

# South Cambridgeshire District Council



## Contaminated Land Strategy

July 2001

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## 1. Introduction

This document sets out South Cambridgeshire District Council's strategy on how it proposes to identify contaminated land within its boundaries. This is the initial stage in a process to ensure that any associated unacceptable risks to human health or to the environment are addressed in an appropriate, cost effective environmentally acceptable manner.

South Cambridgeshire District Council is committed to effective implementation of the new regime and to ensure proper protection of human health and the wider environment. Contaminated land and pollution can be significant to rural property, species and habitat issues. As well as affecting the value of property, they can impose substantial liabilities. The closeness of rural businesses to the environment and the food chain makes these concerns very real, especially with constantly raising food standards and greater public interest in food safety.

From the north-eastern point to the south-western corner of South Cambridgeshire District Council area lies an area of groundwater which is highly vulnerable to contaminants. Protection of such drinking water supplies is vital to the future sustainability of the drinking water supply both locally and nationally. Ensuring that contaminated land is dealt with in a responsible and timely manner will reduce the risk that such pollution poses to our groundwater supplies.

Land contamination is not a new issue as it is already taken into account and will continue to be so under planning control. For example, if former industrial land is to be redeveloped for housing, the developer needs to satisfy South Cambridgeshire District Council as the Planning Authority, that land contamination has been properly assessed and will be dealt with appropriately (making the land suitable for the proposed use and addressing any wider environmental risks).

This new regime complements the existing planning system but represents a more pro-active and strategic approach to identifying contaminated land and a risk based system to secure remedial action that may be needed to return the land to such a condition that unacceptable risks to human health and the environment no longer arise. This strategy sets out how South Cambridgeshire District Council proposes to achieve this.

## 2. Background

Land contamination in the general sense could include any site where non-natural materials have been introduced or materials in concentrations above naturally occurring levels are present within the ground. However, this definition would incorporate virtually the whole of the UK as most sites could be shown to have man-made materials present within them. To remove this level of “contamination” would be economically prohibitive and totally unnecessary in terms of risks posed to the environment and / or health.

Part IIA of the Environmental Protection Act 1990, which came into force in England on the 1 April 2000, introduced a new regulatory regime for the identification and remediation of contaminated land. This regime provides, for the first time, a statutory definition of “contaminated land” which is based on risks of significant harm to human health and the environment, or pollution of controlled waters. By adopting the principles of risk assessment and risk management it will ensure that contaminated land is managed effectively, based on its current use and environmental setting. This involves identification of contaminant source, pathway and receptor and the essential establishment of pollutant linkages by which the contaminant from the source can reach the receptor via the pathway with the possibility to cause significant harm or the pollution of controlled waters.

Section 57 of the Environment Act 1995 inserted part IIA of Environmental Protection Act (EPA) 1990. The regime is considered in some detail in the Department of the Environment Transport and the Regions (DETR) Circular 02 / 2000, which includes a statement of government policy, a description of the new regime, the statutory guidance and a guide to the supporting regulations. The Contaminated Land (England) Regulations 2000 deal with particular aspects of the regime including Special Sites, remediation notices, appeals and registers.

Special consideration needs to be given to address the liability issues associated with the Council’s existing land holdings and avoid any new liability associated with land acquisitions.

### 3. Corporate Objectives of South Cambridgeshire District Council

The Council is actively working towards a position in which strategies and priorities for individual services reflect its overall objectives. The contaminated land strategy endorses and supports the corporate objectives of:-

- Maintaining, improving and developing sympathetically the character, environment, economy and social fabric of our villages.
- Promoting a healthier environment to enable our communities to lead healthier lives, by its own actions and in active partnership with others.
- Working towards a more sustainable future for everyone living and working in South Cambridgeshire, balancing the needs of the present and future generations.

The Council's Local Agenda 21 Strategy was adopted in 1998 based on a number of guiding principles, which are relevant to this strategy:-

- Caring for our biodiversity.
- Encouraging good management of our countryside and environment.
- Encouraging local action.

The overall environmental aim of the Local Plan is to preserve the biodiversity, historic interest and special character of the landscape and settlements of South Cambridgeshire and to achieve new development, which respects and reinforces local distinctiveness. In doing this, a contribution will be made towards the protection of the regional, national and global environment. This overall aim may be met in a number of objectives:-

- To maintain and enhance the character and appearance of South Cambridgeshire's countryside and landscape.
- To protect and enhance the biodiversity of the District, particularly to safeguard wildlife by protecting habitats.
- To protect and enhance the built-environment.
- To safeguard and record the archaeological heritage.
- To protect and improve the quality of the land, water and air environments.
- To reduce energy consumption.

## 4. Regulatory Context

### 4.1 Contaminated Land regime

On 1 April 2000, the Government enacted section 57 of the Environment Act 1995, implementing Part IIA of the Environmental Protection Act 1990. It requires Local Authorities to inspect their areas periodically for the purpose of identifying contaminated land. South Cambridgeshire District Council is responsible for fulfilling this duty. The Department of the Environment, Transport & Regions (DETR) issued statutory guidance in Circular 2 / 2000 and this Council must have regard to this and other such guidance that may be issued by the Secretary of State.

Part IIA provides an improved system for the identification and remediation of land where contamination is causing unacceptable risks to human health or the wider environment, assessed in the context of the current use and circumstances of the land.

The national objectives of the new regime (Part IIA) are:-

- Identifying and dealing with unacceptable risks
- Bringing land back into beneficial use
- Keeping cost burden proportionate, manageable and economically sustainable
- Suitable for current use and circumstances
- Integrating human health and groundwater controls and thus streamlining regulation

Emphasis is on stimulating voluntary action, which the Council supports. Intervention will only occur when necessary and when informal approaches have been exhausted.

Previously, the statutory nuisance powers under Part III of the Environmental Protection Act 1990 could be used to deal with contaminated sites, but the legislation was not developed specifically to address contaminated sites. Furthermore, there was no formal definition of contaminated land, which may have caused inconsistent enforcement. This new legislation supersedes the statutory nuisance powers, which have now been repealed in relation to contaminated land. Interaction with other regimes may also preclude action under Part IIA these are discussed briefly below.

### 4.2 Other Enforcement Regimes

Other regimes which may have implications for Part IIA include:-

#### 4.2.1 Planning and Development Control

Considered under the suitable for proposed use guidance: Planning Policy Guidance Note 23, Department of Environment (DOE) Circular 11 / 95 and Building Regulations

1991, the responsibility rests with the developer and enforcement will be through planning conditions and building control.

#### 4.2.2 [Integrated Pollution Control \(IPC\) and Pollution Prevention and Control \(PPC\)](#)

Section 27 of EPA 1990 gives the Environment Agency the power to take action to remedy harm caused by a breach of Integrated Pollution Control conditions. Section 78YB(1) precludes action under Part IIA if this power is exercisable.

The Pollution Prevention and Control Regulations (2000) replace IPC and will include the same powers with the same relationship to Part IIA.

#### 4.2.3 [Waste Management Licensing](#)

Where a site licence is in force, Part IIA is not enforceable. Land cannot be defined as contaminated and such issues would be dealt with under the terms and conditions of the Site Licence.

Where contamination arises due to an illegal deposit of controlled waste, the Environment Agency (EA) and the Waste Disposal Authority (County Council or unitary authority) have powers under section 59 of the EPA 1990 to remove the waste and to deal with the consequences of its presence.

Where remediation activities on contaminated land may themselves fall within the definitions of “waste disposal operations” or “waste recovery operations”, they will be subject to the licensing requirements under Part II of the EPA (DOE Circular 11 / 94).

#### 4.2.4 [Statutory Nuisance](#)

This system has been superseded by the Part IIA regime and the definition of statutory nuisance can no longer be applied to 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 will apply, however, to the effects of deposits of substances on land which give rise to such offence to human senses (such as stenches) as to constitute a nuisance, since the exclusion of the statutory nuisance regime applies only to harm and the pollution of controlled waters.

