East Hampshire District Council

Statutory Contaminated Land Inspection Strategy

March 2001
Revised January 2010

Required under the provisions of the Environmental Protection Act 1990 Section 78B

Executive Summary

This revised version of the Contaminated Land Inspection Strategy sets out EHDC's strategy for the inspection of land suspected of being contaminated as instructed under Part2A of the Environmental Protection Act 1990. It replaces the previous strategy (2001) and incorporates subsequent updates (2005, 2006). Legislation under Part2A requires the Council to inspect its district for historic contamination and where found provides powers to the Council to instruct the remediation of that land. This strategy outlines a process, principally for the protection of human health, which runs parallel to, but differentiates from, planning redevelopment, in that it focuses on land being suitable for existing use rather than future, planned land use.

A section on the background to the legislation has been provided at the beginning of the strategy which further expands on the Government approach to dealing with the legacy of contaminated land in the UK.

The aims and objectives of the strategy have been updated to better reflect the national objectives for the regime outlined under Part2A guidance. In particular, the aims have been modified to re-emphasize the Council's commitment to the protection of human health with the objectives outlining how this will be achieved. This is followed with details on how the Councils own planning aims and objectives compliment Part2A requirements **(Section 1.3, 1.4)**.

This new strategy includes the main changes introduced under the revised Contaminated Land 2006 regulations to investigate radioactive contamination of land, as well as changes to the remediation notice appeals procedure, requiring the appellant to make their appeal directly to the Secretary of State for the Environment, Food and Rural Affairs **(Section 2.5)**.

The methodology for prioritization of potential contaminated land sites has been updated to reflect major changes made in this area. New software has been purchased to work with a Geographical Information System (GIS) which enables the effective prioritization of all identified potentially contaminated land sites into a list and which allows periodic updates as new information becomes available **(Section 5.2)**.

A new section on the process of determining contaminated land has been included which provides useful information on understanding how the contaminated land regime operates **(Sections 7.0, 8.0)**. It includes new information on where urgent action is required **(Section 8.3)**, and where financial hardship should be considered in cases where the identified persons responsible for remediation would face considerable financial problems due to costs for remediation **(Section 8.4)**.

Sections 10 and 11 are added sections which cover how the Council will deal with additional information received, use of review mechanisms to ensure the Strategy is always focused on the relevant sites of concern and availability of financial resources made available by central government.

An updated programme for inspection has been included which shows what work has been completed to date and the forecasted timetable for key major events leading up to 2014 **(Section 12.0)**.

The appendix section has been fully updated and now includes a glossary of terms, an updated list of contact points and consultees, further details on the new prioritization software and its development, checklists for site investigations, as well as a table outlining differences between the old and new Strategy.

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INTRODUCTION AND OVERVIEW

1.0 INTRODUCTION

1.1 BACKGROUND TO THE LEGISLATION

1.1.1 In 1985 the Government, in its response to the 11th report of the Royal Commission on Environmental Pollution, announced that the Department of the Environment was preparing a circular on the planning aspects of contaminated land. The draft of the circular stated that:

> *Even before a planning application is made, informal discussions between an applicant and the local planning authority are very helpful. The possibility that the land might be contaminated may thus be brought to the attention of the applicant at this stage, and the implications explained.*

Thus suggesting that it would be advantageous for the planning authorities to have available a list of potentially contaminated sites.

1.1.2 In 1988 the Town & Country Planning (General Development) Order required local planning authorities to consult with waste disposal authorities if development was proposed within 250m of land which had been used to deposit refuse within the last 30 years.

1.1.3 In January 1990 the House of Commons Select Committee on the Environment (1990) published its first report on contaminated land. This document, for the first time, expressed concern that the Government's suitable for use approach, "... may be underestimating a genuine environmental problem and misdirecting effort and resources". The committee produced 29 recommendations, including the proposals that:

> *"The Department of the Environment concern itself with all land which has been so contaminated as to be a potential hazard to health or the environment regardless of the use to which it is to be put"*

And,

> *"The Government bring forward legislation to lay on local authorities a duty to seek out and compile registers of contaminated land"*

Immediately following the House of Commons report the Environmental Protection Act (1990) had at section 143, a requirement for local authorities to compile,

> *"Public registers of land which may be contaminated"*

1.1.4 If enacted this would have required local authorities to maintain registers of land which was, or may have been contaminated, as a result of previous (specified) uses. In March 1992 however, the concern about the blighting effect of such registers resulted in a press release published by the Secretary of State delaying the introduction of section 143 stating:

> *"The Government were concerned about suggestions that land values would be unfairly blighted because of the perception of the registers".*

1.1.5 Subsequently in July 1992, draft regulations were released with significantly reduced categories of contaminative uses to those where there is was a high probability that all land subject to those uses was contaminated unless it had been appropriately treated. It was estimated that land covered by the registers would be only 10 to 15% of the area previously envisaged. This, however, still did not satisfy the city, so on the 24th of March 1993 the Secretary of State, Michael Howard, announced that proposals for contaminated land registers were to be withdrawn and a belt and braces review of land pollution responsibilities was to be undertaken.

1.1.6 This resulted in the Department of the Environment consultation paper, Paying For our Past (1994a), which elicited no less than 349 responses. The outcome of this was the policy document, Framework for Contaminated Land, (1994b). This useful review emphasised a number of key points:

- The Government was committed to the, 'polluter pays principle', and, 'suitable for use approach'.
- Concern related to past pollution only (there were effective regimes in place to control future sources of land pollution).
- Action should only be taken where the contamination posed actual or potential risks to health or the environment and there are affordable ways of doing so.
- The long standing statutory nuisance powers had provided an essentially sound basis for dealing with contaminated land.

It was also made clear that the Government wished to:

- Encourage a market in contaminated land;
- Encourage its development, and;
- That multi functionality was neither sensible nor feasible.

1.1.7 The proposed new legislation was first published in June 1995 in the form of section 57 of the Environment Act which amended the Environmental Protection Act 1990 by introducing a new Part 2A (DoE, 1995). After lengthy consultation on statutory guidance this came into force in April 2000.

1.1.8 The legislation and guidance is very heavily punctuated with many complex and often unusual terms. To assist in the interpretation of these an extensive glossary has been included in DEFRA Circular 01/2006, Environmental Protection Act 1990: Part 2A - Contaminated Land (2006a), and is included in Appendix I of this strategy.

1.2 NATIONAL OBJECTIVES OF THE REGIME

1.2.1 The Government believes contaminated land to be an "archetypal example of our failure in the past to move towards sustainable development" (DEFRA, 2006a Annex 1 p.5). The first priority has therefore been specified as the prevention of new contamination via the pollution control regimes.

Secondly there are three stated objectives underlying the suitable for use approach as follows:

> *a) to identify and remove unacceptable risks to human health and the environment;*

b) to seek to bring damaged land back into beneficial use; and

c) to seek to ensure that the cost burdens faced by individuals, companies and society as a whole are proportionate, manageable and economically sustainable.

(DEFRA, 2006a, Annex 1 p.6)

1.2.2 The suitable for use approach recognises that risk can only be satisfactorily assessed in the context of a specific use with the aim of maintaining an acceptable level of risk at minimum cost, thereby, "not disturbing social, economic and environmental priorities".

The specific stated objectives of the new regime are:

a) to improve the focus and transparency of the controls, ensuring authorities take a strategic approach to problems of land contamination;

b) to enable all problems resulting from contamination to be handled as part of the same process (previously separate regulatory action was needed to protect human health and to protect the water environment);

c) to increase the consistency of approach taken by different authorities; and

d) to provide a more tailored regulatory mechanism, including liability rules, better able to reflect the complexity and range of circumstances found on individual sites.

(DEFRA, 2006a, Annex 1 p.9)

1.2.3 In addition to providing a more secure basis for direct regulatory action, the Government considers that the improved clarity and consistency of the new regime, in comparison with its predecessors, is also likely to encourage voluntary remediation. It is intended that companies responsible for contamination should assess the likely requirements of regulators and plan remediation in advance of regulatory action.

1.2.4 There will also be significant incentive to undertake voluntary remediation in that the right to exemption to pay Landfill Tax will be removed once enforcement action has commenced.

1.2.5 The Government also considers the new regime will assist developers of contaminated land by reducing uncertainties about so called, "residual liabilities", in particular it should:

a) reinforce the suitable for use approach, enabling developers to design and implement appropriate and cost-effective remediation schemes as part of their redevelopment projects;

b) clarify the circumstances in which future regulatory intervention might be necessary (for example, if the initial remediation scheme proved not to be effective in the long term); and

c) set out the framework for statutory liabilities to pay for any further remediation should that be necessary.

(DEFRA, 2006a, Annex 1 p.10)

1.3 AIM AND OBJECTIVES OF THE STRATEGY

1.3.1 The aim of the strategy is to meet the legal requirements set out in the Environmental Protection Act 1990: Part II A and in particular the inspection duties of local authorities listed in Chapter B (B.9 to B.14) of the Statutory Guidance (2006a) accompanying this legislation.

1.3.2 Under this legislation East Hampshire District Council (EHDC) is required to prepare a Contaminated Land Strategy which outlines a strategic approach to the inspection of potentially contaminated land. Paragraph B.9 of the Statutory Guidance, (2006a), sets out the underlying principles to be applied. This approach for inspection of potentially contaminated land should:-

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

It is these principles that provide the ultimate reference point for any strategy which is subsequently developed.

1.3.3 This second version of the strategy aims to incorporate updates written in September 2005 and November 2006 and by keeping the strategy under periodic review addresses Paragraph B.13 of the statutory guidance.

1.3.4 In particular, priority will be given to the protection of human health where significant harm is being caused or there is a significant possibility of such harm being caused. Priority will also be given to controlled waters where there is a recognised potential risk to human health.

1.3.5 The main objectives to help achieve this aim will involve:-

- The development of a Geographical Information System (GIS) database for the prioritization of sites requiring investigation and the storage of pertinent data.

  This will be achieved by reviewing a historical mapping database to identify areas with potentially contaminative uses, evaluating information the Council already holds concerning the possible presence of contamination, identifying additional sites of concern from Parish Council records, identifying sites which have already been remediated, obtaining and evaluating information on actual harm or, pollution of controlled waters; and the preparation of a prioritised list of sites for detailed investigation;

- Identification of potential receptors and the conditions for there being a significant possibility of significant harm as listed in Tables A and B of the statutory guidance (DEFRA, 2006a, Annex 3 p.86) and as tabulated in Appendix II;

- Commencing a detailed investigation of all high priority sites, utilising conceptual models in the evaluation of risk to receptors and taking appropriate action where necessary;

- Establishing appropriate contacts within external agencies and internal departments relevant to the investigation of contaminated land;

- Completing a detailed investigation of sites with medium and low priorities;

- A regular review of the strategy to ensure focus on its aims and objectives;

- Creating a contaminated land register for public viewing.

1.3.6 In all cases, the Authority will take into account the particular circumstances of its district, including historical industrial activity, geographical determinants of the land and the balance between urban and rural land use.

1.4 AIMS AND OBJECTIVES OF THE COUNCIL

1.4.1 In addition to the specific aim and objectives of the strategy, EHDC's own planning aims and objectives compliments Part 2A of the Environmental Protection Act 1990. Specifically, issues relating to the management of contaminated land are addressed in the following statutory documents, at the local and regional level:

East Hampshire Sustainable Community Strategy 2008 - 2026

1.4.2 The Sustainable Community Strategy (SCS) is the main corporate document which sets out the priorities and objectives for the Council. It requires the EHDC Local Plan and other Council documents, including this Contaminated Land Strategy, to promote sustainable development. It further sets out a range of 'priority outcomes' that all local organisations should work toward. If achieved over the next twenty years, they will lead to continued improvement to local peoples lives.

1.4.3 The 'priority outcomes' include minimising the impact new developments will have on wildlife by ensuring the use of appropriate mitigation measures. This will include safeguarding the natural environment from contamination discovered through PartIIa investigations and redeveloped brownfield sites. A further outcome states that all forms of pollution are to be addressed quickly, in keeping with the Statutory Guidance requirement for a rational, ordered and efficient approach to the investigation of contaminated land.

The Local Plan

1.4.4 The Local Plan aims to accommodate new development in a way that accords with long term objectives and achieves a sustainable outcome for our communities by minimising its impact on the environment and on the biodiversity of the District. The overall strategy of the Local Plan is to ensure that future development in East Hampshire is sustainable. In this way, the natural and historic heritage of East

Hampshire can be protected and enhanced, natural resources conserved and pollution minimised.

1.4.5 The Local Plan includes a keynote policy on sustainable development which refers to the special regard the Council will have to the material consideration of land and water quality in its decision to permit development in the district and further, describes its expectation of developers to provide sufficient information on the state of contamination of a site and its requirement for remediation, as part of the first step of the development.

1.4.6 The second review of the Local Plan was adopted in 2006 and takes proposals up to 2011. Policies within the Plan will eventually be replaced by documents forming the Local Development Framework.

East Hampshire District Council Local Development Framework

1.4.7 Under the requirements of the Planning and Compulsory Purchase Act 2004 (the Act) the Council is required to prepare its own Local Development Framework (LDF) to replace the existing East Hampshire District Local Plan: Second Review. The LDF will be the "spatial expression" of the priorities identified in the Sustainable Community Strategy and the Council's own priorities to create successful communities, protect the environment and improve people's lives. The LDF will comprise a portfolio of documents that together will form the planning policy framework for EHDC to 2026. At present these documents are in their early stages, however, on adoption they will seek to address any issues surrounding contaminated land through planning policy contained within the following documents:

i) Local Development Scheme

1.4.8 The Local Development Scheme (LDS) provides the starting point for the local community to find out what EHDC's current planning policies are for the area. It sets out a programme for the preparation of Local Development Documents (LDD's) and forms part of the LDF. The LDDs set out the spatial strategy for the District and comprise Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs).

ii) Development Plan and Supplementary Planning Documents (DPD's and SPD's)

1.4.9 The Core Strategy DPD will set out the overarching strategic planning policy framework for the District to 2026. The Core Strategy: Preferred Policies document was published in November 2009. Policy CP22 states that, 'The Council's preferred approach is to ensure that the impacts of pollution are minimised wherever possible. This will be achieved by ensuring that developments causing pollution and developments sensitive to pollution are appropriately separated and designed to reduce the risk of unacceptable impacts.

Engineering or administrative controls may also be required to provide sufficient protection. In these cases, the preferred approach will be to focus on reducing pollution emission at source.'

The supporting text to the policy comments that land contamination can impact upon human health and upon the natural environment. It adds that significant community dissatisfaction can result where developments fail to consider localised impacts of

pollution that can seriously affect the amenity of an area and the general wellbeing of residents.

Other policies of the Core Strategy have particular relevance:

- Development requirements should be provided firstly through previously developed land and buildings;

- An additional 5500 homes may be built on former MoD land in the Whitehill/Bordon area;

iii) Core Strategy Development Plan Document

1.4.10 A DPD will contain a suite of development control policies which seek to ensure that all development proposals contribute to sustainable development. This will include the need to ensure that appropriate consideration is given to sites where contamination is, or likely to be present. This is of particular interest regarding the proposed Whitehill/Bordon Opportunity SPD where previous MoD activities have resulted in a varying degree of contamination in the area. Each DPD/SPD produced will seek to identify where development will require contaminated land to be remediated or mitigation provided.

The Regional Spatial Strategy for the South East - The South East Plan

1.4.11 The Secretary of State for Communities and Local Government published the final revision of the South East Plan in May 2009. It forms part of the statutory development plan for every local authority in the region and replaces the Hampshire County Structure Plan Review 1996-2011. It provides the statutory regional framework that forms the context within which Local Development Documents and Local Transport Plans need to be prepared, as well as other regional and sub-regional strategies and programmes that have a bearing on land use activities.

1.4.12 These include the regional economic and housing strategies as well as strategies and programmes that address air quality, biodiversity, climate change, education, energy, environment, health and sustainable development.

The South East Plan has been developed to help deliver the following vision for the South East:

> *'A socially and economically strong, healthy and just South East that respects the limits of the global environment. Achieving this will require the active involvement of all individuals to deliver a society where everyone, including the most deprived, benefits from the contributes to a better quality of life. At the same time the impact of current high levels of resource use will be reduced and the quality of the environment will be maintained and enhanced.*'
>
> South East Plan, 2009

1.4.13 The South East Plan sets out the policies for specific topic areas, including policies on 'Housing' and 'Sustainable Development' which will impact on the management of contaminated land:

> *Local planning authorities will take account of the scope to identify additional sources of supply elsewhere by encouraging opportunities on suitable previously*

developed sites. This includes appropriate opportunities for change of use of non-residential development sites to secure either mixed use residential development or residential development.'

Section B 'Housing' p.57.

Priorities for the South East include:

- *Achieving sustainable levels of resource use*
- *Ensuring the physical and natural environment of the South east is conserved and enhanced.*

Section B 'Sustainable Development' p.31.

1.4.14 Greater efficiency in our use of natural resources combined with the reduction of pollution and waste, and ensuring that features of importance are protected and enhanced, including wildlife and landscapes, are emphasised in ensuring the delivery of the plan. Water resources face increasing demand arising from existing and new development and given that over 70% of the region's public water supply comes from groundwater, protection of aquifers from over-abstraction and pollution will be of particular importance.

2.0 OVERVIEW

2.1 ABOUT THIS STRATEGY

2.1.1 The Environment Act (1995) s.57, inserts into s.78 of the Environmental Protection Act (1990) the Part 2a Contaminated Land legislation. Under s.78B (1) it states that:

Every local authority shall cause its area to be inspected from time to time for the purpose –

(a) of identifying contaminated land; and

(b) of enabling the authority to decide whether any such land is land which is required to be a special site.

(See Appendix III for a description of special sites)

2.1.2 Section 78B (2) states that the authority must act in accordance with guidance issued by the Secretary of State. Specific technical guidance on the drafting of inspection strategies was published in 2001, intended to assist local authorities in fulfilling their statutory obligations and complying with the principles of the Part 2a regime (DETR, 2001).

2.1.3 The statutory guidance makes clear that in order to carry out this duty local authorities must produce a formal contaminated land strategy document which clearly sets out how land, which merits detailed individual inspection, will be identified. This document must be kept under periodic review. Since its initial publication in 2001, the strategy for East Hampshire district has undergone changes in its method by which contaminated land is investigated. This has been necessary to ensure investigations proceed in a

"…rational, ordered, and efficient manner" (DEFRA, 2006 s.B.9, p.96),

and to

"ensure that the most pressing and serious problems are located first"

(DEFRA, 2006 s.B.9, p.96).

2.1.4 The revised strategy therefore includes further details on prioritisation of potentially contaminative sites before initial investigations begin and of council's geographical information system (GIS), used to manage environmental data gathered from the various sources available and to assist in the creation of conceptual models used to assess the level of risk. The revised strategy also includes an updated timing plan which outlines the time frame in which contaminated land investigations will be undertaken.

2.1.5 In order to satisfy the far reaching objectives of the new regime it will be necessary to investigate land throughout the whole of the district and collate significant volumes of information. This will ultimately enable EHDC to make the sometimes difficult and inevitably complex decisions relating to the land's contaminated land condition, the risks it presents and who may be liable for it in law. This strategy is the commencement of that process and seeks to express as clearly as possible how each stage will be addressed.

2.1.6 It should be noted that there is no formal mechanism in place for approval of local authority strategies, though the Environment Agency, County Council, Natural England, English Heritage, FSA, and any statutory regeneration bodies, should be consulted (see also Appendix IV for details of consultees).

2.2 ROLES AND RESPONSIBILITIES

2.2.1 The primary regulator in respect of these new powers is the Local Authority. At EHDC the strategy will be under the control of the Head of Environmental Services (see also Appendix IV), and the Environmental Committee. It should be noted that this is a complex and demanding enforcement role which will be carried out in accordance with the Council's Environmental Services Enforcement Policy (2002) and Regulators' Compliance Code (BERR, 2007) – and which came into force 6th April 2008.

2.2.2 The statutory guidance states:

The local authority is required to act in accordance with statutory guidance issued by the Secretary of State in determining whether land is contaminated land.

(DEFRA, 2006)

This is a significant responsibility which reflects existing local authority duties under the statutory nuisance regime and Town & Country Planning, Development Control. The role in broad terms includes:

- To cause the area to be inspected to identify potentially contaminated sites;
- To determine whether any particular site is contaminated (by definition);

- To determine whether any such land should be designated a ‘special site’;

- To act as enforcing authority for contaminated land not designated as a ‘special site’.

2.2.3 The **Environment Agency** also has four main roles:

- To assist local authorities in identifying contaminated land (particularly where water pollution is involved);

- To provide site specific guidance to local authorities on contaminated land where requested;

- To act as enforcing authority for contaminated land designated a ‘special site’;

- To publish periodic reports on contaminated land.

2.2.4 Where the presence of contaminated land has been confirmed the enforcing authority must:

- Establish who should bear responsibility for remediation;

- Decide after consultation what must be done in the form of remediation and ensure it is effectively carried out;

- Determine liability for the costs of the remedial works;

- Maintain a public register of regulatory action in relation to contaminated land.

