Brighton & Hove City Council

Environmental Protection Act 1990: Part IIA CONTAMINTED LAND

Brighton & Hove's Contaminated Land Strategy

September 2005

(first published June 2001)

Brighton & Hove

Brighton & Hove Contaminated Land INSPECTION STRATEGY

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EXECUTIVE SUMMARY

New legislation came into force on 1 April 2000, requiring English Local Authorities to produce a strategy for dealing with the inspection of contaminated land within their areas. A 15-month time limit was placed on the development and publication of this document and certain guidelines were to be followed. Contaminated Land is defined in Section 78A(2) of the Environmental Protection Act 1990 as:

> ***"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*** **either:**
>
> 1. **Significant harm is being caused or there is significant possibility of such harm being caused, or**
> 2. **Significant pollution of controlled waters is being caused or there is a significant possibility of such pollution being caused."**

This is the second revision of the document originally submitted to the Environment Agency and constitutes Brighton & Hove City Council's response to the contaminated land regime – indicating how the consultation process has been achieved and what the implementation process will be.

Local authorities are the primary regulators, together with the Environment Agency, for the new Part IIA regime[*] for all land within their boundaries, together with all land they own, whether or not within their boundaries. Local authorities must take a rational, ordered and efficient approach to the inspection of their districts, to ensure that resources are concentrated where there is the greatest likelihood of identifying contaminated land; thus ensuring the most significant problems are dealt with on a priority basis.

To facilitate an inspection of the whole of Brighton & Hove's area existing records and sources of information will be used to identify potentially contaminative uses and sensitive receptors. This will lead in turn to a prioritised investigation programme of specific sites, which may be contaminated sites or potentially contaminated sites. During the implementation of this strategy it is recognised that effective communication with stakeholders may well resolve problems without recourse to direct legal action.

A timetable has been incorporated to indicate when the various aspects of the inspection strategy will be done. Formal procedures will be developed in detail by an internal Contaminated Land Working Group, comprising staff from a number of services, e.g. Environmental Health, Legal, Planning, Building Control, Property, etc.

A specific duty is the creation and maintenance of a Public Register of contaminated land. This has been done and is available for inspection free of charge at *City Direct* at the Town Hall in Norton Road, Hove and also at *City Direct* at Bartholomew House, Brighton. A copy is included in the appendices of this strategy document.

Consultation has been an important part of the development of this strategy. Periodic reviews will take place in accordance with the details laid down within the

[*] Part IIA of the Environmental Protection Act 1990

strategy itself. If you have any comments to make then this process will allow them to be taken into consideration. Please address any comments to:

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1. INTRODUCTION

1.1 General policy of Brighton & Hove City Council

The Environment and Housing directorate provides a wide and diverse range of services that touch the everyday lives of the city's residents and visitors. These services are there to protect the people and environment, maintain the city's infrastructure, help people improve their housing conditions and preserve what is good about Brighton & Hove. The Performance Improvement Plan's statement of intent encapsulates this aim:

> **"To improve the quality of life for people living in and visiting Brighton and Hove"**

The Local Plan for Brighton and Hove was adopted on 21st July 2005. To provide a blueprint for development in the city over the next decade a number of key features are included; Section SU11 (page 54) deals with the development of polluted land and buildings.

Under the Local Plan 2005 it is proposed that productive use of brownfield sites and the development of known or suspected polluted land / premises will be supported where the following conditions can be met:

a. the application is accompanied by a site / building assessment and detailed proposals for the treatment, containment and / or removal of the source of contamination, appropriate to the proposed future use and surrounding land uses, and to prevent leaching of pollutants;
b. the proposal will not give rise to an increase in contamination and atmospheric pollution; and
c. conditions can be imposed and / or a planning obligation sought in order to ensure the fulfillment of any necessary remediation measures and/or future monitoring.

The Contaminated Land Strategy will assist and complement the Local Plan and the powers and duties exercised under the Building Regulations 1995, together with the work of other agencies.

1.1.2 Sustainability

The existence of contamination can present fourfold threats[1] to sustainable development:

1 it may impede social progress, depriving local people of a clean and healthy environment.
2 it could threaten wider damage to the environment and wildlife.
3 it may inhibit prudent use of our land and soil resources, particularly by obstructing the recycling of brownfield sites and increasing pressures on the development of greenfield areas.

[1] DETR Circular 02/2000; Contaminated Land, page 7

4 and the cost of remediation represents a high burden on individual companies, home- and other land-owners and the economy as a whole.

The work to be undertaken by the City Council in respect of contaminated land will reflect the Government's objectives, which are:

- **To identify and remove unacceptable risks to human health and the environment**
- **To seek to bring damaged land back into beneficial use, and**
- **To seek to ensure that the cost burdens faced by individuals, companies and society as a whole are proportionate, manageable and economically sustainable.**

These objectives underlay the 'suitable for use' principle for the remediation of contaminated land, which the Government considers to be the most appropriate approach to achieving sustainable development in this field. At all times the City Council's procedures and approaches will need to be both robust and environmentally effective.

1.2 The Definition of Contaminated Land.

Contaminated Land is defined in Section 78A(2) of the Environmental Protection Act 1990 as:

> ***"..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)** ***Significant pollution of controlled waters is being caused or there is a significant possibility of such pollution being caused."***

This definition includes a number of terms that are further defined in the guidance, and these introduce further concepts that must be understood if the definition of contaminated land is to be accurately applied to any particular site.

<u>Note</u>:
The definition ensures that only land where contamination is causing unacceptable risks to human health or the wider environment is treated as contaminated land. It does not seek to instigate remedial action against all land where contamination is present.

1.2.1 "Significant Harm"

'Harm' is defined in Section 78A(4) as:

"Harm to the health of living organisms or other interference with the ecological systems of which they form part and, in the case of man, includes harm to his property."

"Significant harm" is defined in Table A, Appendix A.

The statutory guidance provides that unless significant harm is being caused, or there is significant possibility of significant harm being caused, land is not to be classed as contaminated.

1.2.2 "Significant possibility of significant harm"

In deciding whether the possibility of harm being caused is significant the City Council must take into account the following factors

1. **The nature and degree of harm**

2. **The susceptibility of the receptors**

3. **The timescale in which the harm might occur.**

The conditions under which significant possibility of significant harm may occur are outlined in Table B, Appendix A.

1.2.3 "Suitable for Use"

The legislation takes a pragmatic approach by concentrating on land posing unacceptable risks in its current use, by making land suitable for this; any likely new use when planning permission is granted is also taken into account. Remediation work is limited to that necessary to prevent unacceptable risks given such current or future uses. Remediation requirements must make land suitable for current use, not necessarily free of all contamination.

1.2.4 How is Contaminated Land Identified?

When deciding whether land is contaminated, the City Council must identify a 'significant pollutant linkage'. A pollutant linkage means a relationship between a source of contamination, a pathway and a receptor.

Fig.1 – Pollutant Linkage

These terms are not defined by statute. The following meanings are set out in statutory guidance:

1. **The contaminant at the source must be a substance which is in, on, or under land and which has the potential to cause harm or to cause pollution of groundwaters.**

2. **The receptor must be either:**

   - **a living organism, a group of living organisms, an ecological system or a piece of property which is listed in Table A, Appendix A and which is being (or could be) harmed by a contaminant; or**
   - **controlled waters which are being (or could be) polluted by a contaminant.**

   Note: The City Council is advised to disregard any receptor not likely to be present given the current use of any land under investigation. The current use of a site is deemed to include any use currently made, or likely to be made, that is consistent with existing Planning permission. However 'current use' does include any likely informal recreational use of the land.

3. **The pathway must be one or more routes by which a receptor is being (or could be) exposed to or affected by a contaminant.**

In essence, not only does a pollutant linkage need to be established such a linkage must be significant, either by virtue of the receptors being harmed or actual (or potential) pollution of controlled waters.

Examples:

1. **Landfill gas (the contaminant) produced in a former unlicensed tip might be causing harm to a nearby dwelling (the receptor) as a result of the gas migrating through fissured chalk (the pathway).**

2. **Petrol (the contaminant) that leaks from storage tanks into underlying aquifers used for drinking water abstraction. In this example the movement of groundwater represents both the**

pathway (as the means by which petrol is moved from the source) and the receptor (as the material that is suffering harm).

1.3 Regulatory Context

That which follows is a simplified introduction to the main principles of the law applying to contaminated land. It should not be used for any other purpose and full reference to the legislation and statutory guidance is recommended.

1.3.1 Legislation

Part IIA of the Environmental Protection Act 1990 ("Part IIA") was introduced by section 57 of the Environment Act 1995 and came into force on 1 April 2000[2]. It contains the long-awaited provisions on contaminated land in the UK and includes a new statutory definition outlined later in this section. A new duty is imposed on Local Authorities to inspect their areas for contaminated land and, where contaminated land is identified, to ensure satisfactory remediation. The City Council's roles as primary enforcing authority for the purposes of Part IIA within the District are set out below. The Environment Agency's important roles in achieving the objectives of Part IIA are also outlined.

The regulatory roles of local authorities under Part IIA Environmental Protection Act 1990

The primary regulatory role under Part IIA for Brighton and Hove rests with the City Council, which will need to:

1. **Cause the District to be inspected to identify contaminated land**

2. **Determine whether any particular site is contaminated land**

3. **To act as the enforcing authority for all contaminated land which is not designated as forming a "Special Site". In the case of Special Sites the Environment Agency will be the enforcing authority.**

In order to fulfil these duties the City Council is obliged to:

- **(i) prepare an inspection strategy setting out how the City Council will inspect its area with the aim of identifying contaminated land.**
- **(ii) determine if any particular area of land is contaminated land as defined.**
- **(iii) determine if contaminated land is to be designated as a special site.**

[2] Department of the Environment, Transport and the Regions (20 March 2000) DETR Circular 02/2000 Environmental Protection Act 1990: Part IIA – Contaminated Land. The Stationery Office.

(iv) undertake immediate remediation if there is an imminent danger of serious harm.
(v) consider the application of alternative statutory regimes to the site (see later).
(vi) identify and notify those who may need to take action on the land.
(vii) determine responsibility for the remediation of the land.
(viii) consult with the relevant parties as to the remediation actions that are to be carried out.
(ix) serve remediation notices.
(x) monitor the effectiveness of remediation carried out.
(xi) maintain a public register of details of regulatory action taken under the act.
(xii) report progress made under Part IIA to the Environment Agency.

The regulatory roles of the Environment Agency.

The Environment Agency's roles are to:

1. assist local authorities in identifying contaminated land.
2. provide site-specific guidance to Local Authorities.
3. act as the enforcing authority for designated Special Sites.
4. publish reports on contaminated land.

Local Authority and Environment Agency Co-operation

Although the above areas of responsibility are legally defined, the effective regulation and management of contaminated land requires that both work closely together. Additionally, they will rely on information from each other in order to discharge their own responsibilities. Both parties (through the Local Government Association) agree that commonality of approach to the operation of Part IIA is desirable and that full and timely consultation will help to ensure proportionate and appropriate regulatory control.[3]

1.3.2 The relationship between Part IIA and other controls.

The statutory guidance establishes the relationships between Part IIA and existing systems of controls:

Planning and development control.
Part IIA will not normally apply where land is within the normal cycle of redevelopment and regeneration. Planning law, in essence, deals with future land use whereas Part IIA is about current land use. Contamination of any site coming up for redevelopment is a material consideration for planning legislation purposes and conditions will be set

[3] 'EA/LGA contaminated land protocol', LGA Circular 258/01, 22 May 2001

by development control, which will take the implications of contamination into account and require any necessary remediation as part of the development work. In such circumstances the planning and development control regime will continue to be the primary means of control by way of ensuring the developer has the task of remediation.

Statutory nuisance (Part III of the EPA 90)
Statutory nuisance no longer applies as the main control for contaminated land, however it may still apply where land is causing nuisance e.g. by odour, where the new statutory definition of contaminated land can not be fulfilled. The legislation has now been amended to provide that no land in a 'contaminated state' can be a statutory nuisance[4]. This does leave the possibility of contaminants existing on land but, because they do not pose an immediate threat (real risk of significant harm), the land will not fall under either regime.

