; Unknown
 Station Road, No. 321, Bamber Bridge; Not found; Unknown
 Station Road, No. 361-365, Bamber Bridge; Not found; Unknown
 Sumner Street, No. 27, Leyland; Not found; Unknown
 Tardy Gate, Bamber Bridge; Not found; Unknown
 Union Street, Leyland; Not found; Unknown
 Union Street, Leyland; Not found; Unknown
 Union Street, Leyland; Not found; Unknown
 Water Street, Leyland; SD541221; Unknown
 Water Street, Leyland; Not found; Unknown
 Watkin Lane, No. 21, Lostock Hall; Not found; Unknown

Bleaching/dying:

Leyland Bleach Works; SD532220; Unknown
 Bannister Hall Works, Higher Walton; SD577277; Housing - outline needs checking with OS survey

Brick and tile manufacture:

Bamber Bridge; Not found; Unknown
 Charnley Fold, Bamber Bridge; SD567270; Unknown - possibly still a commercial site
 New Inn Works, Leyland; Not found; Unknown
 Station Road, No. 68, Bamber Bridge; Not found; Unknown
 Tardy Gate; Not found; Unknown
 Walton-le-Dale; Not found; Unknown

Cemeteries:

Bamber Bridge cemetery; SD565251; Unknown

Chemicals/paint and varnish:

Farington Naptha Works; SD523247; Unknown
 Heatherfield Works, Church Lane, Farington; Not found; Unknown
 John Street, Bamber Bridge; Not found; Unknown
 Limekiln, Old Limekiln Farm; SD551268; Undeveloped - grassy field.
 Royal Ordnance Depot, Leyland; SD558210; Operational - some parts are now derelict.
 School Lane, Bamber Bridge; Not found; Unknown
 St. Aidens Road, School Lane, Bamber Bridge; SD564267; Small part still in use, partly redeveloped
 Penwortham Mill; SD539273; Unknown
 Station Road, No. 201, Bamber Bridge; Not found; Unknown
 Chorley Road, No. 10a, Walton-le-Dale; Not found; Unknown
 Stone Mill, Charnley Fold Road, Bamber Bridge; SD566270; Possibly still in use as chemical works.
 Croston Road, Farington; Not found; Unknown
 Northgate, Leyland; Not found; Unknown
 Northgate, Leyland; Not found; Unknown
 Tardy Gate Tannery; SD543255; Redeveloped within original boundary.

Engineering/metals:

Dunthorp, Sandy Lane, Leyland; Not found; Unknown
 Prospect Avenue, No. 6, Leyland; Not found; Unknown
 Bamber Bridge engineering works; SD565257; Unknown
 Gillibrand Street, Walton-le-Dale; Not found; Unknown

Golden Hill Lane, Leyland; Not found; Unknown
 Stone Mill, Charnley Fold Road, Bamber Bridge; SD566270; Possibly still in use as chemical works.
 Carr Wood rifle range; SD544274; Still wooded (on current OS survey), status unknown
 Hough Land iron works/Leyland Motor Works; SD541224; Unknown
 Lostock Hall engine shed; SD546254; Cleared - derelict.
 Pilkington Works; SD560260; Unknown
 Bamber Bridge; Not found; Unknown
 St. Mary's Road, Bamber Bridge; Not found; Unknown
 Brookfield Iron Works; SD542224; Intact and still run by same company
 Farington iron foundry; SD544231; Unknown
 Gregson Lane, Walton-le-Dale; Not found; Unknown
 Haven Works, 145-147 Towngate, Leyland; Not found; Unknown
 Hecla Works, Mounsey Road, Bamber Bridge; SD565257; Derelict - 'to let' signs on buiding.
 Higher Walton iron foundry; Not found; Unknown
 Miniature rifle range, Leyland; SD533213; Unknown
 Moors Mill Foundry, Higher Walton; Not found; Unknown
 Sandy Lane, Leyland; Not found; Unknown
 School Lane, Bamber Bridge; Not found; Unknown
 Towngate, No. 2, Leyland; Not found; Unknown
 Water Street, off School Lane, Bamber Bridge; Not found; Unknown
 Walton-le-Dale; Not found; Unknown
 Butlers' Farm Scrap Yard; SD528211; Operational
 Cookson Aluminium (North Western) Ltd.; SD540220; Operational
 Golden Hill; Not found; Unknown
 Golden Hill Metals; SD535228; Operational
 Leyland Goods Yard; SD546227; Unknown
 Longton Scrap Yard; SD471252; Operational
 Stricklands Lane, Penwortham; Not found; Unknown
 Tom Martin & Co Ltd.; SD573250; Operational
 Walton-le-Dale; Not found; Unknown