2.3 LIABILITY FOR ANOTHER LOCAL AUTHORITY’S LAND

2.3.1 Where a site in a neighbouring authority causes pollution within the East Hampshire boundary, sub-section 78X(2) of Part 2A of the EPA 1990 states:

Where it appears to a local authority that any land outside, but adjoining or adjacent to, its area is in such a condition, by reason of substances in, on or under the land, that significant harm is being caused, or there is a significant possibility of such harm being caused, or that pollution of controlled waters is being, or is likely to be caused within its area:-

a) the authority may, in exercising its functions under this Part, treat that land as if it were land situated within its area; and

b) except in this sub-section, any reference –

i) to land within the area of a local authority, or
ii) to the local authority in whose area any land is situated,

shall be constructed accordingly; but this sub-section is without prejudice to the functions of the local authority in whose area the land is in fact situated.

2.4 OUTLINE OF THE STATUTORY PROCEDURE

2.4.1 Contaminated land is defined 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) pollution of controlled waters is being, or is likely to be, caused"*.
>
> (Annex 2, p.25, DEFRA, 2006a)

2.4.2 In determining whether there is a significant possibility of significant harm both the severity and the likelihood of the possible harmful effect must be considered. The categories of significant harm and the description of such harm to the various receptors are defined in Table A of the statutory guidance (Chapter A, Annex 3, p.86), (DEFRA, 2006a), while the conditions to be met before a significant possibility of significant harm can be attributed are listed in Table B (Chapter A, Annex 3, p.88) (DEFRA, 2006a). See also Appendix II. In general, significant harm includes:

- Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions in humans;
- Any adverse change or threat to the special interest features of a designated site of national or international importance, or any negative impact on the conservation objectives of the site. Designated features may be species, species assemblages, and / or habitats;
- Death, serious disease or serious physical damage to pets, livestock, game, animals or fish;
- A substantial loss (20%) in yield or value or crops, timber or produce;
- Structural failure, substantial damage or substantial interference with right of occupation of any building.

(DEFRA, 2006a)

Controlled waters include inland freshwater, groundwater and coastal waters.

2.4.3 East Hampshire District Council will search land within its boundaries which demonstrates the occurrence of both sensitive receptors and sources of potential contamination, linked through a pollution pathway (Fig. 1). Where good reason suggests all three elements exist, the council will undertake a formal risk assessment in accordance with established scientific principles in order to establish whether there is potential for them coming together and causing significant harm, the significant possibility of significant harm or the pollution of controlled waters, as previously described in paragraph 1.6.1. This is known as a ***pollutant linkage***.

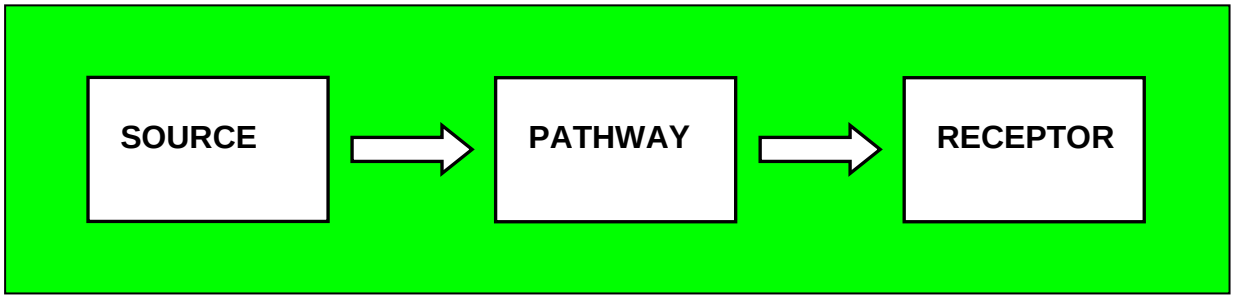

Figure 1 Schematic diagram of a pollutant linkage

2.4.4 A "pollutant linkage" is therefore the linkage between a contaminant and a receptor by means of a pathway.

2.4.5 Where they are satisfied a pollutant linkage exists, they must determine the land as contaminated land by definition. In every case where the land does not fall within the category of a special site, they must commence regulatory action. This involves a series of complex procedures which must include:

- A formal written record of the determination;
- Formal notification to all interested parties;
- Determination of the physical extent of the land;
- The extent and seriousness of the risks (need for urgent action – section 8.3);
- The number and type of pollutant linkages;
- The effect each significant pollutant may have on controlled waters (if any);
- The most appropriate and cost effective remedial scheme for each significant pollutant linkage;
- Identification of liability groups and, appropriate persons (see s. 8.1.2), for each pollutant linkage;
- Assessment of hardship in the case of each, appropriate person;
- Effective remediation of the site and recovery of costs where appropriate.

2.4.6 A series of consultations must also be carried out at each stage with the ultimate aim of securing voluntary remediation (without the need for enforcement action). Where the land does fall within the definition of a special site, the Environment Agency becomes the enforcing authority. In these cases, however, the local authority must still make the determination and formally notify the interested parties.

2.4.7 In certain circumstances the local authority may carry out the remedial works. In general terms it has this power where:

- Urgent action is necessary (see part 8 and Appendix VI);
- There is no appropriate person (as defined in section 8.1.2);
- The authority is precluded from taking enforcement action (specified reasons);
- The authority agrees to carry out the works on behalf of an appropriate person;
- A remediation notice has not been complied with.

2.4.8 In non urgent cases where a remediation notice is necessary and all the required consultations have been completed, the notice must be served on the appropriate person(s) no sooner than **three months after the contaminated land has been identified** or declared a special site. The notice itself may require further investigation of the site and as a result more pollutant linkages may be identified. Where that is the case the enforcing authority must go through the same processes again to identify appropriate persons and remedial actions.

2.4.9 The enforcing authority must at all times consider the potential for hardship and undertake cost benefit analysis in respect of all remedial actions. Where remedial actions are undertaken in default of a notice the enforcing authority has the power to recover costs in certain circumstances.

2.5 EXTENSIONS TO THE EXISTING PART 2A REGIME

2.5.1 Radioactivity regulations presented to Parliament on the 23rd May 2006 and which came into force on the 4th August 2006 cover the regulatory requirements of Local Authorities and the Environment Agency for radioactive contamination. Where radioactive contamination is designated modifications to Sections 78A, 78B, 78C, 78E and 78G of the existing Part 2A regime will be applied, as stipulated in Schedule 1 of The Radioactive Contaminated Land (Enabling Powers) (England) Regulations 2005 DEFRA, 2005b).

2.5.2 Where radioactivity is included as a contaminant affecting human health the definition for contaminated land has been modified as follows:

> *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) harm is being caused, or*
>
> *b) there is a significant possibility of such harm being caused.*

The definition for contaminated land for all other contaminants remains unchanged.

2.5.3 Radioactive substances are covered only insofar as human health is concerned. Other receptors such as ecological systems or controlled waters are not covered with respect to radioactivity. Contaminated land, where affected by radioactivity, will be classed as a special site.

2.5.4 In keeping with the existing risk-based approach in the determination of contaminated land the risk measure for radioactive contamination will be assessed in

terms of effective and equivalent radiation dose (DEFRA, 2005b; 2006a). This extension of the Part 2A regime will not apply to radon gas. The Council will liaise with the Environment Agency where radioactive contamination is suspected or confirmed.

2.5.5 The only other major change to the Part 2A regime concerns the arrangements for appeals against remediation notices served by local authorities. Appeals should no longer be made to the magistrates' court, but to the Secretary of State for the Environment, Food and Rural Affairs. Details of this change are covered originally in the Clean Neighbourhoods and Environment Act 2005, section 104, but can also be found in Annex 4 to the 01/2006 DEFRA Circular for Contaminated Land.

2.6 SITUATIONS WHERE THIS REGIME DOES NOT APPLY

As stated in paragraph 1.2.1, the primary aim of the Government is to prevent new contamination occurring. There are several situations therefore where existing pollution control legislation would apply to control the effects of land contamination:

Environmental Permitting Regulations 2007

2.6.1 Environmental Permitting (EP) created one single regulatory system by streamlining and integrating Waste Management Licensing and Pollution Prevention and Control. The EP system replaces 41 statutory instruments with a single set of Regulations: the Environmental Permitting (England and Wales) Regulations 2007. The Regulations provide a single, streamlined, risk-based framework for permitting and compliance. They introduce the possibility of a single permit and regulator for some sites.

The second phase of streamlining the regulations will offer a single permitting and compliance system and will include those systems for

- discharge consenting
- groundwater authorisations
- water abstraction and impoundment
- radioactive substances regulation
- licensing of some waste carriers and brokers

These are due to be integrated in Regulations for Radioactive Substances, Discharge Consenting and Groundwater due to come into force in April 2010.

Pollution of Controlled Waters not arising from land (Water Resources Act 1991 section 161 and Groundwater Regulations 2009)

2.6.2 Where a pollution incident has occurred and the pollutant is discharged directly into the body of water, or it has left land and it is entirely in the body of water (i.e. the land is no longer causing pollution), the Water Resources Act 1991 will apply. The Groundwater Regulations 2009 control both the direct and indirect inputs of pollutants into groundwater, making it an offence to discharge into groundwater without a permit.

Discharge Consents (Water Resources Act 1991 Part III)

2.6.3 No remediation notice can require action to be taken which would affect a discharge authorised by consent.

Change of Land Use
2.6.4 Where land becomes a risk to potential new receptors as a result of a change of use, the Town & Country Planning Development Control regime will continue to apply as before.

Risk of Harm to Employees
2.6.5 Where there is a risk of harm to persons at work from land contamination, this should be dealt with under the Health and Safety at Work Act 1974. The enforcing authority will be either the Health & Safety Executive or this Council depending on the work activity.

Risk of Harm Following an Incident at a COMAH Site (Control of Major Accident Hazard Regulations 1999)
2.6.6 Where there has been a release, explosion or other major incident, which has caused land contamination, the restoration should be carried out as part of the COMAH on site / off site emergency restoration plan. In addition there are several other situations where the relationship with Part 2A needs clarification:

Contaminated Food (Food Standards Act 1999)
2.6.7 Part I of the Food and Environment Protection Act 1985 gave Ministers emergency powers to prevent the growing of food on, *inter alia*, contaminated land. Following the establishment of the Food Standards Agency this power is now vested in the Secretary of State. Where the Council suspects crops may be affected from contaminated land to such an extent they may be unfit to eat, they will consult the Food Standards Agency and DEFRA to establish whether an emergency order may be necessary. It should be noted however, that remediation of the site, if necessary, would be carried out through the new powers in Part 2A.

Organisms
2.6.8 Part 2A does not apply to contamination caused by organisms such as bacteria, viruses or protozoa, as they do not fall within the definition of substances.
This could affect land contaminated with Anthrax spores, E-coli, etc. The Council will liaise with the Environment Agency in relation to MOD land and DEFRA on all other sites. It should be noted that even though contaminated sites used in connection with biological weapons must be designated Special Sites (see Appendix III), this applies only to non biological contamination.

Statutory Nuisance (Environmental Protection Act 1990 Part III)
2.6.9 The relationship between Part 2A and statutory nuisance is not straight forward. Suffice to say, if land is determined contaminated land by definition, it cannot be considered a statutory nuisance. This is understandable and ensures there is no duplication or confusion between the two regimes. If however the land is investigated and found not to be contaminated land but, ‘land in a contaminated state’ (defined as land where there are substances in, on or under the land which are causing harm, or there is a possibility of harm being caused), it also can not be considered a statutory nuisance for the purposes of Part III of the Act. Precisely in what circumstances might land be determined, ‘in a contaminated state’, remains to be seen. Where land is not *contaminated land* or in a, *contaminated state*, but is causing a nuisance from smell, it could be considered a statutory nuisance as before.

2.7 LAND UNDER OWNERSHIP OF EAST HAMPSHIRE DISTRICT COUNCIL

2.7.1 Land owned by the Council is often linked with sensitive uses and includes allotments, schools, recreational grounds and public open spaces. Additional land use types includes assorted office types, depots, sports centres, community buildings, car parks and properties held as investments such as shops or industrial units.

2.7.2 Where land owned by the local authority is found to be contaminated, unless a special site, there will be no enforcing authority. East Hampshire District Council will, however, carry out its duties as though they were the enforcing authority. Site prioritisation will be conducted in the same manner as all other sites within the district, ensuring that only the most urgent sites are dealt with first. Site investigation will undergo the same consultations, assessments and appropriate remedial works as necessary. To this end a formal relationship should be maintained between the Department responsible for enforcement of the new regime and that responsible for Council owned land. All information relating to the identification, assessment and remediation of Council owned land must be fully reported to satisfy the needs for transparency.

2.8 LIAISON AND COMMUNICATION

External Agencies

2.8.1 - To fulfil the Council's statutory duty with respect to contaminated land formal liaison procedures will be established with the following external agencies:

- **Environment Agency** - regarding areas of Agency concern with respect to the quality of controlled waters and the designation of "Special Sites". The Agency will also provide liaison for inspection of potential Special Sites. Particular information collected from the Environment Agency will include the location of: landfills; Sewage Treatment Works (STW's); water abstractions; consents to discharge; waste management licensed sites; IPC/IPPC authorised sites; radioactive substance licensed sites, as well as information on water quality monitoring from groundwater and surface water, RQO failures, SPZ's and groundwater vulnerability;

- **Health Protection Agency** – for providing support and expert advice on toxicological issues relating to contaminants of concern and which pose a threat to public health;

- **Food Standards Agency** – for providing advice on food safety, including the safety of consumers from any food that may be affected by contamination from land. This includes food produced in domestic gardens and allotments as well as food collected from the wild;

- **Natural England and Wildlife Trust** - with respect to all matters relating to statutory designated sites, e.g. Sites of Special Scientific Interest (SSSI's), Special Areas of Conservation (SAC's), Special protected Areas (SPA's) and RAMSAR sites;

- **English Heritage** – with respect to the protection of historic/protected buildings, archaeological sites and ancient monuments;

- **British Geological Survey** – for information relating to geological conditions and the provision of geological data;

- **Hampshire County Council** - and neighbouring Local Authorities.

Internal Agencies

2.8.2 To fulfil the Council's statutory duty with respect to contaminated land formal liaison procedures will be established with the following internal agencies**:**

- **Environmental Services, Housing and Property Services -** Land in use and controlled by these departments may be contaminated and require remediation. The Arboricultural Officer may need to be consulted on remediation and tree growth and the Landscape Officer on impacts on eco-receptors. The Head of Environmental Services will need to lead the Council on the remediation of any contaminated sites it is found to be responsible for.

- **Planning Services -** The inspection of the District will identify areas of potentially contaminated land which may be developed, awaiting development, derelict or protected. This may result in the need to re- examine past development control files or identify development routes for contaminated sites which may subsequently impact on the Local Development Framework. Land subject to contamination, identified as part of the planning and development process where there has been a change in land use proposed, will be subject to Planning Policy Statement 23 (PPS23) (2004).

- **Building Control -** Building Control has the duty to enforce protection measures in new build projects to mitigate the impact of contamination on property. Information they hold will be essential to quantify risks. Engineers and Highways responsibilities include land under highways, pavements, verges and common areas which may be contaminated and present a risk to potential receptors. Highways Authorities must maintain registers under Part III of the New Roads and Street Works Act 1991 regarding, amongst other things, streets with, 'special engineering difficulties'. This includes risks from contamination.

- **Legal Services –** Contaminated land is a highly complex piece of legislation which could have significant implications for the Council, land owners and occupiers. Advice from the Council's solicitor may be required on many aspects relating to enforcement, liability, powers of entry, data protection, access to information etc.

- **Information Technology -** Significant volumes of data will need to be held both on data base and geographical information systems. Support will be required on the use of these systems and data protection.

2.8.3 The need for close corporate team working to ensure the smooth implementation of the strategy can not therefore be overstressed.

2.8.4 Details of statutory and non statutory consultees and contact points are included in Appendix IV.

2.9 FINANCIAL AND MANPOWER IMPLICATIONS

2.9.1 The Explanatory and Financial Memorandum to the Environment Bill stated that the creation of the new contaminated land regime would have neither financial nor manpower implications. In the light of responses received to the draft guidance, however, the Government acceded that successful operation would necessitate considerable resources.

2.9.2 With the implementation of the Local Government Act 2003 the previous financial resource supplied to local authorities, Supplementary Credit Approvals (SCAs), were abolished and replaced by the Contaminated Land Capital Projects Programme (CLCPP). The CLCPP supports local authority work arising under the Part 2A (contaminated land) regime, and in particular their responsibilities for investigating and remediating contaminated land. Where previously central government set local authority borrowing limits, under the new system the local authority is free to make its own borrowing decisions according to what it can afford.

2.9.3 The CLCPP is targeted at those sites considered to be of greatest national priority. Local Authority's receive funding for Part 2A works through their Revenue Support Grants, but investigation and remediation of contaminated land is often costly so the CLCGP exists as an additional source of funding for the highest risk projects (see CLAN 1/04; CLAN 01/05; CLAN 01/06).

2.9.4 In addition to this capital support available to local authorities, since 1999/2000 revenue support has been given by the Government via the "Environmental Protection and Cultural Services" (EPCS) component of RSG, to assist LAs in meeting their revenue expenditure needs under Part 2A. The support given to LAs via the EPCS was increased by a total of £1.2 billion for the period 2005/06 to 2007/08. It will be for individual authorities to decide whether or not to increase their expenditure on contaminated land matters in light of this Government financial support (see CLAN 1/04; CLAN 01/05; CLAN 01/06).

THE STRATEGY

3.0 DESCRIPTION OF THE EAST HAMPSHIRE DISTRICT AND HOW ITS PARTICULAR CHARACTERISTICS IMPACT ON THE INSPECTION STRATEGY

3.1 DESCRIPTION OF EAST HAMPSHIRE DISTRICT

3.1.1 East Hampshire is a rural District, approximately 200 square miles in extent, which borders Hart District and Basingstoke and Deane Borough to the north, Waverley Borough and Chichester District to the east, Winchester City to the west and Havant Borough to the south. It is known for its attractive landscape, approximately forty per cent of which lies within the East Hampshire Area of Outstanding Natural Beauty (AONB).

3.1.2 Within the District there are ten principal landscape character areas:

- South Downs – a predominantly chalk area, including Queen Elizabeth Forest;
- Clay Plateau - in the north and west of the District, including Froxfield and Four Marks Clay Plateaus;
- Downland Mosaic – a large rolling landform, predominantly of chalk, with varying extents of clay capping;
- Chalk Valley Systems – including the Meon and Northern Wey Valleys
- Major Scarps – a linear landscape, either open or wooded and containing extensive areas of chalk grassland;
- Greensand Terrace – Running down the spine and across the southern part of the district, the Upper Greensands are cut by a series of streams rising from springs near the foot of the chalk escarpment;
- Mixed Farmland and Woodland – including Rother Valley, Kingsley/Blackmoor and Alice Holt;
- Wealden Farmland and Heath Mosaic – a lowland plateau on outcrops of sandstones and acidic soils supporting a mix of nationally important heathland habitats;
- Greensand Hills – formed from resistant sandstone and comprising largely of different woodland types and structures
- Wooded Claylands – including the Havant Thicket and Southleigh Forest.

3.1.3 The landscape is very diverse, with rolling chalk downs, large areas of woodland (seventeen per cent of the total area) and internationally important heaths. In Hampshire, it is second only to the New Forest in its diversity of habitats and wildlife. Much of the area is now protected through environmental designations and in March 2009 the new South Downs National Park was finally designated, the final boundaries of which mean that fifty seven per cent of the district will fall within the limits of the park.

3.1.4 The District includes the two market towns of Petersfield and Alton with other major centres at Whitehill/Borden and Horndean (Fig.2). The District is characterised by many attractive villages the largest of which are Liphook and Liss. The towns and villages contain many areas of architectural, archaeological and historic interest.

3.1.5 The District is bisected by the A3(M)/A3 (motorway and trunk road), a major transport link between London and Portsmouth. Other roads of local importance include the A272 (Winchester – Petersfield), the A31 (Farnham – Winchester), A32 (Alton – Farnham) and A339 (Alton – Basingstoke).

3.1.6 East Hampshire has a buoyant local economy. It has a modern agricultural industry, which is continuing to diversify, a range of manufacturing and service sector industries and a significant public sector presence. The Ministry of Defence is a major employer and landholder in the District.

3.1.7 The most recent census for East Hampshire was conducted in 2001 by the Office of National Statistics. The results recorded a population for the district of 109,274, forming 43,625 individual households (ONS, 2009).