#### 4.2.5 [Water Resources Act 1991](#)

Sections 161 –161D of the Water Resources Act 1991 give the Environment Agency powers to take action to prevent or remedy the pollution of controlled waters. The policy statement “Environment Agency Policy and Guidance on the Use of Anti-Pollution

Works Notices” sets out how the Agency intends to use the works notice powers, particularly where there is an overlap with the Part IIA regime:-

- The LA should consult the EA before determining contaminated land in respect of pollution of controlled waters;
- Where the LA has identified contaminated land, which is potentially affecting controlled waters, the LA is required to consult the Environment Agency and to take into account any comments the Agency makes with respect to remediation requirements;
- Where the Agency identifies any case where actual or potential water pollution is arising from land contamination, the Agency will notify the relevant LA to enable formal identification of contaminated land;
- Where land has been identified as contaminated land under the Part IIA regime, the Part IIA enforcement mechanisms would normally be used rather than the works notice system. This is because Part IIA imposes a duty serve a remediation notice whereas the Agency is only given a power to serve a works notice.

The Water Resources Act powers may be particularly useful where historic pollution of groundwater has occurred but where the pollutants are entirely contained within the relevant body of groundwater or where the source site cannot be identified.

No Remediation Notice can require action to be carried out which would have the effect of impeding or preventing a discharge into controlled waters for which a discharge consent has been issued under Chapter II of Part III of the Water Resources Act 1991.

#### 4.2.6 Radioactivity

Part IIA does not apply with respect to any radioactivity possessed by any substance.

#### 4.2.7 Food Safety

**The Food and Environment Protection Act 1985 – Part 1** gives Ministers emergency powers to issue orders for the purpose of prohibiting specified agricultural activities in a designated area, in order to protect consumers from exposure to contaminated food.

When considering action under Part IIA consultation should be undertaken with the Food Standards Agency about any possible use of the powers under Part 1 of the 1985 Act.

The Food Standards Agency will advise on any potential food safety aspects of any specific cases of contaminated land. It is responsible for advice on food safety including

the safety of consumers of any foods including produce from domestic gardens and allotments and food collected from the wild including game as well as commercially produced foods that may be affected by contaminated land.

Contaminated land may affect food safety directly for example by contaminating crops grown on or animal products from animals raised on contaminated land or indirectly, for example by transport of contaminants to other locations or by causing pollution of waters used to irrigate crops or to water animals, or from which fish or shellfish may be consumed.

Areas of food production may often be relatively sparsely populated but it is important to bear in mind that food produced there may potentially reach a large number of consumers (or receptors).

#### 4.2.8 Health and Safety

**The Health and Safety at Work etc Act 1974 and The Construction (Design and Management) Regulations 1994** etc are concerned with risks to employees or the public, which may include those relating to land contamination. Consultation should be undertaken with the Health and Safety Executive (HSE) to ensure the most appropriate regime is used to deal with any problems.

#### 4.2.9 Landfill Tax

**The Finance Act 1996** introduced a tax on the disposal of waste but exempted material removed from contaminated land. However, this exemption does not apply where a Remediation Notice has been served under section 78E of the EPA 1990. This provides a fiscal incentive to undertake voluntary remediation.

#### 4.2.10 Major Accident Hazards

**The Control of Major Accident Hazards Regulations (COMAH) 1999** require operators handling prescribed substances to prepare on-site emergency plans, and the County Council to prepare off-site emergency plans which include the restoration and clean-up of the environment following a major accident. The HSE is responsible for overseeing the COMAH Regulations.

### 4.3 Definition of Contaminated Land

For the first time there is a legal definition of Contaminated Land given in section 78A(2) of Part IIA of the Environmental Protection Act 1990. This states that:-

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.

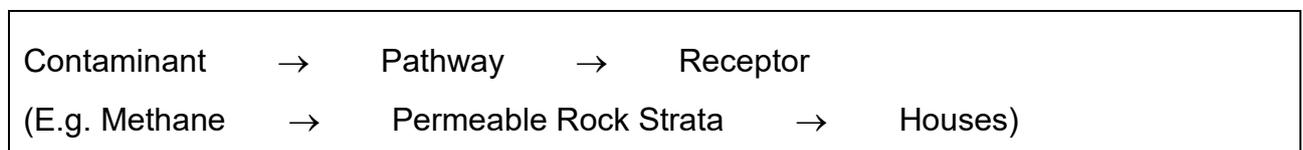
This definition reflects the intended role of the Part IIA regime which is to enable the identification and remediation of land on which contamination is causing unacceptable risks to human health or the wider environment. It does not necessarily include all land where contamination is present, even though such contamination may be relevant in the context of other regimes.

### 4.4 Principles of Pollutant Linkage

The definition is based upon the principles of risk assessment where, “risk” is defined as the combination of:

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

The risk assessment follows the concept of contaminant-pathway-receptor or “pollutant linkage”.



The Guidance requires that for land to be identified as contaminated, each stage of the Pollutant Linkage must be present. If any one of the three key stages is missing, the land, although possibly polluted, cannot be designated as contaminated.

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

- Step 1: identifying the contaminant, pathway(s) and receptor with respect to that land.

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

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

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

(A pathway may be identified by reasonable assessment and does not necessarily need to be observed.)

A **receptor** is either:

- A living organism, a group of living organisms, an ecological system or a piece of property which is –
    - in a category listed in table A (Appendix 1) as a type of receptor, and
    - being, or could be, harmed, by a contaminant; or
  - Controlled waters which are being, or could be, polluted by a contaminant.
- Step 2 is for the local authority to satisfy itself that both:
- Such a pollutant linkage exists in respect of a piece of land; and
  - That pollutant linkage:
    - Is resulting in significant harm being caused to the receptor in the pollutant linkage (see Appendix 1 Table A)
    - Presents a significant possibility of significant harm being caused to that receptor (see Appendix 1 Table B)
    - Is resulting in the pollution of the controlled waters which constitute the receptor; or
    - Is likely to result in such pollution.

A significant pollutant linkage is therefore a pollutant linkage, which forms the basis for a determination that a piece of land is contaminated land.

If the three components of the pollutant linkage exist, a risk assessment will be undertaken to determine the likelihood of harm being caused and the likely nature and extent of harm if the predicted event actually occurred. An area of land can only be designated as contaminated land if a significant risk has been proven.

## 4.5 Principles of Risk Assessment

The primary aim of risk assessment is to decide whether or not a site poses actual or potential risks to human health or the environment. This is generally achieved by a process of collecting data on contaminant sources, pathways and receptors and their relationships (pollutant linkages), then estimating and evaluating the risks associated with each pollutant linkage. The steps involved in this process include:

- desk study
- site reconnaissance
- exploratory and detailed site investigations
- development of conceptual model for site
- estimation and evaluation of risks.

To be relevant to the assessment of risk all information must be scientifically based, authoritative, pertinent to the contaminants actually present in the soil and appropriate to the determination of whether any land is contaminated land for the purposes of Part IIA, in that the use of the information is consistent with providing a level of protection of risk in line with the qualitative criteria set out in Tables A and B of Appendix 1.

The Contaminated Land Exposure Assessment or CLEA guidelines on risk assessment are currently being produced. In the meantime, all information will be evaluated against existing advice notes such as those issued by the Interdepartmental Committee on Redevelopment of Contaminated Land (ICRCL). ICRCL 59 / 83 (2<sup>nd</sup> Edition, July 1987); "Guidance on the assessment and redevelopment of contaminated land", gives the most widely used set of reference levels for soil contaminants but must be treated with caution as it relies on trigger levels but rarely quotes action levels. Each contaminant should be interpreted on a site specific basis. ICRCL 70 / 90 is the only document relating to agricultural land. In respect of plant and animal uptake from soils it will be necessary to obtain specific information relating to the receptor under investigation.

