

City of Salford

Contaminated Land Inspection Strategy

Consultation draft

March 2001

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PART 1

INTRODUCTION

1.0 Introduction

The new statutory regime for the identification and control of contaminated land came into force in England on 1st April 2000, under Part II A of the Environmental Protection Act (EPA) 1990. Part IIA was inserted by Section 57 of the Environment Act 1995. Circular 02/2000 from the Department of the Environment, Transport and the Regions (DETR) contains the statutory guidance on contaminated land, which details the key methods and procedures by which each local authority will implement Part II A.

The main purpose of Part IIA is to provide a specific definition of contaminated land and to provide a regulatory system for the identification of land that is presenting unacceptable risks to health, controlled waters or to the environment. It includes procedures for apportionment of liability and for securing remediation where unacceptable risks cannot be controlled by other means, underpinned by the “polluter pays” principle.

The first priority is to prevent the creation of new land contamination by regulatory regimes including Integrated Pollution Control, Pollution Prevention and Control, and Waste Management Licensing. Action can also be taken to prevent or remedy pollution of controlled waters under the Water Resources Act 1991. The planning and development control system will remain a key mechanism for managing contaminated land as part of the wider process of land redevelopment and regeneration.

On tackling existing contaminated land, the responsibility for enforcing the provisions of Part IIA rests with local authorities and the Environment Agency. The primary regulatory role will rest with local authorities, who have been allocated responsibility for identification of contaminated land and regulation of all such land that is not also a special site.

The benefits of the new regime include:

- ensuring a strategic approach to the regulation of contaminated land,
- improving the focus of separate existing regulatory control,
- greater consistency in dealing with individual complex sites, and
- enhancing the redevelopment potential of previously developed land, notably for housing, in line with the aims of planning policy guidance PPG3.

1.1 Policy aims of the City of Salford

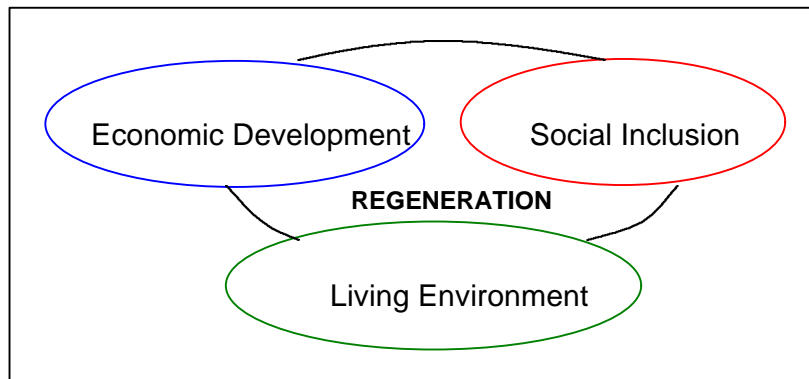
1.1.1 Corporate policy statement

The Council of the City of Salford is committed to its key mission statement at the centre of the Council's Strategic Plan for the period 1997 - 2007, namely: ***"to create the best possible quality of life for the people of Salford"***.

1.1.2 Environmental and regeneration policies

The City Council published its Environment Strategy in 1998, stating that by tackling environmental issues, problems affecting people's lives and the quality of their neighbourhoods would also be addressed. Clean, safe and healthy local environments are seen as key factors for the regeneration of Salford, and targets were set for the reclamation of derelict and brownfield sites and for the identification of contaminated land, to make progress towards these aims.

The City Council is taking a strategic approach to its involvement with regeneration and redevelopment of land, through implementation of its Unitary Development Plan (UDP) and by co-ordinating the Salford Partnership. The Partnership has produced a Regeneration Strategy which identifies three inter-related themes:



The theme which links back to contaminated land is the *Living Environment*, which sets four thematic programmes, of which three will have specific connections to the implementation of Part IIA as follows:

- Creating clean, safe and healthy local environments:
"By determining and controlling sources of pollution encouraging re-use and re-cycling, ensuring that development is sustainable and balancing development needs and environmental quality across the City"
- Enhancing and maintaining the physical fabric:
"By bringing vacant, underused land and buildings back into use.... protecting key green spaces and providing sufficient open space..."

- Ensuring access to quality affordable homes:
“.....ensuring there is sufficient land identified and available to provide for our 5 year housing target.....”

Therefore, implementation of the contaminated land inspection strategy will provide a positive contribution towards achieving specific objectives within the Living Environment framework, and should be seen as an integral operational link in the fulfillment of the Council's stated aims.

1.2 The regulatory context of the contaminated land regime

The Part IIA regime has been developed within the context of the government's overall "suitable for use" approach to the sustainable development of contaminated land, which requires remedial action only where contamination poses unacceptable risks to health or to the environment, taking into account the current uses of the land and its environmental setting.

The “*appropriate person*” (or persons) to bear responsibility for remediation will normally be the person who caused or knowingly permitted the contamination. If after enquiry, such person cannot be found, or no longer exists, then the appropriate person is the person who currently owns or occupies the land. In certain circumstances, for example, where an appropriate person cannot be found, the local authority may have to bear the costs of remediation (so-called “orphan” sites).

1.2.1 Regulatory role of Salford City Council

The primary regulatory role under Part IIA will rest with local authorities, reflecting their existing functions under statutory nuisance procedures, and will complement their planning authority roles.

In outline, Salford's role as the regulatory authority will be:-

- i. to cause its area to be inspected in order to identify contaminated land;
- ii. to prepare a written record of any determination that particular land is contaminated land;
- iii. to establish who is the appropriate person or persons responsible for remediation of the land;
- iv. to decide what remediation is required in any individual case and ensure that such remediation takes place;
- v. to record in a public register decisions on contaminated land, remediation required, and any subsequent regulatory actions; and
- vi. to decide whether any such land should be designated a Special Site.

There is a clear obligation to prepare, adopt, publish and implement a formal written strategy for the inspection of the Salford district. The strategy document must be completed and made public by 1st July 2001 (within 15 months of the issue of the statutory guidance) and must be kept under review.

1.2.2 Regulatory role of the Environment Agency

The Environment Agency has an important complementary regulatory role under Part IIA, which includes the following duties:

- i. to provide information and advice to local authorities, including site specific guidance;
- ii. to regulate Special Sites; and
- iii. to prepare a national report on the state of contaminated land.

The Contaminated Land (England) Regulations 2000 define “**Special sites**”, which includes land associated with the following situations:

- strictly defined instances of pollution of controlled waters (and not all cases)
- contamination by certain chemicals used as pesticides
- contamination by waste acid tars
- refining of petroleum
- manufacture of explosives
- nuclear sites
- land owned by the Ministry of Defence
- land on which former Integrated Pollution Control (now IPPC) prescribed processes have been carried out.

1.2.3 Definition of contaminated land

The following definition is stated in Section 78A(2) of Part IIA, as follows:

"Contaminated land" is any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that:

a) significant harm is being caused or there is a significant possibility of such harm being caused; or

b) pollution of controlled waters is being, or likely to be, caused.

Within this document, all references to contaminated land take their meaning from this statutory definition.

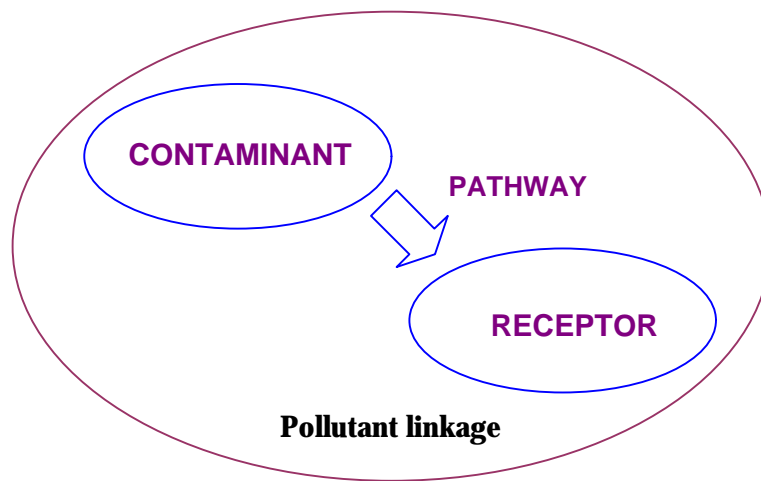
1.2.4 Contaminated land risk assessment and pollutant linkages

The definition of contaminated land is based upon the principles of risk assessment, and the statutory guidance defines “risk” as the combination of:

- a) the probability, or frequency, of occurrence of a defined hazard (for example, exposure to a property of a substance with the potential to cause harm); and
- b) the magnitude (including the seriousness) of the consequences.

This approach applies the principle of land being “suitable for use” for a variable range of purposes, depending on the nature and severity of any risks to human health and the environment. The aim would be to undertake site-specific risk assessments to determine if there is a need for, and the extent of, remediation to control any such identified risks.

The statutory guidance follows established approaches to risk assessment, including the concept of contaminant-pathway-receptor (or source-pathway-target). A **pollutant linkage** is the relationship between a **contaminant**, a **pathway** and a **receptor**. A “pollutant” is the contaminant in the pollutant linkage. Unless all three elements of a pollutant linkage are identified in respect of a piece of land, that land should not be identified as contaminated land. There may be more than one pollutant linkage on any given piece of land.



There are two steps in applying the definition of contaminated land.

The first step is for the local authority to satisfy itself that a contaminant, a pathway, and a receptor have been identified with respect to any land.

A **CONTAMINANT** is a substance which is in, on or under the land and which has the potential to cause harm or to cause pollution of controlled waters.

A **RECEPTOR** is either:

- a) a living organism, a group of living organisms, an ecological system, or property which:
 - is in a category listed in Table A in the statutory guidance (see below) as a type of receptor, and
 - is being, or could be, harmed by a contaminant; or
- b) controlled waters, which are being, or could be, polluted by a contaminant.

Receptors are defined in Table A in the statutory guidance as:

1. *Human beings*

2. Any *ecological system*, or living organism forming part of such a system, within a location which is, amongst others:
- a site of special scientific interest (SSSI)
 - a national nature reserve
 - a site of special protection for birds
 - a special area of conservation and special protection area
 - a national park

3. *Property* in the form of:

- crops, including timber
- produce grown domestically, or on allotments, for consumption
- other owned or domesticated animals; and
- wild animals, which are the subject of shooting, or fishing rights.

4. *Property* in the form of buildings.

A **PATHWAY** is one or more routes or means by, or through, which a receptor:

- a) is being exposed to, or affected by, a contaminant, or
- b) could be so exposed or affected.

The second step in applying the definition of contaminated land is for the local authority to satisfy itself that both:

- a) such a pollutant linkage exists in respect of a piece of land; and
- b) the pollutant linkage
 - i. is resulting in significant harm being caused to the receptor in the pollutant linkage
 - ii. presents a significant possibility of significant harm being caused to the receptor,
 - iii. is resulting in the pollution of controlled waters which constitute the receptor, or
 - iv. is likely to result in such pollution

1.2.5 Strategic approach of contaminated land regime

The statutory guidance states that in carrying out its inspection duty, the local authority should take a strategic approach to the identification of land which merits detailed individual inspection. The approach is required to:

- be rational, ordered and efficient;
- be proportionate to the seriousness of any actual or potential risk;

- seek to ensure that the most pressing and serious problems are located first;
- ensure that resources are concentrated on investigating in areas where the authority is most likely to identify contaminated land; and to
- ensure that the local authority efficiently identifies requirements for the detailed inspection of particular areas of land.

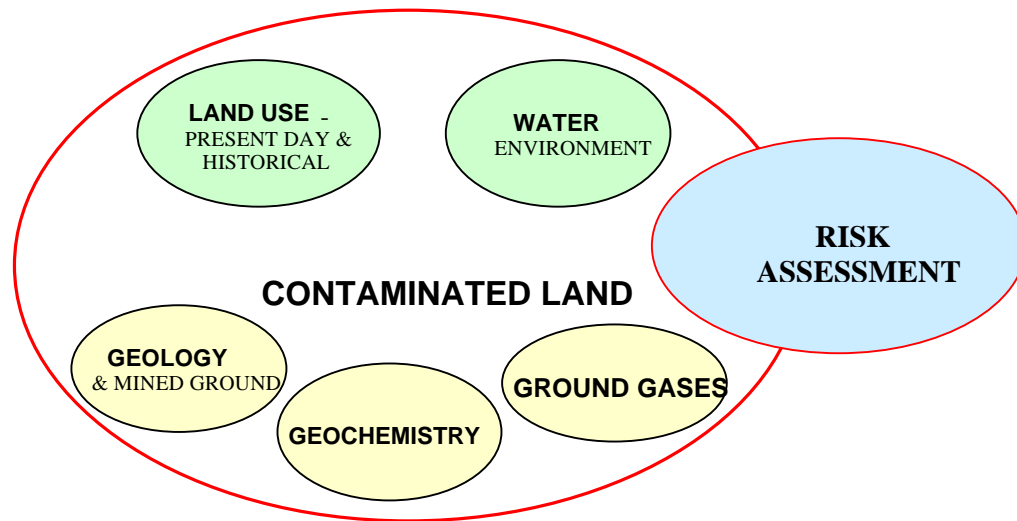
In developing this strategic approach, the City Council will need to reflect Salford's own local circumstances. In particular, it is required to consider:

- i. any available evidence that significant harm or pollution of controlled waters is actually being caused;
- ii. the extent to which any receptor is likely to be found in any of the different parts of Salford's district;
- iii. the extent to which any of those receptors is likely to be exposed to a contaminant;
- iv. the extent to which information on land contamination is already available;
- v. the history, scale and nature of industrial or other activities which may have contaminated the land in different parts of its area;
- vi. the extent to which remedial action has already been taken by the authority or others to deal with land contamination problems or is likely to be taken as part of an impending redevelopment; and
- vii. the extent to which other regulatory authorities are likely to be considering the possibility of harm being caused to particular receptors or the likelihood of any pollution of controlled waters being caused in particular parts of its area.