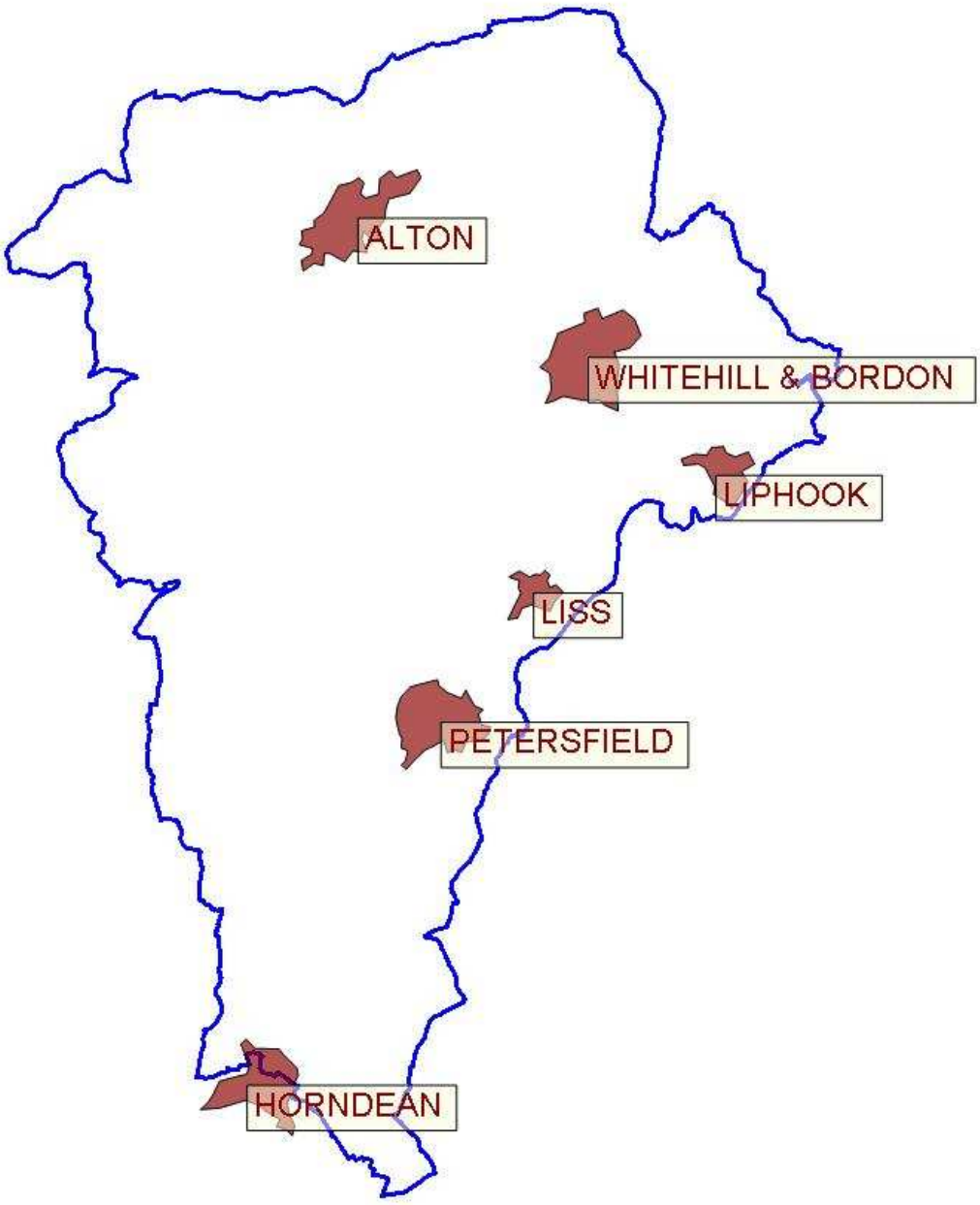

Figure 2 Outline of East Hampshire District with Major Towns and Villages

3.2 HISTORY OF EAST HAMPSHIRE

3.2.1 The current predominantly agricultural nature of the district has a long history as evidenced by the presence of prehistoric field systems and earth embankments. By the Iron Age (600 BC – c.AD 50) there was intensive cultivation. Pressure to hold land to supply a growing settled community created conflicts between groups and it is in this period that many Iron Age hill forts were constructed both as an early warning lookout and as a safe haven.

3.2.2 The Roman (c. AD 50 – c.AD 400) and Anglo–Saxon periods (c.AD 400 – c.AD 1086) are well represented archaeologically in the area. Many medieval (AD 1086 – c.AD 1500) settlements and villages are present. During this period further land was cleared of woods and new hamlets and villages formed. Some of these became deserted due to deterioration of climate, famine and disease in the 14th century.

3.2.3 The modern landscape reflects the geology and historic land use. On the chalk areas to the west are large open arable fields which have replaced sheep walks of earlier times. To the east around Alice Holt Wood, Liphook and Headley are commons and forest remnants associated with the clays and sands of the Weald. Groundwater, contained within chalk and greensand aquifers, is present throughout the vast majority of the district and is abstracted for both industry and personal consumption. In the middle of the nineteenth century the construction of railways made the north and east of the Hampshire district readily accessible from London resulting in the establishment of military camps such as Bordon and Longmoor camps. Military use and improved transport have resulted in a change in the appearance of the landscape over the last few centuries although in clay areas such as Chawton where transport has been relatively unimproved and the soils are poor, little has changed.

4.0 STRATEGIC APPROACH TO THE IDENTIFICATION OF CONTAMINATED LAND IN EAST HAMPSHIRE DISTRICT

4.1 INTRODUCTION

4.1.1 In undertaking its inspection duties under section 78B(1) of the Environmental Protection Act 1990, the local authority will adopt a strategic approach in the identification of potentially contaminated land, ensuring this approach is:-

- Rational, ordered and efficient;
- Proportionate to the seriousness of any actual or potential risk;
- Seeks to ensure the most urgent problems are located first;
- Ensuring that resources focus on areas where contaminated land will be identified;
- Ensuring that requirements are provided for the detailed inspection of contaminated land.

(DEFRA, 2006a)

4.1.2 In undertaking its duties to inspect the district, the Council will take into consideration the particular characteristics of the area, including:

- The extent to which any specified receptors are likely to be found in the district and the extent to which such receptors are likely to be exposed to any contaminant;

- The history, scale and nature of industrial or other potentially contaminative uses.

4.1.3 In particular, the strategy will focus on the following in the identification of contaminated land:-

- Receptors - the location of all existing human, ecological, controlled water, and property receptors within the district;

- Pollution pathways – the nature in which the contaminant may travel in the local environment, including geology, hydrogeology, hydrology and anthropogenic heterogeneities; and

- Potential sources of contamination.

4.1.4 Each of these may exist independently, but only create a risk when they combine together to form a pollutant linkage, such that a particular contaminant affects a particular receptor through a particular pathway.

4.1.5 Consideration will also be given to the existence of sites which if found to be contaminated land would be designated special sites (see Appendix III).

4.2 RECEPTORS

4.2.1 Land can only be considered contaminated if it impacts significantly on specified receptors. The list of the receptors relevant to contaminated land and their associated land types can be found in Table A of the DEFRA Circular 01/2006 and is listed in Appendix II of this strategy.

4.2.2 Human - The most recent population census from 2001 gives the population of the district as 109,274 (ONS, 2009). Over half of which are spread between the four main centres of Petersfield, Alton, Bordon/Whitehill and Horndean, the remainder distributed throughout villages and smaller settlements within the rural area. Human receptors may therefore be present to some extent at almost any location within the district. The potential for persons either living on or frequenting a potentially contaminated site will be considered as highest priority during the process of prioritising sites for further investigation. In all cases, the critical human receptor will be classed as a six year old female child.

4.2.3 Property - Buildings - All buildings and underground services (within the footprint of the building) are potential receptors and have been considered in every case where contamination and buildings exist.

4.2.4 Property - Ancient Monuments, Listed Buildings and Battlefields – Compiled by English Heritage, these sites have national interest and therefore the potential impact of contaminants fully considered.

4.2.5 Property - Agricultural Crops - Being a largely rural district it is possible that agricultural land could be affected where contamination is suspected. However, legislative controls are placed upon the supply, storage and waste disposal of fertilizers and applied sewage sludge under the ‘Control of Pesticides Regulations 1985 (amended 1997)’, ‘Food and Environment Protection Act 1985, Part III’, ‘Plant Protection Products (PPR) 1995 (amended 2005)’, ’PPR (Basic Conditions) 1997’ and the Sludge (Use in Agriculture) Regulations 1989, as amended 1990’. This combined with the regular visits from the Rural Payments Agency to ensure compliance with the legislation, means contamination on agricultural land is unlikely (see also CLAN 4-04)

4.2.6 Property - Timber Crops - There are several regions in the district growing timber. Crop failure as a result of contamination is, however, most unlikely except perhaps where trees have been planted on contaminated land as part of a remediation programme.

4.2.7 Property - Home Grown Produce - There are many acres of allotments within the district and these will all be identified and their potential for contamination

considered as a result of previous uses or activities. Similarly, any domestic gardens likely to be contaminated will be identified and assessed as a potential risk to the human receptor.

4.2.8 Property - Agricultural Livestock, Game and Other Owned Animals – Again being a largely rural area the presence of livestock in an area will not be specifically identified but taken into consideration as necessary.

4.2.9 Ecological Receptors - All ecological receptors have now been identified as part of the inspection strategy. Forty per cent of the district already lies within an Area of Outstanding Beauty (AONB). There are several specified sites including sixteen Sites of Special Scientific Interest (SSSi), four Special Areas of Conservation (SAC) and one Special Protected Area (SPA) (Table 1.0). Given the limited extent of known potential contamination sites in the districts protected areas, significant impact of contamination is unlikely, but all areas will be identified, examined and any risks carefully quantified with Natural England and the Environment Agency.

Table 1.0 SAC's and SSSI's in East Hampshire District

Site Name	Habitat/Wildlife Interest	Area (ha)	Other Information
Bentley Station Meadow (SSSI)	Unimproved acid grassland, scrub and ancient woodland	4.9	
Binswood (SSSI)	Unimproved acid wood pasture	62.1	Common Land.
Bramshott & Ludshott Commons (SSSI)	Heathland with ancient woodland fragments, supporting range of specialised heathland wildlife including smooth snake.	380.62	Common Land. Part of Wealden Heaths Phase II SPA.
Broxhead and Kingsley Commons (SSSI)	Heathland with woodland fragments supporting large range of specialised heathland wildlife including sand lizard and smooth snake.	104.8	LNR, Common Land. Part of Wealden Heaths Phase II SPA.
Butser Hill (SAC & SSSI)	Yew dominated woodland characteristic of type with restricted distribution in the British Isles. Includes areas of semi natural calcareous grasslands.	231.2	Part of Butser Hill SSSI is an NNR.
Catherington Down (SSSI)	Chalk grassland with a narrow fringing woodland.	12.12	LNR, mediaeval lynchet banks.
Coulters Dean (SSSI)	Small area of chalk grassland in the South Downs escarpment.	1.9	
East Hampshire Hangers (SAC)	Series of beech and lime woodland types located on the Upper Greensand scarp which are unusual in this part of southern England. These include the following SSSIs which are also listed in this table: • Coombe Wood & the Lythe SSSI • Noar Hill SSSI • Selbourne Common SSSI • Wealden Edge Hangers SSSI • Wick Wood & Worldham Hangers SSSI • Upper Greensand Hangers: Empshott to Hawkley SSSI • Upper Greensand Hangers: Wyck to Wheatley SSSI	519.2	

Site Name	Habitat/Wildlife Interest	Area (ha)	Other Information
Coombe Wood and the Lythe (SSSI)	Includes a series of 'hanger' woods on the Wealden upper greensand escarpment, includes beech and beech/ash woodland.	42.1	Part of East Hampshire Hangers SAC.
Noar Hill (SSSI)	A range of chalk vegetation seral stages from chalk grassland, through invasive mixed scrub to mature beech woodland.	70.2	Part of East Hampshire Hangers SAC
Selborne Common (SSSI)	Beech dominated woodland on chalk scarp grading to mixed plateau woodland with relict open grassland.	100.8	Common land. Part of East Hampshire Hangers SAC.
Shortheath Common (SAC & SSSI)	Range of heathland habitiats, acid grassland and valley river. Rich invertebrate fauna.	58.0	MoD, common land.
Upper Greensand Hangers: Empshott to Hawkley (SSSI)	A series of steep, rocky woodlands on the escarpment along the western edge of the Weald.	37.8	Part of East Hampshire Hangers SAC.
Upper Greensand Hangers: Wyck to Wheatley (SSSI)	A series of steep, rocky woodlands on the escarpment along the western edge of the Weald.	12.7	Part of East Hampshire Hangers SAC.
Wealden Edge Hangers (SSSI)	Series of chalk woodlands on the easterly facing escarpment of the Hampshire chalk plateau. Includes a range of woodland types including yew, yew/beech, beech/ash, beech/wych elm/field/maple and oak/hazel.	210.7	Part of Wealden Edge Hangers SSSI is an NNR. Forms part of East Hampshire Hangers SAC
Wick Wood & Worldham Hangers (SSSI)	Series of ancient woodland community types including ash/wych elm associated with the Upper Greensand.	98.4	Part of East Hampshire Hangers SAC.
Woolmer Forest (SAC & SSSI)	Large track of acid heath mixed woodland, valley mires, and dystrophic lake. Last southern population of Natterjack toad.	1,294	MoD. Part of Wealden Heaths Phase II SPA.
Wealden Heaths Phase II (SPA)	Broad-leaved, mixed and yew woodland; dwarf shrub heath and acid grassland.	2,056	

4.2.10 Water, Aquifers – Occupying approximately eighty two per cent of the area of the district lies a principal aquifer of high vulnerability, stretching from between the Parishes of Bentley in the north through to Rowlands Castle in the south. The remainder of the district is classified as either a secondary aquifer area with high permeability, or a non-aquifer area with negligible permeability. All aquifers will be specifically identified with their location, depth and vulnerability according to cover. Potential risks from identified sources of contamination will be considered carefully with the Environment Agency, paying particular attention to the protection of source protection zones (SPZ).

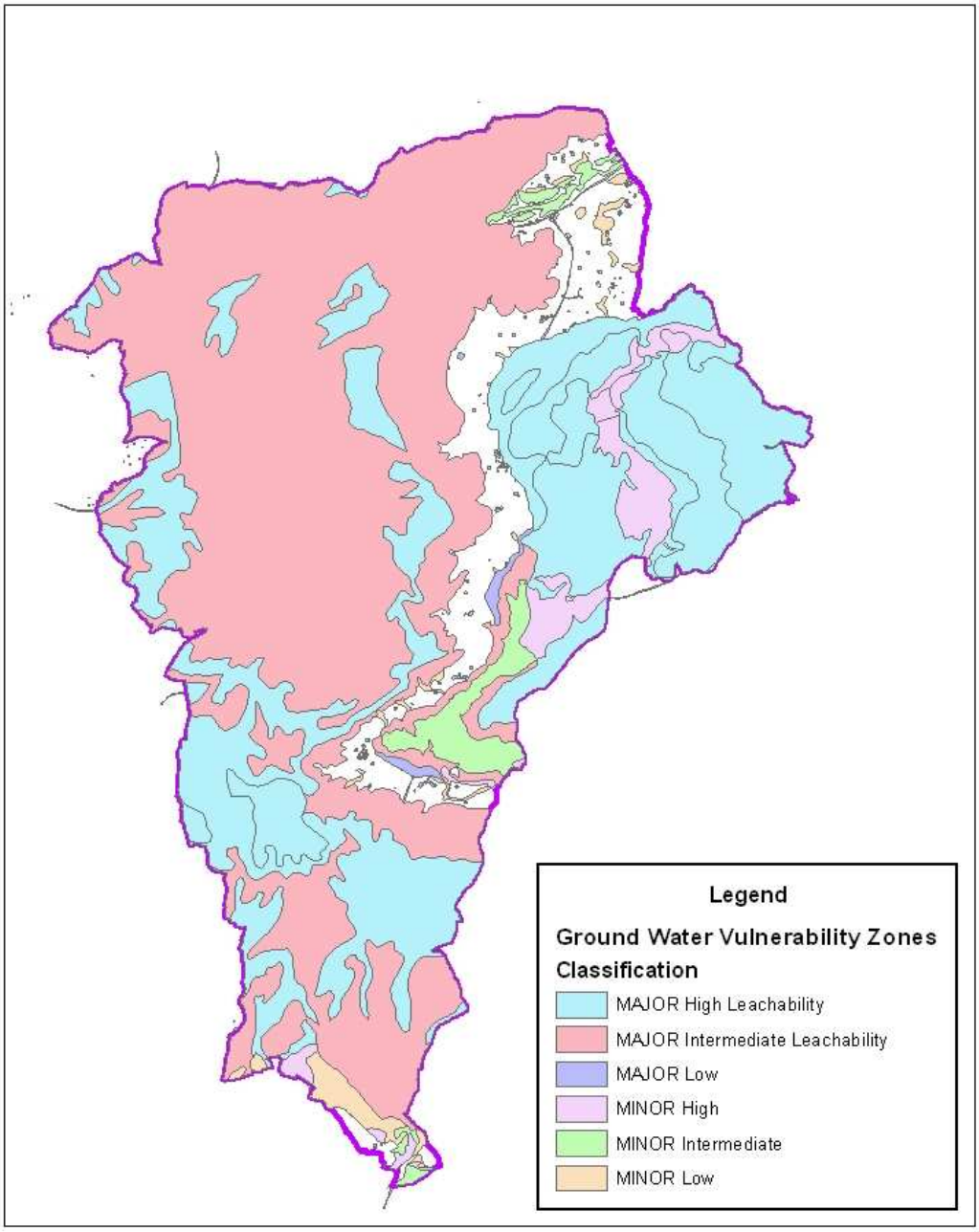

Figure 3 Groundwater Vulnerability Zones for East Hampshire Distict

4.2.11 Water, Public Water Supplies - The district is served by a number of different water companies who regularly sample the quality of the water from known abstraction points. All public water supply abstraction points will be identified with their location, depth, strata/surface water supply they draw from and volume of supply.

4.2.12 Water, Private Water Supplies - There are fifty-five identified private water supplies in the district, drawn from thirty four boreholes, sixteen wells, three springs and two reservoirs. Protection of these supplies is particularly important, due to the heavy reliance paid on them by local communities and the influence of external environmental

forces such as rainfall impacting on sediment load in run off. The Council already monitors these as part of its duties under the European Council Directive 98/83/EC (1998) which superseded the former Water Industry Act 1991 Part II and Private Water Supplies Regulations 1991.

4.2.13 Water, Other Authorised Abstraction Points - All authorised abstraction points will be identified such as those used for agricultural or recreational use.

4.2.14 Water, Other Specified Receptors - All other water receptors such as rivers, streams, tributaries, reservoirs, lakes etc will be identified as part of the inspection strategy.

4.3 POLLUTION PATHWAYS

4.3.1 A pollution pathway is defined as a route or means by which a receptor can be exposed to, or affected by, a contaminant (Environment Agency, 2004). The main pathways are listed in Table 2.0, below.

Table 2.0 Pollution pathways

Receptor	Typical Pathway	Contaminant
Human	Dermal contact with soil and household dust	Heavy Metals
	Ingestion of soil and household dust	Heavy Metals
	Ingestion of vegetables and soil attached to vegetables	Heavy Metals
	Inhalation of indoor vapours and household dust	Solvents
	Inhalation of outdoor vapours and fugitive dust	Solvents
Surface	Vegetable uptake	Heavy Metals
Sub-surface	Migration of liquids and vapours through the vadose zone via fractures/fissures in geology	Dense non-aqueous phase liquids (DNAPL's)
	Migration of liquids and vapours through the saturated zone (groundwater)	Low-density non-aqueous phase liquids (LNAPL's)

4.3.2 Within the vadose zone (unsaturated zone), contaminants may migrate vertically to the groundwater or laterally to adjacent receptors, such as lagoons and farmland. More dense contaminants may enter the saturated zone, migrating along the base of the aquifer, dissolving slowly and contaminating the groundwater.

4.3.3 Pathways will also be considered on a site specific basis. For example contaminants present in a built up area may become transported through preferential flow paths, such as existing drainage systems, from surface runoff, or from direct contact with buildings. Contaminants, like poly-aromatic hydrocarbons (PAH's) that contact plastic pipes may penetrate through the pipes resulting in tainted drinking water.

4.3.4 East Hampshire district has more than fifty private water supplies which utilise groundwater as its source. The strategy will therefore ensure that such areas are identified, as on-site water supplies may become contaminated through agricultural practices, such as the keeping of livestock and pesticide use, which may use the ground as a preferential pathway contaminating groundwater supplies and consequently affecting drinking water, or by dermal contact through contaminated water used for showers and washing.

4.4 POTENTIAL SOURCES OF CONTAMINATION

4.4.1 Industrial History - A comprehensive list of potentially contaminative uses is listed in Appendix VII. These sites have been identified, in part, from digitised historical maps dating back to the middle of the nineteenth century and use of the Council's archives which have helped to supplement this data source. A lot of past local industry will still be within recent memory so local knowledge will be important. To aid this process all the Town and Parish Council's have been consulted and returned information recorded.

4.4.2 Current Industry - The present industrial areas of the District are potential sources of contamination and these will be inspected in accordance with the statutory guidance to establish whether there is a potential for contamination to exist and, if so, whether it is controlled by another agency or covered under IPPC regulations (see 4.4.3 and 4.4.4 below).

4.4.3 Pollution Prevention and Control Act 1999 - This includes Council controlled 'Part B' processes authorised for emissions to air. These processes range from cement, coatings, foundry and timber processes, to petroleum, incineration and combustion. Many of these processes have the potential to pollute the land, but there are no other statutory methods of control. There are currently thirty-nine installations permitted by the Council within the District (See Appendix VIII).