Integrated Pollution Control (IPC) and Pollution Prevention and Control (PPC).
Part IIA will not be applicable where the Environment Agency has the ability to remedy contamination arising from the breach of a process Authorisation under the above legislation. Neither of the above allows for land already contaminated to also constitute Part IIA contaminated land. This does not prevent land associated with such an undertaking, but not directly associated with the process, being identified as Part IIA land.

Under the Pollution Prevention and Control Regulations 2000 a new duty on operators to produce site reports has been introduced. Companies will also have to undertake site remediation. However, the precise nature of these obligations is still uncertain, particularly regarding the scope of the reports and the standards of remediation. Site reports will be required on application and on surrender of a site and operators will be required to return the site to a satisfactory state on revocation or surrender of permits.

Waste management licensing (Part II EPA90)
Part IIA will not normally apply where contamination is arising from land subject to a waste management licence. It is worth noting that material removed, as part of remediation action under Part IIA may constitute waste (or special waste) that requires a licence.

Water Resources Act 1991
This act gives the Environment Agency powers to prevent or remedy pollution of controlled waters by using 'works notices' – it is therefore possible for the two regulatory regimes to overlap. The application of either regime to any site will need to be determined after consultation between the Local authority and the Environment agency.

1.4 Development of the Strategy

[4] Environment Act 1995, sch.22, paragraph 89

The City Council is obliged by section 78B(2) of Part IIA to act in accordance with any statutory guidance issued by the Secretary of State for identifying and regulating contaminated land. The statutory guidance imposes a duty[5] on local authorities to take a strategic approach when identifying land that may merit detailed inspection. This approach must:

- **be rational, ordered and efficient**
- **be proportionate to the seriousness of any actual or potential risk**
- **ensure that the most pressing and serious problems are located first**
- **concentrate resources on investigating in areas where the authority is most likely to identify contaminated land**
- **efficiently identify requirements for detailed inspection of particular areas of land**

The City Council's strategy is required to reflect local circumstances including:

- **available evidence of significant harm or pollution of controlled waters**
- **the prevalence of each defined receptor within the District**
- **the extent to which these receptors are likely to be exposed to defined contaminants**
- **available information on land contamination**
- **the history, scale and nature of industrial or other activities which may have contaminated the land in the District**
- **the nature and timing of past redevelopment within the District**
- **the extent to which remedial action has already been taken to deal with land contamination or is likely to be taken as part of impending redevelopment**
- **the extent to which other regulatory authorities might consider harm is being or may be caused to particular receptors, or pollution of controlled waters is being or may be caused, within the District**

This strategy has been developed to meet these requirements and has been prepared in, and will go through, a number of stages:

(i) collaborative work by district and borough councils across East and West Sussex assisted by the Environment Agency (Southern Region)
(ii) research and development work by the Environmental Health & Licensing Division's Pollution control team, whose manager is the City Council's lead officer on Contaminated Land
(iii) Member consultation
(iv) consultation with the community and all appropriate public authorities (including the Environment Agency, East Sussex County Council, English Nature, English Heritage, the Food Standards Agency, the Ministry of Agriculture, Fisheries and Food)

[5] DETR Circular 02/2000Chapter B Part 3 – 'The Local Authority's Inspection Duty'.

(v) adoption, publication and submission to the EA
(vi) Periodic reviews

Timetable for Contaminated Land Strategy Consultation and Implementation

	Stage	Target Date	Achieved	Result
1	Sussex Pollution Group review	Dec. 2000	Dec. 2000	Passed to stage 2
2	Draft strategy preparation	Feb. 2001	Feb. 2001	Passed to stage 3
3	Member / departmental consultation	6th Mar. 01	Mar. 2001	Passed to stage 4
4	Public Authority & Community consultation	April-June 01	15-Jun-01	Passed to stage 5
5	Publication and adoption	June, 2001	29-Jun-01	Completed
6	Submission to EA	July, 2001	29-Jun-01	Completed

Table I

1.5 Objectives of Strategy Document

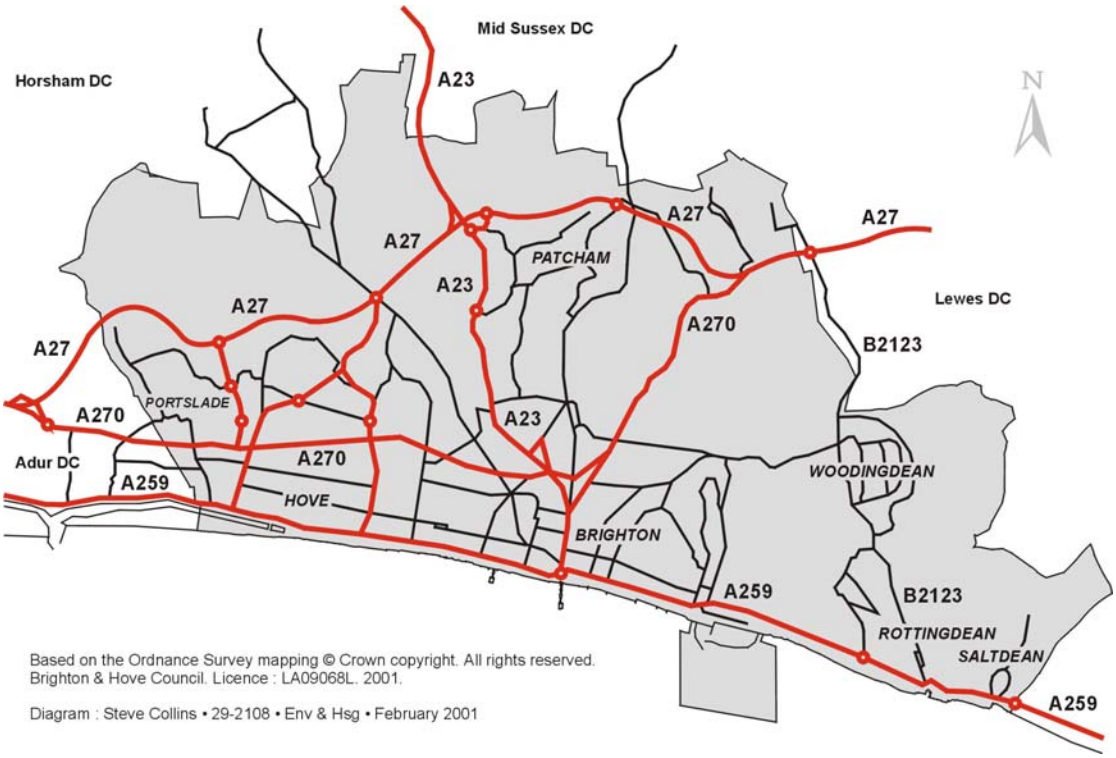
This strategy sets out the City Council's strategic approach as the primary enforcing authority for Part IIA. It explains how the City Council will respond to the challenges posed within the District by contaminated land and in particular how the City Council will:

- **inspect any particular land which may be contaminated (including Council owned land)**
- **notify any affected person and the Environment Agency if contaminated land is identified**
- **decide whether any particular land is a 'Special Site' in consultation with the Environment Agency**
- **formally require remediation of contaminated land by any appropriate person, and determine responsibility, after consulting them**
- **take enforcement action against any person who fails to comply with a formal notice**
- **exercise its power to carry out remediation and recover the costs of doing so**
- **maintain a public register in relation to contaminated land (Appendix. D).**

2. CHARACTERISTICS OF THE BRIGHTON & HOVE AREA

Across the United Kingdom there are marked differences in geography, industrial activity and prevalence of vulnerable 'receptors' such as protected wildlife and water resources. The manner in which contaminants have been deposited, have moved or been moved and have affected (or threatened) vulnerable receptors can vary between localities just a few kilometres apart. The City Council has considered the character of the District when developing priorities and objectives for inspecting land that may be contaminated.

2.1 Geographical Location



The Brighton and Hove district straddles an area from the coastal strip in the south to the South Downs in the north; it is bounded by Adur District (in West Sussex) to the west and Lewes District to the east. Mid-Sussex District (also in West Sussex) forms Brighton & Hove's northern border.

2.2 Brief Description / History

Although it was not until the mid-18th century that Brighton came to any kind of prominence, traces of Druid activity and Roman remains & fortifications have been found around the area. In the Middle Ages the fishing and farming community of Brighthelmstone grew up; its peaceful growth and that of surrounding stead's interrupted by raids from across the English Channel – in 1377 the French landed at Rottingdean, in 1513 Brighthelmstone was plundered and fired and the Chapel of St Bartholomew was destroyed.

By 1558 an 18ft high Block-House was built for defence and little else changed until the mid-18th century's great storms, which destroyed much of the town. However, in 1753, the publicity of Dr Russell's dissertation on '*The Use of Sea Water in Diseases of The Glands*' and his promotion of the medicinal virtues of the mineral waters of St Ann's Well at Hove saw the town's fortunes begin to improve. The subsequent arrival of the Prince Regent and the royal court gave rise to the skeleton of the modern city, built around John Nash's famous Royal Pavilion, gracious terraces and attractive squares; rapidly expanding west to meet with Hove and east, to the town laid out by an 1820's Lord of the Manor – Thomas Kemp.

The creation of the Unitary Authority of Brighton and Hove in 1997 and the winning of city status in 2000 has consolidated today's unique blend of tourism, culture, shopping, night-life and business.

2.3 Size

The City Council's boundaries include not only the city of Brighton and Hove but also the population centres of Patcham, Portslade, Rottingdean, Saltdean and Woodingdean. The city's two universities have main campuses in Falmer and the surrounding Downs give a total area for Brighton & Hove of approximately 8,000 hectares (80 square kilometres, 31 square miles).

2.4 Population Distribution (geographical)

The mid year (2005) estimate for the population of the District was estimated as being 251900, with approximately ¾ of the population living in the City centre.

Wards	Population	Wards	Population
Brunswick and Adelaide	8897	Preston Park	13354
Central Hove	8268	Queen's Park	13130
East Brighton	13558	Regency	8510
Goldsmid	13670	Rottingdean Coastal	12468
Hangleton and Knoll	14299	St. Peter's and North Laine	13804
Hanover and Elm Grove	13768	Stanford	10056
Hollingbury and Stanmer	14456	Westbourne	9099
Moulsecoomb and Bevendean	15722	Wish	8377
Patcham	13883	Withdean	13387
Portslade North	10327	Woodingdean	9547
Portslade South	9237		

Table 2[6]

[6] Figures based on 2001 census data (Ref: www.citystats.org)

In addition to the above, there are some 5 million visitors to Brighton and Hove each year; approximately 1.5 million of whom are here for at least one night.

Details of Land Owned by Brighton and Hove

Historically, a large proportion of the land currently owned by Brighton & Hove relates to purchases made under the auspices of Sir Herbert Carden who recognised the need for water supply protection and downland preservation. As a unitary authority there have also been a number of transfers of land and property from, for example, East Sussex County Council; in all there are some 24,000 individually owned premises or parcels of land.

Not all of the City Council's property is within the Authority's boundaries: Shoreham Airport is jointly owned by Brighton & Hove and Worthing DC; there are tracts of downland (both within and without the *South Downs Area of Outstanding Natural Beauty* [AONB]) falling within the neighbouring authorities' districts, as do a number of the farms owned by the City Council. There are 44 agricultural premises in all, ranging in size from just a few acres to 726 acres.

Within the City Council's borders there are numerous parks and open spaces, residential premises, industrial estates and shops, offices and factories owned by the authority which, together with schools, libraries, museums and council offices make up the remainder of Brighton & Hove's property.