For those substances not covered by an ICRCL reference example, asbestos, advice may be sought of the Health and Safety Executive. Where controlled waters are involved the Environment Agency will be consulted. It is anticipated that the EA Guidance: "Methodology for the Derivation of Remedial Targets for Soil and Groundwater to Protect Water Resources" (EA R&D Publication 20, 1999) or ConSim will be the most relevant tools to undertake this risk assessment.

## 5. Roles And Responsibilities

### 5.1 The Role of South Cambridgeshire District Council

The primary regulatory role under this regime falls to the Local Authority, either the District Council or the unitary authority. The responsibilities conferred by the Act can be summarised into the following eight duties:

- Inspection of the area from time to time for the purpose of identifying contaminated land – in order to achieve this, we are required to take a “strategic approach” and to describe and publish this in a written strategy. This document must be published by July 2001.
- Determination of whether a particular site meets the statutory definition of contaminated land.
- Consideration of whether the definition of “special site” applies to designated contaminated land – if this is so then the Environment Agency becomes the enforcing authority.
- Otherwise the local authority has a duty to act as the enforcing authority for all contaminated land.
- There is a duty to prepare and serve notifications of contaminated land (which will effectively initiate the consultation process to determine what remediation is necessary)
- To secure remediation of the site following consultation. This can be either by voluntary agreement or compulsorily by service of an enforcement notice – there is a fiscal incentive in terms of the landfill tax to undertake voluntary remediation as landfill tax exemptions will not be granted if an enforcement notice has been served.
- Allied to this is the determination of liability and apportionment or exclusion from remediation and cost recovery.
- To compile and maintain a register of contaminated land. The information to be recorded is specifically detailed in the Regulations. In outline these include remediation notices / declarations or statements, designation of special sites and contaminated land where action is precluded owing to the application of other statutory regimes.

There is considerable interaction with other regimes and some of these may preclude action by the local authority under Part IIA.

A Local Authority must also give special consideration to address the liability issues associated with their existing land holdings and to avoid any new liability associated with land acquisitions. This may be addressed through the Council’s Asset Management Plan to identify contaminated

land already in our ownership and to require site investigation reports prior to the acquisition of future land holdings. If the Council is found to have caused or knowingly permitted contamination of land then it will voluntarily remediate the site at the earliest practicable opportunity with regard to the risks posed by the contamination.

## 5.2 The Role of the Environment Agency

The Environment Agency has a complimentary regulatory role in relation to Part IIA. Specifically, the Environment Agency has the following responsibilities:

- Provide information to the Local Authority agreed in the Local Government Association's Memorandum of Understanding,
- Provide site-specific advice upon request,
- Enforce the regime where it relates to special sites,
- Advise on matters pertaining to water pollution,
- Collate information from all Local Authorities in England and Wales, and produce a national report on the 'State of Contaminated Land',

Whilst not a statutory requirement the Environment Agency also administer the contaminated land research and development programme on behalf of the Department of the Environment Food and Regional Affairs.

If an area of contaminated land has been identified, the approach for dealing with it will be the same regardless of whether this Local Authority or the Environment Agency is the regulator. The initial determination of whether land is contaminated is the responsibility of this Local Authority and Regulations set down the process for referring special sites to the Environment Agency.

## 5.3 Special Sites

Section 78C(8) of the Act sets out a prescribed description of land which must be designated as a Special Site. The classes of land listed as special sites do not imply that land of that type is more likely to constitute contaminated land. Instead, they identify cases where the Agency is best placed to be the enforcing authority. This is usually because the Agency is already regulating the site through other regimes, where its involvement is likely to lead to greater consistency, for example on Ministry of Defence land, or where it has specific expertise in certain instances involving the pollution of controlled waters.

There are three main groups where land must be designated as a Special Site. These are:

- Where contaminated land is affecting the quality of controlled waters and where the Environment Agency also has other concerns under other legislation such as:-
  - wholesomeness of drinking water
  - surface water classification criteria
  - major aquifers – where the specified aquifer is being affected by substances on List 1 of the Groundwater Directive (80 / 86 / EC).
  
- Where contaminated land has been used for industrial activities which pose either special remediation problems or are subject to regulation under other regimes such as:-
  - waste acid tar lagoons
  - oil refining
  - explosives
  - Integrated Pollution Control (IPC) sites
  - nuclear sites – only in relation to non-radioactive contamination.
  
- Current military, naval or air force bases, and other properties including those of visiting forces. However, excluded from Agency control are off-base housing or off-base Navy, Army and Airforce Institutes (NAAFI) premises, and property disposed of to civil ownership or occupation.

## 6. Development of the Strategy

### 6.1 Statutory Requirements

Each local authority is required to take a strategic approach to inspecting land in its area for contamination. The statutory guidance requires that the approach adopted should:

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

### 6.2. Strategy Production

This strategy has been developed to meet these requirements. Particular reference has been made to “Contaminated Land Inspection Strategies Advice Note – Draft” (April 2000) issued by the Department of the Environment, Transport and the Regions. The structure of evolution is as follows:

- a) A document outlining the alternative methods for implementing the contaminated land regime was presented to the Corporate Management Team in September 2000.
- b) As a result of this meeting it was agreed that the Environmental Health Department should take the lead role and a representative of each of the following departments was nominated to the Council’s internal Contaminated Land Working Group – planning, building control, conservation, IT, legal and finance.
- c) Comments on the consultation draft will be invited from formal consultees and informal consultees, including other sectors of the community and businesses. Parish Councils are seen as particularly important sources of local information and a proactive consultation exercise will be undertaken to involve them. A general invitation to take part in this process was made to all residents of South Cambridgeshire through the Council’s own publication “South Cambs Magazine”, Spring 2001 edition which was delivered to every household in the district.
- d) A final version of the strategy will be submitted to the DETR and copied to the Environment Agency.

## 7. Characteristics of South Cambridgeshire District Council Area

### 7.1 Geographical location

South Cambridgeshire is a rural district in East Anglia which entirely surrounds but does not include the city of Cambridge. It is the southernmost district of the county of Cambridgeshire and borders Bedfordshire to the west, Hertfordshire to the south, Essex to the south-east and Suffolk to the east.

District council boundaries include Cambridge City Council, East Cambridgeshire District Council, St. Edmundsbury District Council, Braintree District Council, Uttlesford District Council, North Hertfordshire District Council, Mid-Bedfordshire District Council and Huntingdonshire District Council.

The district forms part of the Environment Agency's Anglian Region Central Area.

### 7.2 Description and history of the area

The district is comprised of 101 parishes with all settlements classified as villages. The landscape and villages are equally varied. Rolling chalk hills and beech woods in the south give way to a clay plateau in the west and the flat fertile fenland of the north typified by its black soils and drainage channels. This landscape has led to the development of distinctive settlement patterns and village character ranging from spring-line villages to the south, to villages nestling in river valleys in the west and large Fen edge villages to the north. Much of the District is farmland of high agricultural quality (grades 1 and 2).

The area has good road and rail links with London and the South-East. The M11 / A11 and A14 corridors pass through the District to the west / south and north of Cambridge, respectively. Road communications to the Midlands and the East Coast ports were significantly upgraded with the completion of the A1 – M1 link in 1994. The main Kings Lynn, Ely and Cambridge to London Liverpool Street railway also runs north-south through the District with stations at Waterbeach, Great Shelford and Whittlesford. A further railway line connects Cambridge to London Kings Cross with stations at Foxton, Shepreth, Meldreth and Odsey. This is only a small fraction of the original rail network, which connected Cambridge to Bedford, Haverhill and St Ives.