4.4.4 Pollution Prevention and Control Act 1999 - This includes permitted 'Part A' installations controlled under the Environmental Permitting Regulations 2007, overseen by the Environment Agency. This new regime should control unauthorised discharges to land but their presence will need to be noted and the potential for long term pollution assessed, particularly post closure. There are currently four A1 installations permitted by the Environment Agency and one A2 installation permitted by the Council within the District (See Appendix VIII).

4.4.5 Hazardous Substances Regulations

- **Planning (Hazardous Substances) Regulations 1992 (Amended 2005) –** This legislation requires consent to allow the presence on land of hazardous substances above a specified quantity. These regulations were recently amended by the Planning (Control of Major-Accident Hazards) Regulations 1999 (SI 981) to implement the requirements of the EU Directive (96/82/EC) that land use policies must take major hazard sites into account when siting new residential areas or locating new hazardous installations. A register is maintained for this purpose by the Planning Officer.

- **Control of Major-Accident Hazards (COMAH) Sites -** The Control of Major Accident Hazards Regulations 1999 (SI 743) are enforced by the Environment Agency and Health & Safety Executive (joint competent authority) to control both on and off site risks from industries with a high potential for disaster from dangerous substances (flammable, toxic or explosive).

- **NIHHS Sites -** It should be noted that all sites notified to the HSE under the Notification of Installations Handling Hazardous Substances Regulations 1982, as well as COMAH sites, will be held on the Hazardous Substances Register, so there should be no need to consult with the HSE on their location.

- **Explosives -** These are not directly covered by the Hazardous Substances Regulations 1982, but the manufacture of all explosives and the storage of explosives (two tonnes and above), are controlled by the Health & Safety Executive under licences issued under the Manufacture and Storage of Explosives Regulations 2005. Below two tonnes the same regulations stipulate the Local Authority as the appropriate regulatory body. In this case the Local Authority is Hampshire County Council.

Currently there are no COMAH, NIHHS sites, or sites regulated under the Hazardous Substances Regulations sites in East Hampshire district.

4.4.6 Current Landfill and Waste Processing Sites - Licensed by the Environment Agency under the provisions of Part II of the Environmental Protection Act 1990, the Council will maintain regular communication with the Agency should any potential contamination issue arise. Locations of all such sites are kept on record by the Council and this information is periodically updated from the Environment Agency. Currently, within the district, there are four active landfill sites, two of which have a listed status as 'Closure and Aftercare'. In addition, there are currently twenty-six sites with waste management licences operating within the district.

4.4.7 Historic Landfill Sites - Historic landfill sites are a potentially significant source of risk, most notably from the production of leachate, leading to the contamination of groundwater, and the migration of methane and carbon dioxide gases. Of particular concern are old landfill sites operational prior to the licensing requirements of the Control of Pollution Act 1974. East Hampshire District Council has identified all forty-nine closed and historic landfills in the district. Where some of these closed landfills retain their waste management license they remain the responsibility of the Environment Agency and will not be inspected under Part2A legislation.

4.4.8 Sewage Works and Land Used for the Disposal of Sewage Sludge – Land dedicated for the disposal of sewage sludge is notified to the Environment Agency under the Sludge (Use in Agriculture) Regulations 1989 (SI 1263) (As amended) and the Code of Practice, 1996. This legislation is designed to prevent the accumulation of hazardous concentrations of heavy metals and bacteriological contamination in soil, so minimising risk to animal and human health. This land, together with all operating and historic sewage works will be identified and assessed.

4.4.9 Mines and Minerals Extraction - The geology of the area has resulted in large areas used for the extraction of minerals, particularly ironstone and chalk limestone. Subsequently, many of the resulting quarries have been backfilled with refuse or other materials. These can present a particular risk to controlled water receptors, as well as

human receptors where the build of residential developments predate the implementation of more recent environmental legislation. All past quarrying sites have now being identified and will be assessed for the risk they present.

4.4.10 Waste or Derelict Land - Often owned by the utilities, railways or local authorities, waste and derelict land can be left seemingly abandoned because it has no particular use or is difficult to access. These areas can accumulate unwanted materials and can be used to dispose of wastes and effluents illegally. Such sites will be identified in accordance with the statutory guidance.

4.4.11 Ministry of Defence Land - There are three areas within the district still occupied by Defence Agencies. These include Bordon, Liss and Lasham. There is currently a planned withdrawal of the MoD from Bordon over the next few years. The potential for contamination from these areas could be significant therefore, and in association with the Environment Agency, these areas will be investigated, as required and in accordance with the statutory guidance.

4.4.12 Previously Developed Contaminated Sites - The inspection of the district will identify many potentially contaminated sites which have been developed over the years. In some cases the methods and extent of remediation may be unknown, in others it may be known but the remediation suspected of being inadequate. Again, such sites will be identified in accordance with the statutory guidance.

4.4.13 As mentioned above, a more comprehensive list of previous uses considered potentially contaminative are listed in Appendix VII. Any site with the potential to cause pollution will be identified at the **Preliminary Assessment** stage.

5.0 IDENTIFICATION OF POTENTIALLY CONTAMINATED SITES AND THEIR PRIORITISATION ACCORDING TO RISK

5.1 INTRODUCTION

5.1.1 Before land can be determined as contaminated by definition a, significant pollutant linkage, must be identified. Unless all three elements of a pollutant linkage are identified land can not be considered contaminated (see section 2.4 and Fig.1). It is important to fully understand this concept as it will form the basis for the prioritisation process and future site investigations.

5.1.2 If, for example, an area of land is known to be badly affected with potentially dangerous contaminants, it will not be considered of the highest priority if studies confirm there are no specified receptors within the area of influence. If there are receptors evident, the risk assessment process will seek to determine the likelihood of them coming together at any time. If the chances of this are judged as, significant, and the consequences would likely result in, significant harm, or pollution of controlled waters, then a significant pollutant linkage will be said to exist and the land will be determined as contaminated land by definition.

5.1.3 Given the lack of scientific information about many contaminants and the site specific nature of risk, it will be the requirement of the local authority to assess the risk posed on individual sites and decide whether, in their opinion the risk represents ‘significant possibility of significant harm’ (SPOSH) (DEFRA, 2008)

5.1.4 In summary, for contaminated land to exist the following are pre-requisites:

- One or more contaminant substances;
- One or more specified receptors;
- At least one plausible pathway between contaminant and receptor, thus establishing a pollutant linkage;
- A good chance that the pollutant linkage will result in significant harm to one or more specified receptors, or, pollution of controlled waters.

No assessment should be undertaken unless both contaminants and receptors are suspected or confirmed. Where there is doubt the situation will be kept under review.

5.2 IDENTIFICATION OF POTENTIALLY CONTAMINATED LAND

5.2.1 The identification of contaminated land should be carried out in an ordered, rational and efficient manner, based firmly on the principles of risk assessment. This should commence with the consideration of land within the whole district utilising sources of information from Council archives, the Environment Agency and other external organisations on the locations of potential sources of contamination.

5.2.2 Collation of geographical information has been incorporated into the contaminated land GIS system, Datamap 4.1. Prior to starting the risk assessment process the GIS will be used to store geographical locations within the district of all potentially contaminative areas, receptor sites and environmental variables, such geology, hydrology and hydrogeology, which may act as pollution pathway mechanisms. This information will also form the basis of the site prioritisation tool, ConSEPT (Contaminated land Site Evaluation and Prioritisation Tool), which will be developed for use for both the **Prioritisation** and **Phase I Risk Assessment** process, as well as ensuring that the process of site investigation is both systematic and consistent.

5.2.3 Data capture will be an ongoing process with new potentially contaminated land being added to the GIS on a regular basis.

5.2.3 A separate database will be used to record the following information regarding each site investigated:-

- Site description;
- Risk assessment;
- Current and historic land use;
- Interested parties;
- Analyses of results from site investigations;
- Receptor and pathway details;
- Determinations;
- Consultations;
- Notices;
- Appeals; and
- Remediation details.

5.3 PRIORITISATION PROCESS

5.3.1 Potentially contaminated land shall, prior to detailed investigation, be listed and categorised according to a **Preliminary Assessment** of risk. This is to ensure all further investigative work relates directly to seriousness of the potential risk and therefore the most pressing problems are identified and quantified first.

5.3.2 This prioritisation process will thus enable the Council to advance from consideration of land within the whole district to a position where sites can be investigated individually based on the seriousness of contamination.

5.3.3 The prioritisation process will contribute to the overall aim of the strategy in meeting the legal requirements set out in the Environmental Protection Act 1990: Part 2A and in the inspection duties of Local Authorities listed in Chapter B (B.9 to B.10) of the Statutory Guidance (2006).

5.3.4 Initially, consideration was given to the use of the method described in the DoE Contaminated Land Research Report 6, entitled, 'Prioritisation & Categorisation Procedure for sites which may be Contaminated' CLR 6 (DoE, 1995). However, the simplicity of the scoring system gave three causes for concern:-

- The contaminant, receptor, pathway (CRP) scoring system does not factor in environmental variables which determine the level of risk at each site;

- The CRP scoring system employed for evaluating each site therefore resulted in a subjective assessment; also

- Initial use of the CRP system resulted in many sites within the highest category without any robust science to justify assessment.

5.3.5 Consideration was given to other prioritisation tools offered by several different consultants, but it was felt that none of the software options provided the scientific detail required to accurately assess the contamination potential of historic industrial land use, originally identified from historic maps and information obtained from local Parishes.

5.3.6 As a result, the Council opted for using the software Contaminated Site Evaluation and Prioritisation Tool (ConSEPT), developed by the British Geological Survey. The application of which is shown diagrammatically in Appendix IX.

ConSEPT

5.3.7 Specifically designed to help Local Authorities meet the requirements of Part 2a of the Environmental Protection Act 1990, ConSEPT utilises: historical and present day land use data; geological, hydrogeological and hydrological data; and mapped critical receptors from OS MasterMap, all constructed for use within an ArcMap v.9.3 GIS environment and based on the source-pathway-receptor approach to contaminated land.

5.3.8 Access to ConSEPT's database allows scoring of sources, pathways and receptors for each potentially contaminated site to establish evaluation of potential pollutant linkages, which in turn allows for site prioritisation. In addition to the use of relevant scientific and geographic data, further benefits of use include its ease of

operation and the flexibility to incorporate at any stage additional local knowledge to further enhance the prioritisation process.

5.3.9 Where additional potentially contaminated land information is added to the GIS as a new site, ConSEPT will be rerun to prioritise the site accordingly.

5.3.10 Sites scrutinized using ConSEPT will be graded from ‘A’ to ‘E’, with grade ‘A’ sites having the highest priority for investigation. Potentially significant and imminent risks to human health will always be given priority over all other receptors (see section 4.2 for list of potential receptors).

5.3.11 Where additional evidence exists of an unacceptable and significant risk to the human receptor, on or near a site, action will be taken immediately without reference to this prioritisation procedure.

SUMMARY
5.3.12 The strategy for identification will therefore be based on a desk top survey of the District to identify areas of land where:-

- Previous uses indicate contamination may exist;
- There is no existing pollution control regime in place;
- There are known receptors within a determined area of influence

5.3.13 It must be understood that the assessments at the **Preliminary Assessment** stage are made on a limited amount of incomplete basic data and information, such as old surveys, maps, geological information etc. As more knowledge of the site is obtained, these assessments will be revised and their Priority Category may change. The assessment of a site as Priority Category ‘A’ does not necessarily infer the existence of a significant risk to one of the specified receptors, but it does identify the need for priority assessment of risk potential.

6.0 THE RISK ASSESSMENT

6.1 INTRODUCTION

6.1.1 The Council has the sole responsibility for determining whether any land appears to be contaminated land, it can not delegate this responsibility. This applies even where the Environment Agency has carried out an investigation on behalf of the Council (see 6.5 below).

6.1.2 Once the Council becomes aware of the possible existence of a pollutant linkage they must, in accordance with their prioritisation procedure, commence the risk assessment process.

6.1.3 Contaminated land (see definition in s.2.4.1) is based on the principles of risk assessment defined as the combination of:

- the magnitude of the consequences; and

- the probability, or frequency, of occurrence of a defined hazard.

6.1.4 The classifications used for consequence and probability are themselves derived from 'Contaminated land risk assessment. A guide to good practice' (CIRIA, 2001), and developed initially by the Department of the Environment in their 'Guide to Risk Assessment and Risk Management for Environmental Protection' (DoE, 1995).

6.1.5 Definitions are listed in Appendix X and the resulting matrix and descriptions for each level of risk is given in Tables 3 and 4 below.

Table 3 Comparison of Consequence Against Probability

		Consequence			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**High Likelihood**	Very High Risk	High Risk	Moderate Risk	Moderate/ Low Risk
	Likely	High Risk	Moderate Risk	Moderate/ Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate/ Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate/ Low Risk	Low Risk	Very Low Risk	Very Low Risk

Table 4 Description of the Classified Risks and Likely Action Required

Very High Risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, or, there is evidence that severe harm to a designated receptor is currently happening. This risk is likely to result in a substantial liability. Urgent investigation and remediation is likely to be required.
High Risk	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present substantial liability. Urgent investigation is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate Risk	It is possible that without appropriate remedial action, harm could arise to a designated receptor but it is relatively unlikely that any such harm would be severe & if any harm were to occur it is more likely that such harm would be relatively mild.
Low Risk	It is possible that harm could arise to a designated receptor from an identified hazard but it is likely that this harm, if realised, would at worst normally be mild.
Negligible Risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

6.1.6 The risk assessment process will evaluate the potential for land to have become contaminated from current and/or historical land use types, which potential contaminant pathways may be present and the potential impact on sensitive receptors.

6.1.7 Those sites assessed as Very High Risk or High Risk would be the priority sites for detailed assessment.

6.1.8 As stated at Section 4.7 at the time that a site has been identified as Very High Risk or High Risk, EHDC may consider the need for the employment of external consultants to review any existing site assessment work and /or undertake site assessment. A list of approved consultants will be held at EHDC offices, which can be referenced and the tendering process undertaken as appropriate.

6.2 APPLICATION OF THE DEFINITION OF CONTAMINATED LAND

6.2.1 There are two steps in applying the definition of contaminated land:

Step One: ***The Council must satisfy itself that there exists the possibility of at least one pollutant linkage.***

For the purposes of the strategy this is termed a **Phase I Risk Assessment.**

6.2.2 The contaminant(s) must have the potential to have a defined detrimental impact on the receptor(s) and the pathway has to be plausible. It is not necessary for direct observation of the pathway but if a reasonable scientific assessment suggest the two could come together then a pollutant linkage is said to exist and the authority must proceed to step two:

Step Two: ***A more detailed investigation must be undertaken to confirm that the pollutant linkage identified is:***

- Resulting in significant harm (or the significant possibility of such harm) being caused to the receptor(s), or

- Resulting in (or likely to result in) the pollution of controlled waters.

If either of these become confirmed then the pollutant linkage becomes, ‘significant’ and the land is designated contaminated land by definition. For the purposes of the strategy this is termed a **Phase II Risk Assessment.**

6.2.3 The detailed investigation of contaminated land is invariably a very time consuming and expensive process, therefore it must be emphasised that all investigations will be carried out on an incremental basis and terminated immediately it is clear that no significant pollutant linkage exists.

6.2.4 Similarly where one significant pollutant linkage has been identified and others are suspected, it will generally be the case that the Council will cease their investigation at this stage and determine the land contaminated. Further investigations evaluating other possible pollutant linkages should then continue until the investigation is complete. Where more than one pollutant linkage has been identified, these should be examined individually as it is possible that a different liability group may be responsible for each separate pollutant linkage (see also section 8.1).

6.2.5 In cases where imminent risk of serious harm or serious pollution of controlled waters has been confirmed, the Council will authorise urgent action in accordance with section 8.3 of this strategy.

6.2.6 As has been explained in the introduction to this strategy, the suggestion that land may be contaminated can have a significant impact on the way others view it, and

in particular, it's perceived value. The Council will therefore seek to obtain as much information as possible about a suspected site without causing unnecessary alarm. This may involve detailed inspection of historical data in its possession such as Planning and Building Control files. Also the consultation of others who may possess information such as:

- The Environment Agency
- The Health & Safety Executive
- Developers
- Previous occupiers, *inter alia*.

Details of several sources of information are listed in section 4.4 above.

6.2.7 Once sufficient information has been obtained which confirms a pollutant linkage does not exist, or, if it does, it is not significant, then the investigation will cease and no further action will be taken. It may be, however, that circumstances will be identified whereby a significant pollutant linkage could occur at some time in the future. Then arrangements will be made to keep the situation under review.

6.3 INSPECTION OF LAND

6.3.1 All inspections will be undertaken in accordance with the Statutory Guidance (DEFRA, 2006).

6.3.2 Where evaluation of all available data suggests a significant pollutant linkage may exist, it may be necessary to visit the site and carry out some form of on site testing, or take away samples for analysis. In every case this will be carried out by a, 'suitable person', adequately qualified to undertake the work (see Appendix VI). The utmost discretion will be used at all times to minimise the effect on occupiers of the land.

6.3.3 Intrusive investigations will be carried out in accordance with appropriate technical procedures to ensure:

- They are effective;
- Do not cause any unnecessary damage or harm; and
- Do not cause pollution of controlled waters.

6.3.4 To ensure the most appropriate technical procedures are employed the Council will have regard to the most up to date guidance available.

6.3.5 To aid the Council during the site investigation risk assessment process and to ensure the same relevant information is collected at each site, a checklist for conducting site walkovers will be used (see Appendix XI).

6.3.6 In certain circumstances information may be required on an operational site. Information collated will differ from that collected during a site walkover where there is evidence of an historical industrial land use. To ensure consistency with data collection a checklist relating to operational sites will be used (see Appendix XIII).

6.4 POWERS OF ENTRY

6.4.1 Statutory powers of entry are conferred on the Council to enable it to carry out its functions under Part 2A. These are also considered in Appendix VI. There are no circumstances, in which the Council will use these powers to obtain information about the condition of land, where:

- It can obtain the information from third parties without the need for entering the site; or

- A person offers to provide the information within a reasonable and specified time, and does so.

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6.5 LAND WHICH MAY BE A SPECIAL SITE

6.5.1 Where the Council are aware that land it intends to investigate would, if determine contaminated land, be a special site, it will notify the Environment Agency in writing requesting that the Environment Agency carry out the inspection of the site on the Council's behalf (See also Appendix III).

6.5.2 Where the Environment Agency (or their agents) wish to carry out formal investigation on behalf of the Council their officers will need to be appointed as 'suitable persons', in accordance with Appendix VI. The Environment Agency does not have the power under Part 2A to investigate land which may be contaminated land without the authorisation of the Council. In such circumstances the Council will grant the Environment Agency powers of entry for sites they are inspecting on their behalf.

6.6 WHERE THE SIGNIFICANCE OF A POLLUTANT LINKAGE CAN NOT BE ADEQUATELY DETERMINED

6.6.1 Situations may arise where, on the information available, it is not possible to determine whether a pollutant linkage is significant in accordance with the statutory guidance. In such case the Council will determine that, on the balance of probabilities, it would seem the land does not fall within the statutory definition of contaminated land, but the situation will be kept under review and reopened at any time new information becomes available.

6.6.2 Similarly, inspection may identify contamination that would form a significant pollutant linkage should new receptors be introduced. In such circumstances this information will be carefully recorded and the site monitored where the introduction of relevant new receptors seems likely. Should such a site be identified for future development the information obtained during the investigation will be made available to the planning officer and the developer.

7.0 DETERMINING CONTAMINATED LAND

7.1 INTRODUCTION

7.1.1 There are four possible grounds for determining land contaminated:

- Significant harm is being caused;

- There is a significant possibility of significant harm being caused;
- Pollution of controlled waters is being caused;
- Pollution of controlled waters is likely to be caused.

7.1.2 In making any determination the Council will take all relevant information into account, carry out appropriate scientific assessments, and act in accordance with the statutory guidance. The determination will identify all three elements of the pollutant linkage and explain their significance.

7.1.3 In an attempt to ensure the situation can be understood as widely as possible, a simple conceptual model (initially in diagrammatic form) will be produced for all relevant pollutant linkages. An example of a conceptual model is produced in Appendix XI.

7.2 WRITTEN RECORD OF DETERMINATION AND FORMAL NOTIFICATION

7.2.1 Once an area of land has been determined contaminated by statutory definition, the Council will prepare a written record to include:

- a description of the pollutant linkage(s) confirmed, including simple conceptual model;

- a summary of the evidence which confirms the existence of the pollutant linkage(s);

- a summary of the risk assessment(s) upon which the pollutant linkage(s) were considered to be significant;

- a summary of the way the requirements of the statutory guidance were satisfied;

- identification of appropriate persons (as defined in section 8.1.2), liable for the cost of remediation.

7.2.2 The Council will then formally notify in writing all relevant parties that the land has been determined contaminated. These will include:

- the owner(s);
- the occupier(s);
- those liable for remediation (‘appropriate persons’ in the guidance);
- the Environment Agency.

7.2.3 At the notification stage it may not be possible to identify all the relevant parties, particularly the appropriate persons. The Council will, however, act on the best information available to it at this time and keep the situation continually under review as more information comes to light.