2.5 Current Land Use Characteristics

The main use for land in the District (after residential), in terms of area, is agriculture and leisure – the downs within the AONB, together with undesignated downland, parks, open spaces and coastline accounts for over half of the area (2.3 above). Industrial activity is generally restricted to a number of small to medium sized industrial estates and Shoreham Harbour. Although physically the harbour development is mainly in Adur DC, it partly falls under Brighton & Hove for some enforcement purposes. The tourist industry and Brighton & Hove's role as a major shopping and leisure centre account for a large part of the remaining land use.

2.6 Protected Locations

Apart from the AONB mentioned (2.5 above) there are a number of categories of sites in Brighton & Hove afforded differing degrees of protection:

- **(i) Local Nature Reserves (LNRs)**
- **(ii) National Nature Reserves (NNRs)**
- **(iii) Regionally Important Geological Sites (RIGS)**
- **(iv) Sites of Nature Conservation Importance (SNCIs)**
- **(v) Sites of Special Scientific Interest (SSSIs or "triple S I's")**
- **(vi) Special Area of Conservation (SAC)**

The Local Plan 2005 identifies eight declared or proposed LNRs, one NNR, two RIGS, sixty two SNCIs, two SSSI and one SAC in the District.

2.7 Key Property Types

- **There are currently some 3,600 Listed Buildings in Brighton & Hove**
- **There are 14 Scheduled Ancient Monuments in the City Council's area**
- **There are 33 Conservation Areas**
- **There have been 6 Historic Parks and Gardens designated by English Nature**
- **In addition, there are many Sites of Archaeological Interest in the City, including Iron Age ditches, the site of Roman villas at West Blatchington, the site of the Medieval Village of Hove, Preston Village, Patcham, Stanmer, Ovingdean and Rottingdean.**

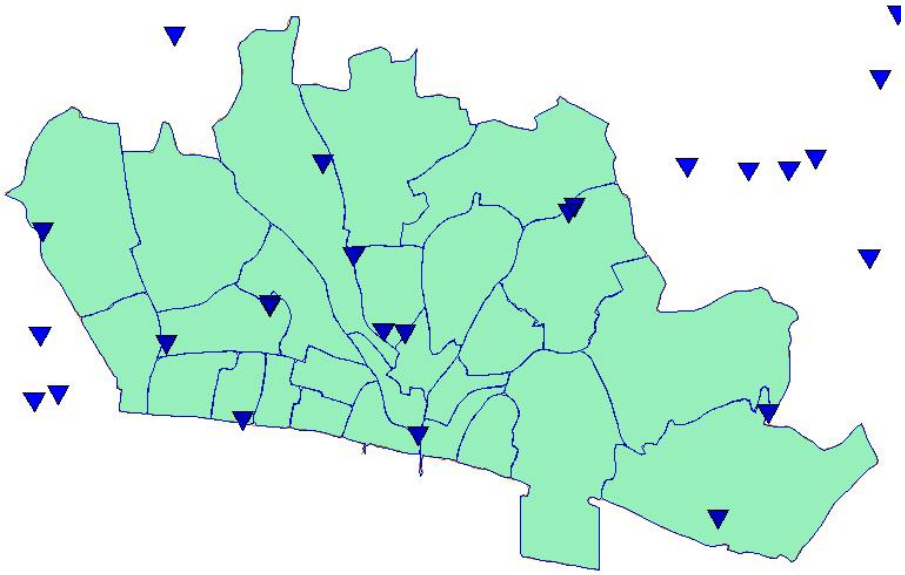
2.9 Key Water Resource / Protection Issues

All abstraction in Brighton & Hove, of water for drinking, is through boreholes tapping into underground sources, i.e. groundwater. A portion of rainfall will penetrate deep into soils and rocks below ground and fills the voids between rock or soil particles; this is groundwater and it is divided into two zones: saturated and unsaturated. The water table is the top of the saturated zone, forming the boundary between this zone and the upper zone, which can be partially or variably saturated. As groundwater quality is affected by a number of factors (e.g. urban run-off, landfill sites, contaminated land, pesticides, etc.) the Environment Agency defines protection zones around water sources and abstraction points.

There are 14 water abstraction points in Brighton & Hove, some of which are multiple wells.[7] The majority of these are operated by Southern Water for the supply of Public Drinking Water and one industrial process. Brighton & Hove City Council hold four licences: three for agricultural purposes and one for a private supply.

Water Abstraction Sites – Brighton & Hove (Ward Boundaries)

[7] Environment Agency GIS records



2.10 Known Information on Contaminated Land

The City Council already holds information on some areas of land that has contaminants due to submissions under the development control process. Building control consent applications are currently dealt with on an individual basis – relying on local knowledge and applicants' submissions. Where doubts are raised, site assessments are required as part of the development process and any necessary works undertaken. A Contaminated Land Register has been kept since April 2000, and is available at the Council's *City Direct* offices but the information held is very limited (there are currently no entries in the register). Information to be included in the future will be details as required by the regulations, e.g. notices, appeals, remediation statements, guidance, etc.

Contact is being made with owners of land that is potentially contaminated and these responses (e.g. SecondSite Property that are responsible for British Gas sites) are collated according to the assessment procedures under sections 3 and 6 following. In addition, any information newly provided by the Environment Agency will be evaluated and used to update knowledge of actual and potentially contaminated sites.

2.11 Current and Past Industrial History

As the previous sections (2.1, 2.2) have shown, Brighton and Hove's current size has come about through initial expansion in the 18th century – through royal patronage and perceived health benefits. This has meant that industrial sites are fewer when compared to other cities of similar size and population. However, contaminated and potentially contaminated land does not depend on industrial size or diversity for its existence, the presence of even small-scale undertakings can leave land in a contaminated state. Milliners will often have used mercury or other heavy metals in hat production processes, fur and leather goods' production traditionally used a variety of known hazardous chemicals, likewise paper manufacturing and printing.

Most towns and cities of a comparable size will have had such trades practising in a variety of locations – at the back of retail outlets or in proprietors' gardens where production was small scale, or perhaps on larger sites that have subsequently been enclosed through urbanisation. Historical records and trade directories have been the key in unlocking where such enterprises may have existed in Brighton and Hove. For larger scale industrial activities and for industries recorded in the area since the ceasing of textile production (c.1700 in Sussex generally) the following are of note:

(i) tool and agricultural equipment manufacture
(ii) iron founding (the Regent Foundry in Gloucester Lane was perhaps the best known in Sussex of Brighton's four foundries)

(iii) candle and soap manufacture (one of six factories in all of 19th century Sussex)

(iv) railway equipment manufacture (first locomotives produced in 1852 by the London Brighton and South Coast Railway)

(v) specialist wood manufacture (a branch of the TunbridgeWare industry flourished in Brighton c.1810-1850)

(vi) printing

(vii) furniture making

(viii) electrical equipment manufacture

(ix) fishing (Brighton had 100 boats in 1813, declining to 53 in 1903)

(x) rope and sail manufacture

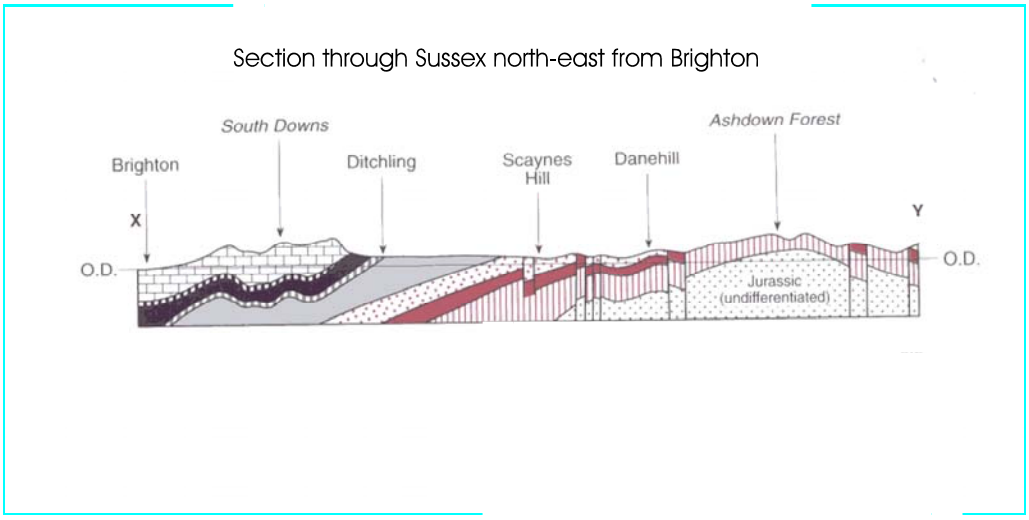
(xi) brick manufacture (at least 10 brickyards operated in Brighton and Hove in the 18th and 19th centuries)

(xii) milling (windmills and steam mills were common in the Brighton area in the late 19th century)

(xiii) lime and extractive industries (during the building boom most parishes had at least one limekiln and Brighton had a limeworks. Copperas [iron salts] was extracted from the cliffs at Portslade

2.12 Broad Geological and Hydrogeological Characteristics

Brighton, Hove and the surrounding settlements are all founded on the chalk laid down between 100 million and 70 million years ago, at the end of the Cretaceous period. Like all strata found in Sussex this is sedimentary, also containing flint layers and nodules and overlaying Upper Greensand and Gault clay beds. The uplift of the Wealden anticline began at the end of the Cretaceous and into the early Tertiary periods. Following another invasion by the sea the uplift renewed in the middle Tertiary and few rocks were laid down. Instead there was massive erosion until the late Tertiary which proceeded the fall in sea levels associated with the last glacial period.



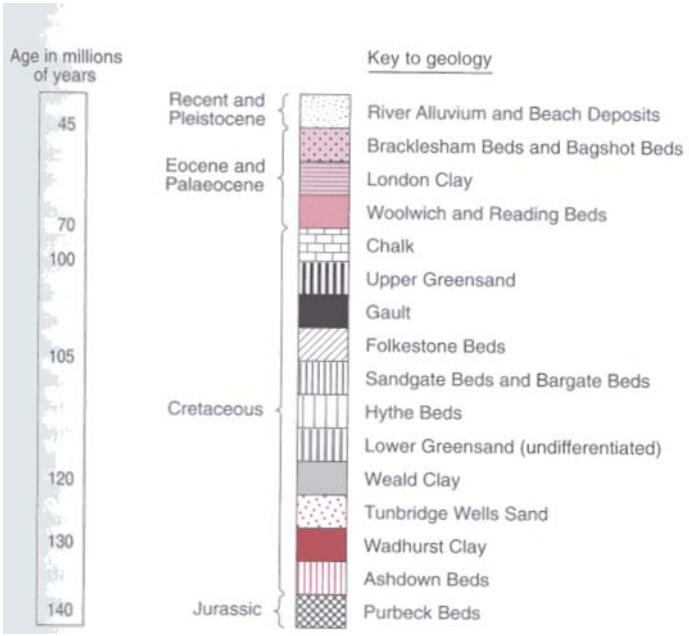


Fig. 2[8]

[8] An Historical Atlas of Sussex, p3 (*Geology* - Rendel Williams)

It is only during the last 10,000 years that sea levels have risen considerably, by approximately 130m, making the Downs at Brighton a coastal feature. Due to the high percolation rates of the chalklands, no rivers run on the surface through the area; however, in times of prolonged rainfall when the water table reaches the surface an intermittent stream 'the Wellsbourne' runs from Patcham, along the London Road valley, to Poole Valley. A principal source for the Wellsbourne was the pond in front of All Saints Church, Patcham (now marked by a slight depression) which, together with additional springs en-route, often flooded Valley Gardens and The Steine. In 1792-3 a wooden sewer was laid to carry this bourne and eventually Poole Valley was bricked over and the Wellsbourne was culverted throughout its length. Although there is no actual stream running through the chalk beds very heavy rainfall can give rise to an 'underground river' along this path.

2.13 Specific Local Features

There are no records currently available detailing any naturally metal-enriched soils in the District. Part of the Geographical Information System (GIS) database introduced as part of the inspection strategy includes detailed maps from the British Geological Survey (BGS). The Soil Survey and Land Research Centre based at Cranfield University have undertaken a national soil survey – a dataset illustrating areas of importance should also be available and may be incorporated during future strategy reviews.