Gasworks:

Leyland gas works; SD544225; Site cleared and derelict
 Northwestern Gas Board works; SD543266; Mostly derelict

Hospitals:

Bradkirk Hospital for Contagious Diseases; SD574254; Building possibly still intact. Use unknown

Landfill/waste transfer:

AA Packaging; SD478242; Commercial premises. No obvious sign of landfilling.
 Bank Head Lane (No. 87); SD587263; Unknown
 Coupes Foundry; SD575275; Unknown
 Dunkirk Road; SD506222; Grassed over field - no development.
 Duxon Hill Quarry; SD611257; Unknown
 Golf Club Practice Ground; SD563215; Unknown - private land, no access
 Hall Lane Tip; SD535237; Unknown
 Hannel Lane Tip/Sand Quarry; SD548274; Unknown
 Higher Barn Farm; SD605274; Unknown
 Land by 3B shed; SD637311; Unknown
 Little Hoole Marsh Landfill; SD460244; Unknown - this area inaccessible
 Longton Brickcroft; SD479251; Unknown
 Middle Shutling Fields; SD582267; Unknown
 Much Hoole Landfill Site; SD460242; Operational
 N. of Spurrier Works; SD537241; Unknown
 Nook Farm; SD568274; Unknown - private land, no access
 Penwortham Golf Club; SD510290; Unknown - private land, no access
 Penwortham Golf Club Landfill Site; SD511289; Assumed operational - private land, no access.

Roach Road; SD601282; Unknown
 Stoney Lane; SD551246; Unknown
 Wood Barn; SD577287; Unknown
 Able Skip Hire; SD545233; Commercial site
 Blackledge Plant Hire; SD574245; Commercial premises.
 Clive Hurt Plant Hire; SD531228; Operational
 CRAK Glass Transfer Station; SD543228; Operational
 Distillex Transfer Station; SD524227; Operational
 Farington Household Waste Disposal Centre; SD529243; Operational
 Leyland Pet Crematorium; SD207553; Operational
 Naylor's Yard Transfer Station; SD525230; Operational
 New Briton Recycling; SD545233; Operational
 Orcol Fuels Depot; SD545231; Operational
 SD Tyres; SD558271; Operational

Power station:

Penwortham Power Station (disused); SD522292; Area completely redeveloped.

Paper mills:

Flats Mill, Victoria Road, Walton-le-Dale; SD554283; Commercial site
 Weir Bridge Mill; SD596288; Unknown

Printers:

Hough Lane, No. 52-58, Leyland; Not found; Unknown
 Mount Pleasant Mill, Dunkirk Lane, Leyland; SD527217; Unknown
 Towngate, No. 3, Leyland; Not found; Unknown
 Walton-le-Dale; Not found; Unknown

Rubber works:

Ajax Works, Golden Hill Lane, Leyland; Not found; Unknown
 Centurion Way, Farington; Not found; Unknown
 Factory Lane, Penwortham; SD535275; Cleared - used as car and lorry hire yard.
 Golden Hill Lane, Leyland; SD543225; Commercial site.
 Golden Hill Rubber Works, Leyland; SD540227; Commercial site
 Moss Lane, Leyland; Not found; Unknown
 Tardy Gate; Not found; Unknown

Sewage works:

Emnie Lane STW; SD520209; Unknown
 Farington STW; SD534238; Unknown
 Longton STW; SD468251; Unknown - presumed operational
 Walton-le-Dale STW; SD544275; Presumed operational
 Blackburn WWT Works.; SD603299; Presumed operational

Vehicle manufacturers:

Cuerden Mill; SD557254; Unknown - building still intact on current survey.
 Dunkirk Lane, No. 34, Leyland; Not found; Unknown
 Hastings road, Leyland; SD545226; Unknown
 Leyland Motor Works, Meadow Lane, Leyland; SD543221; Developed as the Leyland Motor Museum
 Leyland Truck Works, Farington; SD540237; Operational
 Leyland Works, Farington; SD545230; Unknown
 Winery Lane, Walton Flats; SD552284; Unknown

Appendix 3: Sites Selected for Inspection and Sites Visited

The following table lists the sites selected by Friends of the Earth for inspection, and whether or not they were actually visited.

The name of each site is given, followed by the grid reference. The first 'yes-no' column denotes whether the site was selected for a visit, and the second denotes whether that visit was actually carried out.

The sites selected and visited are as follows...