The assessment of risk associated with a range of key characteristics is the process by which these requirements may be met. The preliminary stages of the inspection process will require the collection, collation and evaluation of information on the key characteristics, held in a variety of locations within other Council departments and external archives.

In addition, information, advice and assistance will have to be sought from other regulatory authorities as part of the consultation process during the development of the inspection strategy.

Pollutant linkages: Key characteristics



1.3 Inspection Strategy development

1.3.1 Lead role

The two Council Directorates with most previous involvement with contaminated land have been Environmental Services, incorporating Environmental Health, and Development Services, incorporating Planning, Engineers and Building Control sections, amongst others. Since September 1996 when consultation documents on the draft statutory guidance on contaminated land were responded to corporately, an acceptance was reached that Environmental Services would take the lead role for implementation, supported and advised by other sections. A Project Officer has been assigned the task of producing the draft Inspection Strategy, reporting to the Director of Environmental Services.

This draft strategy has been developed to meet the requirements of the statutory guidance, and with specific reference to "Contaminated Land Inspection Strategies - Technical Advice for Local Authorities" issued in draft form by DETR in April 2000. The Manchester Area Pollution Advisory Group has provided an important contribution in facilitating a co-ordinated approach to the development of Inspection Strategies by local authorities within the Greater Manchester region.

The strategy document has been prepared in a number of stages, in accordance with the timetable in Table 1. The stages are as follows:

Stage 1: A draft strategy for consultation has been prepared by the Director of Environmental Services. Advice has been sought and contributions made by officers from other Directorates. The consultation draft will be submitted for approval to the Lead member for Environmental Services on 29 March 2001.

Stage 2: The consultation draft will be submitted for approval to the Council's Cabinet on 10 April 2001.

Stages 3/4: Comments will be invited on the consultation draft from internal consultees and external organisations identified in Section 6.2 of the Strategy. Comments will also be sought from other stakeholders, and to facilitate this, the draft Strategy will be publicised, and copies made available in Public Libraries, and, if possible, on the Salford City Council web site. Stage 3 will take place between the end of March and the beginning of June 2001.

Stage 5: A final version of the Strategy will be submitted for approval to the Council's Cabinet on 12 June 2001.

Stage 6: A final version of the Strategy will be submitted for formal adoption to Council on 20 June 2001.

Stage 7: The adopted Strategy will be published and copied to the Environment Agency by no later than 1 July 2001.

1.4 Purposes of the Inspection Strategy document

1. To meet the requirements of the statutory guidance in producing, formally adopting and publishing a written strategy by 1st July 2001.
2. To detail the strategic approach to be followed for the inspection of land within the City of Salford and to demonstrate meeting the criteria stated in the statutory guidance in paragraphs B.9 and B.15 (see section 1.2.5).
3. To make information available to all relevant sections of the Council to enable consideration to be made about land contamination in policy making processes, and bringing sites forward for economic development.
4. To make information available to all relevant sections of the Council to enable potential liability issues associated with their own land to be fully assessed.
5. To minimise the potential for any unnecessary blight of land.
6. To provide information to the Environment Agency for its national report on contaminated land.
7. To make available to any stakeholders and interested parties information about the City Council's intentions with respect to contaminated land.
8. To provide a mechanism whereby the Strategy is reviewed on a regular basis to allow for changes in statutory guidance, or for other reasons.

PART 2

CITY OF SALFORD - BASELINE CHARACTERISTICS

2.1 City of Salford – an overview

2.1.1 Geographical location

The City of Salford occupies approximately ninety-six square kilometres (9,600 hectares) in area. Salford's district is located adjacent to and west of the city centre of Manchester, and stretches across to rural areas in its western periphery. The southern boundary is formed by the Manchester Ship Canal. Salford's neighbouring local authorities are Trafford, Manchester, Bury, Bolton, Wigan and Warrington.

The City of Salford was formed in 1974, when local authority reorganisation led to the amalgamation of the five separate urban district councils of Salford, Swinton and Pendlebury, Eccles, Worsley, and Irlam and Cadishead.

A map of the district of Salford City Council is given in Figure 1 overleaf.

2.1.2 Population distribution

Based on 1991 census figures, the City of Salford has a total population of approximately 220,000 people. It comprises 20 constituency wards within the five areas, with the following numbers of residents: (See Figure 2 to follow).

5 main ward areas:	Approximate population (1991 data)
Salford	80,210
Swinton & Pendlebury	39,086
Eccles	34,228
Worsley	47,982
Irlam & Cadishead	<u>18,957</u>
TOTAL	<u>220,463</u>

This year, 2001, is a census year but the new data will not be available before the finalisation of this strategy. The draft Unitary Development Plan for Salford 2001 - 2016 (under review) refers to government population projections; whilst the population of Salford will decline by 2016, changes in household size and characteristics mean that Salford will still need to provide more new homes.

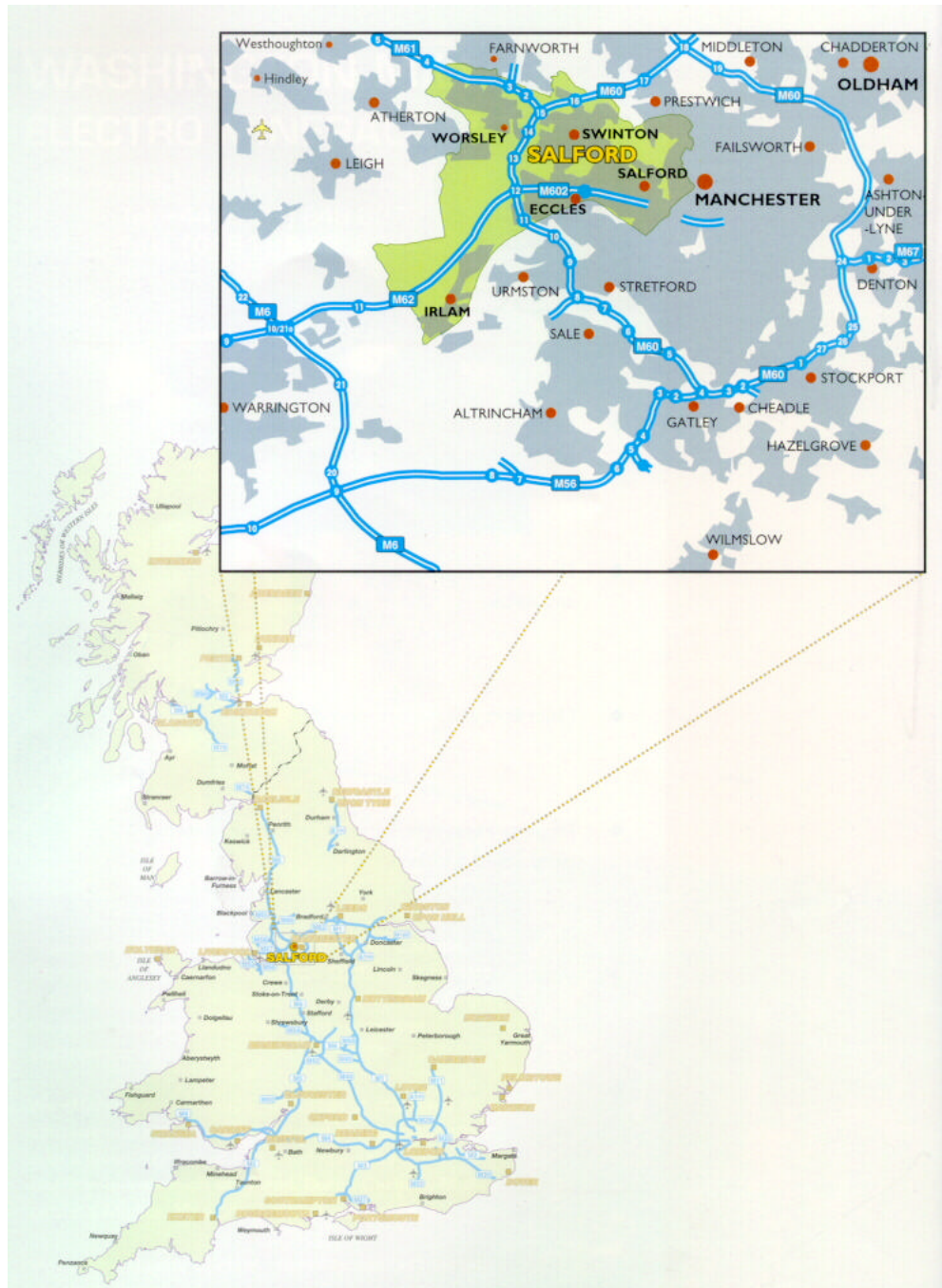


Figure 1: Map showing the geographical location of the district of Salford, in the North West region of the United Kingdom.

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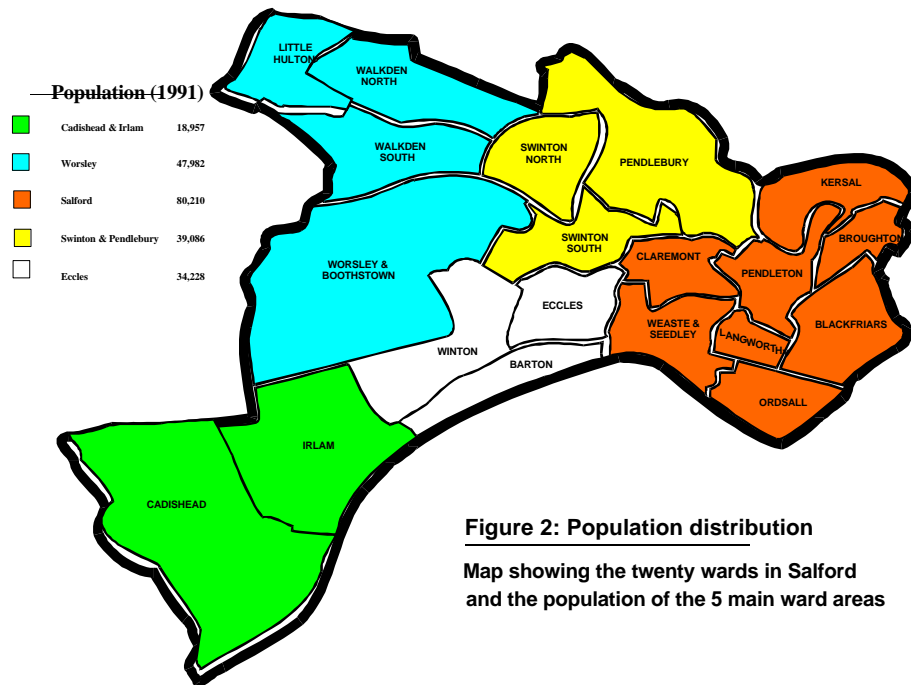


Figure 2: Population distribution

Map showing the twenty wards in Salford and the population of the 5 main ward areas

2.1.3 Historical development

Although little is recorded of its earlier history, Salford started as an ancient settlement on the banks of the river Irwell. Initial slow growth was marked by some degree of industrialisation, namely cloth and silk manufacture, together with dyeing, fulling and bleaching. Located on a river, with coal supplies available close by, the industrial revolution had a major impact on Salford, with a massive increase in mills, factories and industries and a resultant rise in population. The rapid increase was reflected in the vast areas of poor quality housing built during the Victorian period, when overcrowding led to real social problems, many of which are reflected in the paintings of LS Lowry, the celebrated Salford artist.

Salford became one of the greatest cotton towns, while brewing too played a significant part in the local economy. In 1894, the Manchester Ship Canal was built, and together with the docks in Salford, and the existing Bridgewater Canal and extensive railway network, provided a lengthy period of economic and physical growth. Other industries included heavy engineering, chemicals, coal mining and textiles. Since the mid-1960s, changes in national and international economies and the introduction of new technologies had an adverse effect on these traditional heavy industries. Many firms closed, leaving behind derelict factories, mills and yards which have yet to be re-developed.

2.1.4 The legacy of contaminated land in Salford

Historically, Salford has long been associated with many types of activity that have the potential to have caused the contamination of land and water.

Coal mining has been a prominent feature of the Pendlebury, Clifton, and Worsley areas of Salford. Not only did the land around the mines accumulate coal fines, but clinker and ash from power station grates were frequently used to construct embankments and sidings supporting local railway networks. Colliery spoil and clinker and ash were sometimes tipped close by, often with other wastes, creating numerous landfills. Also, streams have been culverted and their valleys infilled with colliery wastes.

It is worth mentioning that the pollution of controlled waters by mine water, likely to be evident in parts of Worsley, is given specific attention in Part IIA. The statutory guidance states that the causers of such mine water pollution, presumably the original coal mine operator under their present day administration, are exempt from the costs of remediation of this source of contamination. It appears likely that liabilities could fall to the present day owners of the land.