2.14 Redevelopment History and Controls

As section 2.2 above indicates, there was little growth in Brighton and its surrounds until the mid-18th century. Prior to then Brighton had a population wavering between 1,500 to 3,000 centred around what is now The Level. Due to the accessibility of Brighton to tourists and the inhabitants of Lewes, London and Tunbridge Wells, subsequent growth entailed such facilities as lodging houses, private libraries, bathing machines, luxury goods shops, theatres and baths.

From 1780 urban development spilled readily out into the surrounding farmland and due to the lack of a promenade The Old Steine became the focal point of the town. By 1800, terraced houses were built along the strips of the old, open field system to the north and east and the old town became the business and resort centre. By 1821 Brighton was one of the fastest growing towns in England; the bow-windowed Georgian town houses being replaced in style by the grander Regency dwellings.

Major projects such as Kemp Town to the east and Brunswick Town to the west became desirable locations for visitors and locals alike. The rapid growth tailed in the 1830's due to combination of competition from other resorts and from the slump in returns on housing investment. High levels of unemployment led to several slum areas appearing. However,

the opening of the London-Brighton railway line in September 1841 coincided with an economic upturn that boosted the town by the influx of day-trippers from London in the summer and wealthier visitors during the winter.

More people began to commute to London and middle-class families began to retire to modern houses in the new suburbs of Cliftonville and other parts of Hove. By 1851 Brighton's population was 65,000 and it continued to flourish as a seaside resort. Further housing development and the 'meeting' of Brighton and Hove meant that Brighton, in 1911, was by far the largest resort in England and Wales, with a population of 131,237. Hove was ranked 11th in the country, ahead of other Sussex resorts such as Littlehampton, Bexhill and Bognor.

This development slowed between 1911 and 1951 to 16% and at this time it was recognised that there existed stark contrasts in the housing and living conditions of the rich and the poor after so much untrammelled growth. The Municipal reaction was to pluck populations from the inner slums and deposit them in the new, edge of town council estates, particularly during the second half of this period. Owner occupation developed too and new private estates were constructed on previously undeveloped land.

Brighton's Urban Population Changes - 1931 to 1951

Ward	Pop. Change
Regency	-48%
Pier	-37%
Pavilion	-39%
St John's	-36%
Rottingdean	245%

Table 3[9]

Boundary extensions to Brighton (1923 & 1928) and Hove (1928) and subsequent growth in outlying areas (e.g. Peacehaven's figure for the above table would be +3,926%) have led to the current, coalesced developments of the new city, reflecting its urban rather than industrial heritage.

2.15 Action Already Taken to deal with Land Contamination

The City Council has put a Lead Officer in place in the Pollution Control Team of Environmental Health. The team also includes an officer dealing with Land Charges enquiries, public register entries and the formation of a GIS database which will identify contaminated and potentially contaminated land, along with records of ownership, history, development, assessment and remediation works, etc.

Brighton and Hove is represented at the Chartered Institute of Environmental Health (CIEH) Sussex Pollution Group and at the CIEH Sussex Contaminated Land Sub-group, which developed an approach to Part IIA to ensure both compliance with the legislation and consistency to users across the East and West Sussex. Contacts have also been made with relevant agencies e.g. The Environment Agency and larger

[9] *An Historic Atlas of Sussex*, p114 (Population Change, Fred Gray)

landowners: Southern Water, SecondSite Property, English Nature, English Heritage, etc. as well as inter-departmental liaison.

Prior to the current regime, where sites have been identified as contaminated, remediation works have been specified when necessary, or proposals checked for compliance, on an individual, site-specific basis.

AIMS AND OBJECTIVES OF THE INSPECTION STRATEGY

3.1 Aims of the Strategy

Dealing with contaminated land is likely to continuously reveal complex issues, often with limited amounts of information available. The importance of these issues must be balanced on an individual, site-specific basis in order to move forward in dealing with the overall strategy. A list of the City Council's aims and objectives has been adopted to aid in decision making.

The City Council aims to:

- **identify actual and potential contaminated sites within the City by rational, ordered and efficient investigation, to remove unacceptable risk to human health and the environment and prevent the creation of new contaminated sites;**

- **reinforce a "suitable for use[10]" approach enabling developers to design and implement appropriate and cost effective remediation schemes as part of their redevelopment project of contaminated sites to bring damaged land back into beneficial use;**

- **identify sites which do not come under Environmental Protection Act 1990, Part IIA but could still be contaminated, to ensure that the land is suitable for its current use or can be made suitable for its intended future development use, where a receptor may be introduced;**

- **complete a review of the strategy in accordance with the process detailed in section 9**

- **complete a risk assessment on identified sites within twelve months of the review.**

3.2 Objectives and Milestones

The overall objective is to provide an improved system for the identification and remediation of land where contamination is causing unacceptable risks to human health and the wider environment. This will be as assessed in the context of the current use and circumstances of the land and to prevent the creation of new contaminated sites.

The City Council's Objectives and Milestones (in order of priority) are to:

- **prioritise resources for the investigation of potential contaminated sites by relating it to the potential risk to any receptor, as set out in Table A, Appendix. A (Categories of Significant Harm)**

[10] Circular 002/00 (DETR); Contaminated Land

- **determine whether the sites are contaminated land and special sites under Part IIA, by identifying all receptors as set out in Table A and all controlled waters within the District, by means of local knowledge and plans and contact with other agencies. Receptors will normally be prioritised in the following order: humans (highest priority) > animals > plants > non-living property (lowest priority).**

- **investigate sites not owned by the City Council to establish who should bear responsibility for the remediation, and contact the owners/managers of the sites with information on the new regime and what it means for them, also requesting additional information of the particular site;**

- **complete an assessment of all actual and potential contaminated land, not already identified by initial assessments, within the district where the City Council has responsibilities by virtue of its current or former ownership or occupation, making use of historic records, local plans etc.,**

- **consider all available evidence that significant harm or pollution of controlled waters is actually being caused; considering contaminant - pathway - receptor;**

- **evaluate the information gained from the assessment of actual and potential contaminated sites and prioritise them in accordance with their individual risk;**

- **justify inspection of particular areas established as contaminated sites under Part IIA;**

- **to decide, after consultation, what remediation is required in relation to the site, either through agreement with the appropriate persons or by serving a remediation notice;**

- **continue to liaise with other authorities and agencies for information exchange;**

- **make information on all regulatory action taken by the City Council on contaminated land available to the public by way of the public register.**

These prioritised aims and objectives will be actioned, where appropriate, through the adoption of formal procedures that will ensure an efficient and cost effective service is delivered whilst maintaining a fair and reasonable approach. Such procedures will be determined in consultation with the City Council's cross-departmental contaminated land working group and outside agencies or affected groups and will include, for example, how groundwater and surface water issues are to be prioritised.

4. REVIEW OF THE CURRENT POSITION IN BRIGHTON & HOVE

Whilst Part IIA responsibilities were introduced in the Environment Act 1995, the City Council has already carried out a range of functions which – to a greater or lesser extent – involve land which might be, or might become, contaminated. In reviewing these functions it has been possible to identify how they might contribute to, or conflict with, the new Contaminated Land Strategy.

4.1 Investigating and Inspecting for Statutory Nuisance

Environmental Health staff currently carry out the City Council's duty of inspection for nuisances as well as responding to complaints alleging that premises, accumulations or deposits are *in such a state as to be prejudicial to health or a nuisance*. If such investigations have given rise in the past to suspicions of contamination (e.g. through odour or health complaints from spilt chemicals or petrol) contact has been made with the specialist contaminated land officer of the time. As a result of the recent review of environmental health the pollution control team responsible for this function have been incorporated with the specialist Environmental Health -Pollution Control team. This team is managed by the lead officer for contaminated land and is undertaking the City Council's duties under Part IIA.

4.2 Developing Future Land-use Plans

Decisions about the use of land are crucial to the development of Brighton & Hove over the next ten years. The draft local plan includes statutory functions such as *the conservation of the natural beauty and amenity of the land* and *improvement of the physical environment*. The local plan contains specific details with regard to the development of polluted land and buildings (see section 1.1); also included are the frameworks for planning permission and building consents (see 4.3 below).

4.3 Dealing with Planning Applications and Building Control Consent

Many land uses, new and old, pose the threat of potential contamination. The City Council's role as Local Planning Authority is to:

- **Consider the implications of new proposals and make decisions as appropriate**
- **Impose suitable conditions on new developments that are approved**
- **Supervise compliance with any conditions imposed and take any necessary enforcement action.**
- **Liase with the Environment Agency and other internal directorates as appropriate**

As a result of reviewing its development and building control operations with respect to contaminated land, the following procedures are proposed:

4.3.1 Building Control

The Building Regulations 2000 – Approved Document C requires precautions to be taken to avoid danger to the health and safety of occupants of a building, caused by substances to be found on or in the ground to be covered by the building.

It may be possible to identify sites likely to contain contaminated material from local knowledge or planning records. The Building Regulations provide examples of such sites and suggest remedial measures where necessary.

Where removal is required this usually results in:

- **up to a metre of contaminant being removed from below the lowest floor level, or**
- **covering the ground with a material that will not be adversely affected by the contaminant, or**
- **providing a suitable impermeable barrier between the contaminant and the building, to prevent any gaseous products entering the building, together with any necessary ventilation measures.**

Should a building be built upon, or within 250m of, an area that has been land-filled, Building Control approval would only be given if the design incorporates adequate gas control measures. Some areas of the country are affected by naturally occurring gases such as radon; this is not a concern for this authority.

Where a ground investigation reveals methane or significant organic material within the ground, the developer must provide a report prepared by a competent person. An investigation report must include gas monitoring on at least 6 separate occasions, as appropriate locations, for a minimum period of 3 months over a range of weather conditions. It must also include information at different atmospheric pressures and include at least two periods of low and falling barometric pressure (falling below 1005mB). The competent person should provide written confirmation that the building design provides adequate protection for the gas regime recorded at the site.

Where a known contaminated site is identified a report should be provided when an application is provided for planning approval, as the Building Regulations accept that low levels of gassing are acceptable where dwellings are proposed. If the level of gassing is not low and variable, a non-domestic use should be considered based on expert advice.

During the planning process consideration should also be given to areas not covered by the Building Regulations, such as landscaped areas and car parks. Although the building control process is fundamental to the safe redevelopment of brownfield sites, it will not be sufficient to rely on

remediation controlled by Building Regulations alone. It should be noted that there are increasing numbers of developers who are making use of private building control services, rather than local authority Building Control. Private Sector practitioners may not have the same local knowledge about historic land uses.

If contaminants are discovered, Building Control Surveyors will immediately inform the Pollution Control Team in Environmental Health. An assessment will then be made in accordance with the strategy to determine whether land falls under Part IIA control.

It is recognised that when dealing with work on a contaminated site, the authority must take a multi-disciplinary approach to the approval of proposed developments. Building Control will have a major role in assisting in the evaluation of reports on the degree of contamination and any recommended remedial measures.

4.3.2 Development Control

Planning Policy Statement 23 (PPS23) sets out the Government's core policies and principles on the most important aspects of land use planning. The policies in the statement and the advice in the accompanying Annex 2 (*Development on Land Affected by Contamination*) should be taken into account by Local Planning Authorities (LPAs). They are also material to decisions on individual planning applications.

PPS23 Annex 2 provides advice to LPAs, developers and other interested parties on the issues relevant to development and use of land that may be affected by contamination and the extent of controls operated through planning and environmental legislation. Appendix 2A gives some background information on contamination and advises the key parties on their roles in the development process.