Aviation is also well served in the District, its natural topography lending itself to runways. This area was used extensively during the war having at least seven military airbases. Today the primary airfield used for passenger and freight transport is Cambridge Airport, which straddles the boundary of South Cambridgeshire and the City. A number of private airfields operate around the District each specialising in a different area, such as gliding, training or acrobatics.

The Imperial War Museum at Duxford was previously a military establishment and holds several Air Shows each year with the associated storage and repair of vintage aircraft.

This accessibility together with the economic success of the Cambridge area in building up a high technology employment sector has created a buoyant local economy whose performance in jobs and wealth creation is well above the national average. The District includes the internationally renowned Cambridge Science Park, while there are other research facilities such as Wellcome Trust at Hinxton Hall and The Welding Institute at Great Abington. Local family run service type businesses are distributed around the district. Sawston is well known for its heritage in tanneries and there is a record of quarrying across the district over many years.

South Cambridgeshire's varied landscape can be divided into five main distinct areas:

- a) **The Fenlands**, starting to the east of Cambridge and running northwards, this area was originally tidal marsh which, since Roman times; has been progressively drained to form highly productive farmland on rich black peat based soils. The resultant low lying flat and open landscape is punctuated by isolated farmsteads and dissected by a series of man-made drainage channels or dykes with few hedgerows or woods, although some watercourses are marked by lines of willows.
- b) **The Western Claylands** are formed from a clay plateau in the north-west of the District, broken by shallow river and brook valleys giving rise to a gently undulating landscape. Large open arable fields have been created by modern farming practices with a resultant much reduced level of hedgerows. There are some woodlands, mainly of oak and ash. Scattered villages with their church towers and spires add interest to this landscape, and these settlements are usually associated with smaller, hedged fields and paddocks on their edges.
- c) **The Chalklands** run across the District south of Cambridge from the edge of Royston towards the Newmarket area. This is an area of smooth sloped and rolling chalk hills, broken by the valleys of the Granta and Rhee which converge just south of Grantchester to form the River Cam. Large arable fields are punctuated by small beech copses or hangers on some of the hills.
- d) **The South Clay Hills** in the extreme south-east of the District this undulating high land is some of the highest in the County. Large arable fields form much of the landscape although there is some woodland and hedgerows, whilst earth banks are a distinctive feature along some roadsides.

- e) **The Greensand of the West**, where the area around Gamlingay forms part of a larger landscape area within Bedfordshire which culminates in the Greensand ridge around Sandy. In the Gamlingay area the countryside is more gentle but the dry acidic soils still give a different character with woods and heathland.

South Cambridgeshire District Council covers an area of approximately 360 square miles, 89,861 hectares and has a low population density. Although the total population of the District is over 130,000, this is comprised of 101 villages ranging in size from Childerley with only 50 residents to Sawston, a large village with a population of around 8,000. There is not a single town within the District.

The Cambridgeshire Structure Plan forecasts that the population of the District will grow to approximately 141,500 persons by the middle of the year 2006. The Structure Plan proposes that this will require the development of an additional 11,300 dwellings in the fifteen year period 1991 to 2006. Development is generally dependent upon the availability of services and facilities, and also to the availability of sites that are suitable for building. Much of the development in South Cambridgeshire will therefore be concentrated in the larger and better served villages. Significant new allocations for housing will be found outside the areas housing restraint defined in the Local Plan with smaller sites within the village framework generally limited to infill development. Many such infill developments are 'brownfield' sites such as disused petrol filling stations or small industrial estates. These sites which may already be allocated for housing within the local plan will be given priority within this Strategy to ensure that by development they are not introducing a receptor into a significant pollutant linkage and thereby creating contaminated land.

### 7.3 Details of South Cambridgeshire's Ownership of Land and Property

South Cambridgeshire District Council is a property owner in its own right and is responsible for a housing stock of approximately 6,700 properties and associated land such as car parks and play areas. These properties are controlled and administered by Shire Homes, which is based at South Cambridgeshire Hall.

All other property, which is or was owned or controlled by the council, is the responsibility of the Development section of the Housing and Community Services Department based at the Council Offices in Station Road, Cambridge. Preliminary contact has been made with the development section to compile a list of sites which may have the potential to be contaminated. These sites include areas of land that have been used for various activities over the years including sewage treatment works (STW) and refuse disposal. In summary the Council's portfolio has a total value of operational assets of approximately £146 million plus £4.3 million non-operational assets. Details of relevant property assets are included in Appendix 2.

Desktop studies of the sites will be carried out in the first instance to see if further investigations are required. Those sites identified will be prioritised with respect to this Strategy and a full risk assessment carried out in due course. Any Council land found to be contaminated would be remediated as soon as reasonably practicable in accordance with the risks posed. Any remedial work identified would be incorporated into the Council's Asset Management Plan which sets out the spending and maintenance programme for all council property. All vacant land in the Council's ownership is currently maintained to an acceptable standard to ensure that fly tipping does not occur.

#### 7.4 Geology of South Cambridgeshire

British geological survey maps 187, 188, 204 and 205 cover the South Cambridgeshire area. They define three major rock types, i.e. limestone, sandstone and clay. The area to the south and east is predominately middle and lower chalk over a bed of gault with pockets of glacial and taele gravels. There are also valley gravels along the riverbeds.

The west and north-west area of the City of Cambridge indicates a mixture of rock types. The drift of the north-west section, being alluvium and river gravels over the solid Ampthill clay. There are also pockets of clay and shale exposed. To the west is boulder clay over Ampthill clay below which is grey mudstones with infrequent stone beds. These clays tend to contain limestone and shale as well.

The north-east section has three main layers consisting of middle chalk, lower chalk and gault. As one travels west, this gives way to Ampthill clay, Kimmeridge clay and lower greensand. Drifts over the lower chalk are small pockets of peat and various gravels, whilst over the gault there are large areas of peat and gravel deposits.

Alluvium deposits are to be found in the river valleys. The south western corner has two main layers of solid rock, i.e. grey and blue grey clay and grey chalk. The small amount of drift being alluvium, taele gravel and glacial gravel.

Geology can also be a source of some contamination. Radon is a natural occurring radioactive gas and emanates from rock formation to varying degrees, depending on the type, porosity and permeability. The National Radiological Protection Board categorised a radon affected area in one five-kilometer square of the ordnance survey grid which is partially within the jurisdiction of South Cambridgeshire District Council. Within this area are 1,000 properties, of which some 187 properties have been monitored for indoor radon levels, only one of these properties has been shown to be above the action level of 200 Bequerels / m<sup>3</sup>.

It is estimated that the typical concentrations of uranium in limestone and other sedimentary rocks of South Cambridgeshire is low to medium, around 2 ppm (Cameron 1993, Ward 1989).

However, phosphatic nodules or coprolite is fairly common in most rock formations in South Cambridgeshire and these nodules can contain high uranium levels, perhaps up to 100 ppm (Cameron 1993 Ponsford 1995).

Coprolite is found in large concentrations in the Cambridgeshire greensand and was mined extensively during the 1800s for use as a fertilizer.

Both carbon dioxide and methane are found as contaminants emanating from the natural decaying process in areas of peat and alluvial deposits. Carbon dioxide will also emanate from limestone and chalk deposits.

### 7.5 Areas of Naturally Metal Enriched Soils

The District is known to exhibit concentrations of arsenic which are higher than the national average. The British Geological Survey are undertaking a UK sampling programme of soil, stream sediments and surface stream waters during 2001 / 2002 as part of the regional geochemical survey. It is our intention to review the purchase of this dataset when it has been compiled and further details regarding costs are available.

### 7.6 Hydrogeology of South Cambridgeshire

The area is dominated by the Cam catchment although the north of the district lies within the Great Ouse catchment. The most important of the river valley environments for South Cambridgeshire are the River Cam north of Cambridge, the river Rhee to the south and west, the River Great Ouse to the north-east, the Granta to the south-east and the smaller tributary valley of the Bourn Brook.