Parts of Worsley, Boothstown and Irlam are occupied by agricultural land, primarily for market garden produce and peat extraction. However, land contamination may have arisen in such non-industrial areas from the accumulation of pesticides, herbicides, farm slurry contaminants and the unauthorised tipping of waste or materials to improve soil drainage.

Other voids in the ground, such as sand and gravel extraction pits, notably the former Weaste Quarry, have been infilled with various wastes over the years. Parts of Weaste and Cadishead, particularly along the banks of the Manchester Ship Canal, supported a number of tar and chemical works, processing tar imported from abroad by the waterways and railways. The result has been the deposition of tar and chemical-based waste products, again most likely close to the production plants.

In addition, there are numerous tips across Salford that accepted domestic and general factory and incinerator wastes. In the early days, licensing was not required, and these tips were not engineered or as carefully controlled as the modern licensed landfill sites of today. Landfill gas forms when these wastes break down, and could migrate from such tips in an uncontrolled manner. This could cause problems if quantities of landfill gases were to gather inside properties since, like mains supply gas, it is flammable and explosive.

Salford contributed to the cotton industry of the north west region; not only were there many mills, but the Pendleton and Greengate areas also housed many bleach and dye works, manufacturing chemicals for use in the mills. Breweries around Chapel Street also used ancillary chemicals, and pipe leakages, tank overflows and accidental spillages will have occurred.

Engineering works, metal works, particularly copper processing in Lower Broughton, other foundries, motor garages and miscellaneous manufacturing works have all been located in Salford, undoubtedly leaving behind the residues of many years of processing and production.

Post-war slum clearance led to the building of new houses, flats and maisonettes, some of which may have been built on derelict and contaminated land. In other cases, the basements and cellars of some older demolished properties may have been infilled with demolition wastes or even domestic refuse, to level the land before new buildings could be constructed.

It is clear, therefore, that Salford needs consistent policies and a strong commitment to its aims to ensure the best possible quality of life for the people of Salford, by the identification and prioritisation of problem sites for further detailed investigation, and clean up where necessary.

2.2 Current land use

2.2.1 Residential

Salford contains approximately 98,000 dwellings, with a greater proportion presently living in Council rented accommodation than in most other authorities. Some 36% (35,200 dwellings) of the City's stock is owned by the local authority. Of this total, approximately half are conventional houses but the remainder are flats (often in tower blocks) and maisonettes, many of which are not popular, resulting in void properties. Salford has one of the highest concentrations of high-rise housing stock in the country. Early housing estates included those built at Peel Green, Cadishead and near Hope Hospital, with later, extensive estates built in the 1950's and 1960's at Little Hulton, Lower Broughton and in Ordsall.

Turning to the private sector, the City contains a high proportion of older terraced dwellings. Almost one fifth of the City's housing stock (18,000 dwellings) was built prior to 1914. This older housing is predominantly in the inner areas of Langworthy and Seedley, Charlestown, Broughton, Albert Park, Claremont, Eccles and parts of Swinton. In contrast, Salford also accommodates sought after properties across the district, most notably in Worsley, Roe Green, Ellesmere Park, Higher Broughton and more recently, at Salford Quays and in newly-converted flats and apartments close to the city centre of Manchester.

Large estates of newer housing have also been built in parts of Ellenbrook, Boothstown and Irlam, with house building at Agecroft and Irlam presently underway. Areas of infill development have been more common, although site constraints have delayed the development of large sites at Boothstown and Ellenbrook, previously allocated for housing estates.

Based on the projections outlined in section 2.1.2, the UDP review report estimates the likely need for new homes between 1991 and 2016 standing at 13,266 additional dwellings. Regeneration of identified parts of the City, most notably in Langworthy and parts of Broughton, is seen as essential to making them attractive places to live and follows the principles of sustainable development set out in the Council's strategies linked with regeneration.

2.2.2 Industrial, commercial and retail land use

Since the mid-1960s, Salford's traditional heavy industries, discussed previously, went into decline. Since that time, the shift in emphasis has been from manufacturing to service sector employment. Salford Quays has been successfully redeveloped from dockyards to include mixed developments of office accommodation, leisure facilities and residential areas, together with the new Lowry Centre. Former industrial areas at Patricroft, Chapel Street and Pendleton have undergone regeneration to create smaller industrial and commercial units, and North Bank Industrial Estate has been developed on the site of a former large steel works adjacent to the Manchester Ship Canal at Irlam.

The former Agecroft Colliery site has been levelled and prepared for redevelopment, and other colliery sites are under consideration for new uses. The UDP review report indicates that new developments for industrial uses will be promoted on previously developed brownfield sites, to relieve pressure on the land required for potentially more sensitive end uses, in line with the principles of sustainable development.

Retail is a dynamic sector of the national economy, with growth in retail spending and rising car ownership influencing investment. In Salford, shopping is concentrated in the four main district centres of Salford (Pendleton), Swinton, Walkden and Eccles, with additional large supermarkets at Irlam and Regent Road. Retailing will be a main focus of the Lowry Galleria development, presently under construction at Salford Quays. In the same way as for industrial proposals, the UDP review report indicates that brownfield development of land for retail purposes will be preferred.

2.2.3 Community infrastructure

Community infrastructure includes the use of land for institutional purposes, such as hospitals and schools, and also for sports, recreation and open space. Much of this land is in the ownership of the Council, and is outlined in section 2.4 below. Other non-Council uses within Salford include the following:

- Hope Hospital at Weaste, which has undergone extensive redevelopment and Pendlebury Children's Hospital, which may be closing with the land possibly facing new land uses;
- Emergency services buildings, including a new fire station on previously developed land in Eccles;
- HM Prison on the site of a remediated former colliery at Agecroft; and
- Territorial Army Centre on previously developed land in Weaste.

2.2.4 Transport infrastructure

Salford is at the hub of the regional motorway network, and the M61, M62, M60 and M602 motorways pass through and into the centre of the district.

Railways have played an important role in Salford's industrial past. Much of the main passenger rail network remains, however, Salford had considerably more

railway lines and sidings in the past linked to the transportation of freight and raw materials and finished products. Many of these areas have been redeveloped, but some derelict areas remain, together with disused embankments created from local colliery spoil, and infilled tunnels from disused lines.

Similarly, infilled canals, basins and wharves exist, often alongside railways, in parts of Salford. The Manchester, Bury and Bolton Canal has been largely filled in and partly built over through parts of Pendlebury and Pendleton. The Bridgewater Canal is connected to an underground coal mining network. The River Irwell at Irlam was straightened and canalised to form the Manchester Ship Canal in the late 19th century, with the meanders filled in with the excavations on top of the river bottom silts and dredgings.

2.2.5 Agriculture

Large areas of Irlam and Cadishead are allocated as Green Belt land; this area comprises moss land, which has been drained and raised to support agriculture. Parts of Chat Moss are farmed intensively for market garden produce, and the only mineral workings in Salford occur there, namely a series of peat workings.

2.2.6 Utilities and waste disposal

North West Water operates waste-water treatment works at Salford (Weaste), Eccles, Worsley, Irlam and Cadishead. These works are all located close to surface water courses; the Manchester Ship Canal, Folly Brook, and Glaze Brook, into which the cleaned effluent passes.

Waste disposal by landfilling has taken place within Salford, with a number of sites already known to the Council. The existence of landfill sites in urban areas is one of the reasons for the development of legislation to identify and deal with contaminated land.

2.3 Land in Council ownership

The Council and its pre-1974 predecessors own or have owned significant land and property holdings within the boundaries of Salford. The portfolio of Council-owned land currently comprises:

More information required:

- @ houses
- @ schools
- @ buildings delivering social services
- @ other community buildings
- @ car parks
- over @ km of roads
- over @ hectares of land

2.3.1 Acquisitions process

More information required

2.3.2 Past ownership and disposals process

More information required

2.3.3 Housing desk-study project

Description required of purposes and application to other Council land

2.4 Geology

2.4.1 Solid geology - overview

The solid geology of an area is important for two main reasons with regard to contaminated land. Firstly, aquifers are permeable, water bearing bodies of geologic materials (Nathanail P., 2000). Protection of aquifers used for drinking water supplies is a regulatory duty of the Environment Agency and the aim would be to prevent contaminants from leaching into aquifers from potentially polluting activities occurring at the surface.

Secondly, hazardous ground gases can migrate through permeable strata, or along faults and fissures, or cavities in the rock from mining or quarrying processes. Gas can also pass along man-made features such as mine-shafts, roadways, sewers or along the backfilled trenches around buried pipes and cableways (DoE, 1991).

In Salford, the southern part of the district is known to be underlain by Sherwood Sandstone, an aquifer exploited for drinking water abstraction (NRA, 1991) and so its sensitivity to possible contamination would be high.

Coal measures and shales underlie the northern part of the district, and coal has been extensively worked. Not only does this mean that the non-homogeneous solid geology permits a higher risk of migration of mine gases, but the voids created in the ground have often been infilled with colliery spoils and other wastes close to these areas, potentially worsening any ground gas problems with the migration of landfill gas. The rock type is acting as a pathway more so than a receptor in this instance.

Solid geology can also act as a source of contamination. Radon gas has been associated with lower coal measures, and whilst current advice from the National Radiological Protection Board states that radon gas does not exceed current guidelines across Salford, this may be an issue that warrants further consideration in the future.

2.4.2 Drift geology - overview

Drift is the material that has deposited on top of the solid geology over time through environmental action on the solid rock types. Types of drift include clay, silt, sand, gravel, cobbles, boulders and peat. Clay, being a low permeability soil, would tend to have a protective function to any underlying aquifers or perched water table which leads to surface water bodies. However, the protective effect of such impermeable strata should not be assumed without checking the thickness of the layer and that permeable sand and gravel lenses do not exist which could form a pathway for contaminant migration. (Nathanail J., 2000).

The following three sections are concerned with the relationship between geology and hydrogeology, and have been extracted from the Environment Agency guidance: *DRAFT Recommended planning policy for the protection of groundwater; Environment Agency, 2000.*

2.4.3 Hydrogeology - major aquifers

The major aquifer within the Salford area, is the Permo-Triassic Sandstone (including the Sherwood Sandstone group). The aquifer unit underlies over half of the district of Salford including land to the south of Worsley and Pendlebury, plus the area in the east beneath the River Irwell. The sandstones form part of the Manchester and East Cheshire aquifer unit, extending from Irlam in the west to Failsworth and Stockport in the east and continuing southwards into Macclesfield borough.

This aquifer unit is heavily exploited for both public and industrial supply and a number of major abstractions are located at the periphery of the district of Salford. These are present at Strangeways to the east and around north Warrington and Golborne in the west, the Source Protection Zones for these abstractions extending into the Salford boundary. Historical over-abstraction has led to falling groundwater levels and the up-flow of very old saline waters from depth, particularly in the Trafford Park area. A recent reduction in demand has allowed recovery in levels but quality concerns still remain. Consequently there is an embargo on new abstractions in parts of central Manchester; elsewhere new licence applications are considered on a case by case basis.

The sandstones are generally covered with drift deposits, dominated by glacial boulder clay, although there are some exceptions, notably to the west of Salford where the major aquifer is exposed. In the absence of drift cover the groundwater will be highly vulnerable to pollution from surface activities. However, where present the superficial deposits will reduce the vulnerability of the groundwater but the sandier, more permeable deposits should be regarded as being capable of transmitting water, and therefore pollutants, to the major aquifer beneath.

2.4.4 Hydrogeology - minor aquifers

Minor aquifers within the boundaries of Salford are dominated by rocks of Carboniferous age, comprising the Coal Measures. Certain more permeable unconsolidated drift (superficial) deposits are also designated minor aquifers.

The Coal Measures occur to the north and west of the major aquifer outcrop and comprise alternating sequences of sandstone, siltstone, shales and coal seams. These strata are collectively regarded as minor aquifer although each layer may naturally exhibit very different aquifer properties. In undisturbed Coal Measure strata most groundwater is confined to the sandstone layers but where coal mining has taken place the permeability of the whole sequence may be greatly and permanently modified.

Generally, the presence of mined voids will greatly increase the permeability and during mine working groundwater levels are artificially lowered to enable mining to take place. Once mining has ceased, this dewatering is stopped and groundwater levels recover to natural near surface levels. In Salford, this groundwater recovery is currently nearing completion and it is expected to produce higher water tables in low lying areas than may have been experienced for many decades.

In general, groundwater levels in the higher permeability units will be variable and may reach ground level giving rise to springs. At present, groundwater in the Carboniferous is relatively unexploited and it therefore forms an important potential resource. It supports a number of small-scale abstractions and additionally, provides baseflow to watercourses.

Drift, or superficial, deposits are found throughout the area, overlying the solid rocks beneath. The north and north west of the area, beneath Eccles, Swinton, Worsley, north Salford, and north west to Little Hulton, is covered with relatively impermeable glacial boulder clay. However, more permeable deposits, which can be classified as minor aquifers in their own right with some potential for localised exploitation, are locally developed. These include glacial sand and gravel north of Salford, and close to the River Irwell and late glacial flood gravel deposits adjacent to Chat Moss peat moss, the Manchester Ship Canal and Glaze Brook. Along the watercourses are deposits of alluvium found close to the Manchester Ship Canal and River Irwell and terrace deposits along the River Irwell. Superficial deposits often occur as complex or mixed drift sequences and, although they may reduce the vulnerability of the underlying aquifer, where present, they should be considered as capable of transmitting water to it.