The responsibility for providing information with regard to potential contamination rests primarily with the developer. This strategy should fully implement the guidance utilising the following planning procedure:

- **The standard planning application form will be reviewed by the Contaminated Land Working Group, to determine whether to require developers to provide a brief history of the site, indicating all previously known land uses and operations.**
- **Where the above information indicates a potential for contamination, a full desk study should be provided by the developer; this to include a comprehensive site history, historic maps, etc. Planning will develop a guidance note to assist applicants.**
- **A full desk study may also be required for all residential developments greater than 250m^2 site area. The Development Control Manager, in consultation with the Pollution Control team Manager, may determine that sufficient information has been given by an applicant to avoid the need for a full desk study.**

- **The relevant Planning Officer will liaise with the Environmental Health service wherever the information provided above indicates a potential for contamination. Planning permission will only then be granted subject to conditions relating to appropriate site investigations prior to the commencement of the development (together with any necessary remediation if required).**
- **Sites which become constrained due to contamination, the landowner and any other interested parties should liaise to produce a development brief for the site.**

- **At the development stage, open discussion of all information relating to potential contamination and the application of conditions is the most sensible way of ensuring the safe development of brownfield sites. This openness and the validation of remediation measures should help to ensure market confidence in this redevelopment process, thus utilising brownfield sites to their fullest potential.**

4.4 Responding to Emergency Incidents

As a result of reviewing its emergency planning operations with respect to contaminated land the existing situation will remain in place, i.e. the City Emergency Planning Officer will contact the nominated officer (Divisional Environmental Health Officer, Pollution Control Team) should there be a relevant incident. The City Council's Contaminated Land Working Group will determine details of responses to such incidents and appropriate procedures will be developed and adopted.

4.5 Responding to Land Charge Enquiries

At present, local land charge enquiries receive a response, which encapsulates the progress with the City Council's register of Contaminated Land. More detailed enquiries can be applied for which will include any relevant findings from current records (planning, building control, environmental health, etc) and from historical maps and plans, in relation to the area in question. Once the proposed GIS database and system is in operation such enquiries will be possible in at least as much detail but without the substantial use of officer time. It is envisaged that the Land Charge office will be able to interrogate the database and any detailed requests can be reported on as necessary by the Pollution Control team. New pricing structures will be required, depending on the complexity of the report requested and the Contaminated Land Working Group will need to review this once the system is in operation.

4.6 Responding to Requests for Environmental Information[11]

As a result of reviewing its environmental operations with respect to contaminated land the existing process will continue at least until the Strategy is formally adopted, i.e. land charges section will respond to searches based on the information readily available and, where more detailed searches are requested, the Pollution Control team will search existing records and other sources of information. It is envisaged that the adoption of the GIS software will enable research to be carried out much more effectively and efficiently; there is the possibility that land charges staff can be trained in its use. As the effects of contamination can spread further than the premises directly affected, there will be a need to communicate risks to the community, as a whole or in part. Decisions on whether to determine land as contaminated will be defensible and

[11]Environmental Information Regulations 2004 (came into force on 1st January 2005).

transparent and will follow procedures developed by the Contaminated Land Working Group and national or other guidelines.

5 BRIGHTON & HOVE PRIORITIES AND TIMESCALES

The inspection process as set out below is based on the priorities included in section 3.2; appropriate timescales, based on current knowledge, will allow for a rolling programme of investigation, inspections and remediation. The timescales should be treated as fluid once the process is underway due to the nature of prioritising sites and potential sites on an individual basis, with some areas of work running concurrently.

(i) GIS (Completed)

To begin the inspection process a database of historical ordnance survey maps is being collated. These are all in digital format. A database of historic land use will be purchased, to assist with identifying areas of potential contamination. For a précis of the advantages of GIS please see Appendix D.

Although many potential sites could be identified in this way, it is likely that only a small proportion will fall under the Part IIA definition. Although these sites may contain substances with the potential to cause harm, it is unlikely that both a pathway and receptor are evident in all cases.

Additional software detailing the historical land use data is being purchased, along with risk assessment software (includes site prioritisation tools) for risk assessing the sites identified.

(ii) Draft Consultation Strategy (Completed)

The third version was drawn up in accordance with DETR technical guidance and, rather than wait for final publication, it was deemed important that the consultation process got underway, thus involving others in the investigation process. Comments from the internal and statutory consultations were been incorporated in that version.

(iii) Consultation (Completed)

Apart from the internal consultation processes there is a need for agencies and organisations which have the potential to be affected by the strategy, or which have relevant information, to be consulted prior to final publication. This process should allow for as many sites as possible to be identified in order to realistically prioritise the work programme. The public consultation period should, for example, lead to comments from local history groups, which may be a source of valuable information. It is anticipated that use of the media and other publicity will lead to contact from individuals with information on past land uses. Any elements still omitted from this draft will be finalised during the consultation stages.

(iv) Strategy Publication (Completed)

Provided the consultation stage runs as anticipated, the strategy will be finalised by mid-June, published by the end of June (see Table 1, p.8) and then copied to the Environment Agency (EA).

(v) Dealing with Urgent Sites (Ongoing)

Sites revealed during the consultation process may need immediate attention; there is also the possibility of identifying 'special sites' for EA action. If there is a critical need, investigative work will need to begin prior to finalising the inspection strategy – this is recognised by the regulations and the proposed approach is in line with the guidance. Should City Council owned land be identified then it too will need to be dealt with in the same way.

(vi) General Inspections

Section 3.2, prioritises the approach in dealing with contaminated land – in effect, the first priority will be the protection of human health. Highest priority sites identified should therefore be inspected according to population density.

The City Council's own land-holdings should not be exempt in any way from this approach. Whilst sites may have come under Brighton & Hove ownership for historical reasons and knowledge of conditions may therefore be limited, it is appropriate that these are included in any inspection programme.

General inspections of potentially contaminated land will be identified by carrying out a methodical investigation all sites with the City.

The three stages are as follows:

Stage 1 - desktop study including site prioritisation (completion by September 2005)

Stage 2 - site inspections of priority sites (October 2005 onwards)

Stage 3 - detailed site investigation of potentially contaminated sites (January 2006 onwards)

(vii) Controlled Waters, Protected Areas and Buildings (ongoing)

It is anticipated that the above investigations will bring to light relevant information. If the evidence reveals urgent works then this can be undertaken as soon as practicable, alongside duties under 3.2. Inconclusive evidence will lead to these areas being included in a separate investigation of threats to them once the general investigation is complete.

6 PROCEDURES

6.1 Internal Management Arrangements for Inspection and Identification

General – Roles and Responsibilities

The City Council has assigned the following roles to address its responsibilities for preparing and implementing an inspection strategy.

Work Area	Department / Individual	Role
Develop the inspection strategy	Environmental Health & Licensing Manager	To assume primary responsibility for developing the City Council's inspection strategy.
	Divisional EHO	To act as the Lead Officer – one person should be given responsibility for managing the process.
	Senior EHO	To support the Lead Officer in delivering the City Council's inspection strategy.
Carry out Part IIA inspection, liaison and enforcement	Senior Technical Officer / Environmental Health Officer (STO/EHO)	To undertake detailed inspection of land in accordance with Part IIA.
	STO/EHO	To undertake data management.
	STO/EHO	To advise on and supervise the remediation of contaminated land.
	STO/EHO &/or Lawyer	To provide legal advice and / or enforcement action.
Respond to enquiries	Land Charges Officer and Environmental Health Admin Support	To co-ordinate all land charges enquiries which may involve contaminated land.
	STO/EHO	To co-ordinate all external enquiries made in accordance with the Environmental Information Regulations 1992.
	Development Control Manager	To co-ordinate all development control activities and relevant external enquiries which may involve contaminated land.
	Building Control Manager	To co-ordinate all building control applications and relevant external enquiries which may involve contaminated land.
Liaison with external organisations	Divisional EHO and/or STO/EHO	To co-ordinate all external liaison concerning contaminated land inspection and enforcement.

Table 3

Note: the 'draft inspection strategies' advice note[12] advises: ***In identifying responsibilities it should be borne in mind that much of the information for, and resulting from, inspection is pertinent to other local authority functions, such as land-use planning & development control, environmental protection and economic development. There may therefore be tangible benefits in ensuring that Part IIA roles and responsibilities are formally linked or integrated with other local authority activities.***

[12] DETR Technical advice note – p8, para13

As stated in section 3.2, the adoption of formal procedures will be looked at by the cross-departmental working group; this will draw on expertise from the City Council's Environmental Health, Planning, Building Control, Legal, ICT and Housing staff.

6.2 Considering Local Authority Interests in Land

It is not proposed to deal with council owned land as a special case. The most important factor in determining the inspection strategy (section 3.2, page 18) is the potential risk to any receptor. If any land owned or leased by the Authority is identified under the inspection strategy elected members must be informed at the earliest opportunity of any plans to designate such land and so be responsible for remediation. The Property Services section will be consultees where there is local authority interest in land. The draft DETR Inspection Strategies Advice Note clearly states that the duties of an authority as regulator should be kept clearly separate from the responsibilities, which arise as landowner or polluter.

Cross boundary issues are covered under the technical advice note[13] section 4.5 which promotes proactive liaison between Local Authorities on such items.

Procedures developed by the Contaminated Land Working Group for identifying, inspecting and assessing former land-holdings and other areas where Brighton & Hove will be the "appropriate person", will ensure that exhaustive searches are carried out before the Authority will accept responsibilities as the appropriate person. Elected members will be informed at the earliest opportunity of former land-holdings or other areas where the City Council may become liable for remediation costs.

6.3 Information Collection

Sources, liaison methods and procedures for obtaining information on:

(i) actual harm or pollution of controlled waters
(ii) receptors
(iii) the possible presence of contaminants, will include as many as possible from the table overleaf.

Information collection and collation will not be a 'one-off' exercise for the purposes of Part IIA; it will be constantly reviewed and added to from all possible sources. The level of knowledge about the City Council's district is liable to change on a regular basis and the strategy reflects the need to deal with changes in prioritisation as and when they occur.

[13] Contaminated Land Inspection Strategies, DETR Advice Note, May 2001

Information Sources

Resource	Subject Matter	Use
Historic maps	Ordnance Survey records from c1850 to present day	Past, interim and present land-use information, to identify potential sources of contaminants
Trade directories	Records of trade and business premises in the area, past and present	Identifying land-uses with the potential to cause contamination
Geological maps	Solid and drift geology in Brighton & Hove	Identifying pathways, source characteristics and sites of likely concern
Land-fill maps	Survey of land-fill sites	Identifying land-uses with the potential to cause contamination
Soil maps	Survey of soil types	Identifying pathways & source characteristics
Petroleum Licensing	Records of past & present sites of petroleum storage	Identifying land-uses with the potential to cause contamination
Hydrogeological maps (NRA)	Groundwater vulnerability	To assess the potential for contamination of groundwater (controlled waters)
Environment Agency	Source protection zones	To identify areas that receive special protection and to characterise receptors
Environmental Health records	Records of complaints & investigations, public registers of authorised premises	To identify information on known or potentially contaminated land
Planning and development control records	Development records & results of ground condition surveys	To identify information on known or potentially contaminated land
District Local Plan (draft)	Current information on land use and Council objectives	To identify receptors, particularly historic monuments and protected areas of the environment
Transco	Records of land use and ownership	To identify information on known or potentially contaminated land
Southern Water	Records of water resouces	To assess the characteristics of known groundwaters (controlled waters) and potential sites for extraction
East Sussex CC Archive	Various sources re land-use, historic records, etc.	To identify information on known or potentially contaminated land
Dept. of the Environment	Industry profiles	Collation of 52 profiles of specific industries in terms of materials used giving information re the potential to cause contamination

Table 4

7 GENERAL LIAISON AND COMMUNICATION STRATEGIES

Appendix B identifies potential consultees and their contact points. This section will depend on future guidance and will be reviewed accordingly; however, the following three areas are specifically mentioned in the regulations:

(i) other statutory bodies, specifically including the Environment Agency (EA), English Nature, FSA and DEFRA
(ii) owners or occupiers of land and other relevant interested parties
(iii) members of the public, businesses and voluntary organisations.