Little Hoole Marsh Landfill	SD460244	Y	Y
Much Hoole Landfill Site	SD460242	Y	Y
Penwortham Golf Club Landfill Site	SD511289	Y	Y
Penwortham Power Station (disused)	SD522292	Y	Y
Golf Club Practice Ground	SD563215	Y	Y
Penwortham Golf Club	SD510290	Y	Y
Nook Farm	SD568274	Y	Y
AA Packaging	SD478242	Y	Y
Dunkirk Road	SD506222	Y	Y
Factory Lane, Penwortham	SD535275	Y	Y
Brookfield Iron Works	SD542224	Y	Y
Hecla Works, Mounsey Road, Bamber Bridge	SD565257	Y	Y
Stone Mill, Charnley Fold Road, B. Bridge	SD566270	Y	Y
St. Aidens Road, School Lane, B. Bridge	SD564267	Y	Y
Leyland gas works	SD544225	Y	Y
Limekiln, Old Limekiln Farm	SD551268	Y	Y
Tardy Gate Tannery	SD543255	Y	Y
Lostock Hall engine shed	SD546254	Y	Y
Northwestern Gas Board works	SD543266	Y	Y
Hennel Lane Tip/Sand Quarry	SD548274	Y	N
Higher Barn Farm	SD605274	Y	N
Middle Shuttling Fields	SD582267	Y	N
Hall Lane Tip	SD535237	Y	N
Bank Head Lane (No. 87)	SD587263	Y	N
Duxon Hill Quarry	SD611257	Y	N
Land by 3B shed	SD637311	Y	N
Coupes Foundry	SD575275	Y	N
Roach Road	SD601282	Y	N
Stoney Lane	SD551246	Y	N
Golden Hill Lane, Leyland	SD543225	Y	N
Ajax Works, Golden Hill Lane, Leyland	N. found	Y	N
Centurion Way, Farington	N. found	Y	N
Dunthorp, Sandy Lane, Leyland	N. found	Y	N
Sandy Lane, Leyland	N. found	Y	N
Moors Mill Foundry, Higher Walton	N. found	Y	N
Haven Works, 145-147 Towngate, Leyland	N. found	Y	N

Towngate, No. 2, Leyland	N. found	Y	N
Golden Hill Lane, Leyland	N. found	Y	N
Gillibrand Street, Walton-le-Dale	N. found	Y	N
Heatherfield Works, Church La, Farington	N. found	Y	N
John Street, Bamber Bridge	N. found	Y	N
Dunkirk Lane, No. 34, Leyland	N. found	Y	N
Hastings road, Leyland	SD545226	Y	N
Bamber Bridge engineering works	SD565257	Y	N
Golden Hill Rubber Works, Leyland	SD540227	Y	N
Hough Land iron works/Leyland Motor Wks	SD541224	Y	N
Leyland Bleach Works	SD532220	Y	N
Farington Naptha Works	SD523247	Y	N
Gas Terrace, Leyland	SD545225	N	Y
Royal Ordnance Deport, Leyland	SD558564	N	Y

Appendix 4: Planning Policy Guidance No.23 - ‘Planning and Pollution Control’ - July, 1994

PPG23 was issued in July 1994 and, for the first time, it brings the assessment of contaminated land within the scope of local planning control. Previously control of contaminated land by local authorities was only achievable by environmental health departments acting under public health and nuisance powers, which are difficult to enforce.

The relevant sections of PPG23 are reproduced below...

4 CONTAMINATED LAND

4.1 The principle of sustainable development means that, where practicable, brownfield sites, including those affected by contamination, should be recycled into new uses and the pressures thereby reduced for greenfield sites to be converted to urban, industrial or commercial uses. Such recycling can also provide an opportunity to deal with the threats posed by contamination to health or the environment.

4.2 The Government’s policy towards tackling the UK’s burden of land contamination is that the works, if any, required to be undertaken for any contaminated site should deal with any unacceptable risks to health or the environment, taking into account its actual or intended use. This “suitable for use” approach does not preclude an owner, occupier or developer from undertaking earlier or more thorough action if he wishes to do so. Nor does it preclude a regulatory body from requiring very thorough remedial works where the circumstances justify it.

4.3 The aims of the ‘suitable for use’ approach are, where practicable: to deal with actual or perceived threats to health, safety or the environment; to keep or bring back such land into beneficial use; and so to minimise avoidable pressures on greenfield sites.