The hydrogeological classification of sedimentary strata in the district ranges in age from the Jurassic to the Quaternary period. Permeability is high in chalk, sandstone and gravels, whereas it is low in mudstone and clays (Nathanail 2000). However, clay deposits in the South Cambridgeshire area also contain shales, limestones and other constituents and may well be fissured, so having the ability to transmit fluids and thereby act as a pathway to contamination.

Existing nitrate vulnerable zones designated by the Environment Agency within South Cambridgeshire include Heydon, Fowlmere, Linton and Fulbourn.

The Environment Agency regional appendices and the groundwater vulnerability map no 32 indicate the following classification of the various rock formations associated with aquifer status, to be found in South Cambridgeshire:

Table 1: Summary of Geology and Hydrogeology in South Cambridgeshire

| System / Group & Strata Type | Description  | Flow Mechanism       | Aquifer Status     |
|------------------------------|--|----------------------|--------------------|
| <b>Cretaceous Period:</b>    |  |                      |                    |
| Upper Chalk                  | Fine grained fissured white limestone.   | Fracture             | Major Aquifer      |
| Middle Chalk                 | Major aquifers, yields are often in excess of 100 l / s, rapid movement of contaminants.   |                      |                    |
| Lower Chalk                  | Lower chalk is marly at base.  |                      |                    |
| Gault Clay                   | Stiff dark grey clay plus limestone and marl layers and concretions. Extensively mined for making bricks. Weathered zone is often fractured, raising permeability. | Varied               | Non Aquifer        |
| Woburn Sands                 | Sands and ferruginous sandstone.   | Mainly intergranular | Major Aquifer      |
| <b>Jurassic</b>              |  |                      |                    |
| Kimmeridge Clay              | Mainly dark bluish clay, shaley and bituminous in places and containing cement stones. Fracturing in weathered zone raises permeability                            | Fracture             | Non Aquifer        |
| Ampthill Clay Formation      | Calcareous grey mudstones with cement stone bands and phosphatic nodules   | Fracture             | Mainly non aquifer |
| West Walton Formation        | Grey silty mudstones and thin cement stone bands   | Fracture             | Non Aquifer        |

| System / Group & Strata Type                           | Description   | Flow Mechanism       | Aquifer Status                                    |
|--|---|----------------------|---|
| Oxford Clay Formation                                  | Greenish-blue mudstone when fresh, brown when weathered. Contains calcareous cement stones, pyrite and selenite concretions. Extensively mined for brick manufacturing. Some fracture flow at changes in lithology and in fractured weathered zone of mudstone. | Fracture             | Non Aquifer                                       |
| Kellaways Formation                                    | Sands, silts and clays locally cemented   | Mainly intergranular | Minor aquifer (sands)<br>Non Aquifer (clay)       |
| Cornbrash Formation                                    | Brown / grey limestone with thin clay bands. Locally important.   | Fracture             | Major Aquifer                                     |
| Blisworth Clay Formation (Great Oolite Clay)           | Grey, green and purple clays with ironstone and limestone bands   | Fracture             | Non Aquifer                                       |
| Blisworth Limestone Formation (Great Oolite Limestone) | Grey / bluish limestone and thin beds of clay and marl. Provides local supplies.  | Fracture             | Major Aquifer                                     |
| Rutland Formation                                      | Grey and green mudstones, minor limestone bands.  | Fracture             | Minor Aquifer                                     |
| Lincolnshire Limestone                                 | Shelly limestone and calcareous sandstone.  | Fracture             | Major Aquifer                                     |
| Grantham Formation (Lower Estuarine Series)            | Sands with clay seams, low grade ironstone.   | Varied               | Non Aquifer                                       |
| Lias   | Upper Lias: clay, mudstones, shales<br>Middle Lias: ironstone, sands and clays. Marlstone Rock (limestone bands)<br>Lower Lias: mainly clays with limestone beds.   | Fracture             | Non Aquifer<br>Minor Aquifer<br><br>Minor Aquifer |

The movement of fluid through a rock structure is known as permeability. The ability of these rocks to hold water or fluid is described as being porous. The following rocks, all found in South Cambridgeshire, are known to be both porous and permeable:– chalk, lower greensand, sandstones and limestone. All of these rock formations are major aquifers because of their capability to hold large amounts of water. However, their porosity makes them vulnerable to infiltration by contaminants.

## 7.7 Water Resources

Groundwater resources are critical to the maintenance of the public water supply in South Cambridgeshire. The chalk aquifer to the south and east of Cambridge is an important strategic resource and the principal source for Cambridge Water Company. It is highly vulnerable to different types of land use activity that could pollute it or prevent it from re-charging. The Groundwater Protection Maps, prepared by the Environment Agency, represent areas where groundwater is at varying degrees of risk from potentially polluting activities and developments. Regard will be given to the presence of aquifers in assessing the risk of contaminated land.

Large amounts of drinking water are extracted from the chalk of South Cambridgeshire. Groundwater accounts for half of the public water supply. Cambridge Water Company operates twenty-five pumping stations, drawing 77 million litres of water per day, 97% of which drawn from the chalk strata, the remaining 3% being drawn from greensand and river gravel aquifers (Cambridge Water 1996). The protection of this groundwater is vital to the future sustainability of the water supply to the region.

South Cambridgeshire District Council registers Private Water Supplies within the area. Currently there are 136 registered supplies, which are regularly sampled according to risk. 129 properties are rated as low risk supply for domestic use only and 7 properties are registered to supply catering and food production premises as well as domestic use. The location of these supplies is shown in Appendix 3.

## 7.8 Protected Locations

Areas of this historic landscape which include parkland, waterways, trackways, hedges, field patterns, woodlands and wetlands are considered to be particularly important characteristics of South Cambridgeshire District Council. This is reflected within the structure plan policy, which aims to safeguard and protect zones of nature conservation interest because of the range and diversity of habitats and thus the species they support.

In South Cambridgeshire, these zones are:

- the chalk belt stretching from Newmarket to north of Royston
- The Ouse Valley and the valleys of the Cam Granta and the Ouse Washes.

There are 36 Sites of Special Scientific Interest (SSSIs) identified by English Nature as those areas of natural habitats which have a national importance and have been notified under the Wildlife and Countryside Act 1981, as amended in 1985. Such sites have a flora or fauna of interest or may show interesting geological features. The sites are listed in Appendix 4.

As well as nationally important sites designated SSSIs, other areas have a local significance for flora, fauna or geological interest and should be protected. English Nature hold an inventory of protected species records which should be consulted prior to any action under the Part IIA. Local Nature Reserves are afforded statutory protection under Section 21 of the National Parks and Access to the Countryside Act 1949. There are three such sites in South Cambridgeshire:

- St Dennis' Church, East Hatley
- Beechwood and Beechwood Extension, Gog Magog Hills
- Mare Fen, Swavesey

There are other man made landscapes of local value which contribute to the quality of the whole landscape and which, in some cases, form the setting of Listed Buildings, these are detailed in Appendix 5. Ancient monuments include Wandlebury Hill Fort.

South Cambridgeshire possesses a great variety of buildings which are of architectural and historic interest. The vernacular tradition includes a wide range of timber framed buildings, usually covered in lime plaster, dating from Medieval times to the 19th Century; each period is represented by its own particular building form, style and detailing.

The finest buildings are Listed Buildings. This means that they are of national importance and have been included in the Statutory List of Buildings of Special Architectural or Historic Interest by central government.