7.3 SPECIAL SITES

7.3.1 If the Council are of the opinion that the contaminated land is a special site (see Appendix III) it will inform the Environment Agency of that decision also. The Agency will then consider whether it agrees that the land should form a special site. If it does not agree it will notify the Council and the Secretary of State within 21 days with a

comprehensive statement explaining its reasons. The Council will then refer the decision to the Secretary of State.

7.3.2 If the Environment Agency agrees with Council, or it fails to notify the Council it disagrees within 21 days, the land will be designated a special site. The responsibility for securing remediation then passes to the Environment Agency, though the Council must complete the formal notification process.

7.4 VOLUNTARY REMEDIATION

7.4.1 The legislation and statutory guidance has been designed to try to encourage voluntary remediation (without the need for enforcement action). The formal notification procedure commences the process of consultation on what remediation might be most appropriate. To aid this process the Council will therefore provide as much information to the relevant parties as possible, including where available:

- a copy of the written record of determination;
- copies of site investigation reports (or details of their availability);
- an explanation of why the appropriate persons have been chosen as such;
- details of all other parties notified.

7.4.2 The appropriate persons will also be provided with written explanations of the test for exclusion and apportionment.

7.4.3 It may be at this stage that the Council will need further information on the condition of the site to identify whether any additional significant pollutant linkages exist. If that is the case an informal attempt will be made to obtain this information from the appropriate persons already identified.

8.0 LIABILITY, ENFORCEMENT AND REMEDIATION

8.1 LIABILITY

8.1.1 Land may be determined contaminated upon the identification of only one significant pollutant linkage. Full liability can not therefore be determined until all significant pollutant linkages on the site have been identified. When all significant pollutant linkages have been identified the procedure relating to the apportionment of liability must commence. This has five distinct stages as follows:

1. Identifying potential appropriate persons and liability groups
2. Characterising remediation actions
3. Attributing responsibility to liability groups
4. Excluding members of liability groups
5. Apportioning liability between members of a liability group

8.1.2 These procedures are complex and cumbersome. The process commences with the establishment of liability groups. All appropriate persons for any one linkage are a, ‘liability group’. These may be class ‘A’ or class ‘B’ persons.

APPROPRIATE PERSONS - Class 'A' - These are, generally speaking the polluters, but also included are persons who, "knowingly permit". This includes developers who leave contamination on a site which subsequently results in the land being determined contaminated.

APPROPRIATE PERSONS - Class 'B' - Where no class 'A' persons can be found liability reverts to the owner or the occupier. These are known as class 'B' persons.

8.1.3 The Council will make all reasonable enquiries to identify class 'A' persons before liability reverts to innocent owner occupiers.

8.1.4 The matter of appropriate persons must be considered for each significant pollutant linkage. Therefore where a site has had a series of contaminative uses over the years, each significant pollutant linkage will be identified separately and liability considered for each.

8.1.5 If the Council cannot find any Class A or Class B persons in respect of identified significant pollutant linkages, no liability will be assigned and any such linkage will be treated as an 'Orphan Linkage'. Under these circumstances the Council will bear the cost of any remediation.

Apportionment Of Costs

8.1.6 Generally speaking the members of a liability group will have the total costs falling on the group as a whole apportioned between them. It may also be necessary to apportion costs between liability groups. There are three basic principles which apply to exclusion and apportionment tests:

1. The financial circumstances of those concerned have no relevance;

2. The Council must consult persons affected to obtain information (on a reasonable basis having regard to the cost). If someone is seeking to establish an exclusion or influence an apportionment to their benefit then the burden of providing the Council supporting information lies with them;

3. Where there are agreements between appropriate persons the local authority has to give effect to these agreements.

Limitation On Costs To Be Born By Appropriate Persons

8.1.7 – There are six tests specified to identify Class 'A' groups who should be excluded from liability. These will be applied in sequence and separately for each pollutant linkage. The exclusion of Class 'B' persons is much less complex. The single test merely excludes those who do not have an interest in the capital value of the land. Tenants therefore are excluded.

8.1.8 When the Council has apportioned the costs of each remediation action and before serving remediation notices, it will consider whether any of those liable may not be able to afford it. If, after taking into consideration the statutory guidance it decides that one or more of the parties could not, it will not serve a remediation notice on any of the parties. The Council will instead, consider carrying out the work itself and produce and publish a remediation statement.

8.2 REMEDIATION

8.2.1 Before remediation notices are served the extensive consultation process will be completed and ample encouragement given to arrive at an informal solution. The Council will do all in its power to consult the appropriate person(s), owners, occupiers etc about their views on the state of the land. This could be a difficult and most protracted process and cause delays. Where a housing estate is affected for example, it would be reasonable to expect house owners, land owners, developers, lenders, insurers, surveyors, geotechnical engineers, residents groups, etc all to have differing views according to their position.

8.2.2 Remediation notices are served only as a last resort (not withstanding urgent cases), and then only after this lengthy consultation process has been exhausted. Notices will be authorised after two tests are satisfied:

- That the remediation actions will not be carried out otherwise;
- That the Council has no power to carry out the work itself (see Section 8.2.6)

8.2.3 If these are met the Council will serve a remediation notice on each appropriate person. **It can not be served less than three months after formal notification that the land is contaminated unless the urgent action is deemed necessary** (where there is imminent risk of serious harm).

Specifying Remediation

8.2.4 The Head of Environmental Health Services, will specify what remediation measures are to be carried out in the remediation notice. These will be both appropriate and cost effective employing what the statutory guidance terms, 'best practicable techniques'. The aim of the remediation will be to ensure that the land is no longer contaminated, taking the shortest and lowest cost route. This means in most cases attention will be focussed on the pathway, rather than the contaminant or receptor.

8.2.5 The 'reasonableness' of the requirements are, however, paramount, a concept which is considered at some length in the guidance (section 6). It is determined in relation to the cost of carrying out the remediation against the cost of failing to (i.e. the costs, or potential costs, resulting from the continuing pollution).

Remediation By The Local Authority

8.2.6 Before the Council can serve a remediation notice it will first determine whether it has the power to carry out any of the remediation actions itself. There are five specified circumstances where this may be the case:

1. Where urgent action is required (see below);
2. Where there is no appropriate person or no appropriate person can be found;
3. Where one or more appropriate persons are excluded on grounds of hardship (see below);
4. Where the local authority has made an agreement with the appropriate person(s) that it should carry out the remediation;

5. In default of a remediation notice.

Appeals Against Remediation Notices

8.2.7 Remediation notices will include information on the right to appeal against them.

8.2.8 Any appeal should be made within twenty-one days of receiving the remediation notice, in accordance with section 78L(1) of Part2A of the EPA 1990.

8.2.9 Once an appeal is received the remediation notice will become suspended until either the appeal has been finally determined or the appeal has been withdrawn.

8.2.10 Under Regulation 8 of the 2006 Contaminated Land Regulations appeals against remediation notices are no longer received by a magistrates' court. Rather, Regulation 8 (revised for the 2006 regulations) instructs that all appeals should be made to the Secretary of State for the Environment, Food and Rural affairs. The appellant must at the same time serve a copy of the notice on:

- The local authority;
- Any other appropriate person named in the remediation notice;
- Any person who is named in the appeal as an Appropriate Person (Section 8.1.2);
- Any person named in the appeal as the owner or occupier of the land

8.2.11 Full details on the procedure for appeals against remediation notices can be found in Annex 4 to the DEFRA Circular 01/2006 Contaminated Land.

8.3 URGENT ACTION

8.3.1 Where it appears to the Council that urgent action is required it will first determine if the pollution falls within the Contaminated Land regime, or the Environmental Damage Regulations (2009), introduced 1st March 2009. For pollution caused after the 1st March 2009, such events should be dealt with by the Environmental Damage Regulations.

8.3.2 For pollution caused prior to 1st march 2009, urgent action must be authorised where the Council is satisfied that there is imminent danger of serious harm or serious pollution of controlled waters being caused as a result of contaminated land. In such circumstances the procedures identified in the statutory guidance will be followed which may involve the forced entry into the premises (see also Appendix VI).

8.3.3 The terms 'imminent' and 'serious are unfortunately not defined, local authorities are advised to use the normal meaning of the words. There is, however, guidance on what may constitute "seriousness" when assessing the reasonableness of remediation.

8.3.4 The Council will undertake the remediation in urgent cases where it is the enforcing authority if it is of the opinion that the risk would not be mitigated by enforcement action. In the case of a special site the Council will determine the land as contaminated land in accordance with the statutory procedure, and then notify the Environment Agency who will then be responsible for the remediation.

8.3.5 Under section 78 P(1) of Part 2A of the Environmental Protection Act, the Council has the right to seek to recover costs of remediation works it has completed. This does

not apply to site investigation works undertaken prior to determination of the land as contaminated land.

8.4 HARDSHIP

8.4.1 Where the Council carries out the remedial action itself, it is entitled to recover its reasonable costs from the Appropriate Person(s). However, in deciding whether to recover its costs for remediation and in accordance with section 78P(2) of the Environmental Protection Act 1990, the Council must first have regard for:

- Any hardship, born by each Appropriate Person identified, that a recovery of costs may cause;

- Section E, Annex 3 of the Statutory Guidance (DEFRA, 2006) describing 'The Recovery of the Costs of Remediation'

8.4.2 In making its cost recovery decision, the Council will aim to ensure:

- for an overall result which is fair and equitable as possible to all identified as having to meet all or part costs of remediation; and,

- by virtue of the 'polluter pays principle', the costs of remediation are borne by those responsible for causing the contamination to the land.

8.4.3 The Council will make specific distinction between Appropriate Person Class A and Appropriate Person Class B (see s. 8.1.2) when evaluating hardship and as discussed in Chapter E, Annex 3 of the Statutory Guidance (DEFRA, 2006)

8.4.5 In the case of Class B person(s) who own or occupy dwelling(s) on contaminated land, the Council will consider waiving or reducing its cost recovery where the Council is satisfied the person(s), when purchased the property, had no prior knowledge of contamination on the land. Furthermore, any such waiver or reduction in cost recovery will have regard for the person(s) financial situation, in particular to their income, capital and outgoings.

8.4.6 Consideration will be given by the Council to produce a Hardship Policy which will aid the assessment of a person's ability to pay based on their income, capital and outgoings.

9.0 ACCESS TO INFORMATION

9.1 THE ENVIRONMENTAL INFORMATION REGULATIONS 2004

9.1.1 The Council is required by Statute to update this Contaminated Land Strategy (Section B.13, Annex 3, Statutory Guidance, DEFRA 2006). After initial publication in June 2001, this is the second version of the Strategy and incorporates two additional update documents produced in September 2005 and November 2006.

9.1.2 Implementation of the strategy has resulted in significant volumes of data which is held on computer databases and GIS, as well as in paper form. There is no statutory obligation to disclose this information, however the Council must comply with the

requirements of the Environmental Information Regulations (EIR) 2004 when dealing with requests for disclosure.

9.1.3 These Regulations require local authorities to make any environmental information they hold available upon request, subject to certain exceptions. These are complex but it would be likely that the Council will have to respond to requests for information on land it has identified as part of, for example, the inspection of the District, as outlined in Part 2 of this strategy. See also section 10.0 regarding enquiries about information held.

9.1.4 The exceptions to the duty to disclose environmental information are covered in regulations 12 and 13 of the EIR 2004. With this taken into consideration the local authority will deal with each case on its own merits. In all circumstances where there is doubt, the Council's Solicitor will be consulted.

9.1.5 'Environmental information', as stipulated in the Regulations is defined in the following:

> *any information in written, visual, aural, electronic or any other material form on –*
>
> *(a) the state of the elements of the environment, such as air and atmosphere, water, soil, land, landscape and natural sites including wetlands, coastal and marine areas, biological diversity and its components, including genetically modified organisms, and the interaction among these elements;*
>
> *(b) factors, such as substances, energy, noise, radiation or waste, including radioactive waste, emissions, discharges and other releases into the environment, affecting or likely to affect the elements of the environment referred to in (a);*
>
> *(c) measures (including administrative measures), such as policies, legislation, plans, programmes, environmental agreements, and activities affecting or likely to affect the elements and factors referred to in (a) and (b) as well as measures or activities designed to protect those elements;*
>
> *(d) reports on the implementation of environmental legislation;*
>
> *(e) cost-benefit and other economic analyses and assumptions used within the framework of the measures and activities referred to in (c); and*
>
> *(f) the state of human health and safety, including the contamination of the food chain, where relevant, conditions of human life, cultural sites and built structures inasmuch as they are or may be affected by the state of the elements of the environment referred to in (a) or, through those elements, by any of the matters referred to in (b) and (c);*
>
> The Environmental Information regulations, 2004

9.1.6 More significantly, however, should a third party purchase land following a refusal on the part of this Authority to supply information requested on its condition, and the Authority had identified it at that stage as potentially contaminated land, that party may wish to seek a remedy against the Council should the site be subsequently determined contaminated land and loose value as a result.

9.1.7 Requests for information will therefore be dealt with promptly and no later than twenty working days after they are made. In cases where it is complicated or consideration of the public interest factors require detailed consideration, a maximum of 40 working days may be required. Where the Council must refuse a request for any of the reasons stated in the regulations it will provide details of the reasons in writing at no cost to the applicant.

9.2 PUBLIC REGISTERS

Subsequently, it must maintain a register of regulatory action taken under Part 2A, which must be made available for public inspection at all reasonable times.

9.2.1 In accordance with Part 2A and the Contaminated Land (England) Regulations 2006, the Council is required to maintain a Public Register.

9.2.2 This Part 2A Public Register serves as a permanent record of all regulatory action undertaken to ensure the remediation of any site which has been determined as Contaminated Land. Sites which have been determined as Contaminated Land but where no consequent action has yet been taken will not appear on the Register. It is important to note that the Part 2A Public Register is not a register of all sites determined as only potentially contaminated or sites which the Council has investigated as part of a detailed Inspection.

9.2.3 The only information required to be stored on a formal register is that relating to regulatory action and remediation. The contents are specified at length in schedule 3 of the Contaminated Land (England) Regulations 2006.

9.2.4 The information on the register will include:-

- Identification notices;
- Remediation notices;
- Details of site reports obtained by the Council relating to remediation notices;
- Remediation declarations, remediation statements and notifications of claimed remediation;
- Designation of sites as “special sites”;
- Any appeals lodged against remediation or charging notices; and
- Convictions.

The register will not include details of historic land use or other records used in the investigation of land within the Council’s area.

9.2.5 The Part 2A Public Register will be kept at the Environmental Services Department at East Hampshire District Council offices at Penns Place, Petersfield. Members of the public visiting the offices will be able to view the register free of charge during normal office hours 9am - 5pm Monday to Friday. Requests for copies of documents must be made to Environmental Services and there may be a charge for this information as set out in our published fees and charges schedule.

9.2.6 When entries are made in the Register the Council will also make available such contents on its website. Information currently contained on the webpage refers only to

the statutory requirement of the content of the Register, as stipulated under the Contaminated Land Regulations (2006).

9.2.7 All enquiries should be addressed to:

Contaminated Land Officer
Environmental Services Department
East Hampshire District Council
Penns Place
Petersfield
Hampshire
GU31 4EX
Tel: 01730 234332 Fax: 01730 234330
e-mail: ehealth@easthants.gov.uk

9.3 THE DATA PROTECTION ACT 1998

9.3.1 The Data Protection Act 1998 applies to all personal data that is processed automatically. It does not apply to data processed manually. The Act seeks to give some protection to persons (known as data subjects) in respect of three potential dangers:

- The use of personal information that is inaccurate, incomplete or irrelevant;
- The possibility of access to personal information by unauthorised persons;
- The use of personal information in a context or for a purpose other than that for which the information was collected.

9.3.2 Personal data is defined as data which relate[s] to a living individual who can be identified (a) from those data, or (b) from those data and other information which is in the possession of, or is likely to come into the possession of, the data controller (the Council) and includes any expression of opinion about the individual and any indication of the intentions of the data controller or any other person in respect of that individual. Every individual member of the public can be considered a data subject, there is no age limit.

9.3.3 Records created will be held in accordance with the principles of the Data Protection Act 1998.

10.0 ENQUIRIES PROCEDURE AND ARRANGEMENTS FOR REVIEW

10.1 ENQUIRIES PROCEDURE

10.1.1 Enquiries and information from members of the public are considered in more detail in section 10.2. Procedures are in place to:

- Record that information or that an enquiry has been received;
- Demonstrate an appropriate officer has been designated to deal with the request;

- Record the request and response; and

- Ensure appropriate records are maintained.

10.1.2 The Environment Agency may also issue guidance to the local authority at any time regarding the local authority's performance relating to matters concerning contaminated land, as per section 78V of the Environment Act 1995.

10.2 ENQUIRIES FROM THE PUBLIC

10.2.1 Enquiries will continue to be received from the public relating to contaminated land. These will be investigated in accordance with existing protocols and the Council's Environmental Services Enforcement Policy (2002) and Regulators' Compliance Code (BERR, 2007). The particular circumstances will be evaluated to establish which enforcement process would be most appropriate. See also 2.6 above, where the new contaminated land regime does not apply.

10.2.2 Enquiries may also be received relating to a particular site which has been identified for further investigation. This could give rise to concern, especially where a potential sale has failed as a direct result of the suggestion that the land may be contaminated. Those so affected may seek an early investigation to clarify their position, thereby seeking to circumvent the prioritisation process. Such requests for priority inspection will, where resources allow, be dealt with as considerately as possible. This is considered also in the section 9.0 on data handling.

10.3 REVIEW

10.3.1 Whilst the Council has a duty to inspect the District, 'from time to time', to identify contaminated land, the frequency of inspection is not prescribed. In practice inspection may be a continuum, balancing a systematic approach with the availability of resources. The Council has a duty to review its inspection strategy on a regular basis and to meet its statutory responsibilities. Two main aspects of review need to be built into this strategy:

- Triggers for reviewing inspection decisions; and

- Review of the inspection strategy.

10.3.2 In addition to the routine review of inspection findings there will be situations which will trigger re-assessment including:

- Change of use of surrounding land (introduction of new receptors);

- The potential for pollutant linkages to become significant or urgent as a result of unplanned events (e.g. flooding, subsidence, spillages etc), or a change in circumstances;

- Identification of a localised effect which could be associated with the land;

- Responding to new information.

10.2.3 The strategy as a whole will be reviewed by the Environmental Protection Team annually and any proposed changes will be reported and incorporated as necessary. Particular matters that will be kept under review include:

- The content of the strategy generally;
- Priorities for further investigation of potentially contaminated sites;
- The potential for the introduction of new receptors;
- The potential for new contamination;
- Progress on voluntary remediation;
- The enforcement process generally and the identification of appropriate persons particularly;
- Identification of special sites;
- Progress with the implementation.

11.0 RESOURCE AVAILABILITY

11.1 RESOURCE AVAILABILITY

11.1.1 As outlined in section 2.9 above, the Government has identified that to implement this highly complex and demanding piece of legislation will involve considerable expenditure to local authorities. After the abolishment of the contaminated land supplementary credit approval (SCA) programme, the only source of funding for local authorities is through the Contaminated Land Capital Projects Programme.

11.1.2 The CLCPP funds two types of work:

- Intrusive site investigations, which aim to find out whether a site is contaminated and, if so, to inform how it should be remediated; and
- Site remediations, which aim to ensure that contamination at a site, will no longer pose a significant risk to people or the environment.

11.1.3 The Grants Programme operates in the following manner:-

- The local authority applies to DEFRA for funding, explaining the proposal, why it is necessary, and how much money it needs;
- DEFRA sends the application to the EA, who assess the proposal on technical merit and value for money, adjusting proposed work and costs if necessary. They also give the application a priority score to help prioritise bids if the Programme is oversubscribed;
- Defra decides whether to pay, using priority scoring to sift bids if need be, and pays successful bids;

- The local authority does the work, and reports back to DEFRA when it is complete.

11.1.4 Should a significant investigation and/or remediation be identified, it would be anticipated that an application for a CLCPP grant would be made relating specifically to that site.

11.1.5 It should be noted that these arrangements relate specifically to the Council's enforcement role and not that as land owner. Should land in possession of the Council be identified as contaminated land then funding of remediation will be considered on a case by case basis. In the event of significant costs being involved it is likely that an application will also be made via the CLCPP scheme.

12.0 PROGRAMME FOR INSPECTION

12.1 INTRODUCTION

12.1.1 The legislation and Statutory Guidance is not prescriptive in terms of how quickly the work on contaminated land needs to be completed. It does, however, require each local authority to set out within this Strategy, what it considers to be appropriate timescales for the inspection of different parts of its area.

12.2 PROGRAMME FOR INSPECTION

12.1.1 Since the publication of EHDC's Contaminated Land Strategy in 2001 the Council has successfully applied the following stages of its statutory requirement under Part 2A of the Environmental Protection Act 1990:

- Identification of potentially contaminated sites within the District;

- The prioritisation of identified potentially contaminated land sites, based on the potential of the site to cause significant harm to receptors (See section 5.3).

Table 5.0 below describes the proposed timetable of events leading up to 2012.

12.1.2 After prioritisation using ConSEPT on all potentially contaminated land sites within the district, the top sites will undergo additional manual screening, where required, to confirm extent of risk to the human receptor. This will allow greater confidence in selection of sites for a phased site investigation under Part2A.