4.4 Although contamination is subject to controls under pollution control legislation, it or the potential for it, can be a material planning consideration and should be taken into account at various stages in the planning process, including the preparation of development plans and the determination of planning applications. In carrying out those duties local planning authorities should consider whether there is, or might be, a contamination hazard on a site, what further information they would need to decide that question, whether a proposed use or development of the site could give rise to unacceptable risks to health or the environment, and if so, what steps by way of restrictions on the proposed use or other development of the land should be taken to reduce those risks. Care should be taken to make sure that planning powers complement and do not substitute for, pollution control arrangements.

4.5 The best way of minimising any associated risks is to ensure that sites which may be contaminated are identified at the earliest stage of planning. The history of the site or nearby sites is the principal factor in determining whether a site is likely to be contaminated or not.

Sources of contamination and risks

4.6 Very few sites are so badly contaminated that they cannot be reused at all, but the choice of new use may be restricted by contamination as well as by other planning considerations and the

consequent financial implications. Each site must be considered on its merits and if necessary treated with caution. Any relevant information on the site history should be taken into account.

4.7 Examples of contaminated sites, and the typical hazards they may pose, include:

- old gas works which produced town gas, coke, coal, tar, and other chemical by-products;
- land previously used for industrial purposes where a very wide range of hazardous substances may be found;
- completed domestic and industrial landfill sites where combustion and settlement might be readily induced and generation of leachate, and emission of gases, may occur; and
- old sewage works and sewage farms, where the concentration of metals in the soil may be high.

4.8 Contamination may give rise to hazards which put at risk people working on the site, the occupiers and users of the buildings and land, and the buildings and services per se. Contaminants may also escape from the site to cause air and water pollution and pollution of nearby land; the emission of landfill gas may be particularly hazardous. If these hazards are not identified and assessed properly there may be a direct threat to health, safety, or the environment. They may also affect proposals on adjoining land. Should remedial action be needed in an emergency, there may be delays as well as additional costs and difficulties. A balance has to be struck between these risks and liabilities and the need to bring the land into beneficial use.

Action by Planning Authorities

4.9 Planning authorities will need to distinguish between those precautions that can be taken under planning powers and those that are the responsibility of other agencies, including Waste Regulation Authorities, HMIP, the NRA, the Health and Safety Executive, and the local authority's own powers and duties as an environmental health authority and enforcer of the Building Regulations. See paragraph 1.3 above.

4.10 While it would generally be sensible for planning authorities to be aware, as far as possible, that land allocated for development in the plan is actually capable of development, the responsibility for providing information on whether it is contaminated rests primarily with the developer. In any case, it is in the developer's interests to do so since the presence and extent of any contamination will affect the value of the land and the costs of developing the site. When determining a planning application for land which might be contaminated, the local planning authority will need to consider whether the proposal takes proper account of contamination.

4.11 Investigations into the site, appropriate to the proposed use and likely impact of development on surrounding land and the environment, may need to be carried out before the application can be decided. In certain circumstances, it may be appropriate to make detailed investigation or specific remedial measures a condition of the planning permission. Alternatively a reserved matter following outline planning permission should enable cost-effective solutions to be devised, to deal with contamination, so reducing the need for urgent and expensive emergency action at a later date.

4.12 Investigative works on a contaminated land site should be carried out with care, and in consultation with the relevant pollution control authority, to avoid causing contamination (e.g. drilling investigation boreholes which could result in groundwater being contaminated). The findings of the investigation should enable appropriate treatment and the selection of the most

suitable use; the development should then be designed to minimise the risks. The specific precautions needed will depend on the degree of risk and the circumstances of the case.

4.13 Guidance on the need to take into account the environmental consequences of contaminated land in drawing up development plans and in determining planning applications is contained in Annex 10.

ANNEX 10: CONTAMINATED LAND

Introduction

1. The quality of land is intimately bound up with its past and present uses. Whilst most land in England and Wales is not damaged, there is, nonetheless, a legacy of contaminated degraded land which, whether in urban or rural areas, presents special problems.

2. Where practicable (see paragraphs 1.12 and 1.33), land which is already contaminated should be brought to a standard where it is suitable for its actual or intended use. That should enable land to be kept or brought back into beneficial use and should help to minimise avoidable pressures on greenfield sites.

3. In March 1993 the Government announced a review of the powers and duties of public authorities to deal with the identification, assessment and appropriate treatment of contaminated land. The review took as its starting point the implementation of the 'suitable for use' approach to contaminated land.

Development plans and policies

4. In preparing their development plans, planning authorities need to take into account the possible effects on health and the environment of contaminated land. Development plans provide an opportunity to set out policies for the reclamation and possible use of contaminated land. (See PPG12 para. 6.18.)