7.1 Liaison with other Statutory Bodies

Each of the statutory consultees mentioned was been invited to comment on the original draft strategy and to provide information for this document. The EA is required to report annually to the Secretary of State on the state of contaminated land in England and Wales; this will include:

- **a summary of local authority inspection strategies, including progress and effectiveness**
- **the amount of identified contaminated land and the nature of contamination**
- **measures taken to remediate contaminated land.**

A memorandum of understanding has been drawn up between the EA and the Local Government Association as to how information will be exchanged between the EA offices and Local Authorities. All authorities in the Sussex Pollution Group will be providing information in accordance with this nationally agreed guideline.

The City Council must also contact the EA on designation of a site and whenever a remediation notice, statement or declaration is issued or agreed. It is likely that standard forms will be provided by the EA allowing the Council to provide the information in a consistent format.

7.2 Communicating with Owners, Occupiers and other Interested Parties

Where remediation of a site is necessary the regulations provide an incentive for voluntary action, in that materials requiring disposal will be exempt from landfill tax – this is not the case where remediation notices are served. Voluntary remediation is also more likely to achieve a higher level of improvement in comparison to the minimum that can be statutorily required.

The City Council's approach should therefore be to seek voluntary action before taking enforcement action, requiring effective communication with owners, occupiers and other interested parties. The Pollution Control team's Divisional EHO will be acting as the central contact point within the authority on contaminated land issues. This strategy will be publicly available and once inspections are underway, it will be incumbent

on the team to keep all parties informed at each stage of an investigation – regardless of whether or not there is a formal designation of contaminated land.

Should formal designation / remediation notices be required the following steps must occur:

a) **write to the owner &/or occupier at least 7 days prior to formal designation, summarising the reason for designation**
b) **write to the owner &/or occupier on designation, explaining the designation itself and seeking voluntary remediation of an appropriate fashion**
c) **dispatch copies of written risk assessments of the land within 5 working days of the receipt of any request from an interested party**
d) **write to the owner, occupier or interested parties associated with neighbouring land of any formally designated contaminated land, within 7 days of designation**
e) **where voluntary action is not forthcoming, provide a written remediation notice to the owner / occupier specifying the required action**
f) **write to the owner, occupier or interested parties associated with neighbouring land of any formally designated contaminated land, within 7 days of such a notice.**

Where an urgent or emergency decision is needed the above steps will be followed as far as is reasonably practicable.

7.3 Members of the Public, Businesses and Voluntary Organisations

Complaints concerning (potentially) contaminated land, or information indicating its presence should be directed to the EH Pollution Control team. A one-day response time will allow for the evaluation of the contact and, should there be a potentially imminent risk to public health a more detailed evaluation of all the site information available will be completed within two working days and an action plan agreed. Otherwise, evaluation will be completed within 10 working days.

Once an action plan has been formulated and agreed, the complainant and landowner will be notified in writing. The action plan will be reviewed each time new information becomes available and, where appropriate, EA involvement will be sought. The action plan will be followed to its conclusion.

Contact from the above group may also occur via other council departments, e.g. Trading Standards, Building Control, Development Control, etc. and these will be covered by the procedures laid out in Section 4 of this strategy.

These regulations provide only limited powers for dealing with contaminated land, i.e. under the definition of Part IIA. Many people believe that any material that is not naturally present in, on or under the ground, should be removed – particularly if their own home is nearby. It is critical to explain that this can only be done where there is a risk of significant harm. Where individuals have difficulty accepting this there

will be a need to provide information regarding action they can take on their own if this is appropriate.

This strategy will be publicly available and the public register associated with the new regime will also provide a valuable source of information to this group. Likewise, when the inspection programme is underway there will be scope for participation in identifying potentially contaminated land through local knowledge, business records, etc. and this will be actively encouraged.

8 INSPECTION PROGRAMME

8.1 Arrangements for Carrying Out Detailed Inspections of Land

The aim of inspecting land will be to determine if a pollutant linkage exists and whether any land appears to be Contaminated Land (as defined). When inspecting land for contamination the City Council will follow the approach set out in this strategy and act in accordance with Part IIA and statutory guidance.

The City Council will inspect its area to:

- **identify land where pollutant linkages exist and which may be contaminated**
- **gather evidence that pollutants are actually present**
- **determine whether land appears to be contaminated**
- **decide whether any land should be designated as a Special Site**

If it appears that any land in a neighbouring administrative area affecting Brighton and Hove may require investigation to ascertain whether it is contaminated land affecting Brighton & Hove, the City Council will inspect that land for the purposes of Part IIA in consultation with the appropriate local authority. Where it is clear from information available that any particular land would be a special site, the City Council will seek arrangements where the Environment Agency inspect the land.

Detailed inspection may include:

- **Collating and assessing documents and information from other organisations**
- **Visiting land to make visual inspections and, in some cases, limited sampling e.g. surface deposits**
- **Undertaking intrusive investigation of land, e.g. analysing soil & water samples from trail pits/boreholes**

Where necessary, inspections of land will be conducted using statutory powers of entry. Before doing so however, the City Council will satisfy itself on the basis of information already obtained that:

1. **there is a reasonable possibility that a pollutant linkage exists on the land, and**
2. **in the case of proposed intrusive investigation there is :**
    - **a likelihood that a contaminant is actually present; and**
    - **knowledge or a likelihood that a receptor is present, given the current use of the land.**

Any intrusive investigations will be carried out using appropriate technical procedures, with regard to relevant publications and by taking all reasonable precautions to avoid harm, water pollution or damage to natural resources or features of historical or archaeological interest.

If at any stage the City Council considers, on the basis of information from a detailed inspection, that there is no longer a reasonable possibility that a particular pollutant linkage exists, the City Council will cease detailed inspection of that linkage.

The following steps may form part of an inspection:

- **Liaise with owners, appropriate persons, Environment Agency, English Nature, English Heritage and any other relevant bodies to obtain available information.**

- **Preparatory research on the history of the site and its environment before the visit such as viewing maps, reviewing Part B Processes, Landfill site records and other documentary sources to identify past uses.**

- **Consider relevant Codes of Practice and other documentation available for identification of contaminated land**

- **The visual identification of possible contaminants on the site visit, i.e. geology, soil type and vegetation of the general area of the site, making notes (for example - street names, boundaries and entrances, buildings, site debris etc.) and making photographic records.**

- **Consider whether intrusive sampling is necessary (for example by exploratory excavations). The local authority will only carry out an intrusive investigation in accordance with appropriate technical procedures for such an investigation. The local authority shall ensure that all reasonable precautions are taken – to avoid harm, water pollution or damage to natural resources or features of historical or archaeological interest that might be caused as a result of this investigation. The City Council will consult with English Nature on any areas notified as SSSI's with regard to any action that may require their consent under S28 of the Wildlife and Countryside Act 1981.**

The City Council will not carry out an inspection involving intrusive investigation, using statutory powers of entry, where:

(i) detailed information on the condition of the land has been provided by the Environment Agency, or

(ii) detailed information on the condition of the land has been provided by some other person (usually the owner of the land), or

(iii) a person offers to provide such information within a reasonable and specified time and the information is then provided in that time

- provided that the information forms an appropriate basis for the Local Authority to determine whether the land is contaminated (in accordance with the requirements of the guidance set out in Chapter B of Circular 02/2000 Contaminated Land).

Health & Safety Issues

- **The City Council will follow good technical practice in carrying out and recording detailed inspection work. The City Council will take appropriate steps to ensure such work does not harm people (site workers, local residents and the general public) or damage the wider environment.**

- **If the history of the site indicates that it may pose threats to personal safety, the City Council will undertake the necessary procedures regarding this matter and have regards to documentation such as Ciria 132 which provides valuable advice for safe working on contaminated sites and/or HSE HS(G)66 Protection of workers and the general public during the development of contaminated land (1991) (HMSO).**

- **If at any stage the City Council considers, on the basis of the information obtained from a detailed inspection, that there is no longer a reasonable possibility that a pollution linkage exists on the land it will not carry out any further detailed inspection for that pollutant linkage.**

8.2 Land that may be a Special Site

If the City Council has determined that land is likely to be contaminated and it could fall within one or more of the 'special site' descriptions prescribed in the regulations, then early consultation with the Environment Agency will occur. Should this result in designating the land as a special site, the Agency will then become the enforcing authority for that land. It is envisaged that a formal procedure will be agreed with the EA to cover such eventualities. The City Council will endeavor to advise and assist the Agency upon request, for example when the Agency prepares remediation proposals. In the event that the City Council and the Agency cannot agree on designation of a special site, the matter will be referred to the Secretary of State for decision.

The City Council will make arrangements with the Environment Agency to carry out an inspection of any potential special sites identified, on its behalf.

Where the Environment Agency is to carry out an inspection on behalf of the City Council, the City Council will authorise a person nominated by the Agency to exercise the powers of entry conferred by section 108 of the Environment Act 1995. Before the City Council gives such authorisation, the Environment Agency will have to satisfy the City Council that the conditions for the use of statutory powers of entry set out in the Circular 02/2000 section B paragraphs B.22 to B.25 of Part IIA are met.

8.3 Making Arrangements for External Appointments of Consultants

The City Council has the sole responsibility for determining whether any land appears to be contaminated land. The City Council cannot delegate this responsibility (except in accordance with Section 101 of the Local Government Act 1972). The City Council may choose from time to time to rely on information or advice provided by another body such as the Environment Agency, or by a consultant appointed for that purpose. This also applies when the Agency carries out an inspection on behalf of the City Council.

Determining that '*there is significant possibility of significant harm being caused*':-

The City Council will determine whether land is contaminated land on the basis that there is a significant possibility of significant harm being caused (as per Section 1.2) where:

1. **It has carried out scientific and technical assessment risks arising from any pollutant linkages, according to relevant appropriate, authoritative and scientifically based guidance on such risk assessments, and**
2. **the assessment carried out shows that there is significant possibility of significant harm being caused, and**
3. **there are suitable and sufficient risk management arrangements in place to prevent harm.**

8.4 Frequency of Inspections

The City Council from time to time will inspect it area for the purpose of identifying contaminated land (section 78B(1)). By doing this the authority will act in accordance with the statutory guidance set out in Circular 02/2000 Chapter B of Annex 3.

Additionally, certain triggers will instigate non-routine inspections and these will include:

a) **Unplanned events – e.g. an incident, such as when a chemical or oil spill occurs**
b) **New receptors are introduced, for example where housing is to be built on a potentially contaminated site, or designation of a new protected ecosystem, or persistent trespass onto a site**
c) **Supporting voluntary remediation – for example where a the owner of potentially contaminated land wishes to undertake clean-up before an inspection has occurred**
d) **Identification of localised health effects, which appear to relate to a particular parcel of land**
e) **Responding to information from other statutory bodies, owners, occupiers or other interested parties (see also section 7.2).**

8.5 Records of the determination that land is contaminated land

The City Council will prepare a written record of any determination that particular land is contaminated. The record will include:-

- **Identity of site/owner/occupier**
- **Date of sampling**
- **A description of the particular significant linkage, identifying all three components - pollutant, pathway and receptor**
- **A summary of the evidence upon which determination is based**
- **A summary of a relevant assessment of this evidence**
- **A summary of the way in which the authority considers that the requirements of Chapter A of the circular have been satisfied.**

The City Council having obtained information from the detailed inspection which indicated that there is a possibility of significant harm being caused to local communities will have procedures in place to inform the local communities, under the guidance of the Divisional EHO (Pollution Team).

9. REVIEWING THE STRATEGY

This strategy will be now be reviewed at least every 2-years and it is envisaged that the next review will take place in the summer of 2007.

An earlier review will be conducted if:

a) **there is any change in the current legislation;**
b) **there is any change in the statutory guidance issued by the Secretary of State;**
c) **there is any change in key guidance in connection with site investigations;**
d) **there is any significant change in proposed land use planning;**
e) **there is any significant change in the local development plan;**
f) **there are significant anomalies identified, either through practice or through consultation.**

The aim will be to conclude reviews within 3 months of any such change occurring.