12.2.3 Where additional screenings update existing knowledge the ConSEPT will be rerun for the site, thus ensuring that the correct priority order of sites is maintained and as such Council resources are appropriately targeted at the most seriously contaminated areas.

12.2.4 The process will continue with a Phase 1a and Phase 1b risk assessment on the top three priority sites, identified after running the ConSEPT software and after any additional screening has been completed. For each site a preliminary conceptual site model will be constructed in order to help identify potential pollutant linkages.

12.2.5 At this stage written records will be kept on all findings during investigations to ensure good data records are maintained and to help support any future applications for grant money from DEFRA.

12.2.6 All risk assessments will be undertaken based on guidance stipulated in CLR11 Model Procedures for the Management of Land Contamination (EA, 2004).

12.2.7 Where a potential pollutant linkage has been identified in the Phase I Risk Assessment for the site, a site investigation strategy will be put together for the purpose of enabling a detailed Phase II Site Investigation and Risk Assessment. This work is likely to be contracted out, so Council procedures for tendering and procurement will apply.

12.2.8 Information provided from DEFRA on the legal definition of contaminated land (DEFRA, 2008) concluded that it is for the local authority to judge, on a case by case basis, whether contaminants on a site are at levels causing a significant possibility of significant harm (SPOSH).

12.2.9 Where findings of site investigations show that significant harm or the possibility of significant harm to receptor(s) exists, the land will be determined as contaminated land under Part 2A of the Environmental Protection Act 1990. Under such circumstances the Council will prepare a written record of any determination. The procedures outlined under sections 7.0 and 8.0 above will be accurately followed.

12.2.10 The number of Phase II site investigations per year will be no more than one site. This will be dependent on the size of the site (i.e. where larger sites take more time and planning to properly assess) and available funds allocated for site investigations.

12.2.11 Given the complexity of the remediation procedure under Part 2A it is impossible to accurately predict when the process of remediating sites listed on the Public Register will be complete.

12.2.12 All Part 2A duties listed in Table 5.0 will be carried out in accordance with the latest guidance issued by DEFRA and the Environment Agency.

Table 5.0 East Hampshire District Council Timetable

	ACTIONS	2009				2010				2011				2012				2013				2014			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	**Contaminated Land Strategy**																								
	First issue	Completed 08/01																							
	Updates	Sept 05 & Nov 06																							
	Second issue review																								
	Third issue review																								
2	**Information Gathering**																								
	EA digital information	Completed 06/05																							
	Landmark historical map purchase/implementation	Completed 12/05																							
	Other: BGS, Natural England, Parishes, Local Petrol'm Officer	Completed 12/05																							
4	**Development of GIS**																								
	Loading of gathered information	Completed 12/05																							
	Data capture of potentially contaminated land sites - 10k scale historic maps	Completed 12/07																							
	Data capture of potentially contaminated land sites – 1.25k & 2.5k scale historic maps																								
5	**Prioritisation of Sites**																								
	Selection of prioritisation software																								
	Production of prioritisation list for all potentially contaminated land sites																								
	Update of list				Ongoing																				
6	**Risk Assessment Process**																								
	Phase I's and site walkovers on top 3 sites:																								
	Start																								
	Complete																								

Table 5.0 East Hampshire District Council Timetable (Continued)

	ACTIONS	2009				2010				2011				2012				2013				2014			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
6	**Risk Assessment Process**																								
	Phase II site investigations:																								
	Tendering for consultants																								
	Application for CLCPP grant																								
	Site investigations – top priority sites*										**Ongoing**														

* Site investigation to be undertaken only where a desktop study recommends.

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APPENDICES

APPENDIX I

GLOSSARY

DEFRA Circular 01/2006 contains a detailed glossary of terms that provide legal definitions of terms that may be used in this Strategy. This Glossary provides some of these terms, and an interpretation of terms used in the Strategy.

AONB Area of outstanding Natural Beauty

Brownfield Site A site that has been generally abandoned or underused where redevelopment is complicated by actual or perceived environmental contamination. Only a small proportion of brownfield sites will meet the definition of contaminated land

Class A Person A person who is an appropriate person for a significant pollutant linkage in that he/she has caused or knowingly permitted a pollutant to be in, on or under the land

Class B Person A person who is an appropriate person for a significant pollutant linkage in that he/she is the owner or occupier of the land in circumstances where no Class A person can be found with respect to a remediation action

CLEA Contaminated Land Exposure Assessment, a methodology for carrying out a risk assessment

ConSEPT Contaminated land Site Evaluation and Prioritisation Tool – Software which provides initial screening of potentially contaminated sites within a GIS environment

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: significant harm is being caused or there is a significant possibility of such harm being caused; or pollution of controlled waters is being, or is likely to be caused

Controlled Waters These include inland waters (river, streams, underground streams, canals, lakes and reservoirs) groundwater (any water contained in underground strata, wells or boreholes) territorial waters (the sea within three miles of a baseline) coastal waters (the sea within the baseline up to the line of highest tide, and tidal waters up to the fresh water limit)

DEFRA Department of Environment, Food and Rural Affairs

Drinking Water Abstraction The taking of water from a source (in this case, primarily an underground source) for drinking water

EA Environment Agency

Eco-system A biological system of interacting organisms and their physical environment

GIS Geographical Information System

Groundwater Any water contained in underground strata, wells or boreholes

Hardship Where an appropriate person can demonstrate that carrying out a remediation action would cause him/her ‘hardship’, the Council will assess whether it is appropriate to require that person to carry out the remediation

ICRCL Interdepartmental Committee on Remediation of Contaminated Land

Land in a Contaminated State Land that appears to the local authority in whose area it is
situated that: a) there is a high likelihood of a contaminant source being present in, on or under the land b) there is a high likelihood of the land meeting the contaminated land definition should a pathway or receptor be introduced to the site

NNR National Nature Reserve

PAH Polyaromatic hydrocarbons

Pathway One or more routes by which a receptor can be exposed to a contaminant

Pollutant linkage The relationship between a contaminant, a pathway and a receptor

Ramsar Site A site protected under an international convention on protection of wetlands of international importance, especially as habitats for waterfowl, named after the city in Iran where the convention was signed

Receptor Sometimes referred to as ‘the target’ - the health of a person, waters, ecosystem or property type that could be affected by contamination

Remediation Generally accepted as the carrying out of works to prevent or minimise effects of contamination. In the case of this legislation the term also encompasses assessment of the condition of land, and subsequent monitoring of the land

Remediation Action Any individual thing which is being, or is to be done by way of remediation

Risk The combined effect of the probability and consequence of a defined hazard, or the probability of exposure to harm

Risk Assessment The study of the probability, or frequency, of a hazard occurring; and the magnitude of the consequences

SAC Special area of conservation

Significant Harm Any harm that is determined to be significant in line with the statutory guidance

Significant Pollutant Linkage A pollutant linkage which forms the basis for a determination that a piece of land is contaminated land

Significant Pollutant A pollutant which forms a part of a significant pollutant Linkage

Source A substance in, on or under the ground with the ability to cause harm

Source Protection Zone Protection zones around certain sources of groundwater used for public water supply. Within these zones, certain activities and processes are prohibited or restricted

SPA Special Protection Area for birds

Special Site Any contaminated land designated due to the presence of: Waste acid tar lagoons; Oil refining; Explosives; Integrated pollution control sites; Nuclear, biological and chemical weapon sites; MoD land; Land containing weapons; Radioactive sites; and pollution of controlled waters used for human consumption

SPOSH Significant Possibility Of Significant Harm (SPOSH). The level, above which, is believed by the local authority to cause significant harm to the specified receptor

Suitable Person A person suitably qualified and experienced to carry out a specific task, as assessed by the relevant authority

SSSI Site of special Scientific Interest

TPH Total Petroleum Hydrocarbons

VOCs Volatile Organic Compounds

APPENDIX II

SIGNIFICANT HARM AND THE POSSIBILITY OF SIGNIFICANT HARM

Table A- Categories of Significant Harm (Ref: DEFRA Circular 01/2006)	
Type of Receptor	**Description of harm to that type of receptor that is 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 can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it 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; • 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 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 <u>any</u> 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 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 of 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 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 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.	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, 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 B – Significant Possibility of Significant Harm (Ref: DEFRA Circular 01/2006)	
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 in 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.	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.

APPENDIX III

SPECIAL SITES

1. Once a local authority has identified land as contaminated land by definition, it must also consider whether it falls into the category of a special site. Special sites are sites where, more often than not, the Environment Agency have had, or still have, an enforcement role.

2. What exactly constitutes a special site is specified in the Contaminated Land (England) Regulations 2006. For a legal definition the Regulations must always be consulted. In simple terms, however, they include land:-

- Polluting controlled waters (in certain circumstances - see Appendix V);

- On sites subject to Integrated Pollution Control (see Environmental Protection Act 1990 Part I - Prescribed Processes and Substances Regulations 1991 schedule 1 part A);

- With waste sulphuric acid tar lagoons (on sites used for refining benzole, used lubricants or petroleum);

- Used as an oil refinery;

- Used to manufacture or process explosives;

- Used to manufacture or dispose of atomic, chemical or biological weapons (non biological contamination only);

- Used for other nuclear purposes;

- Owned or occupied by a defence organisation for naval, military or air force purposes (not off base housing / NAFFI);

- Held for the benefit of Greenwich Hospital*.

3. Contaminated land beyond the boundary of these premises (but contaminated by them) also forms part of the special site.

4. Procedure in relation to the investigation and declaration of special sites is covered in 3.11, 4.4, 4.5 and 5.15 above.

*non biological and non radioactive contamination only (see i8 above)

APPENDIX IV

LIST OF CONSULTEES AND CONTACT POINTS

1. DISTRICT COUNCIL

East Hampshire District Council
Penns Place
Petersfield
Hampshire GU31 4EX
Tel: 01730 266551 Fax: 01730 234330

Internal Tel Extensions (01730 23 + extension):

Environmental Services: Environmental Health
Gill Kneller – Head of Environmental Services 4331

Environmental Services: Team Leaders
Stuart Wedgbury – Environmental Services Manager 4326

Environmental Services: Pollution
David Fitzgerald – Principal Environmental Health Officer 4323
Simon Downs – Contaminated Land Officer 4332

Legal and Democratic Services
Jo Gabell – Head of Legal Services 4068
Nick Leach – Principal Solicitor 4088

Planning Services
Chris Murray – Head of Planning Services 4231

Planning Services: Development Planners
Julia Mansi – Planning Development Manager 4236
Tony Whitty – District Team Manager 4232
Peter Fellows – Planning and Conservation Officer 4237

Planning Services: Building Control
Keith Seeley – Building Control Manager 4201

Planning Services: Heritage
Stephen D'Este Hoare – Heritage Team Leader 4215
John Townsend – Principle Conservation Officer 4216
Martin Healey – Countryside and Biodiversity Officer 4386
Adele Poulton – Arboricultural Officer 4217

Planning Services: Compliance
Lesley Wells – Compliance Manager 4223

Planning Services: Geographical Data Team
Peter Silvester – Geographical Data Manager 4041
Jane Newton – Senior Local Land Charges Property Officer 4252

Planning Services: Technical Team

Anne Murphy - Technical Team Leader 4240

Drum Housing Association
Mike Fitzpatrick – Assistant Director, Drum Housing Association
Tel.: 01730 403087

Community and Democratic Services
Natalie Brahma-Pearl – Head of Community and Democratic Services 4335
Guy Riddoch – Community Manager 4015
Michael O'Mahony – Community Manager 4383
Helen Parker – Democratic Services Manager 4099

Customer Service Centre: Communications Customer and IT Services
Kathy Fowler – Customer Services Manager 234026

East Hampshire District Council consists of forty-four elected Councillors, representing its 38 Wards. Names and contact details of these Councillors can be found at the following web address:
http://www.easthants.gov.uk/ehdc/democracy.nsf/CouncillorsByName?OpenView&count=100

2. COUNTY COUNCIL
Hampshire County Council
The Castle
Winchester
Hampshire. SO23 8ZB
Info@hants.gov.uk
Main Switchboard Tel: 01962 841841 Fax: 01865 810106

Hampshire Highways
Tel: 0845 603 5633

Household Waste Recycling Centres/Household Waste Management
Tel: 0845 603 5634

Planning
Tel: 01962 846802
Fax: 01962 846776
env.enquiries@hants.gov.uk

3. ENGLISH HERITAGE
Details of all Ancient Monuments in the area can be obtained from the Planning Officer

South East Region Contact:
Andy Brown
Regional Director
English Heritage South East Region
Eastgate Court
195-205 High Street
Guildford. GE1 3EH
Tel: 01483 252002 Fax: 01483 252001

4. NATURAL ENGLAND
Regional Contact:
Dr Chris Edwards
Team Manager
Natural England
Pheonix House
33 North Street
Lewes
East Sussex. BN7 2PH
Tel: 01273 476595
chris.edwards@naturalengland.org.uk
enquiries.southeast@naturalengland.org.uk

Local Contact:
Government Team
Natural England
Lyndhurst Office
1 Southampton Road
Lyndhurst
Hampshire. SO43 7BU
Tel: 02380 286410
George.gittins@naturalengland.org.uk

5. ENVIRONMENT AGENCY
The Council will consult and liaise with the Environment Agency on matters relevant to the Agency's various functions. It will also seek site specific advice where necessary in accordance with the Environment Agency's formal role.

Head Office
Environment Agency
Rio House
Waterside Drive
Aztec West
Bristol
BS32 4UD
Tel: 01454 624 400
Fax: 01454 624 032

Tech Specialist - Groundwater and Contaminated Land:
Paula Awty
The Environment Agency
Colvedene Court
Wessex Business Park
Wessex Way
Colden Common
Winchester
Hampshire. SO21 1WP
Tel: 01962 764861
paula.awty@environment-agency.gov.uk

Simon Deacon

The Environment Agency
Oving Road
Chichester
West Sussex. PO20 2AG
Tel: 01903 703916
simon.deacon@environment–agency.gov.uk

Planning Liaison:
Sally Taviner
Planning Liason Officer (Southern Region)
The Environment Agency
Colvedene Court
Wessex Business Park
Wessex Way
Colden Common
Winchester
Hampshire. SO21 1WP
Tel: 01962 764827
sally.taviner@environment-agency.gov.uk

Catherine McLeod
The Environment Agency
Guildbourne House
Chatsworth Road
Worthing
West Sussex. BN11 1LD
Tel: 01903 832000
catherine.mcleod@environment-agency.gov.uk

Pollution Incident Officer:
Mike Sergeant
The Environment Agency
Anglian Regional Office
Kingfisher House
Goldhay Way
Orton Goldhay
Peterborough
Cambridgeshire. PE2 5ZR
Tel: 01480 483289
mike.sergeant@environment-agency.gov.uk

GIS Officer: Southern Region
Ashley Seabrook
Data Quality & GIS Officer
The Environment Agency
Guildbourne House
Chatsworth Road
Worthing
West Sussex. BN11 1LD
Tel: 01903 838386
ashley.seabrook@environment-agency.gov.uk

External Relations
Claire Mairey
External Relations Officer
Solent and South Downs Area
The Environment Agency
Colvedene Court
Wessex Business Park
Wessex Way
Colden Common
Winchester
Hampshire. SO21 1WP
Tel: 01962 764820
claire.mairey@environment-agency.gov.uk

6. HEALTH PROTECTION AGENCY
7th Floor
Holborn Gate
330 High Holborn
London
WC1V 7PP
Tel: 020 7759 2700 / 2701
Fax :020 7759 2733

Chemical Hazards and Poisons Division Headquarters
Matthew Palmer
Centre for Radiation, Chemical and Environmental Hazards
Chemical Hazards and Poisons Division
Chilton
Didcot
Oxon OX11 0RQ
Telephone: 01235 824852
Telephone: 01235 822895 (General Enquiries)
matthew.palmer@hpa.org.uk
chemicals@hpa.org.uk

7. FOOD STANDARDS AGENCY
Incidents and Prevention Division
Room 707
Aviation House
125 Kingsway
London. WC2B 6NH
Tel: 020 7276 8727
Fax: 0207 276 8289
christina.baskaran@foodstandards.gsi.gov.uk

8. HEALTH & SAFETY EXECUTIVE
Health and Safety Executive
Belgrave House
Greyfriars
Northampton
Tel: 01604 738300 Fax: 01604 738333

9. HER MAJESTY'S CUSTOMS AND EXCISE OFFICE
Landfill tax is the responsibility of the Birmingham business centre:
2 Broadway
Broad Street
Five Ways
Birmingham. B15 1BG
Tel: 0121 697 4000
Fax: 0121 643 3454

10. DEFRA
Customer Contact Unit
Eastbury House
30 - 34 Albert Embankment
London. SE1 7TL
Tel: 08459 33 55 77
0845 988 1188 (flood line number)
Fax: 020 7238 2188
helpline@defra.gsi.gov.uk

11. THE GOVERNMENT OFFICE FOR THE SOUTH EAST (Environment and Rural)
Bridge House
1 Walnut Tree Close
Guildford. GU1 4GA
Tel:01483 882934
Fax: 01483 882259
rural.gose@go-regions.gsi.gov.uk

12. STATUTORY REGENERATION BODIES

Regional Development Agency (RDA)
South East England Development Agency
SEEDA Headquarters
Cross Lane
Guildford. GU1 1YA
Tel: 01483 484200
Fax: 01483 484247

English Partnerships Head Quarters
National Environmental Policy Co-ordinator
16-18 Old Queen Street
London. SW1H 9HP
Tel: 0207 976 7070
Fax: 0207 976 7740

English Partnerships Senior Projects Manager
(Contaminated Land)
Arpley House
110 Birchwood Boulevard
Birchwood
Warrington. WA3 7QH
Tel: 01925 651144
Fax: 01925 644657

APPENDIX V

POLLUTION OF CONTROLLED WATERS

1. Controlled waters are defined for the purposes of Part IIA as:

- Coastal waters including docks;
- Relevant territorial waters (usually to three miles);
- Inland fresh waters (relevant rivers, watercourses, lakes, ponds, reservoirs - including bottom / channel / bed, even if dry);
- Groundwater (section 104 of the Water Resources Act 1991).

2. The pollution of controlled waters is simply defined as:

The entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter;

3. There is no power in the Act to enable the Secretary of State to issue guidance on what degree of pollution may constitute pollution of controlled waters. This has been accepted as a potential area of conflict. When, however, considering cases where it is thought very small quantities of a contaminant are causing pollution, enforcing authorities must consider what remediation it may be reasonable to require. This should act as a limiting factor thereby ensuring unrealistic demands are not made in relation to cases of very minor pollution;

4. Pollution of controlled waters will rarely be dealt with by the local authorities. Below is a summary of the issues relating to controlled waters;

5. Where pollution of groundwater has occurred and the source can not be identified, or the polluting substances are contained entirely within the body of water (and not in or on the land), then Part IIA does not apply and the matter would be dealt with by the Environment Agency under section Part III of the Water Resources Act 1991;

6. Where pollution has occurred from land which subsequently affects the wholesomeness of drinking water within the meaning of section 67 of the Water Industry Act 1991 (Water Supply [Water Quality] Regulations 1989 / Private Water Supplies Regulations 1991), then the land becomes a **special site**;

7. Where pollution has occurred from land which results in surface water failing to meet the criteria in the regulations, made under section 82 of the Water Resources Act 1991, then the land becomes a **special site**:

The Surface Water (Dangerous Substances) (Classification) Regulations 1989
The Bathing Waters (Classification) Regulations 1991
The Surface Water (Dangerous Substances) (Classification) Regulations 1992
The Surface Water (River Eco System) (Classification) Regulations 1994
The Surface Water (Abstraction for Drinking Water) (Classification) Regulations 1996

The Surface Water (Fish life) (Classification) Regulations 1997
The Surface Water (Shellfish) (Classification) Regulations 1997
The Surface Water (Dangerous Substances) (Classification) Regulations 1997
The Surface Water (Dangerous Substances) (Classification) Regulations 1998;

8. Where the pollution of a specified aquifer* is caused by any of the following contaminants the land becomes a **special site**:

- Organo-halogen compounds and substances which may form such compounds in the aquatic environment;
- Organo-phosphorus compounds;
- Organo-tin compounds;
- Substances which possess carcinogenic, mutagenic or teratogenic properties in or via the aquatic environment;
- Mercury and its compounds;
- Cadmium and its compounds;
- Mineral oil and other hydrocarbons;
- Cyanides.

*Specified aquifers are those contained in the following rocks:

Pleistocene Norwich Crag;
Upper Cretaceous Chalk;
Lower Cretaceous Sandstones;
Upper Jurassic Corallian;
Middle Jurassic Limestones;
Lower Jurassic Cotteswold Sands;
Permo-Triassic Sherwood Sandstone Group;
Upper Permian Magnesian Limestone;
Lower Permian Penrith Sandstone;
Lower Permian Collyhurst Sandstone;
Lower Permian Basal Breccias, Conglomerates and Sandstones;
Lower Carboniferous Limestones;

9. This, in effect, leaves local authorities with the potential responsibility for the pollution of controlled waters where:

a) Surface or coastal waters are affected but not breaching the Regulations in paragraph 7 above;

b) Groundwater (other than a principal aquifer specified as in 8 above) is contaminated and the water is not used for drinking.