Groundwater levels in the superficial deposits will generally be close to ground level with flow ultimately towards surface waters. Groundwater quality in these deposits is variable and may be highly susceptible to surface pollution.

2.4.5 Made ground

Made ground describes material that has been placed without strict engineering control in order to fill in voids and hollows to level the ground, prior to re-usage or re-development. (Parker et al, 1995). The material is variable in nature, typically making use of locally available surplus materials such as demolition rubble, furnace ash or colliery spoil, and may not show any recognisable structure. The practice of deposition of such materials is now largely controlled under waste management legislation.

As with permeable drift deposits, groundwater quality within made ground will be variable and may be highly susceptible to surface pollution.

2.5 Water resources

2.5.1 Ground water resources

There is a strong link between the ground water within an area, and the geology and hydrogeology of that area, already identified in the previous section. The regulatory authority for controlled waters, namely the Environment Agency, has a duty of protect the quality of groundwater, and to conserve its use for water resources (Environment Agency, 1998).

Information on potential pollutant linkages including groundwater receptors may be obtained from ground water vulnerability maps and maps of designated Source Protection Zones. Three ground water source protection zones are recognised, Zones I, II and III. Agency maps 22 and 23 cover Salford but are not freely accessible, and so the alternative method of access is on-line via the Environment Agency website. Parts of Broughton are under Classes II and III, and parts of Chat Moss come under Class III protection.

There are 74 water abstractions recorded on the Environment Agency list for Salford and the surrounding area of influence, primarily for industrial and commercial purposes. A subset of these are groundwater abstractions. There are no drinking water abstractions.

2.5.2 Surface water resources

The regulatory authority for controlled waters, namely the Environment Agency, has a duty to monitor and protect the surface water environment (Environment Agency, 1998). Surface water features include drains, streams, ponds, canals, lakes and rivers. Information on their locations is obtained from present day maps (Land Line) and aerial photography, and if available, Institute of Hydrology maps and records. Salford's Environment Strategy identifies 112 ponds, streams and lakes within the district.

The Environment Agency list the following watercourses in their LEAP documents, under the two catchments which make up the Salford district:

Croal-Irwell catchment

- River Irwell
- Manchester Ship Canal
- Bridgewater Canal
- Manchester, Bury and Bolton Canal

(Ref: Environment Agency, October 1998)

Sankey-Glaze catchment

- Glaze Brook (boundary with Warrington)
- Moss House Brook (boundary with Wigan)
- Shaw Brook
- Moss House Farm Brook
- Sniggley Brook
- Little Hulton Stream

(Ref: Environment Agency, May 1996)

As identified above, it is known that several more smaller watercourses exist, such as Folly Brook, Salteye Brook, Worsley Brook, Slack Brook, Singleton Brook, and the network of drains across Chat Moss, all of which may be vulnerable to pollution.

Specialised, more detailed advice will be required from the Environment Agency to establish any evidence of surface water contamination at concentrations exceeding relevant quality criteria for specific water bodies. The important factors will include whether surface water from the site is discharging into a water body, and if so, is the discharge subject to a consent, and if so, does the discharge exceed the relevant quality criteria. (M.J. Carter, 1995). Diffuse discharges of contaminants into water bodies by leachates are more difficult to observe and monitor, but will be a significant source of pollution of controlled waters which will need to be considered through liaison with the Agency later.

There are no records of the exploitation of the surface water courses in Salford for drinking water abstraction. However, a subset of the 74 water abstractions are from surface water courses, for a number of agricultural and industrial purposes, particularly along the Irwell and the Manchester Ship Canal and in the Chat Moss area along the Glaze Brook.

2.6 Protected habitats

2.6.1 Natural environment

The statutory guidance requires that consideration is given to ecological systems or living organisms forming part of a system within protected locations (DETR, 2000b). English Nature is the regulatory Authority for the site types listed below:

- Sites of Special Scientific Interest (SSSI)
- National nature reserves and marine nature reserves
- Areas of special protection for birds
- European sites
- SAC, SPAs
- Candidate SAC and SPAs
- Ramsar sites
- Nature reserves

The presence of statutorily designated sites within the district has been checked with English Nature, and confirmation received that there are no statutorily designated sites, as listed above, within Salford.

However, there are also designations made by the local authority, primarily Sites of Biological Importance (SBI). There are 37 SBIs within Salford, and are identified within the UDP and the Environment Strategy as areas of enormous value in an urban district such as Salford, for conservation, recreation, education and aesthetic reasons. Their importance within the local community is reflected in the Council's policies for their continuing protection and enhancement.

2.7 Property in the form of buildings

2.7.1 Heritage sites

The statutory guidance requires that consideration is given to property in the form of buildings, which have not necessarily already been considered as occupied by people, namely ancient monuments and protected buildings (DETR, 2000b). English Heritage is the regulatory Authority for the site types listed below, with the Greater Manchester Archaeological Unit retaining certain records of archaeological sites. The presence of such designated sites within the district will need to be confirmed and identified when assessing the potential for risks from contamination. There are also designations made by the local authority, primarily Conservation Areas and other sites and monuments of local interest.

At present, Salford is home to the following protected sites:

- 3 Ancient Monuments
- 272 Listed Buildings
- 16 Conservation Areas

PART 3

AIMS AND OBJECTIVES OF THE STRATEGY

3.1 Background to policy for inspection

3.1.1 Overview

In developing a new policy for the inspection of the district of Salford for contaminated land, a number of additional factors need to be considered in conjunction with the requirements of Part IIA. The factors identified in the following three sections will influence the scope of new policy and the methods by which it may be implemented.

3.1.2 Former system of information gathering, management and control

At the City of Salford, the system of dealing with contaminated land prior to Part IIA of EPA 1990 has been that of responding to specific cases on an individual basis. The main method of securing the remediation of contaminated land has primarily been through the process of re-development of land. The main mechanisms are detailed as follows:

On the advice of Environmental Services, conditions have been attached to certain planning consents requiring site investigations to assess for contaminated land and landfill gas, followed up by remediation where necessary.

Advice has been provided by Environmental Services to other internal specialist sections such as Engineers and Landscape Architects, on ground conditions and the suitability of land allocations for proposed developments or environmental improvement schemes

Environmental Services has had the responsibility to investigate statutory nuisances on land, under Part III of the Environmental Protection Act 1990 (EPA 1990).

The Environment Agency, and its predecessor with responsibilities for waste, has traditionally consulted with Environmental Services over Waste Management Licences under Part II of EPA 1990. This includes both applications for a licence, and licence surrender procedures.

Finally, other information has been gained by Environmental Services on undertaking desk-based studies into previous site uses in response to search enquiries from external bodies such as solicitors and environmental consultants and to a lesser extent the public.

3.1.2 Sites already known about

The outcome of the previous advisory and enforcement systems has been the accumulation of files and records. It is estimated that over 350 files or records are retained by Environmental Services. Further, another hundred or so landfills are known about; precise figures are not possible since the sources of information overlap. Therefore, there will be over 450 sites in Salford which already have some information on file. All these files vary from large box files for well-researched sites, through to scant reports or just a basic annotated plan.

3.1.3 Council owned land

The Council and its pre-1974 predecessors own or have owned significant land and property holdings within the district boundaries of Salford. Fundamental to the consideration of the Council's interests will be to establish which potentially contaminated sites:

- are or have been owned by the Council;
- are or have been occupied by the Council; or
- are areas where the Council may be the "appropriate person" responsible for remediation under Part IIA.

Part of this process will be a careful comparison of maps and records by Environmental Services in conjunction with the Property and Development section (Estates), for which a procedure note will need to be drafted.

3.2 Inspection strategy aims and objectives

3.2.1 Aims

- i. To ensure compliance with, and enforcement of, the duties placed on the Council of Part IIA of the Environmental Protection Act 1990 inserted by Section 57 of the Environment Act 1995.
- ii. To support the planning process, both with regard to strategic planning and by contributing to the consultation process for development control of individual planning applications.
- iii. To ensure that where redevelopment of land takes place within Salford, the planning process deals effectively with any land contamination so that the land is suitable for its intended use.
- iv. To address the liability issues associated with the Council's existing and former land holdings and avoid any new liability associated with land transactions.
- v. To encourage, as far as possible, voluntary remediation.

3.2.2 Objectives

- So far as is practicable, to ensure adequate resources are allocated, financial and otherwise, to enable the Council to effectively discharge its duties in relation to contaminated land.
- To ensure that where a planning application is received for a site which is potentially contaminated, that a Planning Condition is attached requiring adequate site investigations, and if necessary remediation, that will meet the requirements of Part IIA of EPA 1990. Discharge of contaminated land conditions by the Local Planning Authority shall only take place after consultation and approval by the enforcement authorities under Part IIA.
- To effectively identify all potentially contaminated sites in Salford, starting with the sites for which information may already be held by Environmental Services.
- To organise and develop systems to evaluate, manage and store information arising from the implementation process.
- To rank potentially contaminated sites in order of risk, so as to assign each site a priority rating for further, more detailed examination.
- To compare the records of potentially contaminated sites with land in Council ownership to establish any potential liabilities, with a view to screening out those sites for early detailed examination and any subsequent action.
- To undertake a detailed examination of all potentially contaminated sites, in the prioritised order, so as to determine if these sites are contaminated land, as defined in Section 78A(2) of Part IIA.
- To take immediate action to prevent imminent risk to human health arising from land contamination.
- To determine who is responsible for land contamination, and to secure remediation, in a consistent, fair and equitable manner, following the polluter pays principle.
- To review the Council's standard legal documentation for dealing with land and property transactions, in order to minimise any future liabilities.
- To take steps to enable all persons affected by the actions of the Council to have a clear understanding of what the Council is doing and the rationale behind those actions.
- To make available information on potentially contaminated sites to other sections within the Council for internal use, at agreed intervals and in an agreed format, recognising that a separate public register will be created and maintained for sites of contaminated land, for full and unrestricted public use.

- To review and re-evaluate both contaminated land and potentially contaminated sites in the light of changing circumstances and new information and guidance.

3.2.3 Time targets

Programmes for implementation of the specified objectives follow this section in Tables 1 and 3, with associated timetables in Tables 2 and 4 in Appendix 1.

3.3 Phased approach for achieving the objectives

3.3.1 Rationale

The strategy for inspection has to be rational, ordered and efficient, and proportional to the seriousness of any actual or potential risk. The most pressing and serious problems have to be considered first, searching in the places where such sites are most likely to occur.

The size of the task and the resource implications will require some form of phased approach on considering all land in Salford in order to identify the locations of contaminated land.

Within Salford Environmental Services, over 450 potential sites are known about, including the known landfills and site files in cabinet drawers. There is also contaminated land that is not yet known about in the remainder of the district. The task there will be to carry out searches of historical maps and archives, to find possible sources of contamination, following published guidance.

However, for any of these potential **source** sites to be designated as contaminated land under the Part IIA definitions, they must have both a **pathway** by which significant harm may be caused, and a **receptor** on which significant harm can be inflicted. Similarly, pollution of controlled waters, or the likelihood of it occurring, must be established. So although the site may be land in a contaminative state, it cannot be designated as contaminated land if either the pathway or the receptor is missing from the pollutant linkage. It should be noted that that only a small proportion of sites are expected to meet the strict definition of contaminated land.

The aim will be to organise and prioritise the known potential source sites first, and when new potential source sites are found later on, they too will need to be organised and prioritised.

The timescales over which the known and the unknown potential source sites are identified, organised and prioritised will be different. Processing the sites where information exists will be a shorter term task than the trawl of the district to find the new, unknown ones. An overview of this phased approach, with brief comments about each item, is identified below.

3.3.2 Overview of the phases for inspection and regulation

Table 1 below sets out the objectives that relate to the duties on the Council to produce a contaminated land inspection strategy and to implement the regulatory system under Part IIA. The remaining objectives for implementation, as given in section 3.2.2, are dealt with in Table 3.