In addition to sites which have statutory designation, there are numerous other sites in South Cambridgeshire which have natural history value. These "County Wildlife Sites" have been identified by the Wildlife Trust. The knowledge of such sites and their condition is always changing and sites may be added and removed from the list. The District Council has identified other sites as informal nature reserves. Some of these are in the Council's ownership, but Parish Councils can also own, manage or enter into an agreement with landowners or the District Council to achieve non-statutory nature reserves. Parish Councils can also create Pocket Parks, such as that at Linton, which allow better public access to the countryside, encourage environmental education, and maintain, improve or add to wildlife habitats through

careful management. In South Cambridgeshire examples of informal nature reserves include Millfield Pit (Caxton), Watts Wood (Comberton), Toft Bridge Meadow (Kingston), Litlington Clunch Pit and Milton Country Park. These sites will be considered as sensitive in determining the risk of contaminated land

### 7.9 Current Land Use Characteristics

A list of potentially contaminative land uses has been compiled by the DETR and is reproduced in Appendix 6. Known uses which have occurred within South Cambridgeshire include:-

- Processes prescribed under Part 1 of the Environmental Protection Act 1990.
- Sites designated under the COMAH Regulations.
- Current and closed landfill sites and other waste management facilities.
- Previous and current industrial activities.
- Military establishments, including current and former airfields.
- Sewage treatment works.
- Service stations and garages.

### 7.10 Known information on contaminated land

Information on sites in the area that are known to have been contaminated is limited. Most of the sites which have previously come to light have been redeveloped and therefore remediated during the planning control process. Such sites are located in Balsham, Gamlingay, Papworth, Sawston and Swavesey where the land had previously been the subject of a potential contaminative use.

Other possible areas have been highlighted by the Environment Agency in the Cam Local Environment Agency Plan (LEAP) Document. These sites are generally where there is an impact on the water environment and some work has already commenced to remediate problems under the Groundwater Protection Regulations. Such sites include Sawston, Shepreth and Foxton. Discussions will continue with the Environment Agency to ensure that such sites are dealt with under the appropriate legislation.

Issues currently under investigation by this authority are the historical practice of using asbestos cement as hardcore and the effect of organic chemicals on crops.

## 8. Aims and Objectives

The contaminated land strategy will:

- Locate and assess all areas of potentially contaminated land within the district
- Prioritise the risks and assess the most significant sites first to ensure the efficient allocation of resources
- Ensure compliance with, and enforcement of, the Contaminated Land Regulations
- Produce a clear policy and protocol for the operation of the Contaminated Land Regulations that can be easily understood by both contaminated land professionals and the general public
- Ensure that procedures are in place for the provision of information to the public, developers and other departments of the council as required
- Ensure that where redevelopment of sites takes place the planning process effectively deals with any land contamination
- Address the liability issues associated with the council's existing land holdings and minimise the risk of obtaining new liabilities associated with the acquisition of further land in support of the corporate and sustainability objectives of the Council.

## 9. Priority Actions and Timescales

### 9.1 Site Prioritisation Methodology

In order to prioritise potential sites for investigation, the GroundView Site prioritisation computer model version 1.0 will be used. The primary aim of the model is to identify areas of land which could pose a threat to safety, health or the environment because of contamination – either from historical or current use. The secondary aim is then to prioritise these areas in order to plan for further investigations in a systematic way.

The methodology follows the contaminant, pathway, receptor approach. For an area to be considered a risk, there must be a clearly identified (or suspected) source of contamination that presents a hazard, and pathways for that contamination to reach any number of defined receptors or targets. Using this simple principle, a number of different schemes have been developed that aim to give numerical scores to sources of contaminants, pathways, and receptors so that they can be manipulated on the same terms (eg scores can be added) to give an overall rank.

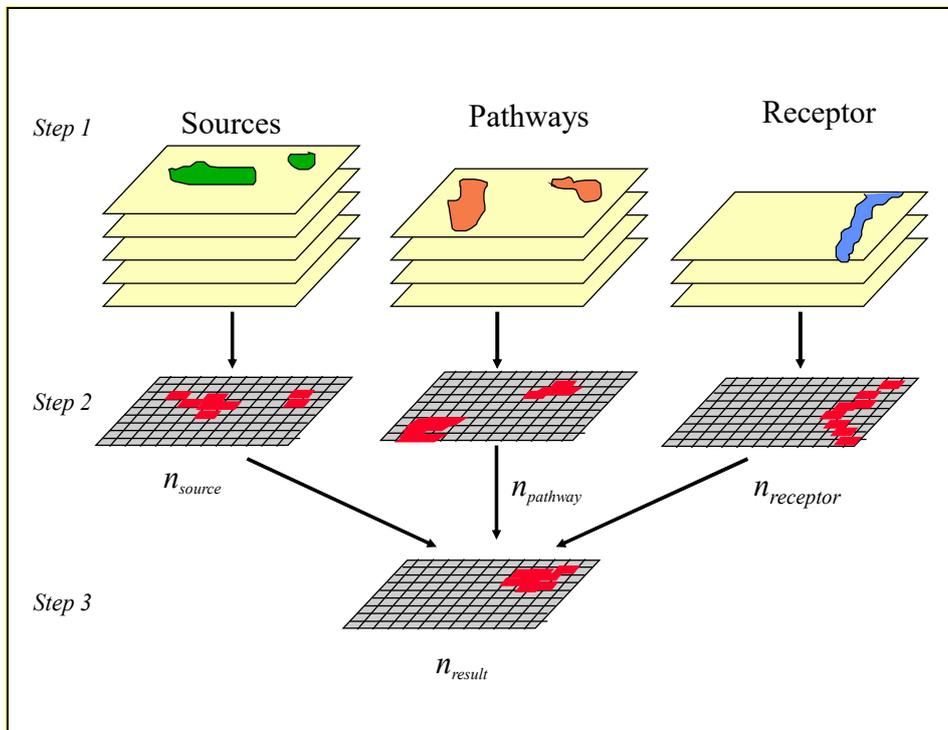
A problem with some approaches is that the assessment cannot be performed without complete information. Incompleteness of information is not a difficulty with this model as calculations can be made with a subset of the data. For instance, if the historical site use data is available but the pathway and receptor information is not, the model should still be able to provide useful results. In this way, the potentially hazardous sites will be apparent at the earliest opportunity. As well as allowing prioritisation of sites in accordance with the Part IIA statutory guidance.

The conceptual model involves three steps:

Step 1:- Any number of map layers can be defined, each categorised as source of contaminant, pathway or receptor. The geographic features defined in each layer can be further categorised. For instance, a source layer showing historical industrial use may contain features that are categorised into usage types, eg factory; landfill; gasworks; tannery etc., this data will be held in the land quality database described in section 12. Each usage type is given a score, and hence each feature on the map layer is given a score.

Step 2:- The scores in map layers are combined and projected onto a grid. The rules for combining scores could be programmed and hence modified, but for the current model the scores are simply added together. A truncation is then applied, which sets the value of any cell to be less than or equal to a user specified truncation value. Once this is done, there will be three grids for sources of contaminants, pathways and receptors. Each grid square will contain a score, shown as  $n_{source}$ ,  $n_{pathway}$  and  $n_{receptor}$ . These grids can be displayed on the map and colour coded according to significance.

Step 3:- The contaminant source, pathway and receptor grids are then added to give a result grid which indicates the level of risk associated with each grid square. A threshold value is then applied, whereby the value of any cell lower than a user specified value is set to zero. Using the contaminant source, pathway, receptor and result grids displayed with current and historic geographical features, the user can easily find areas of most concern.