APPENDIX VI

POWERS OF ENTRY AND THE APPOINTMENT OF 'SUITABLE PERSONS'

1. Section 108 of the Environment Act 1995 gives the local authority power to authorise, in writing, "suitable persons", to investigate potentially contaminated land. These powers are extensive and will be considered in detail with the Council's Solicitor prior to any resisted entry being attempted. It should be noted that these powers are not available to the Environment Agency. The powers which a person may be authorised to exercise include:

- To enter at any reasonable time (or in urgent cases, at any time, if need be by force) any premises / land to make such examination and investigations necessary;
- To take samples, photographs, carry out tests, install monitoring equipment etc.

2. At least seven days notice must be given to residential occupiers and to occupiers of land where heavy plant is to be used. Consent must be obtained to enter from the occupier, or failing that, a warrant obtained under Schedule 18 of the Act;

3. It should be noted that there are no circumstances in which the Council will use these powers to obtain information about the condition of land, where:

- It can obtain the information from third parties without the need for entering the site; or
- A person offers to provide the information within a reasonable and specified time, and does so.

URGENT ACTION

4. Urgent action must be authorised where the Council is satisfied that there is imminent danger of serious harm or serious pollution of controlled waters being caused as a result of contaminated land. In such circumstances the procedures identified in the statutory guidance will be followed which may involve the forced entry into the premises;

5. The terms 'imminent' and 'serious' are unfortunately not defined, local authorities are advised to use the normal meaning of the words. There is, however, guidance on what may constitute "seriousness" when assessing the reasonableness of remediation;

6. The Council will undertake the remediation in urgent cases where it is the enforcing authority if it is of the opinion that the risk would not be mitigated by enforcement action.

In the case of a special site the Council will determine the land contaminated land in accordance with the statutory procedure after a site investigation has been undertaken in cooperation with the Environment Agency. The Environment Agency will then be responsible for the remediation;

7. In appropriate cases the Council will seek to recover costs of remediation works it has completed;

8. All intrusive investigations will be carried out in accordance with appropriate technical procedures to ensure:

a) They are effective
b) They do not cause any unnecessary damage or harm
c) They do not cause pollution of controlled waters.

COMPENSATION

9. Schedule 18 of the Environment Act 1995 makes clear the circumstances when a local authority must pay compensation for loss or damage as a result of the use of these powers. The Client Officer will therefore ensure that only appropriate technical procedures are deployed, the utmost care is taken at all times, and the conditions carefully recorded before, during and after completion of the necessary works;

'SUITABLE PERSONS'

10. The science and associated technical procedures relating to the investigation and assessment of contaminated land are extremely complex. Knowledge of several specialised disciplines is required together with an ability to interpret significant volumes of data and make a reasoned judgement, often in difficult circumstances;

11. The consequences of, 'getting it wrong', could, in many cases, have a major impact on the District and on people's lives. On the one hand, an entire area could be unnecessarily blighted and homes rendered worthless over night, whilst on the other, a generation of children could be left at risk from an unidentified pathogen;

12. Neither the Act nor the guidance considers what may constitute a, 'suitable person', for the purposes of the investigation and assessment of contaminated land. There is no list of approved consultants or any professional organisation which oversees the training of contaminated land specialists. There is no minimum qualification and no recognised qualification. Consultants come from a range of backgrounds including:

Environmental health
Other environmental science disciplines (several)
Surveyors
Engineers
Geologists
Hydrologists
Soil scientists
Chemists, etc;

13. Ultimately, the responsibility for determining what land may and may not be determined contaminated, by definition, lies with the Head of Environmental Services. He/she will, however, often need to rely on the advice of appointed, 'suitable persons'. Under these circumstances criteria have been developed to assist in their selection.

PROCEDURE FOR THE APPOINTMENT OF 'SUITABLE PERSONS' FOR THE PURPOSES OF PART IIA

14. There are two prerequisites to commencing the process of appointing suitable persons, firstly:

- Adequate funding to support the process; and secondly

- A well qualified person, 'in house', to act in the Client role.

15. Such a person, as well as having sufficient knowledge and experience to specify the contract, must have sufficient time to monitor it also. The Environmental Protection Officer of the Environmental Health Department has been identified for this purpose. He is well qualified on environmental contamination issues, with research experience in the field of heavy metal contamination in the terrestrial and aquatic environment;

16. Additional training may be required to provide an adequate foundation of knowledge upon which to carry out the role. The Council has achieved the 'Investors in People' status and therefore recognises the need for professional development. Training needs will therefore be identified in this way, as and when required;

17. The Client officer will produce a comprehensive, unambiguous but succinct draft specification for each contract which clearly identifies the work to be carried out, its purpose, timetable and Client / Contractor responsibilities. If it is considered necessary to employ outside consultants / contractors, the following criteria will be observed. The Client Officer will produce a list of appropriate companies, taking care to seek out those most prominent and successful in the field, rather than only those who promote themselves to the Council. Each of these will then be contacted in turn for an informal discussion as to their capability, expertise and experience. Prior to commencing this process the Client officer will produce a selection of questions relevant to the contract to ask each company. This should then hopefully result in a short list of six or so companies who will be asked to quote / tender for the work based on a final specification;

18. A check list of information requirements is included at the end of this section;

19. Once appointed responsibilities include monitoring the contract to ensure:

The contractors are kept fully aware of their responsibilities at all times;
Quality control requirements are met;
Amendments are quickly agreed and documented;
The time table is strictly adhered to;
The aim of the contract is achieved.

CHECKLIST OF INFORMATION REQUIREMENTS FROM CONSULTANT

CLIENT'S INFORMATION REQUIREMENTS	REQUIREMENTS OF THE CONSULTANT
1. **GENERAL**	
1.1 Background on company capability	How long has company been operating? What kind of work were they originally set up to do - is this an add on? Who traditionally are their clients?
1.2 Numbers and qualifications of staff 1.3 CV and availability of key staff	If a large company, what are the interests / sympathies of those in control. Do they consider local authorities as a serious market? How many staff are available for this type of work, will they need to subcontract? Who will actually be doing the job, what are their qualifications and experience? Practical experience is KEY. Do they really understand Part IIA? Knowledge of environmental law & local government systems an important requirement.
1.4 Details of QA systems including: Allocation of responsibilities Project Management Technical Procedures Technical review Training Assessment of external suppliers	Where appropriate, need details of quality management systems indicating whether accredited by a third party. What technical procedures to be used. Which staff responsible, which will undertake technical review. How will quality of subcontractors be ensured.
1.5 Management of Health & Safety	Identify H&S management procedures where appropriate. Do they understand the fundamental requirements of H&S legislation?
1.6 Track record on similar projects	Ever done similar work or is this a new departure?
1.7 Client references	Need several telephone numbers to enable rapid verification of statements made at interview.
1.8 Financial status	May not always be necessary but on large contracts where considerable financial outlay required need to demonstrate solvency. Bond may be required on large remediation contracts.
1.9 Details of insurance cover	Need to demonstrate insurance available 3rd party liability and professional indemnity. Identify limitations / exclusions
1.10 Membership of professional and trade associations	May be necessary to make checks, Corporate membership of professional organisations, meeting CPD requirements?
1.11 Compliance with codes of practice	Can they demonstrate knowledge of the appropriate guidance, codes of practice etc relevant to the job?

2. **PROJECT SPECIFIC**	
2.1 Technical proposal	The proposal must make it absolutely clear that work will be carried out to comply with the requirements of the specification, what the results will be, and when they will be achieved.
2.2 Project management plan / working plan	A clear timetable must be available which states what stage will be reached by when and who will be responsible to deliver.
2.3 Details of sub contractors	Subcontractors will be necessary on large technical projects. Must state who they are, contact points and lines of responsibility.
2.4 Details of technical procedures	Again, the working plan must clarify all procedures and lines of responsibility.
2.5 Reporting	Reporting procedures must be made absolutely clear. It is essential not to have masses of reports landing on the desk of the client officer which puts the responsibility back on him / her. The responsibility for doing what has been agreed to the agreed standard must lie with the contractor.
2.6 Programme & 2.7 Financial proposal	It may be that the Contractor will want to provide a guide price or include large contingency sums. The programme of work and the quotation must not be ambiguous. A lot depends on the quality of the original specification. Stage payments and timetables must be firm and with perhaps penalty clauses if fail to deliver on time.
2.8 Conditions of engagement	Contracts need not be long and wordy, should define responsibilities of both parties, liabilities etc succinctly.

APPENDIX VII

LIST OF POTENTIALLY CONTAMINATIVE LAND USES

This list has been drawn up to provide a broad indication of the type of sites that are known to use, or to have used in the past, materials that could pollute the soil. It must be understood that the list is not exhaustive, also that inclusion on this list does not necessarily infer the existence of a pollutant linkage:

Abattoirs Dry cleaners
Adhesives manufacture Dye Works
Agriculture Dyers and finishers
Aircraft manufacture Electricity Generation
Airports Electrical Engineers
Animal burial Electro platers
Animal by-product processing Engineering works
Anodisers Explosives manufacture (including fireworks)
Anti-corrosion treatment Farms
Asbestos products Fertiliser manufacture
Asphalt works Fellmongers
Automotive engineering Fibre glass works
Battery manufacture Food processing
Bearings manufacture Foundries
Blacksmiths Fuel manufacture
Boiler makers Fuel storage
Bookbinding Garages and depots
Brass and copper tube manufacture Gas mantle manufacture
Brass founders Gas works
Brewing Glass works
Car manufacture Glue manufacture
Carbon products manufacture Gum and resin manufacture
Cement works Hatters
Chemical manufacture and storage Hide and skin processors
Chrome plating Ink manufacture
Ceramics manufacture Iron founder
Coal carbonisation Iron works
Coal merchant Knackers yards
Concrete batching Laquer manufacture
Coppersmiths Laundries
Descaling contractors (chemical) Leather manufacture
Detergent manufacture Metal coating
Distilleries Metal manufacture
Dockyards Metal sprayers and finishers
Drum cleaning Mining
Mirror manufacture Timber treatment
Motor vehicle manufacture Thermometer makers
Oil fuel distributors and suppliers Tin plate works
Oil merchants Transport depots
Oil refineries Tyre manufacture and retreading
Oil storage Vehicle manufacture
Paint and varnish manufacture Vulcanite manufacture
Paper works Vulcanisers

Pesticides manufacture Waste disposal
Petrol stations Waste recycling
Photographic film works Waste treatment
Photographic processing Zinc works
Paper manufacture
Plastics works
Plating works
Power stations
Print works
Printed circuit board manufacture
Radioactive materials processing
Railway land
Railway locomotive manufacture
Refiners of nickel and antimony
Resin manufacture
Rubber manufacture
Scrap metal dealers
Sealing compound manufacture
Sewage works
Sewage sludge disposal areas
Sheet metal merchants and works
Ship breakers
Ship builders
Shooting grounds
Skein silk dyers
Small arms manufacture
Smokeless fuel manufacture
Soap manufacture
Solvent manufacture
Solvent recovery
Steel manufacture
Stove enamellers
Synthetic fibre manufacture
Tank cleaning
Tanneries
Tar and pitch distillers
Textile manufacture
Timber preservatives manufacture

APPENDIX VIII

AUTHORISED PROCESSES AND FORMER LANDFILLS

Table 6.0 Details of Part A - Authorised Processes in East Hampshire

Type of Process	Process Site Address	Authorisation Number	Date of Authorisation
Petroleum Production, Storage and Handling	**Cairn Energy Onshore Limited.** Horndean Wellsites, Pyle Farm, Horndean, Hampshire	AF 5344	3 Jan 1996 (major variation)
Petroleum Production, Storage and Handling	**Cairn Energy Onshore Limited.** Cuckoos Corner, Holybourne, Hampshire	AF 5328	29 Oct 1992
Petroleum Production, Storage and Handling	**Cairn Energy Onshore Limited.** Humbly Grove, Oil Field, Weston Common, The Avenue, Lasham, Hampshire	AF 5336	16 Oct 1992

Table 7.0 Details of Part B - Authorised Processes in Hampshire

Type of Process	Process Site Address	Authorisation Number	Date of Authorisation
Respraying of road vehicles	**Liphook Coachworks.** Portsmouth Road, Liphook, Hampshire	009	06/09/93
Blending packing, loading and use of bulk cement	**ARC Southern.** Sleaford Sandpit, Nr Bordon, Hampshire	003	23/02/93
Waste Oil Burner	**Hampshire Commercials.** Mill Lane, Alton, Hampshire	005	22/10/92
Animal Feed Compounding	**BOCM Pauls Limited.** Mill Lane, Alton, Hampshire	013	06/09/93
Manufacturing of timber and wood based products	**Tectonics Limited.** 17-18 Caker Stream Road, Mill Lane, Alton, Hampshire	015	16/09/97
Petrol Vapour Recovery Installation	**Safeway Petrol Station.** Safeway Stores Plc, Lakesmere Road, Horndean, Hampshire	021	31/12/98
Petrol Vapour Recovery Installation	**Jet - Hen & Chicken Service Station.** Froyle, Hampshire	023	31/12/98
Petrol Vapour Recovery Installation	**BP Oil UK Limited.** 5-15 Butts Road, Alton, Hampshire	024	31/12/98
Petrol Vapour Recovery Installation	**Sainsbury Petrol Station.** Draymans Way, Alton, Hampshire	025	31/12/98

Table 7.0 Details of Part B - Authorised Processes in Hampshire (continued)

Type of Process	Process Site Address	Authorisation Number	Date of Authorisation
Petrol Vapour Recovery Installation	**Esso - Ramshill Service Station.** London Road, Petersfield, Hampshire	026	31/12/98
Petrol Vapour Recovery Installation	**Sainsbury Petrol Station.** Midhurst Road, Liphook	027	31/12/98
Petrol Vapour Recovery Installation	**Sleaford Service Station.** Farnham Road, Kingsley, Hampshire	028	31/12/98
Petrol Vapour Recovery Installation	**Total Oil GB Limited.** 57 Winchester Road, Four Marks, Hampshire	029	31/12/98
Petrol Vapour Recovery Installation	**Shell UK Limited.** Whichers Gate, Rowlands Castle, Ropely, Hampshire	030	31/12/98
Petrol Vapour Recovery Installation	**Shell UK Limited.** Dean Self Service, Winchester Road, Ropley, Hampshire	031	31/12/98
Petrol Vapour Recovery Installation	**Shell UK Limited.** Liphook Services South, A3 Liphook By-Pass, Liphook	032	31/12/98
Petrol Vapour Recovery Installation	**Shell UK Limited.** Liphook Services South, A3 Liphook By-Pass, Liphook	033	31/12/98
Petrol Vapour Recovery Installation	**Texaco.** 25-27 London Road, Horndean, Hampshire	034	31/12/98
Petrol Vapour Recovery Installation	**Elf Oil UK Limited.** Four Marks Service Station, Winchester Road, Four Marks	035	
Petrol Vapour Recovery Installation	**Elf Oil UK Limited.** Coach House Service Station, 40-44 Dragon Street, Petersfield	036	
Manufacture of Heavy Clay Goods	**Selborne Brick & Tile Ltd**. Honey Lane Selborne, Alton Hants, GU34 3BT	037	

Table 8.0 East Hampshire – Former Landfill Sites

Site Address	OS Ref	Types of Waste
Hollywater Road, Bordon	807 - 350	Inerts
Butser Hill Limeworks	727 - 205	Builders and Construction
Cold Harbour Pit	799 - 383	Household and Commercial
Mattswood Farm, Hollywater Road, Bordon	804 - 345	Earthspoils, Hardcore Brick Rubble
Walldown Road	801 - 340	Inerts
Somers Eve, Hollywater Road, Bordon	806 - 348	Inerts
Kiln Lane, Buriton	733 - 199	HWRC
Dellhaven, Five Heads Road, Horndean	698 - 138	Inerts
Firhill Kennels, Whitehill	806 - 335	Inerts
Southleigh Forest (Leigh Environmental)	739 - 084	Builders, Construction & Commercial
Land at Disused Railway Cutting, Basing Home Farm, Privett	674 - 283	Landfill
Clarks Dell, Rowlands Castle	738 - 102	Inerts
Eerie Tip, Headley Down, Bordon	837 - 368	Domestic
East Tisted	705 - 318	Domestic Waste
Southwood Farm, Headmore Lane, Four Marks	683 - 341	Construction and Earthspoils
Pyle Farm, Horndean	712 - 122	Earthspoils
Five Heads Farm	708 - 150	Household and Inert
The Dump	700 - 136	Household, Lead based paint
Land at Padnell Farm, Cowplain	710 - 112	Earthspoils
Land at Hatchmoor Farm, Greatham	770 - 296	Earthspoils
Dell Piece West, Hazleton, Horndean	703 - 125	Inerts
Mayes Coppice Farm, Rowlands Castle	736 - 102	Chalk, Rubble & Flint Only
Manor Farm, Upper Froyle,. Alton	75 - 34	Landfill
Halls Hill, Buriton	734 - 199	Domestic
Bedale School, Streep	747 - 251	Not taken up?
Blackbush Hanger	743 - 085	Builders/Construction
Land at Home Farm, East Tisted	707 - 320	Earthspoils
Unit 12, Bordon Trading Estate	754 - 363	Transfer Station
North Farm/Stoneridge Farm, Clanfield	685 - 174	Sewage Injection
Greenacres Farm, Hindhead	855 - 371	Earthspoils
Maplecombe Farm, Farringdon, Alton	707 - 350	Earthspoils, Brick and Concrete Rubble
Knox's Pond, Conde Way, Bordon	803 - 346	Earthspoils & Silt from Pond

APPENDIX IX

DEVELOPMENT OF CONSEPT PRIORITISATION

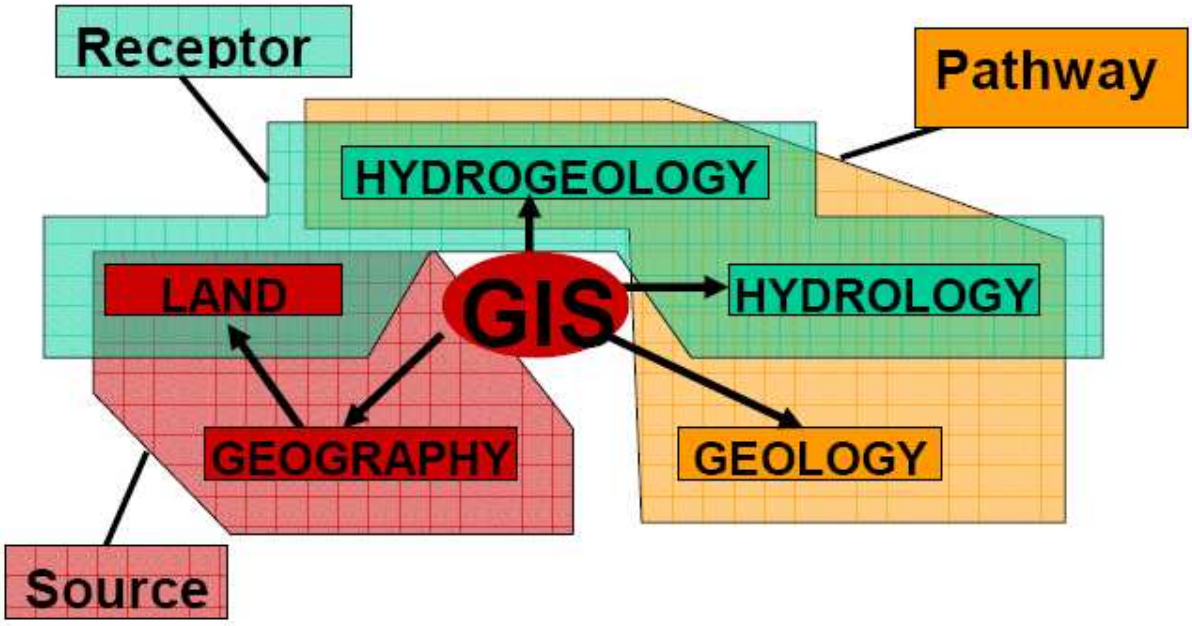

Figure 4. Pollutant linkage evaluation combining source pathway receptor information with geographical and environmental data used in GIS