Table 1 (See Table 2 in Appendix 1 for the associated timetable)

PHASE	OBJECTIVE	COMMENT
Phase 1	To take immediate action to prevent imminent risk to human health arising from land contamination.	If any sites are strongly suspected of causing significant harm, then these will need to take priority to prevent imminent risk to human health. Investigation and determination of contaminated land may have to begin before completion of the final draft of the Inspection Strategy in July 2001, including in the event of Environment Agency contact over potential "Special Sites".
	To produce strategy document	Environmental Services will complete the Inspection Strategy report as follows: <div style="text-align: right;"> <u>2001</u> 29 Mar 10 Apr Mar-May by 1 Jun 12 Jun 20 Jun 28 Jun </div>
Phase 2	To purchase/acquire and input additional data	To be able to begin the process of prioritisation, the Council will need to purchase or acquire additional data. <i>See Section 4.2 for details of the datasets and packages required.</i>
	Organisation of systems to evaluate information (GIS, maps, spreadsheets, databases and files)	The hardcopy or electronic maps and datasets will need to be incorporated into the Environmental Services GIS, or otherwise made available for ES assessment. <i>See Section 4.2.2 for further details</i>
	Baseline prioritisation of known sites of sources of potentially contaminated land	A regional procedure note, PG01, has been drafted for this purpose (by S.Pickford in Salford Environmental Services) which incorporates the initial comments from MAPAC authorities and the Environment Agency. The finalised MAPAC procedure is intended to

	<p>be available for use by July 2001. PG01 shall be utilised to produce a prioritised list of sites in ranked order of risk.</p> <p><i>See Section 4.3 for further details.</i></p>
<p>Identification of previously unknown sites of sources of potentially contaminated land</p> <p><i>(a continuing loop is then created with the previous step to ensure a continually updated prioritised list of sites)</i></p>	<p>Carry out desk-top searches of historical maps and archives, to find possible sources of contamination, following published guidance.</p> <p><i>See Section 4.2.3 for further details.</i></p>
<p>Further prioritisation: sites in Council ownership and other cases</p>	<p>The prioritised list of sites of potentially contaminated land will be screened again in the light of any other priorities and targets that the Council might wish to set itself, in addition to the scale of possible harm. The list shall be sectioned into Priority 1 (high risk), Priority 2 (medium risk) and Priority 3 (low risk) sites.</p> <p><i>See Section 4.3.3 for further details.</i></p>
<p>Arrangements for “special sites”</p>	<p>Following identification of potentially contaminated land by virtue of the existence of the characteristics of a “special site”, then the Environment Agency shall be contacted following their own application procedures, with the aim of transferring the site over for regulatory control by the Agency.</p>
<p>Consider the need to review the Strategy document (optional)</p>	<p>In the light of the “settling in” of Part IIA, it may be considered appropriate to undertake a review of the document and make any amendments to streamline or re-visit certain sections again.</p> <p><i>Suggested first review: July 2002.</i></p>
<p>Phase 3</p> <p>Arrangements for detailed investigation of land</p>	<p>Sites shall be inspected in order of priority as given in the prioritised list, Priority 1 sites soonest, recognising that the list is continually updating, and that new sites may move into higher priority positions. Having regard to both current guidance and the likely contaminants and the scale of contamination anticipated by the findings of the desk top prioritisation process, an individual “to do” list shall be drawn up by Environmental Services for each site, recognising that the detailed inspection will be funded and undertaken by, or on behalf of, the appropriate person, as identified in the subsequent action step.</p>
<p>Apportionment of liabilities for contamination (appropriate person)</p>	<p>All reasonable steps, both formal and informal, shall be taken to identify the person(s) responsible for land contamination, and their degree of responsibility shall be</p>

	<i>(a continuing loop is created with the previous step)</i>	apportioned if more than one person is found, in accordance with guidance and best practice current at the time.
Phase 4	Actions towards securing remediation	All identified appropriate persons will be given the opportunity to voluntarily remediate contaminated land they may be liable for; and all proposals for voluntary remediation shall be assessed and considered prior to the Council considering any enforcement action.
Phase 5	Review and re-evaluate all contaminated land and potentially contaminated land	In view of changing circumstances, once every five years and whenever there is a change in legislation or statutory guidance or other authoritative guidance and best practice, all sites which at the time are contaminated or potentially contaminated, will be re-assessed.

3.3.3 Other implementation tasks and obligations

Table 3 below sets out the objectives that relate to other obligations on the Council for ensuring that the requirements of Part IIA are met. The duties on the Council are two-fold, reflecting firstly its role as a regulator and the Local Planning Authority, and secondly as a major landowner, both past and present, within Salford.

Table 3 (See Table 4 in Appendix 1 for the associated timetable)

Objective	Action	Comments
To ensure that where a planning application is received for a site which is potentially contaminated that a Planning Condition is attached requiring adequate site investigations, and if necessary remediation, that will meet the requirements of Part IIA of EPA 1990. Discharge of contaminated land conditions by the Local Planning Authority shall only take place after consultation and approval by the enforcement authorities under Part IIA.	Standard planning condition on contaminated land is applied following consultation with Environmental Services. It will be equally important to follow-up and subsequently enforce Planning Conditions applied to any consent.	A review is recommended to ensure the effectiveness of the consultation and enforcement process.
To compare the records of potentially contaminated sites with land in Council ownership to establish any potential liabilities, and with a view to screening out those sites for early detailed examination and any subsequent action.	A comparison of maps and records will need to be undertaken, for which a procedure note will need to be drafted.	Liaison required between Environmental Services and the Property and Development section (Estates). <i>See Table 4 for proposed phased approach.</i>
To review the Council's standard legal documentation for dealing with land and	A procedure note will need to be drafted.	Liaison required between Legal

property transactions, in order to minimise any future liabilities.		Section, Environmental Services and the Property and Development section (Estates).
To take responsibility for contaminated land owned by the Council and to ensure compliance with the requirements of Part IIA.	To arrange for designation of a person within each land-owning Directorate to be responsible for project management of inspection and remediation schemes.	Legal notices under Part IIA may not be served on Council Directorates. The Council must act in the same way as any private land-owner would, in compliance with Part IIA. <i>See Table 4 for proposed phased approach.</i>
To take steps to enable all persons affected by the actions of the Council to have a clear understanding of what the Council is doing and the rationale behind those actions, recognising that a separate public register will be created and maintained for sites of contaminated land, for full and unrestricted public use.	As part of the regulatory system, information will need to be presented by standard letter and notice, but other information may be best suited to leaflets and/or internet downloads.	Preparation of leaflets and internet information will be required. <i>See Part 5 for more information.</i>
To make available information on potentially contaminated sites to other sections within the Council for internal use, at agreed intervals and in an agreed format, recognising that a separate public register will be created and maintained for sites of contaminated land, for full and unrestricted public use.	A number of sections within the Council will wish to have access to the outcomes of the implementation of the contaminated land strategy. A mechanism will need to be developed for dispersal of this information to relevant users.	See Section 4.6 for more information on the internal users of information on potentially contaminated land.
To review and re-evaluate both contaminated land and potentially contaminated sites in the light of changing circumstances and new information and guidance.	A review mechanism for sites has been proposed for once every five years and whenever there is a change in legislation or statutory guidance or other authoritative guidance and best practice.	This also applies to the consideration of changes in wider legislation and guidance, such as planning, health and safety, and so on.

PART 4

IMPLEMENTATION PROCEDURES

4.1 Internal arrangements

4.1.1 Inspection and identification

As stated in Section 1.3.1 and Table 1, the Environmental Services Directorate will take the lead role for implementation of Part IIA, supported and advised by other sections. A Project Officer has been assigned the task of producing the draft Inspection Strategy, reporting to the Principal Pollution Control Officer, who in turn reports to the Director of Environmental Services.

It is expected that the identification processes, and subsequent enforcement action, will be co-ordinated by the Pollution Control Unit, supported as necessary by other sections within the Council such as Legal Services.

The Pollution Control Unit can be contacted at:

Environmental Services Directorate,
Crompton House,
100 Chorley Road,
Swinton, Salford, M27 6ES.

Telephone number: 0161-793-2010 or 2013
Fax number: 0161-728-1956

4.1.2 Reporting structure

The City of Salford is presently piloting a revised system of decision making under the government's Best Value initiative. For contaminated land decision-making, the system will take the following path:

Post	Scope of tasks
Pollution Control Officer	<ul style="list-style-type: none">• Information gathering and prioritisation providing evidence towards designation of contaminated land sites, apportionment of liabilities, enforcement action.• To keep line manager informed of resources required to fulfil the associated tasks.
Principal Pollution Control Officer/ Assistant Director Public Protection	<ul style="list-style-type: none">• Supervision and review of decisions for designation and enforcement action.• Support for front-line officers.
Departmental Management Team, Environmental Services	<ul style="list-style-type: none">• To be kept informed of decisions at weekly meetings.• To make decisions on meeting the resources required to implement Part IIA.

Lead Member ES	<ul style="list-style-type: none"> • To be kept informed of decisions at weekly meetings. • To be kept informed on enforcement action and the resources required to implement Part IIA., and to lobby for funding. • To be advised of ES intention to make designations of contaminated land owned by the Directorate.
Lead Members: all land-owning Directorates	<ul style="list-style-type: none"> • To be kept informed on enforcement action • To be advised of ES intention to make designations of contaminated land owned by that Directorate, in a joint report from ES and contact officers within the relevant Directorate.
Cabinet	<ul style="list-style-type: none"> • To be kept informed on enforcement action • To be kept informed of progress of implementation of Part IIA and annual summaries of action taken. • To be kept informed on ES intentions to make designations of contaminated land owned by Council Directorates in joint report from ES and relevant Directorate. • To make decisions on the need for Council spending for remediation of contaminated land in relevant cases.
Council	<ul style="list-style-type: none"> • To be kept informed on enforcement action • To be kept informed of progress of implementation of Part IIA and annual summaries of action taken. • To be kept informed on Council spending for remediation of contaminated land in relevant cases.
Environment Scrutiny Committee	<ul style="list-style-type: none"> • To review Cabinet decisions

4.2 Information availability, gathering and storage

This section outlines the work undertaken so far on considering the information retained by the Council and its availability, and gives details of how to meet the information requirements on the key characteristics that will enable identification of potential sources, pathways and receptors of contamination within Salford.

4.2.1 Information gathered to date

As indicated in Section 3.1, information has been retained by Environmental Services as a result of its regulatory and advisory functions. Other information is also held by other specialist sections within the Council, although information location and format may require some consideration in order to overcome possible difficulties in cross-referencing or extraction.

In early 2000, in anticipation of the introduction of Part IIA, Environmental Services co-ordinated a consultation exercise with the known points of contact across the Council. Written requests were made for details on the land characteristics information retained by the various specialist sections within the Council. The format and location was requested to assist in identifying the options for storage and cross-referencing of the data needed to determine the contamination status of sites. A preliminary meeting was held to reinforce the

information requests and to explain the newly introduced legislation and its implications to representatives from Council sections considered to have a contributory role.

Letters were also sent out to a first tranche of external organisations requesting details of information retained, its format and location. Guidelines were followed in approaching specific organisations for information on the types of receptors that could be affected by the presence of contaminated land, or that may be affected by implementation of any clean-up works needed in the future. The sections and organisations consulted, and their anticipated information contributions are tabulated in Table 5 in Appendix 2, with a summary of the progress made tabulated in Table 6.

Information gathering was the subject of a workshop for officers involved with contaminated land organised by the Manchester Area Pollution Advisory Council. This led to information requests being sent to a second tranche of internal and external consultees, whose details were appended at the bottom of Table 6.

4.2.2 Management and storage of data

The information gathered from the internal and external consultees was in several formats including paper maps identifying site boundaries or points, paper photocopies of lists of sites, paper database print-outs of site addresses, and maps and databases stored as electronic data on diskette or compact disc.

The first stage of data analysis was to decide how best to store the data for ease of management for further assessment and retrieval. A separate report had been undertaken into the suitability of the Environmental Services main premises database, FLARE, for storing information related to contaminated land (Pickford, 1999). The findings of the report were that some types of information would be able to be entered on FLARE, if some modifications were made, but little information could be entered under the codes presently available within FLARE. Finally, certain other information appeared not to have an appropriate storage location within the presently available FLARE formats.

From this standpoint, it was considered that two approaches could be followed. Firstly, that the first stages of work may best be deferred until a suitable corporate Information Technology (IT)-based storage and handling system was developed. This would avoid duplication of work and the resource implications of transferring work undertaken in the interim on paper or in a database into a different electronic format. Secondly, under the existing resource arrangements and the imposed timescales, it became more realistic to consider progressing elements of the information management work using existing IT facilities in the interim period until a corporate system is developed in the future.

Much if not all of the Council's work is moving towards electronic data storage, with increased use of Geographical Information Systems (GIS).

In the mean time, a networked computer spreadsheet shall be used to calculate and store the risk scores arising from the risk prioritisation process. Other development work that is required includes:

- Development of a database to store all the information and decisions on contaminated land, including enforcement action.
- Development of links between the improved database and the GIS.
- Development of links between database, GIS, reports for use by commercial enquirers and access to Public Register.

4.2.3 Sources of information on the key characteristics

The risk assessment process for contaminated land will consist of decisions arising from an interconnected matrix of information sources. Such factors include current land use and occupation, historical land use, geology, groundwater vulnerability, and mining information, amongst others, already covered in Part 2.

A 1998 research report conducted for Environmental Services by Adrian Davies, identifies sources of information available to Salford City Council Officers on the historical map and archive searches. This will assist in the identification of presently unknown potential sources of contamination, following published guidance on this subject. Procedure notes are available in Environmental Services for undertaking searches, and former DoE guidance *Contaminated Land Research Report No. 3: Documentary research on industrial sites* (RPS, 1994), should be referred to as well as the former DoE Industry Profiles (DoE, 1996). Davies' study identified a comprehensive list of data sources, given in Table 7 in Appendix 2.

The standard sources of information for undertaking searches towards risk prioritisation are identified in Table 8 in Appendix 2, broken down into datasets for sources, pathways and receptors. The data sources highlighted in yellow are those which are presently available on the Environmental Services Geographical Information System (GIS).

Table 9 in Appendix 2 identifies the datasets actually available as layers in the GIS in blue. In order to undertake the risk prioritisation process in a cost effective and accurate manner, all necessary data sources should be available as GIS layers. The shortfalls in datasets are highlighted in Table 9, in red for essential datasets, and purple for desirable datasets.