Review of Assumptions and Information (Triggers for Inspection)

Assumptions and information used in arriving at decisions as to the status of particular areas of land (Section 6) and/or the need for inspection (Section 8) will be assessed and updated if necessary during the bi-annual strategy review. An earlier review will be conducted in the event of:

- **proposed changes in the use of the land or surrounding land;**
- **unplanned changes in the use of land (e.g. persistent, unauthorised use of land by children or other members of the public);**
- **unplanned events (e.g. localised flooding leading to leaching, accidents, fires, spillages; where consequences cannot be addressed through other relevant environmental protection legislation);**
- **reports of localised health effects relating to a particular area of land.**
- **reports of unusual or abnormal site conditions from any source which are verified;**
- **new information received from any other statutory body;**
- **new information from owners or occupiers or other interested parties;**
- **new information or guidance on contaminants, pathways, receptors.**

Whilst the above may trigger non-routine inspections the strategy can only remain effective if such inspections do not interfere with the overall work programme (Section 3.2.2). This must be borne in mind in all future strategy reviews.

10 INFORMATION MANAGEMENT

Several complex issues will arise under this heading:

- **data confidentiality**
- **public register**
- **requests for information**
- **storage, processing, analysing and retrieval**
- **external organisations**

10.1 Data Confidentiality

The confidentiality of all information generated or obtained (especially where provided by a third party) must be confirmed without delay and handled accordingly. Any third party involved should justify requests for information to be treated as confidential or subject to national security considerations. The City Council should draw up procedures for managing the release of information to ensure that confidentiality is maintained and the Environmental Information Regulations (EIR) 2004 are complied with. Specific areas of confidentiality are mentioned in the regulations (see *Public Register* below).

10.2 Public Register

Appendix C shows the explanatory note and entries (none at present) currently forming the Public Register. It must act as a full and permanent record of regulatory action undertaken by Brighton & Hove City Council in respect of contaminated land. Viewing of the register by members of the public, free of charge, is via the Council's City Direct offices at the Town Hall in Hove and Bartholomew House in Brighton. Copies can bee provided on the payment of reasonable fees.

The fact that the register may contain information specifying voluntary works that have already been carried out is not to be taken as a representation by the City Council that the works have been carried out, nor how successfully. Information affecting national security and commercially confidential information are permitted exclusions from the register (EPA 1990, ss.78S & 78T).

10.3 Requests for Information

As Appendix C shows, a named officer is available for personal contact regarding the Public Register. The land charges officer will also contact the nominated officer when requests come in accordingly. The current GIS land-use database will considerably enhance this part of the strategy, both in terms of officer time and quality of information contained in the reports it can generate.

The access to environmental information under the EIR 2004 allows for certain exceptions to be made by local authorities; one of which is on the basis that information is incomplete. Case law currently holds that

information held by a local authority whilst in the process of compiling its database for land, which is possibly contaminated, does not have to be revealed until the work is complete, i.e. the access is to information and not to conjecture or speculation.

10.4 Storage, Processing, Analysing and Retrieval

Identifying, prioritising and inspecting land that may be contaminated will generate large quantities of information, often based on (or referenced to) maps. The City Council's information management systems should be capable of receiving, storing, processing and analysing such data in a suitable format without unnecessary duplication of effort or additional manipulation. Geographical Information Systems (GIS) of suitable types and capabilities play a vital role, and will also satisfy requirements for councils to provide environmental information to external organisations including the Environment Agency.

Appendix D gives the basis for the universal adoption of the GIS system for undertaking duties under this regime. The current position with regard to building the GIS database is detailed at section 5(i).

In addition there will be a need for a recognised and accepted Risk Assessment methodology in order to ensure that information received on potentially contaminated sites is processed accurately and effectively. The CIEH Sussex Contaminated Land Sub-group held discussions with companies who supply risk assessment software. Based on these findings an assessment of the Pollution Control team's IT needs, an ArcView/BGS system was purchased.

10.5 External Organisations

Section 7 and Appendix B already cover the general liaison and contact with external organisations. In addition there will be a need to ensure that relevant bodies are contacted at any particular stage during the inspection, assessment or remediation stages (Section 6.1 lists this role).

APPENDIX A

Type of Receptor	Description of harm to that type of receptor that is to be regarded as significant harm
1 Human beings	Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned. In this Chapter, this description of significant harm is referred to as a "human health effect".
2 Any ecological system, or living organism forming part of such a system, within a location which is: • an area notified as an area of special scientific interest under section 28 of the Wildlife and Countryside Act 1981; • any land declared a national nature reserve under section 35 of that Act; • any area designated as a marine nature reserve under section 36 of that Act; • an area of special protection for birds, established under section 3 of that Act; • any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (i.e. Special Areas of Conservation and Special Protection Areas); • any candidate Special Areas of Conservation or potential Special Protection Areas given equivalent protection; • any habitat or site afforded policy protection under paragraph 13 of Planning Policy Guidance Note 9 (PPG9) on nature conservation (i.e. candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or • any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.	For any protected location: • harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or • harm which affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location. In addition, in the case of a protected location which is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is incompatible with the favourable conservation status of natural habitats at that location or species typically found there. In determining what constitutes such harm, the local authority should have regard to the advice of English Nature and to the requirements of the Conservation (Natural Habitats etc) Regulations 1994. In this Chapter, this description of significant harm is referred to as an "ecological system effect".
3 Property in the form of: • crops, including timber; • produce grown domestically, or on allotments, for consumption; • livestock; • other owned or domesticated animals; • wild animals which are the subject of shooting or fishing rights.	For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage. The local authority should regard a substantial loss in value as occurring only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss. In this Chapter, this description of significant harm is referred to as an "animal or crop effect".
4 Property in the form of buildings. For this purpose, "building" means any structure or erection, and any part of a building including any part below ground level, but does not include plant or machinery comprised in a building. **Source: DETR Circular 02/2000 Annex A Part 3, Table A**	Structural failure, substantial damage or substantial interference with any right of occupation. For this purpose, the local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended. Additionally, in the case of a scheduled Ancient Monument, substantial damage should be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled. In this Chapter, this description of significant harm is referred to as a "building effect".

TABLE A - CATEGORIES OF SIGNIFICANT HARM

Descriptions Of Significant Harm (As Defined In Table A)	Conditions For There Being A Significant Possibility Of Significant Harm
1 Human health effects arising from • the intake of a contaminant, or • other direct bodily contact with a contaminant	If the amount of the pollutant in the pollutant linkage in question: • which a human receptor in that linkage might take in, or • to which such a human might otherwise be exposed, as a result of the pathway in that linkage, would represent an unacceptable intake or direct bodily contact, assessed on the basis of relevant information on the toxicological properties of that pollutant. Such an assessment should take into account: • the likely total intake of, or exposure to, the substance or substances which form the pollutant, from all sources including that from the pollutant linkage in question; • the relative contribution of the pollutant linkage in question to the likely aggregate intake of, or exposure to, the relevant substance or substances; and • the duration of intake or exposure resulting from the pollutant linkage in question. The question of whether an intake or exposure is unacceptable is independent of the number of people who might experience or be affected by that intake or exposure. Toxicological properties should be taken to include carcinogenic, mutagenic, teratogenic, pathogenic, endocrine-disrupting and other similar properties.
2 All other human health effects (particularly by way of explosion or fire)	If the probability, or frequency, of occurrence of significant harm of that description is unacceptable, assessed on the basis of relevant information concerning: • that type of pollutant linkage, or • that type of significant harm arising from other causes. In making such an assessment, the local authority should take into account the levels of risk which have been judged unacceptable in other similar contexts and should give particular weight to cases where the pollutant linkage might cause significant harm which: • would be irreversible or incapable of being treated; • would affect a substantial number of people; • would result from a single incident such as a fire or an explosion; or • would be likely to result from a short-term (that is, less than 24-hour) exposure to the pollutant.
3 All ecological system effects	If either: • significant harm of that description is more likely than not to result from the pollutant linkage in question; or • there is a reasonable possibility of significant harm of that description being caused, and if that harm were to occur, it would result in such a degree of damage to features of special interest at the location in question that they would be beyond any practicable possibility of restoration. Any assessment made for these purposes should take into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.
4 All animal and crop effects	If significant harm of that description is more likely than not to result from the pollutant linkage in question, taking into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.
5 All building effects **Source: DETR Circular 02/2000 Annex A Part 3, Table B**	If significant harm of that description is more likely than not to result from the pollutant linkage in question during the expected economic life of the building (or, in the case of a scheduled Ancient Monument, the foreseeable future), taking into account relevant information for that type of pollutant linkage.

TABLE B - SIGNIFICANT POSSIBILITY OF SIGNIFICANT HARM

APPENDIX B

LIAISON AND COMMUNICATION - CONTACTS

British Geological Survey
Mr. Andrew Marchant
Kingsley Dunham Centre
KEYWORTH
Nottinghamshire. **Tel: 0115 936 3186**
NG12 5GG **email: a.merchant@bgs.ac.uk**

DEFRA
Mr. John Coleman
LEQ - Contaminated Land Branch,
Zone 4/D11 AHV,
LONDON **Tel: 0207-082-8568**
SW1E 6DE **Email: john.coleman@defra.gsi.gov.uk**

English Nature
Mr. Kristoffer Hewitt (Conservation Officer)
32 / 33 North Street
LEWES
East Sussex
BN7 2PH **Tel. 01273 476595**

English Heritage
Mr. Paul Roberts
4th Floor
Berkley House
London Square
Cross Lanes
GUILDFORD
Surrey
GU1 1XL **Tel. 01483 304869**

Environment Agency
Mr. Simon Deacon
Saxon House
Little High Street
WORTHING
West Sussex **Tel. 01903 703916**
BN11 1DH **Email: simon.deacon@environment-agency.gov.uk**

ESCC County Archivist
The County Archivist
The Maltings
Castle Precinct,
LEWES,
East Sussex
BN7 1YT **Tel. 01273 481000**

Southern Water Services
Mr. Chris Stewart
Wastewater Planning and Strategy Manager
Southern House,
Yeoman Road,
WORTHING,
West Sussex
BN13 3NX **Tel. 01903 835329**

Food Standards Agency
Dr Patrick Miller
Contaminants Division
Food Standards Agency
Aviation House **Tel. 0207 238 5751**
125 Kingsway **Fax 0207 238 5331**
LONDON **Email: patrick.miller@foodstandards.gsi.gov.uk**
WC2B 6NH **website: www.foodstandards.gov.uk**

East Sussex Fire Brigade
ADO Adrian Brown
Fire Safety Division,
Preston Circus,
BRIGHTON
BN1 4NZ **Tel: 01273 602222**

CCDC
Dr Angela Iversen
Consultant in Communicable Disease Control
36-38 Friars Walk,
Lewes,
East Sussex
BN7 2PB **Tel: 01273 403591**

Shoreham Port Authority
Mr. Tony Vaughan
Shoreham Port Authority
Harbour Office,
Southwick,
West Sussex
BN42 4ED **Tel: 01273 598100**

APPENDIX C

Environmental Protection Act 1990
Part IIA – Section 78R(1)

REGISTER OF CONTAMINATED LAND

Since 1st April 2000, Brighton & Hove City Council has been under a statutory duty to produce a strategy to deal with 'contaminated land' (as defined in section 78A(2) of the Act) in its area and to ensure that any contaminated land which is identified, is then remediated.

This register is maintained in accordance with section 78R(1) of the Environmental Protection Act 1990.

The Council will include particulars in this register in accordance with Schedule 3, Regulation 15 of the Contaminated Land (England) Regulations 2000, which include details of the following:

- **Remediation notices and Charging notices**
- **Appeals against remediation notices**
- **Remediation declarations**
- **Remediation statements**
- **Appeals against charging notices**
- **Designation of special sites**
- **Notification of claimed remediation**
- **Convictions for offences under section 78M**
- **Guidance issued under section 78V(1)**
- **Other environmental controls**

This public register is intended to act as a full and permanent record, open for public inspection, of all regulatory action taken by Brighton & Hove City Council in respect of the remediation of contaminated land, and will include information about the condition of land.