## Overview of the Conceptual Model

### 9.2 Definition of Contaminant Source, Pathway and Receptor Data

- a) **Contaminant Sources** - Contaminative use of buildings and areas of land can identify potential sources of contamination. This information will be derived from annotations to the historical OS scale maps dating back to the 19<sup>th</sup> Century, and from entries in Trade Directories. Current activities will be indicated on the most recent available maps. In order to identify whether a plot of land has been subject to a contaminative use each layer of the GIS will be interrogated and a score devised from the total number of successful hits. A more complex scoring system can be used to highlight particular issues. For example, areas of the map that show previous industrial use may have certain score of say 5 since the historical information is indicative of the potential for a source to be present. This score will vary dependent on industrial use, for example, a timber treatment yard will score higher than a foundry but lower than a gasworks. Where this historical information is further supported by analytical information showing that a contaminant is present the score will be higher than just an indication of contamination from historical information i.e. there is more certainty that contamination is present.

- b) **Pathways** - Pathways may be mapped according to the environmental media (air, land, water) affected by emission and contamination. The detail of the pathway score will be developed as an understanding of the specific sites increases. For initial screening default scores for pathways will be used or even omitted temporarily from the system. Alternatively, in the case of an exposure to human beings via dermal contact or ingestion, and there is analytical information to show the presence of a source in surface media the pathway score may be higher. On the other hand, if the contaminant source and the receptor do not coincide geographically or the contaminant is not present in the surface soils, the pathway score will be lower since one is dependent on the travel of contamination to affect the receptor. The contamination to land and groundwater pathway can be mapped more easily using information from topographic, soil and geological maps to identify the nature of the cover permeability, the nature of the soil, geological permeability and thus potential exposure of contamination to groundwater. The identification of all wells and boreholes is important for they may act as direct pathways for entry of contaminants to groundwater. Old wells and bores may have been used for waste disposal and again have the potential to act as contaminant pathways. As with contaminant source mapping, the pathways can be simply scored, or subject to a more complex weighting system if required to highlight particular pollutant linkages.
- c) **Receptors** - Receptors may include humans, ground or surface water, property or buildings or ecologically significant sites (see Table A at Appendix 1). At the crudest level scores for each receptor are different dependent on local priorities (i.e. humans > groundwater > property and buildings > ecological sites). This is defined geographically with maps of land use, water abstraction zones and Environment Agency supplied information, SSSIs, demography, and other information as the system develops. As the knowledge base increases it is possible to develop greater resolution in the system a different score for major, minor and non-aquifers; or residential houses with gardens, schools, hospitals, and children's play areas will be designated.

### 9.3 Priorities for Inspection

Using this sieve-mapping technique priorities for inspection will be identified across the district. Detailed site investigations will then commence. Investigative work in these areas will be prioritised according to the method set out in DETR Contaminated Land Report "Prioritisation and Categorisation Procedure for Sites which may be Contaminated" (CLR No.6).

This comprises of two main steps:

- a) A preliminary prioritisation of the site based on the proximity of the receptor. Each site will be assigned to one of three groups which determines the priority for assessment under the second part of the procedure.
- b) The prioritisation is then refined into one of four categories using more detailed information about the linkage.

#### Priority Category 1

- Site probably or certainly not suitable for present use and environmental setting
- Contaminants probably or certainly present and very likely to have an unacceptable impact on key receptors.
- Assessment required.

#### Priority Category 2

- Site may not be suitable for present use and environmental setting.
- Contaminants probably or certainly present, and likely to have an unacceptable impact on key receptors.
- Assessment may be needed in the medium term.

#### Priority Category 3

- Site considered suitable for present use and environmental setting.
- Contaminants may be present but unlikely to have an unacceptable impact on key receptors.
- Assessment unlikely to be needed whilst site remains in present use or otherwise remains undisturbed.

#### Priority Category 4

- Site considered suitable for present use and environmental setting.
- Contaminants may be present but very unlikely to have unacceptable impact on key receptors.
- No assessment needed whilst site remains in present use and remains undisturbed.

The outcome of this prioritisation will be four categories of sites ranging from those requiring urgent assessment (category 1) or assessment in the medium term (category 2) to those where it is considered that little or no action is needed (categories 3 and 4).

No detailed investigation will be carried out unless there is evidence to suggest a pollutant linkage may exist. However, this outcome will be reviewed in line with the mechanisms detailed in this document.

Site inspections will be carried out according to current government guidance, approved standards and codes of practice. Techniques may include:

- visual assessment of the nature of the site and its surroundings to establish the presence of contaminant sources, pathways and receptors
- non-intrusive investigation including geophysical surveys
- intrusive investigation involving excavation of trial pits or drilling of boreholes and logging observations
- sampling of soil, water or gas environments.

Only suitably qualified, experienced and competent persons will be employed to carry out site inspections. Where technical expertise is not available within the Council, appropriately qualified and experienced consultants will be commissioned to carry out the work on the council's behalf.

Before any site inspection is carried out the Council will make all reasonable efforts to obtain permission for access from the person responsible for the site. Where either the person cannot be identified, or permission is not given, the Council will use its powers of entry.

## 10. Determining Liabilities and Securing Remediation

Once a site has been determined as contaminated land, it will be necessary to identify who is liable for, and securing, its remediation. Detail on each of these steps to be followed is in Appendix 7.

For each significant pollutant linkage, the Council will have to identify the appropriate person for any remediation action relating to the pollutants that are present. All appropriate persons who are identified for a particular pollutant linkage are termed a Liability Group. There are two levels of liability:-

- Class A – persons who caused or knowingly permitted the contamination
- Class B – the current owner or occupier of the site.

In certain circumstances, for example where no Class A or B Liability Groups can be identified, liability may fall to the Council. Such sites are called orphan sites. In all cases, the Council will make all reasonable efforts to identify Class A persons before considering Class B persons.

There is a series of tests which the Council is required to apply in order to exclude Class A persons from liability for remediation. Where there is no Class A person for a significant pollutant linkage, liability switches to those in the Class B Group. For this group, there is only one test which excludes any Class B member who does not have an interest in the capital value of the land.

The regime encourages voluntary remediation and it will be the Council's policy to secure remediation of contaminated land by agreement with those liable for clean-up wherever possible. In cases where agreement cannot be reached, the Council will use its enforcement powers under the Act. Before enforcement is initiated, the Council will consult with interested parties:

- to encourage further voluntary remediation to achieve the reasonable standard necessary to mitigate the contamination; and
- by gathering information, and providing the interested parties with information, to reduce the possibility that there will be an appeal against any Remediation Notice which may be served

Where it appears that remediation is not being carried out voluntarily, the Council will serve a remediation notice on all the appropriate persons. The Notice must specify the necessary works to be undertaken and the time limits for their completion. Any person served with a Notice has a right of appeal to a Magistrates' Court. In all cases the Council will undertake its enforcement role in accordance with the guiding principles of the Enforcement Concordat.

## 10.1 Remediation

This is the final stage of the process and will only be carried out in situations where the definition of contaminated land has been met. South Cambridgeshire District Council will use two routes of remediation. These are:

- Voluntary Remediation
- Compulsory Remediation by service of a Remediation Notice.

The Regulations state that remediation is only required to make the land suitable for its current use. Remediation beyond that is not statutorily permitted through a remediation notice but may be achieved by voluntary agreement.

Before remediation commences South Cambridgeshire District Council must seek to consult with all those responsible for the remediation of the site. The regulations state that a moratorium of a minimum of three months should be given between the identification of a contaminated land site and the commencement of the remediation notice. This allows consultation to be carried out to ascertain whether a notice needs to be served or whether the matter can be resolved by voluntary means.

However, it must be noted that in cases where South Cambridgeshire District Council believes there to be imminent danger to a receptor from the contamination present on a site, the consultation process will not take place and immediate action will be taken to remediate the land.

## 10.2 Voluntary Remediation

It is the aim of South Cambridgeshire District Council, wherever possible to carry out remediation of land by voluntary agreement. Remediation notices will only be used as a last resort. Section 78H(5)(b) of the regulations states that no remediation notice can be served while the enforcing authority is satisfied that appropriate action is being taken or will be taken to remediate the land. For the Council to be satisfied of this, the following would be required:

- That any proposed action, or action taking place is appropriate to address the harm, pollution or risk arising from the contamination
- That those measures either are already in progress or will take place and that they will be carried out satisfactory within an acceptable timescale.