The development of a comprehensive resource for identification of possible contaminated land is ongoing, and relies heavily on continued financial support. A bid for funding for three essential missing datasets was made in January 2001, but was not successful. Renewed bids shall be made at every available opportunity. If not successful by July 2001, the risk prioritisation process will need to proceed on paper, a more time consuming and possibly less accurate process.

4.3 Risk prioritisation methodology

4.3.1 Scope and purpose

In order to determine whether any land appears to be contaminated land, a detailed risk assessment will be necessary, but to first identify the most serious and pressing problems, a preliminary screening tool will be used to identify and prioritise sites where a coincidence exists between a source of contamination, a pathway and a receptor.

4.3.2 Description of methodology

Procedure PG01 (Pickford, 2001) has been developed using several references as a preliminary procedure for identifying broad areas and sites of geographical coincidence or close proximity between sources, pathways and receptors of contamination, and prioritising these identified sites for more detailed assessment using a risk scoring system. It has been developed with contributions from the Manchester Area Pollution Advisory Council, and therefore represents a regional approach. The procedure is expected to be finalised for use before July 2001.

The ranked order will place sites according to their potential, but not actual, risk since the assignment of scores is empirical only. Site rankings are not absolute, although the pilot tests have attempted to ensure that the worst types of sites are accentuated upwards and vice versa. Following a phased approach aims to meet the requirement for a rational, ordered and efficient approach to inspection.

Steps 1 to 5 of PG01 are followed to prioritise potential sites based on existing information as identified in Table 8 in Appendix 2. Step 6 suggests reference methods to identify new sites, and by repeating Steps 2 to 5, each new site is processed to assign and rank its risk score. The output will be a continually updated list of sites in ranked order of priority, for further prioritisation into workable Priority 1, 2 and 3 categories, and then more detailed assessment corresponding to Phase 3 in the aims and objectives stated in Section 3.2.

4.3.3 Further prioritisation

The risk prioritisation methodology PG01 will produce a list of sites based on the suitability of the site for its given environmental setting in ranked order of priority for more detailed review. A further prioritisation will be required to break down the list of sites into manageable pieces to enable timescales to be set for working through the list.

Without actually processing all 450 plus sites already known about, it is not possible to predict at this stage how many sites will fall into the nominally selected brackets of high risk, medium risk and low risk. Indeed, since the prioritisation is generic and not absolute in nature, the setting of score ranges will have to be done at the same time as undertaking the procedure itself.

For example, once the first hundred or so sites have been processed with scores assigned, it will become more apparent where to set the bandings, based the assessor's judgement and experience in contaminated land issues, such as:

SCORE (<i>DRAFT</i>)	RISK JUDGEMENT	PRIORITY CLASS
0-100	Potential risks not identified	"mothball" the site pending review
100 - 300	Low risk	Priority 3
300 - 800	Medium risk	Priority 2
800 +	High risk	Priority 1

Tables 2 and 4 in this report show that high risk sites are classed as Priority 1, and detailed investigation of such sites will need to take place soonest. Next are medium risk sites, or Priority 2, and then low risk sites, or Priority 3.

There will also need to be flexibility to amend the priority classification based on additional information, officer knowledge, or indeed other Council drivers or intentions for setting targets. This may be the case where the Council might wish to start undertaking detailed investigations on certain land in its ownership earlier than timetabled for its designated Priority Class, to fit in with budget funding availability, and so on.

Consideration will also need to be made to ensure that other factors are accounted for in discerning between sites with similar scores falling into the same Priority Class, based on the following factors in order of priority:

- Is significant harm taking place
- Is significant harm likely to take place
- Is pollution of controlled waters occurring or likely to occur
- What is the sensitivity of the type of receptor that is affected
- What is the known likelihood or magnitude of harm

Similarly, officer experience and judgement will be required to differentiate between sites of similar priority ranking, with reference to published guidance and other relevant authoritative sources.

From this point onwards, the prioritised sites will need to be investigated in further detail, highest risk sites first, using full risk assessment techniques.

4.4 Risk assessment

All information on contaminants will initially be evaluated against current governmental generic guidelines or by use of prescribed risk assessment models.

4.4.1 CLEA and ICRCL guidelines

A new set of generic guidelines and a risk assessment model - the Contaminated Land Exposure Assessment or CLEA model - are expected from the DETR shortly. Until these are made available, the Council will evaluate all information, initially, against the generic guidelines issued by the Interdepartmental Committee on Redevelopment of Contaminated Land (ICRCL).

The document ICRCL 59/83 (2nd edition, ICRCL, July 1987) "*Guidance on the assessment and redevelopment of contaminated land*" gives the most widely used set of trigger and action levels for a range of contaminants.

4.4.2 Risk assessment modelling

When undertaking risk assessment for the purposes of determining contaminated land, the statutory guidance states that local authorities may use authoritative and scientifically based guideline values, ensuring that they are used appropriately and in context with the particular situation of the site.

As stated above, the ICRCL guideline values are most commonly used, as well as values derived using various semi-quantitative risk assessment packages, of which the SNIFER and RBCA models are examples. At the present time, risk assessment models have to be used in the event of substances on land for which there are currently no ICRCL guideline values.

Reference may also have to be made to other authoritative sources of information such as generic guidelines adopted in other countries. However, if guidelines or standards from other countries are referred to, their legal status will be open to question in the United Kingdom, and the context in which they should be applied may not be compatible with the UK situation.

As one of its objectives for implementation, the Council will need to keep under review current guideline values and risk assessment packages, to ensure that the most up to date or appropriate values or systems are used when assessing risk.

4.4.3 Risk assessment for controlled waters

Advice will be sought from the Environment Agency on risk assessment if the receptor in any potential pollutant linkage is one of controlled waters.

4.5 Requests for information and complaints

From time to time, the Council may receive a complaint or information regarding contaminated land. Under the previous regulatory system, contaminated land could be termed a statutory nuisance, warranting action under the provisions of the Environmental Protection Act 1990 Part III. These provisions have now been revoked, and instances of nuisance from or on land would need to be checked against the new criteria for determination of contaminated land, namely that

significant harm is occurring, or is a significant possibility, or that pollution of controlled waters is occurring, or likely to occur.

4.5.1 Complaints and service requests

Under its normal arrangements, Environmental Services officers will respond to a complaint or enquiry as quickly as possible and in any case, within

- 2 working days
- 10 working days if in writing.

Complaints are logged on the Environmental Services main database, FLARE, with a reference number.

4.5.2 Confidentiality

All complainants will be asked to supply their names and addresses, and details of the site being complained about. The identities of complainants will, as far as is practicable, remain confidential

4.5.3 Anonymously supplied information

Environmental Services officers use their discretion in investigating alleged nuisances based on anonymously supplied information, and this general policy will be adopted for contaminated land issues.

4.5.4 Anecdotal evidence

Where it is offered or requested, anecdotal evidence is expected to provide an invaluable route towards gathering historical information about the past uses of land. However, it should be recognised that any anecdotal evidence provided to the Council relating to contaminated land will be noted, but that designations of contaminated land cannot be made without robust supporting scientific evidence. In all cases, Environmental Services officers will use knowledge and experience to decide what, if any, investigation is required following receipt of a complaint or information.

4.6 Links to other corporate and national information systems

More information required:

- 1 Overview - the need for provision of info on c/l. to other council depts.
- 2 Corporate databases – property and development, development control, forward planning, engineering
- 3 National Land Use Database - need to liaise with regard to the strategic planning function; information gathered under Part IIA will be important to future developers within Salford, via the UDP.
- 4 National Property Gazetteer? - need to liaise
- 5 Arrangements for responding to internal information requests - costs?

4.7 Interaction with other regulatory regimes

4.7.1 Planning

The planning process under the Town and Country Planning Acts has already been identified as a major contributor or influence on the ongoing redevelopment of potentially contaminated land. Contaminated land is termed a material planning consideration in Planning Policy Guidance PPG23, and therefore, the Development Control process may be used where necessary to ensure the implementation of site investigations, and where required, land remediation, such that the site is rendered suitable for its intended use.

Table 3 of this report identifies that in order to effectively fulfill this objective, a review of the planning consultation and enforcement processes will be required. This is timetabled in Table 4.

4.7.2 Water pollution

The Water Resources Act 1991 gives the Environment Agency powers to deal with harm to controlled waters being caused by contaminated land. Part IIA legislation does not revoke these powers and, prior to any determination being made, the Council will always consult with the Environment Agency to establish which is the preferred route of control. If control is to be achieved through Part IIA, the Council will consult with the Environment Agency before determining any contaminated land, and will take into account any comments made with respect to remediation.

4.7.3 Waste management

Powers are available to the Environment Agency under the Waste Management Licensing Provisions of the Environmental Protection Act 1990, for dealing with contamination that results from a breach of an operating licence.

4.7.4 Integrated Pollution Prevention and Control

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

4.8 Review mechanisms

This Strategy outlines the general approach to be taken in inspecting land for contamination. This section outlines the instances when inspections will occur outside this general strategic framework, circumstances under which previous

inspection decisions should be reviewed and measures to be taken to ensure the strategy remains effective and up to date.

4.8.1 Triggers for undertaking non-routine inspections

The strategy recognises that there may be occasions when inspections have to be undertaken outside the general strategic framework. Triggers for non-routine inspection will include:

- Unplanned events, such as an accidental spill or chemical incident.
- Introduction of new receptors into any situation where a source and pathway may already exist. This could occur when a new Site of Biological Interest is designated, or there is persistent trespass across a site that does not otherwise have a sensitive receptor.
- Identification of localised health effects which appear to relate to a particular area of land.
- Responding to information from other statutory bodies, stakeholders, or other interested parties, which reveal that a site requires urgent action.

While these occurrences may trigger non-routine inspections, they must not be allowed to significantly interfere with the timetable for achieving the objectives set out in the overall implementation framework.

4.8.2 Triggers for reviewing inspection decisions

There may be occasions when the findings of previous inspection decisions should be reviewed. This might occur in the event of:

- Significant changes in legislation
- Establishment of significant case law or other precedent
- Revision of guideline values

It will be important to ensure that all decisions are made and recorded in a consistent manner that will allow efficient review. One of the earliest objectives to be completed will be the organisation of information management and storage systems (see Section 4.2.2 and Table 1).

4.8.3 Review of Strategy document

Once the Strategy has been formally adopted and published, local authorities have a duty to keep it under periodic review. The first review has been proposed to take place one year after publication, that is, in July 2002, to review implementation after the first full year of operation. The findings will be reported through the Council's Lead Member and Cabinet system (see Section 4.1.2).

Further reviews are proposed at two-yearly intervals. Table 2 schedules an optional review in July 2004 and a mandatory review in July 2006, which will be five years after first publication of the original Strategy.

PART 5

GENERAL LIAISON AND COMMUNICATION STRATEGIES

5.1 Consultees

Internal consultation on the draft Inspection Strategy report shall be undertaken with the Council consultees identified in Table 5 (1). Consultation will also take place with the relevant statutory bodies identified in the statutory guidance, namely the Environment Agency, English Nature, English Heritage, and MAFF. Selected other external organisations may also be consulted. Contact points are listed in Section 6.2.

5.2 Communicating with owners, occupiers and other stakeholders

5.2.1 Overview

The Council's approach to its regulatory duties will be to seek voluntary action wherever possible before taking enforcement action. This approach will be adopted for issues of contaminated land, recognising that in many cases more effective remediation can be achieved by agreement than by enforcement.

This regime provides two incentives to undertake voluntary action. Firstly, materials that require disposal as a result of voluntary remediation will be exempt from landfill taxes. This exemption does not apply to materials generated as a result of service of a remediation notice. Secondly, there may be instances where designations of contaminated land may not need to be entered on the public register, which may help to avoid issues of "blight".

5.2.2 On making determinations of contaminated land

Where a formal designation of contaminated land is to be made, the Council will need to inform the owners, occupiers and any other identified persons with an interest in the land.

A procedure note and standard letters will be required for this purpose, which will need to be drafted. Likewise, where voluntary remediation is not undertaken or proposed, a remediation notice must be served.

Part 7 of this draft Inspection Strategy is intended to retain such standard documentation, although it is understood that the Environment Agency is currently drafting procedures for Local Authorities, in line with the Agency's own Process Handbook for Part IIA. The Council will await the publication of such guidance before commencing the task of producing its own documentation. Such Council based documentation will however be required if Agency guidance has not yet been issued by July 2001.

5.3 Powers of entry

Under Section 108(6) and Schedule 18 of the Environment Act 1995, the Council has been granted powers of entry to carry out investigations. At least seven days' notice will be given of proposed entry onto any premises, unless there is an immediate risk of serious pollution of the environment or serious harm to health, or that circumstances exist that are likely to endanger life or health.

Where the site involved is likely to be a Special Site, the Council will consider authorising a person nominated by the Environment Agency to exercise the above powers on behalf of the Council.

5.4 Public Register

5.4.1 Scope of the Register

The Council has a duty to maintain a Register. The Register will include details of remediation notices that have been served and certain other documents in relation to each area of contaminated land for which the authority is responsible. The register will also include information about the condition of the land in question.