Any further enquiries should be addressed in writing to Mrs. Annie Sparks (Divisional EHO) at:

Brighton & Hove City Council,
Environmental Health & Licensing,
Bartholomew House (2nd floor),
Bartholomew Square,
BRIGHTON
BN1 1JP

Tel: 01273 292436
Fax: 01273 292196
E-mail: annie.sparks@brighton-hove.gov.uk

Contents

At this time no entries have been made in this register.

APPENDIX D

This supporting document was prepared on behalf of the CIEH Sussex Branch Pollution Group to assist the development of Part IIA inspection strategies.

Contaminated Land Draft strategy template

Geographical Information Systems (GIS)

A GIS is a digital system for the storage, manipulation, analysis and visualisation of spatial data. At the heart of a GIS is a database that allows the spatial data to be linked to attribute data. Spatial data is anything for which a grid reference can be given i.e. where something is. Attribute data is information about what is at a particular point. Maps are the most well known types of spatial data. They show the spatial distribution of features and the locational relationship of one object with another.

GIS is an ideal way of illustrating spatial relationships, and has the merit of allowing easy updating of the information in order to produce new plans

Each LA will need to adopt and implement a strategy for identifying and prioritising contaminated land in a rational and efficient way. The methodologies adopted should draw upon all available information without unnecessary duplication of effort internally or with other agencies. Therefore the strategy should be to accommodate information received from the Environment Agency and land owners and be able to store, process and analyse it in a suitable format. The use of GIS methods in this regard will be of great benefit and will enable a more efficient means of delivering information to outside bodies like the Environment Agency.

GIS is a highly suitable way of managing land-use and ground information in order to identify pollutant linkages, assess risks, make decisions and communicate outcomes.

What are the advantages in moving to digital mapping and analysis? It is a simple thing to read a paper map, but when two or more maps have to be combined and overlain, the operation becomes less straightforward. Using conventional techniques, an overlay trace would have to be prepared for each map. These traces would then have to be analysed using manual measurement techniques and a final map prepared. All of these maps would then be stored in a map chest. Any point information would have to be plotted by hand. If these points relate to a database, then the paper map would have to be cross-referenced with the database. Each time a different attribute was needed, a different set of plots would be required. Large areas would have to be covered by many maps, increasing the storage problem. Using GIS, all these functions become more straightforward, as GIS was developed to make cartography and map analysis easier. Datasets containing both spatial and attribute data can be drawn together into a common structure, simplifying their analysis and manipulation. The increased performance of desktop computers means that questions can be asked of the data and answered rapidly, without the delays inherent in the time-consuming manual methods outlined above.

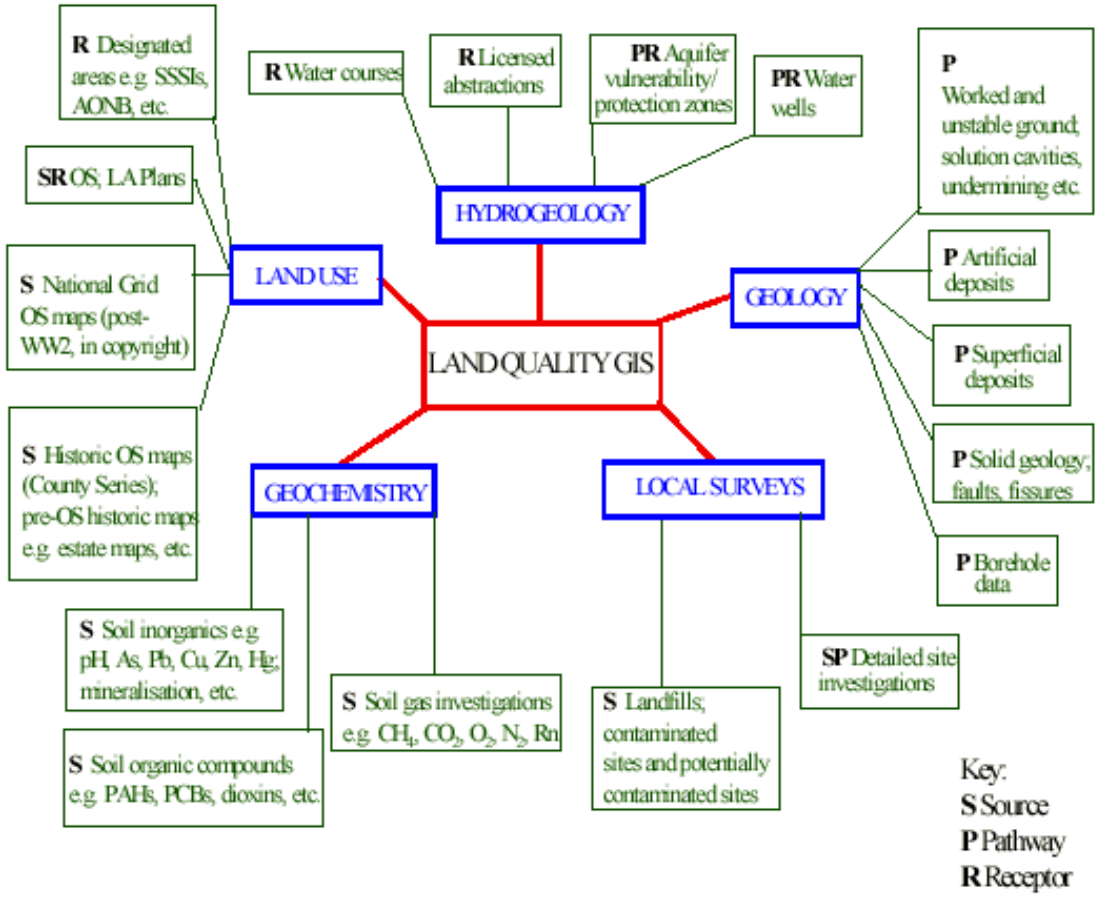
GIS data should be held, manipulated and transferred in formats native to, or supported by, widely available GIS packages such as ArcView or MapInfo. Large amounts of data can be handled in such GIS and it is easy to view combined datasets. the use of obscure or obsolete GIS that do not import or export these widely used formats should be avoided where possible, as considerable effort (and therefore costs) is often needed to re-format data when transfer to another system etc. is required.

While the information needs of the LA environmental health, building control and planning departments are different, there is often a need to share data to ensure consistency of approach. Importantly, once a GIS has been developed and set up, all members of staff, not just GIS specialists, can use it. In principle, data management by means of a digital system will increase departmental cross-talk, make it easier to evaluate ground conditions, and facilitate transmission of information to outside bodies, including the Environment Agency.

The general benefits of using GIS are several:

- **provides a digital system for systematic data entry and storage; providing quality control forms part of the process of inputting information, GIS is a highly efficient way of storing huge amounts of data**
- **provides integrated data layers for easier management; different layers of information can be superimposed simultaneously for a given area**
- **GIS is a system that allows data to be translated easily into information, such as multi-layered maps or reports, which can support policy-making or planning decisions; if digital 3-D geology were represented in the GIS, it could provide a sound basis for making decisions on underground development plans**
- **provides an updateable knowledge store; if a key person leaves the organisation, the information is left behind in the GIS and not lost**
- **GIS is dynamic, versatile and can be interactive with larger modular IT environmental packages**
- **GIS can be made to be address-linked; the facility to click on a point or a single address to bring up a whole series of different databases is a powerful method to help answer enquiries for that address point**
- **GIS can be customised for automatic report generation; a programme language can be used to co-ordinate selected information that is spatially related to a given area or point on the map; the output to the printer can be programmed as a series of maps, tables, or diagrams with text**
- **GIS offers an accessible system for answering customer enquiries; a report writing facility may be required for this function, but once in place, a non-GIS expert can operate the GIS in order to respond to enquiries**
- **GIS makes it easier to export and import information to or from internal and external bodies; GIS is a way of increasing the efficiency of information transfer**
- **the GIS databases may have other departmental uses e.g. in Leisure and Education Departments**
- **GIS is useful when interpreting complex data e.g. the spatial relationships between land use and any soil contaminants present can be explored in GIS making the identification of pollution linkages easier**
- **provides a sound basis for site risk assessments e.g. the GIS databases can be adapted as input files for modelling in LANDSIM, CONSIM and other model codes**
- **GIS offers a good visualisation facility for presentations to members of staff, outside bodies and the public**
- **GIS could be used in training new LA staff; it is possible to draw up a variety of different maps of the area illustrating land use, geology, problem sites etc, for discussion with the newcomer**
- **GIS can provide overall cost savings for a LA; more efficient management of environmental information will give long-term advantages as less time and therefore fewer staff are required to prepare information for regulatory or enquiry purposes.**

Figure 1 below shows the layers that typical a GIS system for contaminated land purposes should contain



Source: Some guidance on the use of digital Environmental Data, British Geological Survey (BGS) Technical Report WE/99/14

Data Confidentiality

Collected information will be sub-divided into "Public Register Information" and "Inspection Information." Where information is provided by a third party it's status should be confirmed at the time of the provision to the local authority. The third party must provide justification for any information remaining confidential or being subject to national security considerations. The status of such data shall be checked before it is released to any third parties by the authority. Regard must be given to the Environmental Information Regulations.

APPENDIX E

Glossary of Terms

DETR Circular 02/2000 contains a detailed glossary of term that provides legal definitions that may be used in this strategy. This glossary should assist in the interpretation of those terms.

AONB	**Area of Outstanding Natural Beauty.**
Brownfield site	**A site that has been generally abandoned or underused, where redevelopment is complicated by perceived or actual environmental contamination. Only a small proportion of brownfield sites will meet the Part IIA definition of contaminated land.**
BGS	**British Geological Survey (based in Keyworth, Nottinghamshire).**
CLEA	**Contaminated Land Exposure Assessment Model: A methodology for carrying out risk assessment of potentially contaminated land and determining Soil Guideline Values for a limited range of contaminants.**
Contaminated Land	**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: (i) significant harm is being caused, or there is a significant possibility of such harm being caused; or (ii) pollution of controlled waters is being, or is likely to be, caused.**
Controlled waters	**These include** **(a) inland waters (rivers, streams, underground streams, canals, lakes and reservoirs)** **(b) groundwaters (any water in underground strata, wells or boreholes)** **(c) territorial waters (seawater within the three-mile limit)** **(d) coastal waters (the sea up to the line of highest tide; tidal waters within the freshwater limit).**
DETR	**The Department of the Environment, Transport and the Regions.**
Drinking water source) for use abstraction	**The taking of water form a source (usually an underground as drinking water.**
EA	**Environment Agency.**
Eco-system environment	**A biological system of interacting organisms and their physical**
GIS	**Geographical Information System – a storage and retrieval database capable of being interrogated on any level of pre-determined parameters.**
Groundwater	**Any water contained in underground strata, wells or boreholes.**
NNR	**National Nature Reserve.**
Pathway	**One or more routes by which a receptor can become exposed to a contaminant.**

Pollutant linkage	**The relationship between a contaminant, a pathway and a receptor.**
Receptor	**or 'target' – something that could be affected by contamination, such as waters, a person's health, ecosystem or property type.**
Remediation	**The carrying out of works to prevent or minimise the effects of contamination. In Part IIA this encompasses an assessment as to the condition of the land and monitoring subsequently.**
Risk Assessment	**The study of the probability of a hazard occurring and the magnitude of the consequences.**
SAC	**Special Area of Conservation.**
Source	**A substance in, on or under the ground with the ability to cause harm.**
Source Protection Zones	**Zones around certain areas of groundwater used for public water supply within which certain activities and processes are either restricted or prohibited.**
SPA	**Special Protection Area for birds.**
Special Site	**Any contaminated land designated due to the presence of:** **a) waste acid tar lagoons** **b) oil refining** **c) explosives** **d) integrated pollution control sites** **e) nuclear sites,** **or because of pollution of controlled waters**
SSSI	**Site of Special Scientific Interest.**