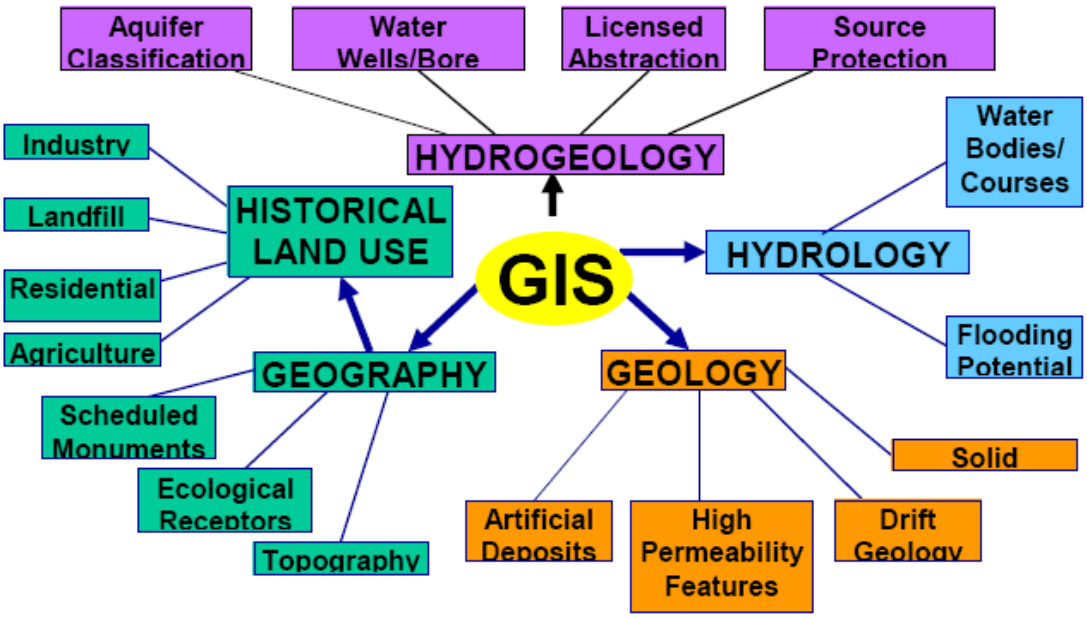

Figure 5. Construction of GIS and related layers for use in ConSEPT

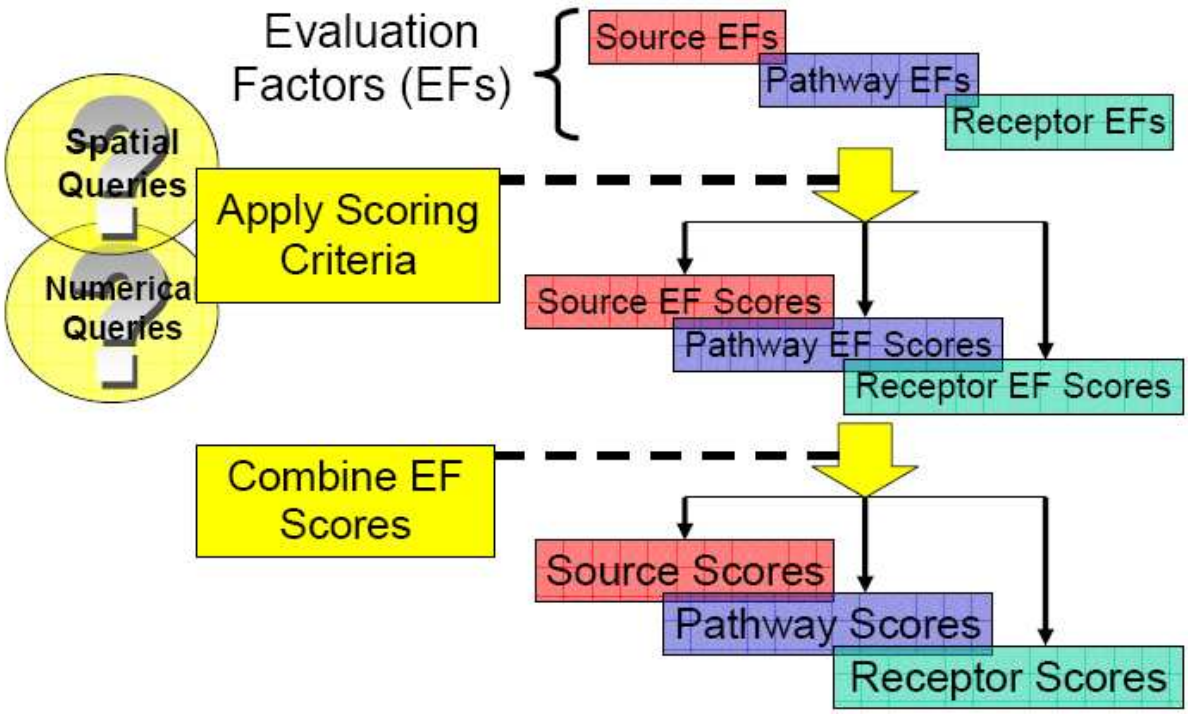

Figure 6. Scoring method of ConSEPT – Additive Factorial Method

The spatial query relates to the size of the potentially contaminated land area whilst the numerical query relates to characteristics of the contaminant.

APPENDIX X

DEFINITION OF CLASSIFICATIONS USED FOR RISK ASSESSMENT

Table 9.0 Classification of Consequence (adapted from CIRIA, 2001)

Class	Definition	Examples
Severe	Irreparable damage to buildings, structures or the environment. A significant change to the number of one or more species or short-term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resource. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem.	High concentration of cyanide on the surface of an informal recreation area. Major contaminant spillage from site into controlled water. Explosion, causing building collapse.
Medium	Chronic damage to human health ('significant harm'). Pollution of sensitive water resources. A significant change in a particular ecosystem. Or organism forming part of such ecosystem.	Concentration of the contaminant from site exceed the generic, or site-specific assessment criteria. Leaching of contaminants from a site to a major or minor aquifer. Death of a species within a designated nature reserve.
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm, as defined by DEFRA, 2006). Damage to sensitive buildings/structures/services or the environment.	Pollution of non-classified groundwater. Damage to building rendering it unsafe to occupy.
Minor	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as personal protective clothing). Easily repairable effects of damage to buildings, structures and services.	The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discolouration of concrete.

Table 10.0 Classification of Probability (adapted from CIRIA, 2001)

Class	Definition
High Likelihood	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.
Likely	There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low Likelihood	There is a pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such an event would take place and is less likely in the shorter term.
Unlikely	There is a pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

APPENDIX XI

EXAMPLES OF CONCEPTUAL SITE MODEL (CSM)

Table 11.0 Example 1a – Preliminary CSM

<table>
<tr><th>Potential Source</th><th>Contaminants</th><th colspan="2">Potential Pathways: Migration Adsorption</th><th>Receptor</th><th>Preliminary Risk assessment</th><th>Notes</th></tr>
<tr><td>Made Ground</td><td>Heavy Metals, Cyanide, Thiocyanate, Phenols, Total hydrocarbons, Polyaromatic hydrocarbons, Asbestos, Ground Gases</td><td rowspan="5">Spread around site

Surface water runoff

Leached through porous soil horizon

Gas migration through soil horizon

Airborne dust</td><td rowspan="5">Ingestion of soil

Ingestion of contaminated vegetables

Ingestion of soil attached to vegetables

Inhalation of dust

Inhalation of gaseous vapours</td><td rowspan="5">Future residents

Construction Workers

Groundwater

River</td><td rowspan="5">Acceptable following further assessment</td><td>Investigation required to determine extent of made ground</td></tr>
<tr><td>Building Materials</td><td>Asbestos</td><td>Physical inspection of site and from ground works and recovery of materials where necessary</td></tr>
<tr><td>Printers</td><td>PAH, Heavy Metals</td><td rowspan="3">Investigation through intrusive site investigation</td></tr>
<tr><td>Disused Kilns</td><td>Heavy Metals, PAH in ash</td></tr>
<tr><td>Coal Storage</td><td>PAH, Heavy metals</td></tr>
<tr><td colspan="7">Limitations and Uncertainties: Actual presence of contaminants in made ground, groundwater and river; direction of groundwater flow; Actual presence of underground gas and its migration potential.</td></tr>
</table>

Table 12.0 Example 1b – Phase II CSM

<table>
<tr><th>Potential Source</th><th>Contaminants</th><th colspan="2">Potential Pathways: Migration Adsorption</th><th>Receptor</th><th>Preliminary Risk assessment*</th><th>Significant Pollutant Linkage</th></tr>
<tr><td>Made Ground</td><td>Heavy Metals, Total hydrocarbons, Polyaromatic hydrocarbons, Asbestos</td><td rowspan="4">Spread around site

Leached through porous soil horizon

Airborne dust</td><td rowspan="4">Ingestion of soil

Ingestion of contaminated vegetables

Ingestion of soil attached to vegetables

Inhalation of dust</td><td rowspan="4">Future residents

Construction Workers</td><td rowspan="4">Medium – slightly elevated concentrations above GAC/SGV and SSAC</td><td rowspan="4">Yes</td></tr>
<tr><td>Printers</td><td>PAH, Heavy Metals</td></tr>
<tr><td>Disused Kilns</td><td>Heavy Metals, PAH in ash</td></tr>
<tr><td>Coal Storage</td><td>PAH, Heavy metals</td></tr>
<tr><td>Building Materials</td><td>Asbestos</td><td></td><td></td><td></td><td>Removed from site</td><td>No</td></tr>
<tr><td colspan="7">Limitations and Uncertainties: All have been addressed**</td></tr>
</table>

* Reference CIRIA C552 for classification of risk

** See appropriate section in text for full details of source, pathway and receptor characterisation. Refer to appendix for laboratory results on contaminants tested.

All uncertainties and assumptions related to the potential presence of contaminants on site are then investigated further and included as part of the objectives in the Phase II investigation and then updated in the Phase II CSM which highlights all remaining pollutant linkages occurring on site.

Table 13.0 Example 2 – Phase I CSM (use of Network Diagram)

SOURCE	PATHWAY	RECEPTOR
Arsenic Cadmium	Direct Ingestion Inhalation of soil dust	Future Resident - 6 year old human female
VOC's	Inhalation of vapours	Future Resident - 6 year old human female
Diesel Fuel	Made Ground, Unsaturated Zone	Groundwater

APPENDIX XII

CHECKLIST FOR SITE WALKOVER*

DESCRIPTION OF VICINITY OF SITE
1. Are there any street/house/pub names indicating current or former land use?
2. What are the neighbouring land uses?
3. Describe all potential receptors.
4. Describe all potential sources of contamination.
5. Are there any indications of remediation undertaken on site?
6. Are there indications of recent site investigations?

DESCRIPTION OF SITE
1. What is the current land use?
2. What is the size of the site?
3. Describe the topography?
4. Describe buildings remaining on site?
5. Condition and size of open spaces (footprint of old buildings?)
6. Record deviations from information previously recorded on the desk study work?
7. Visit all rooms in standing buildings and record contents?

FEATURES INDICATING POSSIBLE SOURCES OF CONTAMINATION ON SITE
1. Describe the contamination potential of existing buildings on site, e.g. floor covering
2. Describe what processes were/are undertaken at each location
3. Are there any fuel or storage tanks (UST and ASTs)? For each tank: contents, volume, UST or AST, bunded, full/empty, leaking/staining, mark on plan.
4. What raw materials are stored on site and their location? Mark on plan
5. Any waste products on site? Describe and mark on plan.
6. Outfalls to surface water? Nature of discharge?
7. Describe small buildings with hazard signs

OTHER SITE FEATURES
1. Describe fences and other site security features
2. Describe hydrological features, (including depth, direction and rate of flow)

IMMEDIATE HAZARDS
1. Any public health or safety hazards e.g. old petrol tanks, mineshafts, fly tipping
2. Existing environmental hazards e.g. oil leaking into watercourse
N.B If any immediate hazards identified, the appropriate bodies should be alerted as soon as possible

Note:

- **Take photographs to record main features of site, site conditions and features indicating any receptors, pathways and sources of contamination**
- **Take notebook to record further details not highlighted in checklists**
- **Prior to visit:**
    - **Arrange access and accompaniment**
    - **H&S RA**
    - **Review of desk study**
    - **Review relevant industry profiles**

CONTAMINATION INDICATORS		
Indicator	**Present**	
	Y/N	**Describe**
Site appears different to surroundings		
Presence of surface deposits and made ground		
Signs of settlement, subsidence, disturbed ground or waterlogged areas		
Stained ground, strange odour		
Highly coloured soil/deposits		
Polluted water, gas bubbling through water		
Areas of bare ground, or distressed vegetation including trees		
Lack of species diversity, lack of soil fauna, lack of aquatic fauna		
Presence of plant indicator species (see CLR2)		
Evidence of gas production/underground combustion e.g. warning signs, steam/smoke emanating from the ground		
Evidence of seepage through embankments (including river)		
Downstream water quality appears poorer than upstream water quality		
Hazardous materials signs, describe.		

*Checklist details taken from Nathanail *et al*, (2002)

APPENDIX XIII

CHECKLIST FOR DISUSED AND OPERATIONAL SITE

1 SITE SETTING

The information requested below is designed to provide an overview of the site location and surrounding area

1.1 SITE LAYOUT AND LOCATION

i. Please provide a map showing the site in relation to neighbouring land uses and the immediate vicinity (approximately 1km).

ii. What is the nearest watercourse to the site? Please give the distance from the site.

iii. What are the nearest commercial operations to the site and their proximity to site?

iv. Does a site plan of the facility exist, showing buildings, unmade ground, property boundaries, and all areas of chemical and waste handling, storage and disposal?

☐ Yes ☐ No

***If yes**, please provide a copy.*

v. Is information held on building construction?

☐ Yes ☐ No

vi. Are aerial photos of the site/facility available for reference?

☐ Yes ☐ No

***If yes,** please have available for review.*

vii. Are any of the following activities within 2km of the facility?

Yes/No

a. Waste disposal operations eg. landfill, incineration:
b. Mining and quarrying activities:
c. Petrol stations and fuel depots:
d. Military installations:
e. Oil and gas exploration:

f. Power stations:
g. Sewage treatment works:
h. Drinking water sources:
i. Farming or other agricultural activities:
j. Industry:
k. Other known or potential sources of contamination (describe):

viii. Describe the local and regional topography:

ix Describe local surface water courses, standing waters etc., (ie. rivers, streams, drains, ponds, lakes, estuaries, coastline, etc)

1.2 SENSITIVE RECEPTORS

Do any of the following occur within 2km of the facility?

Yes/No

Residential Dwellings:
Hospitals:
Churches:
Schools:
Residential Homes:
Recreational Developments:
Ecological Sites:
Other sensitive receptors:

i. Is the site screened from 'sensitive properties'?

☐ Yes ☐ No

Describe the method of screening used:

Please describe the nature of the property boundary (fences, walls, ditches etc).

2 SITE ACTIVITES

2.1 Historical Activities

Please identify historical site practices if different from those undertaken at the present time. This should identify major operational changes which have been made (e.g. new processes) and changes made to ancillary items (e.g. boilers, tanks etc).

2.2 Current Activities

i. Provide a brief description of current activities at the site with particular emphasis on those activities where potentially hazardous substances are generated, manufactured, refined, transported, treated, stored, handled, discharged, or disposed of on-site.

ii. Is there a product control/testing laboratory on-site?

☐ Yes ☐ No

Details

iii. Is there an environmental laboratory on-site?

☐ Yes ☐ No

***If yes,** please give name of laboratory manager and main laboratory activities:*

iv. Is there an operating licence/permit for the site?

☐ Yes ☐ No

***If yes,** please make available.*

v. Is there a general environmental permit for the site, incorporating attention to all environmental issues?

***If yes,** please forward with this questionnaire.*

vi. Are there any specific permits for certain activities?

☐ Yes ☐ No

***If yes,** please identify below and provide copies.*

3 CHEMICAL AND MATERIALS STORAGE & HANDLING

i. Please provide an inventory of all chemicals and materials used at the facility, including any that are stored on-site but no longer used. This inventory should include process and non-process chemicals/materials and should include the quantity/volume held.

3.1 Above Ground Storage

i. Provide a brief description of all above ground chemical and material storage areas.

Indoor Storage Areas

(please note methods for spill containment, segregation, ventilation and any potential point of discharge, general condition of area)

Outdoor Storage Areas

Please provide brief descriptions of the vessels, segregation, containment, safety and security, and general condition.

ii. What provision is there for the on-site storage of materials that may give rise to oils, other liquids, odours, dusts, etc?

iii. *Are there bunds (containing walls) or other suitable secondary containment structures around all containers, including above ground storage tanks, of liquids stored on-site? Please provide details.*

iv. *Have the bunds around the tanks been designed to necessary specifications? Eg. appropriate construction materials and with a total capacity of at least 110% of the contained volume of stored liquid? Please provide details.*

v. *Has the volumetric capacity of the bunds been tested?*

☐ Yes ☐ No ☐ Don't Know

If yes, *please give details.*

vi. *Are integrity tests performed on the bunds?*

☐ Yes ☐ No ☐ Don't Know

If yes, *please give details*

3.2 Underground Storage

Describe all existing and former underground storage tanks in the format below. If available, please provide a plan showing the location of all underground tanks and transfer lines.

Contents	Location	Capacity	Construction	Age	Still Used (Y/N)

i. *Have any of the tanks been integrity tested? If yes, please provide the date, results and description of the test. Are the results accepted by, and in conformance with, local or national standards?*

ii. *Are reconciliation records for the tanks maintained?*

☐ Yes ☐ No ☐ Don't Know

If yes, *please have the records available for review.*

3.3 Materials Handling

i. *Does the site have a spill control or emergency response plan?*

☐ Yes ☐ No ☐ Don't Know

If yes, *please have a copy available for review.*

ii. *Is a record/log of spills kept?*

☐ Yes ☐ No ☐ Don't Know

iii. *Briefly describe any spill incidents in the last 12 months, including details of any subsequent corrective action that has been taken.*

iv. *Were these spills/incidents reported to the authorities?*

☐ Yes ☐ No ☐ Don't Know

If yes, *have actions been taken by the authorities?*

☐ Yes ☐ No ☐ Don't Know

Please describe:

3.4 Toxic and Hazardous Materials

i. *Has the site's past or existing operations involved the use of materials considered to be particularly toxic?*

☐ Yes ☐ No ☐ Don't Know

***If yes**, please give details:*

ii. Are any restricted substances used on this site, for example, ozone depleting substances, asbestos, radioactive sources?

☐ Yes ☐ No ☐ Don't Know

***If yes,** please give details:*

4 WASTE

4.1 Waste Management

i. Please identify all wastes (solid, hazardous and non-hazardous) generated at the facility:

ii. Please complete the following table for each type of waste generated on-site, describing the quantity of waste create, the waste storage location, the waste removal and disposal location.

Type of Waste	Quantity of Waste Created	Waste Storage Location	Waste Removed and Disposal Location

iii. Is any waste separation practised?

☐ Yes ☐ No ☐ Don't Know

***If yes,** please describe:*

iv. *Is an inventory kept of all waste generated? Please make a copy available for review.*

☐ Yes ☐ No ☐ Don't Know

If yes, *is this voluntary/mandatory?*

v. *Is documentation kept for each waste load taken?*

☐ Yes ☐ No ☐ Don't Know

vi. *Is waste disposal practised on site?*

☐ Yes ☐ No ☐ Don't Know

If yes, *please provide details, including the type of wastes disposed of, the disposal methods, and the quantity disposed.*

vii. *Is waste treatment practised on site, physical and/or chemical?*

☐ Yes ☐ No ☐ Don't Know

If yes, *please describe:*

viii. *Is any long term waste storage practised on-site?*

☐ Yes ☐ No ☐ Don't Know

If yes, *please describe:*

4.2 Hazardous Wastes

i. *Please indicate hazardous wastes generated and/or stored on-site:*

☐ PCB's ☐ Halogenated Wastes ☐ Heavy Metal Sludges

☐	Corrosive Chemicals (alkalis and/or acids)	☐	Other Organic	☐	
☐	Other Inorganic	☐	Don't Know	☐	

Give details:

ii. Does the facility have any PCB-containing transformers or capacitors in service at the site?

☐ Yes ☐ No ☐ Don't Know

iii. Does the facility have any PCB-containing or PCB-contaminated equipment which are out of service and in storage at the site?

☐ Yes ☐ No ☐ Don't Know

iv. Has there been a programme of replacement for PCBs?

☐ Yes ☐ No ☐ Don't Know

***If yes,** please be prepared to discuss.*

v. If PCBs have been removed from the site, please describe the disposal method and location.

Please have supporting documentation available for review.

vi. Describe reclamation activities and locations. List the types of hazardous waste, by name and quantity that are reclaimed.

vii. Is a record kept of all hazardous waste consignment notes? If so, please have the records available for inspection.

☐ Yes ☐ No ☐ Don't Know

APPENDIX XIV

COMPARISON TABLE BETWEEN OLD AND NEW STRATEGY

Old Strategy	New Strategy
Original 2001 Publication	Major Rewrite, including changes to legislation, Council documents and statutory consultees
Based on Circular 02/2000 (not including radioactive sites)	Based on re-issue of Circular 01/2006, including Radioactive sites and the appeals process (see Extensions To The Existing Part 2A Regime - **Section 2.5**
	Update of aims and objectives of Strategy – **Section 1.2 to 1.4**
No timetable	Timetable to 2014 – **Section 12.2 Table 5**
	Incorporates updates from 2005 and 2006
No section on hardship	Hardship included – **Section 8.4**
Local Authority Priority Actions – Section 3.0	Prioritisation section updated to include ConSEPT and GIS – **Section 5.0**
No section on determining contaminated land	Sections added on process of determining contaminated land – **Sections 7.0 to 8.0**
No section on urgent action	Section added outlining procedure for urgent action – **Section 8.3**
No section on quality control	Section on Enquiries Procedure and Review included – **Section 10**
No section on resource availability	Section on Resource Availability included – **Section 11.0**
No section on data handling	Section on Data Handling and Access to Information (EIR & Data Protection Act) included – **Section 9.0**
Appendices 1 to 5	Appendix section expanded – **1 to 14**

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