Regulation 15 of, and Schedule 3 to the Contaminated Land (England) Regulations 2000 prescribe the information that can be recorded on this Register. Briefly, the Register will need to include:

- Remediation notices
- Reference to any site reports obtained by the Council in relation to remediation notices
- Remediation declarations
- Remediation statements
- Notifications of claimed remediation
- Determinations of Special Sites
- Any appeals lodged against remediation and charging notices
- Convictions

The Public Register will **not** include details of historic land uses or other records used in the characterisation of potentially contaminated land. Such documents may be classed as research documents, and any databases or paper files storing work in progress will **not** be made available to the public.

5.4.2 Location of Register

The Part IIA Public Register for Salford City Council will be held, and available for viewing during office hours, at:

Environmental Services Directorate,
Crompton House,
100 Chorley Road,

Swinton, Salford, M27 6ES.

Telephone number: 0161-793-2010 or 2013
Fax number: 0161-728-1956

The Environment Agency is also required to hold a Public Register, and further information may be sought via the contact point listed in Section 6.2.

5.5 Provision of information to interested parties

In advance of any designations under Part IIA, Environmental Services can provide certain information to assist enquirers in determining whether or not land they have an interest in might be affected by ground contamination or landfill gas. Information can be supplied on:

- Recorded licensed, pre licensing and unlicensed landfill sites.
- Historical map searches, highlighting the potential for ground contamination.
- Departmental files contents (where appropriate).
- Private water supplies.
- EPA I, Part B industrial processes authorised by this authority.
- EPA I, Part A industrial processes authorised by the Environment Agency.

Requests for searches into both contaminated land, landfill sites and other environmental information should be made in writing and include a large-scale plan, clearly marking the site boundaries. A leaflet is available via the contact point below which gives more detailed information.

Note that the Council has to make a reasonable charge for Officer time in undertaking the search. The investigating Officer will confirm the charge beforehand, following assessment of the specific information required.

Address enquiries for the attention of:

Environmental Services Directorate,
Crompton House,
100 Chorley Road,
Swinton, Salford, M27 6ES.

Telephone number: 0161-793-2010 or 2013
Fax number: 0161-728-1956

An appointment to view Public Register records at Crompton House, where present, may be arranged by telephone.

5.6 Provision of information to the Environment Agency

The Environment Agency is required to prepare an Annual Report for the Secretary of State on the State of Contaminated Land in England. Under Section

78U(2) of EPA 1990, local authorities are required to provide the Environment Agency with the information necessary to write the report.

The information required will be provided by Salford to the Agency on their standard returns forms as follows:

- SOCL/LA/FORM 1 – When a site is determined as contaminated land
- SOCL/LA/FORM 2 – When Remediation action is taken for a site
- SOCL/LA/FORM 3 – Annual summary of Local Authority regulatory activity

Copies of blank forms have been retained by Environmental Services, together with the sheet explaining the information requirements for completing the forms. The forms will need to be completed at the relevant stages of work, so as to avoid collation of information at the end of each year.

The first “*State of Contaminated Land in England*” report is required to be published in 2002. This means that forms will need to be completed and returned during 2001 and 2002. However, Table 2 indicates that during 2001 and 2002, inspection of sites will only be starting to take place, leading to any determinations of contaminated land, and so there are expected to be few sites on which to report by the end of that period.

PART 6

OTHER SUPPORTING INFORMATION

6.1 Glossary of terms

Appropriate person: defined in section 78A(9) as:

“any person who is an appropriate person, determined in accordance with section 78F..., to bear responsibility for any thing which is to be done by way of remediation in any particular case”.

Caused or knowingly permitted: test for establishing responsibility for remediation, under section 78F(2).

Controlled waters: defined in section 78A(9) by reference to Part III (section 104) of the Water Resources Act 1991; this embraces territorial and coastal waters, inland fresh waters, and ground waters.

Owner: defined in section 78A(9) as:

“a person (other than a mortgagee not in possession) who, whether in his own right or as trustee for any other person, is entitled to receive the rack rent of the land, or where the land is not let at a rack rent, would be so entitled if it were so let”.

Pathway: one or more routes or means by, or through, which a receptor:

(a) is being exposed to, or affected by, a contaminant, or

(b) could be so exposed or affected.

Pollutant linkage: the relationship between a contaminant, a pathway and a receptor.

Pollution of controlled waters: defined in section 78A(9) as:

“the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter”.

Possibility of significant harm: a measure of the probability, or frequency, of the occurrence of circumstances which would lead to significant harm being caused.

Register: the public register maintained by the enforcing authority under section 78R of particulars relating to contaminated land.

Relevant information: information relating to the assessment of whether there is a significant possibility of significant harm being caused, which is:

- (a) scientifically-based;
- (b) authoritative;
- (c) relevant to the assessment of risks arising from the presence of contaminants in soil; and
- (d) appropriate to the determination of whether any land is contaminated land for the purposes of Part IIA, in that the use of the information is consistent with providing a level of protection of risk in line with the qualitative criteria set out in Tables A and B of Chapter A of the DETR Circular 02/2000.

Remediation: defined in section 78A(7) as:

“(a) the doing of anything for the purpose of assessing the condition of -

- (i) the contaminated land in question;
 - (ii) any controlled waters affected by that land; or
 - (iii) any land adjoining or adjacent to that land;
- (b) the doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land or waters for the purpose -
- (i) of preventing or minimising, or remedying or mitigating the effects of any significant harm, or any pollution of controlled waters, by reason of which contaminated land is such land; or
 - (ii) of restoring the land or waters to their former state; or
- (c) the making of subsequent inspections from time to time for the purpose of keeping under review the condition of the land or waters”.

Remediation declaration: defined in section 78H(6). It is a document prepared and published by the enforcing authority recording remediation actions which it would have specified in a remediation notice, but which is precluded from specifying by virtue of sections 78E(4) or (5), the reasons why it would have specified those actions and the grounds on which it is satisfied that it is precluded from specifying them in a notice.

Remediation notice: defined in section 78E(1) as a notice specifying what an appropriate person is to do by way of remediation and the periods within which he is required to do each of the things so specified.

Remediation statement: defined in section 78H(7). It is a statement prepared and published by the responsible person detailing the remediation actions which

are being, have been, or are expected to be done, as well as the periods within which these things are being done.

Significant harm: defined in section 78A(5). It means any harm which is determined to be significant in accordance with the statutory guidance in Chapter A (that is, it meets one of the descriptions of types of harm in the second column of Table A of that Chapter).

Significant pollutant: a pollutant linkage which forms part of a significant pollutant linkage.

Significant pollutant linkage: a pollutant linkage which forms the basis for a determination that a piece of land is contaminated land.

Significant possibility of significant harm: a possibility of significant harm being caused which, by virtue of section 78A(5), is determined to be significant in accordance with the statutory guidance in Chapter A.

Special site: defined by section 78A(3) as:

“any contaminated land -

(a) which has been designated as such a site by virtue of section 78C(7) or 78D(6)... ...; and

(b) whose designation as such has not been terminated by the appropriate Agency under section 78Q(4)... ...”

The effect of the designation of any contaminated land as a special site is that the Environment Agency, rather than the local authority, becomes the enforcing authority for the land.

Substance: defined in section 78A(9) as:

“any natural or artificial substance, whether in solid or liquid form or in the form of a gas or vapour”.

6.2 Contact points

6.2.1 City of Salford - Council Directorates

Environmental Services, Crompton House, 100 Chorley Road, Swinton, Salford, M27 6ES. Telephone: 0161-793-2010 For:	Development Services, Salford Civic Centre, Chorley Road, Swinton, Salford, M27 5BW. Telephone: 0161-794 – 4711 For:	Corporate Services, Salford Civic Centre, Chorley Road, Swinton, Salford, M27 5DA. Telephone: 0161-794 – 4711 For:
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Pollution Control Unit Outdoor Services	Development Control, Forward Planning, Engineers + OS Liaison Officer, Building Control, Property & Development (Estates), Architectural & Landscape Design	Legal Services, Emergency Planning, Risk Management/Insurance, Finance
Education & Leisure, Education Office, Chapel Street, Salford, M3 5LT. Telephone: 0161-832 -9751	Housing Services, 631 Turnpike House, Eccles New Road, Salford, M5 2SW. Telephone: 0161 – 737 - 0551	

6.2.2 External organisations

STATUTORY CONSULTEES:		
Environment Agency, Appleton House, 430 Birchwood Boulevard, Birchwood, Warrington, WA3 7WD. Telephone: 01925 - 840000 (North West Region, South Area Team)	English Nature, North West Team, Pier House, Wallgate, Wigan, WN3 4AL. Telephone: 01942 - 820342	English Heritage, Fortress House, 23 Savile Row, London, W1X 1AB.
Health & Safety Executive (HSE), Manchester Office, Grove House, Skerton Road, Manchester, M16 0RB. Telephone: 0161 -952 - 8200	Ministry of Agriculture, Fisheries and Food (MAFF), Room 141, Nobel House, 17 Smith Square, London, SW1P 3JR.	North West Development Agency, Lancaster House, Mercury Court, Tithebarn Street, Liverpool, L2 2QP. Telephone: 0151 - 236 - 3663
OTHERS: (Non – statutory)		
Salford & Trafford Health Authority, Peel House, Albert Street, Eccles, Salford, M30 0NJ. Telephone: 0161 –931 - 2000	Greater Manchester Geological Unit (GMGU), Williamson Building, University of Manchester, Oxford Road, Manchester, M13 9PL. Telephone: 0161 – 275 - 7152	North West Water Limited, Estates, Conservation, Access & Recreation, Dawson Street, Liverpool Road, Great Sankey, Warrington, WA5 3LW.
Greater Manchester Archaeological Unit, The University of Manchester, Oxford Road, Manchester, M13 3PL. Telephone: 0161– 275 - 2314	The Coal Authority, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG. Telephone: 01623 - 427162	The Coalfields Regeneration Trust, 2 Portland Place, Spring Gardens, Doncaster, DN1 3DF. Telephone: 01302 - 304400

BG Property (former British Gas), Aviary Court, Wade Road, Basingstoke, Hants, RG24 8GZ. Telephone: 01256 - 308803	Railtrack (Property), Railtrack House, Euston Square, London, NW1 2EE. Telephone: 020 7557 8655	National Radiological Protection Board, Northern Centre, Hospital Lane, Cookridge, Leeds, LS16 6RW. Telephone: 0113 – 267 - 9041
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6.3 Maps and plans

Geological Survey 1:50,000 scale. 1975. England and Wales Sheet 85, Manchester (Solid edition). Ordnance Survey.

Geological Survey 1:63,360 scale. 1970. England and Wales Sheet 85, Manchester (Drift edition). Ordnance Survey.

River Quality - General Quality Classification *What's in my back yard?* [on-line]. Environment Agency. Available internet: <http://www.environment.agency.gov.uk/What'sinmybackyard?>. Accessed on: 18 October 2000

Groundwater Source Protection Zones *What's in my back yard?* [on-line]. Environment Agency. Available internet: <http://www.environment.agency.gov.uk/What'sinmybackyard?>. Accessed on: 18 October 2000.

Groundwater Vulnerability Map 1:100,000 scale. Sheet 10, Central Lancs. Environment Agency.

Groundwater Vulnerability Map 1:100,000 scale. Sheet 17, Derbyshire and North Staffordshire. Environment Agency.

Groundwater Vulnerability Map 1:100,000 scale. Sheet 16, West Cheshire. National River Authority (now Environment Agency).

PART 7

PROCEDURAL GUIDANCE NOTES

7.1 Introduction

The Manchester Area Pollution Advisory Council (MAPAC) is taking a regional approach to implementation of Part IIA, wherever possible.

A list of potential procedural guidance notes has been produced for the MAPAC group. The documents required include procedural guidance, informative guidance, Information Technology (IT) guidance, standard notices and standard letters.

However, it is understood that the Environment Agency is currently drafting procedures for Local Authorities, in line with the Agency's own Process Handbook for Part IIA. The Council will await the publication of such guidance before commencing the task of producing its own documentation, in conjunction with the MAPAC group.

Such Council based documentation will however be required if Agency guidance has not yet been issued by July 2001.

The necessary documents shall be included as part of further drafts of the Inspection Strategy, as they become available, under the following headings:

7.2 Procedural Guidance (PG)

To be drafted. Note PG01 has been drafted, for use by July 2001.