5. Local plans and Part II of Unitary Development Plans should include detailed criteria which will be applied in determining planning applications for development on land which is known to be, or may be, contaminated. They may also set out any site- specific proposals for land use, where contamination is known or the site history suggests a risk of contamination, so that they may be readily identifiable to landowners and prospective purchasers or developers.

Determining planning applications

6. Even before an application is made, informal discussions between a potential developer and the local planning authority can be very helpful. If the local planning authority has reason to believe that there is a possibility that the land might be contaminated, it can be brought to the

attention of the developer at this stage, and the implications explained. Other statutory bodies should also be consulted to establish their requirements. The applicant can then design his scheme including proposals for site investigation so as to take full account of the likely requirements of the planning authority or other statutory body. Applications need not be delayed pending a detailed investigation by the developer to establish the nature and extent of the contamination.

7. In districts which contain a significant number of possibly contaminated sites, the local planning authority should find it useful to include a question on contamination on their standard application form and a note to applicants on the subject. If an application is received without prior discussion and the authority suspects that the site may be contaminated, it would be of benefit to all parties concerned for the authority to advise the applicant that the land may be contaminated and of the factors which will be taken into account in determining the application. The applicant may then wish to consider whether or not to proceed.

8. However if it is known or strongly suspected that the site is contaminated to an extent which would adversely affect the proposed development or infringe statutory requirements, an investigation of the hazards by the developer and proposals for any necessary remedial measures required to deal with the hazards will normally be required before the application can be determined by the local planning authority. Certain aspects of such investigations, such as drilling boreholes, may require separate planning permission or approval by other statutory authorities. Planning permission may need to include conditions, for example requiring certain remedial measures to be carried out.

9. In other cases, particularly where there is only a suspicion that the site might be contaminated, or where the evidence suggests that there may be only slight contamination, planning permission may be granted but conditions should be attached to make it clear that development will not be permitted to start until a site investigation and assessment has been carried out and that the development itself will need to incorporate all the measures shown in the assessment to be necessary.

10. If the information provided by the applicant is insufficient to enable the authority to determine the application, the authority may request further information. Should the degree of contamination be such that remedial action is required to safeguard future users or occupiers of the site or neighbouring land, or protect any buildings or services from the hazards, then planning permission may be granted subject to conditions specifying the measures to be carried out.

11. Conditions might also be imposed that require the developer to draw to the attention of the planning authority the presence of significant unsuspected contamination encountered during redevelopment.

12. The assessment of the significance of the contamination and of the associated risks requires careful professional judgement. It is therefore recommended that the local planning authority should obtain advice from relevant experts in other local authority departments or outside consultants, and consult with the pollution control authorities when considering applications to develop contaminated or potentially contaminated sites.

13. Local planning authorities should be aware that health and safety at work legislation requires those in control of work on a contaminated site to safeguard the health and safety of workers and of members of the public who may be affected. The Health and Safety Executive enforce the legislation and have published guidelines "Protection of Workers and the General Public During the Development of Contaminated Land" (Guidance Note HS (G) 66 - HMSO 1991, ISBN O-11-885657-X).

14. Where planning permission is granted for a site on which the presence of contamination is known or suspected, a separate notice should be issued to the applicant stating that the responsibility for safe development and secure occupancy of the site rests with the developer. It should also warn the applicant that the local planning authority has determined the application on the basis of the information available to it, but this does not mean that the land is free from contamination.

15. If an appeal is made against a refusal of planning permission and contamination appears as a reason for refusal, the Secretary of State will consider the need to appoint a technical assessor to assist the Inspector in determining the appeal.

16. Where it is proposed to build on a contaminated site, particular attention should be paid to the requirements of the Building Regulations 1991 (S.I.1991/2768), where they apply. If new information comes to light in the course of the development which indicates that the risks from contamination are substantially greater than were previously assessed, the local authority may issue an enforcement notice, where the risk is in breach of planning control, or consider the use of powers which cover premises in such a state as to be prejudicial to health or a nuisance.

17. English Partnerships (the Urban Regeneration Agency) can provide financial support for the regeneration of areas of need in England through the reclamation and development of land, and this can include the treatment of contaminated land. From 1st April 1994 English Partnerships has taken over the administration of Derelict Land Grant (as well as City Grant and the English Estates programme) but will in due course replace these with its own financial support regime. The emphasis will be on a strategic approach to the regeneration of whole areas rather than support for isolated ad hoc projects. Further advice can be provided by the London or (when established) Regional Offices of English Partnerships.

END OF REPORT