7.3 Informative Guidance (IG)

To be drafted

7.4 Information Technology Guidance (IT)

To be drafted

7.5 Standard Notices

To be drafted

7.6 Standard Letters

To be drafted

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APPENDICES

Appendix 1

Table 2

Timetable for Strategy production, implementation and inspection of district

OBJECTIVE in Table 1	2001			2002			2003			2004			2005			2006		
	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J
Deal with urgent sites & sites causing immediate risk to health																		
Produce Inspection Strategy																		
Purchase & input GIS datasets																		
Organise & develop information systems																		
Baseline prioritisation of sites																		
Historical map & archive searches																		
Further prioritisation of sites / Special Sites liaison with Environment Agency																		
Priority 1 sites: Detailed inspection																		
Apportionment of liabilities																		
Actions towards remediation																		
Priority 2 sites: Detailed inspection																		
Apportionment of liabilities																		
Actions towards remediation																		
Priority 3 sites: Detailed inspection																		
Apportionment of liabilities																		
Actions towards remediation																		
Review and evaluate decisions and systems																		

Key: Action timetabled for this period Action may occur during this period

Table 4

Timetable for other Council tasks and obligations relating to Part IIA

[illegible]

Key:		Action timetabled for this period		Action may occur during this period
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Appendix 2

Table 5

1) Sources of information within the local authority (Council consultees)

[illegible]

Y> = more information available at site specific assessment stage

Table 5

Updated 15/11/00

2) External sources of information

[illegible]

Y> = further information awaited

Table 6

Progress summary on information gathering on contaminated land

Responses to information requests (10 March 2000), and follow-up reminders

INTERNAL CONSULTEES

1.	Engineering Design Manager, Development Services Responded . Plan of site investigation locations (500+).
2.	Development Control Manager, Development Services Responded. List of sites provided.
3.	Building Control Manager, Development Services Responded, Info held by Engineers, Site specific files also.
4.	Greater Manchester Geological Unit Director, Development Services Response pending – detailed liaison required
5.	Estates Manager (Property & Development) Development Services Responded. Terrier & Asset Register details held on Council land ownership.
6.	Architecture and Landscape Design Manager, Development Services Responded, Info held by Engineers
7.	Housing Services (Strategy), Turnpike House, Eccles New Road, Salford Responded, Info held by Prop & Devel.& poss by Engineers
8.	Education and Leisure (Strategic Services), Education Office, Chapel Street, Salford * Responded. Info held by Prop & Devel.& poss by Engineers
9.	Forward Planning Manager, Development Services * Responded. NLUD sites. Population. SBI's & protected sites
10.	Legal Section, Corporate Services. <i>Response awaited</i>

* Further requests to be issued for details of existing sensitive land uses.

EXTERNAL CONSULTEES - FIRST TRANCHE

11.	Environment Agency Response rec'd. Details provided on water abstractions, waste sites and others. Needs verifying.
12.	English Nature Initial response rec'd. No statutory sites in Salford. Details of SBI's provided via Forward Planning
13.	English Heritage Initial response rec'd. Referred back. DS provided details of listed bldgs, Ancient Monuments + Cons. Areas
14.	North West Development Agency Initial response rec'd. Discussions have taken place. Site specific info may be available on request.
15.	Ministry of Agriculture, Fisheries & Food. Initial response rec'd. Fuller response pending.
16.	GM Archaeological Unit Initial response rec'd. Fuller response pending, visit to Unit required to view records.

EXTERNAL CONSULTEES and OTHER INTERNAL CONSULTEES

SECOND TRANCHE OF REQUESTS ISSUED (# or due to be issued)

EXTERNAL: Railtrack, Coal Authority, British Gas Properties, British Waterways, Utilities companies (water - NWW, #gas, #electricity, #telecomms), #Ministry of Defence, NRPB, #GM Research Unit, GM Ecological Unit, #Housing Associations, NHBC, Health Authority, HSE, National Soil Survey, #Petroleum Officer, National Farmers Union. Food Standards Agency has already contacted Salford.
INTERNAL: OSLO (Engineers DS), Risk Management/Insurance Officer & Emergency Planning Officer, Corporate Services.

S. Pickford, 4th September 2000, updated Feb 2001.

Table 7

Sources of information available to Salford Officers for undertaking searches of historical maps and archives.

(Reference: Adrian Davies: MSc Research report conducted for Environmental Services in 1998)

DATA SOURCE	LOCATION	COVERAGE	COMMENTS
MAPS - Primary source			
Green's maps	Salford Local History Library	1794. Langworthy, Pendleton & Blackfriars.	Travel time to library. Limited opening hours.
Banks maps	Salford LHL	1831. Areas of Salford developed at that time.	As above.
1848 survey	Salford LHL	1848. Developed areas of Salford.	As above.
Ordnance Survey 6" late 1940's to early 1950's)	Salford LHL	First edition of maps covering the whole of Salford area.	As above. Full coverage the district possible, greater time input.
1:1056 scale	Salford LHL	1980's. Coverage limited the heavily built up areas of Salford, Eccles, Swinton & Pendlebury.	As above, limited coverage but clear boundaries.
County series: 1891 survey 1908 survey 1922 survey	Salford LHL Also part of an 1891 set at Environmental Services Directorate	1890's to 1930's. Incomplete coverage of district, mostly built up areas.	As above.
1:1250 OS maps	Salford LHL	Post-war to present day.	As above, large amount of information research, description later on.
COLLATED DATA			
Derelict Land Survey 1993	Development Services Directorate, Salford CC.	Lists 200-300 derelict sites boundaries, former land uses, ownership etc.	Systematically filed, information retained on standard forms.
Reclaimed derelict land files	Development Services	Identifies derelict sites reclaimed up to 1993, updated to 1997.	Systematically filed, information retained on standard forms.
General Development Index	Environmental Services Directorate, Salford CC.	Identifies landfill sites, links to information in files and wall maps.	Good access to wall map and files, but files not standardised in content.
Waste Management Licence register	Environment Agency	Lists currently licensed activities in Salford, and gives site status.	Systematic database, but post-closure information not included.
Aerial photographs	Greater Manchester Geological Unit	Aerial photos of Salford during post-war era. Tipping sites, un-licensed landfills and in-filled depressions.	Extremely time intensive and difficult to use. Best used as a cross-reference.
<i>Table 7 cont...</i>			

Petroleum Officer files	Fire Services HQ	Files on users & holders.	Computer + paper files.
FLARE database files on petrol stations	Environmental Services Directorate	EPA 1990 Authorised Processes files.	Useful in conjunction with Petrol. Officer files.
Mined Land Use Record	Development Services Directorate / GMGU	Extent of mined land in Salford, spoil heaps and mine shafts. GIS system.	Versatile tool, electronic and hard copy source. Map layer input for GIS.
Environmental Services premises and site files.	Environmental Services Directorate	Numerous files covering all aspects of contam.land relating to developments, WML applications, historical map searches, complaints. Some TPDC files on NBIE. GIS system currently under development.	Good access, but information not yet in standardised format, hence time consuming to extract information at present time.
TRADE DIRECTORIES			
Microfiche files	Salford Local History Library	1772-1881, issued every few years. Classified under owners name.	Possible use as a cross-referencing tool.
Post Office Directories	Salford Local History Library	For the year 1873. Classified under trade name, useful street directory.	Large amounts of information, known businesses at the time easily identified.
Slaters Directory of Manchester and Salford	Salford Local History Library	1881-1921. Classified under trade name, limited street directory.	Large amounts of information, known businesses at the time easily identified.
Kelly's Directory of Manchester and Salford	Salford Local History Library	1921-1960's, issued every few years. Good coverage useful classification under street directory but not trade type.	Classification type more difficult to use than in Slater's but still useful source of information.
OTHERS			
Development Services files	Development Services	Files and site investigation reports from: Development Control, Planning Implementation and related, Building Control, Engineers, Estates, possibly Economic Development, and so on.	
Development Control/ Building Control	Salford Quays office	Files and site investigation reports about re-development of Salford Quays.	

Table 8
Standard data sources on the key characteristics relating to contaminated land

(Reference: Hooker et al, 2000)

SOURCES

O.S. LANDLINE (1)

Available as digitised layers in MapInfo as a baseline for present Developments. No identification of potential c/l land uses yet.

AERIAL PHOTOS

Available as digitised layer in MapInfo. Will assist in identifying potential c/l land uses in LandLine.

L.A. PLANS (2)

Ad hoc collection of paper maps in ES, more across Council. Would need scanning or CD-ROM.

HISTORICAL MAPS (3)

1891, 1908, 1922, 1937 – Available on MapInfo in ES. 1794, 1848, 1940-50's, 1960-70's, 1980-1990's N/A on MapInfo, although paper copies are all available at Peel Library. See also Section 4.2.4 for more details.

EPA Part I sites

Part A + B processes.

CONTAMINATED LAND FILES/ KNOWN OR SUSPECTED PROBLEM SITES

CLsites4. TAB available in MapInfo for East Team and West Team sites. Environment Agency sites awaited on CD-ROM.

CLOSED LANDFILLS (4)

Landfill sites GDO Index. TAB GMGU landfill sites also.

SCRAPYARDS

ES register, need to confirm what is held. Also, FLARE PE2.

SOIL GEOCHEMISTRY DATA (5)

Paper atlases of metal-enriched soils. Chat Moss appears to be a focus, for which copy in ES. Some data may be digitised by DH.

SITE INVESTIGATION REPORTS (11)

ES S.I. reports available as database field in CLsites4. TAB. Engineers and Development Control files or records point locations plotted on MapInfo.

PATHWAYS

CONTROLLED WATERS

GEOLOGY + Mined Ground

(6) (Solid, Artificial & Drift)
GMGU liaison req'd. ES has only small scale paper maps of solid & drift geology. Info on made ground may exist in SI rpts. Mined Ground Database held by Dev.Ser + GMGU.

Surface water courses

(7) TBC by EA. Land-Line has surface water courses in MapInfo. River Quality data on EA website.

Aquifers, g.water vulnerability + Protection Zones (8)

TBC by EA Paper copy of g.water vulnerability map in ES. Data on EA website.

Water (9) Abstractions

Provided by EA

RECEPTORS

PRESENT DEVELOPMENTS

Housing
UDP map and Land-Line show locations, supported by aerial photography on GIS. Housing Dir. to provide dataset also.

Schools

Same as above, E&L liaison req'd to confirm findings.

Allotments

Same as above, E&L liaison req'd to confirm findings.

Public Open Space

Same as above, E&L liaison req'd to confirm findings.

CONTROLLED WATERS

Liaison with EA essential. EA have provided CD-ROM showing SOME details under the above three headings. See PATHWAYS.

NATURAL ENVIRONMENT. (12)

UDP includes plan showing Sites of Biological Interest (SBI). No statutory sites (EN advice). Requested confirmation from FP that the UDP & Env.Strategy info is still correct, reply awaited

HERITAGE (11)

Reply rec'd from Plann'g via EH with details of Ancient Monuments, Listed Buildings and 16 Conservation Areas. To be digitised onto ES MapInfo shortly. GM Arch. Unit consulted re: Archaeo. Sites.

FUTURE DEVELOPMENTS

UDP map shows locations where development likely, as supported by NLUD report. Similarly, other surveys Undertaken by FP would highlight future receptors, such as Urban Potential Survey. Suggestion made to FP to off start with UDP and Regeneration Strategy. Reply awaited.

Table 9

GIS Dataset Directory - Environmental Services

(Contaminated land) Updated 9 Feb 2001

Description	
AVAILABLE IN GIS (MapInfo)	Owner
File records relating to enquiries, searches etc on contaminated land - NOTE!! This is NOT the same as contaminated sites for which a Public Register is to be created	Environmental Services
Drainage Engineers site investigation locations	Environmental Services have digitised data held by ENGINEERS
Engineers site investigation or borehole locations (up to 1998 only)	Environmental Services have digitised data held by ENGINEERS
English Heritage sites in Salford	Environmental Services have digitised data held by PLANNERS/ENGLISH HERITAGE
EPA Part A prescribed process sites - <i>NEEDS VERIFYING!!</i>	Environmental Services have digitised data held by Environment Agency
EPA Part B prescribed process sites	Environmental Services
Landfill sites recorded by GMGU	Environmental Services have digitised data held by GM GEOLOGICAL UNIT
Landfill sites recorded by Environment Agency (GPDO Index)	Environmental Services
Planning application sites where a condition for contaminated land site investigations was applied	Environmental Services have digitised data held by PLANNERS
Sites of Biological Interest (SBI) in Salford	Environmental Services have digitised data held by PLANNERS/ENGLISH NATURE
Scrap yards - sites currently and previously licensed by Salford E.Health	Environmental Services
Sewage works	Environmental Services
Environment Agency water abstraction locations	Environmental Services have digitised data held by Environment Agency
Environment Agency landfills - <i>NEEDS VERIFYING!!</i>	Environment Agency, ES has disc
Environment Agency - sites licensed for radioactive substances	Environment Agency, ES has disc
Historical map of Salford - Epoch 1 = 1891 to 1896	Environmental Services
Historical map of Salford - Epoch 2 = 1907 to 1909	Environmental Services
Historical map of Salford - Epoch 3 = 1922 to 1929	Environmental Services
Historical map of Salford - Epoch 4 = 1936 to 1939	Environmental Services
Aerial photograph of Salford 1997-1999	Environmental Services via Forward Planning
SHORTFALL - ESSENTIAL DATASETS	Availability
Geological map of Salford	Available via GMGU group purchase - £ 265 - * BID MADE JAN 2001
Groundwater vulnerability map for Salford	Available via GMGU group purchase - £ 300 - * BID MADE JAN 2001
Historical aerial photography for Salford 1961/1973	Available via GMGU group purchase - £ 1,590 - * BID MADE JAN 2001
Ordnance Survey historical maps, post-war to present day.	* To be made available 2001, via OS/LGA agreement.
SHORTFALL - DESIRABLE DATASETS	Availability
Mined ground in Salford	Development Services believed to hold a copy
Underground storage tanks	Layer not yet available from GMGU via Fire Service
Historical aerial photography of Salford 1977 and 1989.	Available via GMGU group purchase - £ 1,590 per epoch

Author: **Stephania Pickford, MSc**
 Scientific Officer

City of Salford
Environmental Services Directorate
Crompton House
100 Chorley Road
Swinton
Salford
M27 6ES.

Date: **15 March 2001**