As part of the consultation process South Cambridgeshire District Council will seek to ensure that all remediation proposals as appropriate to the conditions on the site, will be suitably effective and not have an adverse effect on the site, equal to, or even worse than the current contamination present.

In addition, South Cambridgeshire District Council must be satisfied that remediation will be carried out in full without the need to issue a remediation notice in the future. The nature of the assurances required by South Cambridgeshire District Council for this will be taken on a case by case basis. Once South Cambridgeshire District Council has received all of the assurances, a written agreement will be produced by acceptance by all parties. However, if no agreement can be reached, or if remediation is found to be inadequate, a remediation notice will be served on the appropriate person and formal action taken to remediate the land.

### 10.3 Remediation Notices

In cases where at the end of the 3-month moratorium or consultation period a voluntary agreement cannot be reached South Cambridgeshire District Council is required to issue a remediation notice. This must state the name(s) of the appropriate person(s), the site to which the notice relates and the work required to make the site fit for current use, together with details of the time scale within the work must be carried out.

The remediation notice must supply enough information to enable the reader to identify the land in question. It must also detail the type and extent of works required to make the site suitable for its current use. If the remediation notice is not complied with the recipient becomes liable to court action and the Council has the power to carry out the work specified in the notice itself and recover the cost from the appropriate person.

Part IIA includes a right of appeal to the Magistrates Court against a remediation notice served by the Council. In the case of special sites, appeals should be made to the Secretary of State.

## 11. Liaison and Communication

The overarching objective of any communication undertaken is to be open, accessible, receptive and responsive. A summary of the formal consultation stages expected to be encountered within the operation of the regime is given below:-

### Consultation on specific sites prior to determining whether land is or is not contaminated.

During inspection of a particular area of land, the Council will consult with the Environment Agency in order to obtain its opinion regarding pollution of controlled waters and / or designation of special site status.

Where a site inspection is going to include some form of intrusive investigation, the Environment Agency will be contacted to seek their views on the risks posed to controlled waters by carrying out the investigation.

The Local Planning Authority will be contacted where borehole drilling is required to determine whether planning consent is required by any relevant party.

English Nature will be consulted where an intrusive investigation is proposed on any SSSI to determine whether consent is needed to carry out such work under Section 28 of the Wildlife and Countryside Act 1981.

### Consultation on land which may be a Special Site

If land which has been determined to be contaminated land falls into the category of a Special Site, then the Environment Agency becomes the regulator. If the Council identifies land which may be both contaminated land and a Special Site, it will consult with the Environment Agency to make arrangements for the Agency to carry out a site inspection.

#### 11.1 Statutory Consultees

The council is required to consult formally on its strategy prior to adoption. The statutory consultees for the purposes of the contaminated land inspection strategy are:-

- Environment Agency
- English Nature
- English Heritage
- Department for Environment, Food and Rural Affairs (Formally Ministry of Agriculture, Fisheries and Food)
- Food Standards Agency
- Regional Development Agency
- Cambridgeshire County Council

## 11.2 Non-statutory Consultees

There is great scope for members of the public, businesses, voluntary organisations and neighbouring authorities to play an important role in dealing with contaminated land in the area. Efforts will be made to encourage participation in the process of identifying and investigating contaminated land, recognising the valuable contribution of these sectors. Parish Councils especially are seen as an important source of local information in this area. An announcement of the outline of the new duties and development of the strategy was made in the South Cambs Magazine which was delivered to every household in the District. This article extended an invitation to participate in the consultation process to anyone who was interested. This collaborative approach to dealing with contamination issues will be maintained and built upon with the support of the Promotions and Campaigns Officer in the Environmental Health Department to raise the profile of the strategy.

## 11.3 Communicating with owners, occupiers and other interested parties

The Council's approach to its regulatory duties is to seek voluntary action before taking enforcement action. This approach will be adopted for issues of land contamination, recognising that in many cases as much or more effective remediation can be achieved by agreement than by enforcement. The regulations provide an incentive to undertake voluntary action, in that any materials that require disposal as a result of voluntary remediation will be exempt from landfill taxes. This exemption does not apply to materials generated as a result of compliance with a remediation notice and therefore acts as an incentive to undertake the work voluntarily. This approach requires effective communication with owners, occupiers and other interested parties.

Where a formal designation of contaminated land is required, the following actions will be undertaken:

- a) Designating an area of contaminated land
  - Write to the owner and / or the occupier of the land at least 5 working days prior to designation, explaining in summary the reason for designation
  - Write to the owner and / or the occupier explaining the land has been designated as contaminated land and seeking appropriate remediation without service of a notice
  - If requested, dispatch a copy of the written risk assessment to the owner and / or occupier of the land within 5 working days of receipt of a request
  - Write to the owner / occupier of neighbouring properties and / or the complainant within 5 working days of designation.

## b) Serving a Remediation Notice

- Provide a written remediation notice to the owner / occupier specifying action required
- Write to the owner / occupier of neighbouring properties and / or the complainant within 5 working days of a notice being served.

Should an urgent designation of contaminated land be required, these steps will be observed as far as practicable although some deviation from the timescales specified is to be expected.

### 11.4 Powers of Entry

Under Section 108(6) of the Environment Act, the Council has been granted power of entry to carry out an investigation. At least seven days' notice will be given of proposed entry onto any premises unless there is an immediate risk to human health or the environment.

### 11.5 Enforcement action

This Council has signed up to the guiding principles set out in the Enforcement Concordat (Cabinet Office 1998) and aims to ensure consistent, fair and transparent practices when taking enforcement action.

The Council will always seek to reach agreement in securing voluntary remediation and will only serve the appropriate notices when it becomes apparent that agreement cannot be reached. Advice from an officer will be put clearly and simply in writing. As the result of a site inspection a written report will be compiled outlining the decision on whether a significant pollutant linkage has been identified, what further investigations are necessary to determine the presence of a significant pollutant linkage, who the envisaged enforcing authority will be, the next steps and the proposed timescale for action.

### 11.6 Risk communication

The complex nature of contaminated land issues does not lend itself to easy explanation to the layperson. Part IIA grants only limited powers to the council to deal with materials present in, on or under the ground. Many people believe that any material that is not naturally present in the ground should be removed, especially if it is in the vicinity of their own property. It is critical to explain that this is only necessary where there is a risk of significant harm, and it is to be expected that this may not be readily acceptable to some. Development of effective methods of risk communication is therefore essential and it is important to appreciate that the expectations of some people will not be met by the powers available under the contaminated land legislation. The Council will treat any concerns raised by a member of the public seriously and with respect, recognising the importance of the issue to the individual.

The content, language, subject matter and technical aspects of risk assessment may pose difficult communication challenges between the layperson and the enforcing authority. Early communication is most effective and can have the benefit of gaining people's confidence in the risk assessment process and remedial options available. Throughout the risk assessment and management of contaminated land there will be on-going need to communicate with the identified stakeholders (those who have an interest in the contaminated land in question). Relations with the local press will be maintained via the Corporate Support Unit and the Council's Information Officer. The press will be involved to help in the communication process in the event of widespread contamination issues.

Careful consideration needs to be given to those groups or individuals who are most at risk from the hazards posed by the site and the authority must make every effort to engage these people in consultation. In the interests of best value actions by the Council will be balanced against the degree of risk posed by the contamination present. The Council understands that contaminated land risks are imposed, involuntary and will raise concerns of blight and devaluation of property and land. Such issues will, therefore, be handled sensitively and communication with all parties will aim to be clear and consistent and avoid undue delay or confusion.

### 11.7 The Public Register

Under the Regulations, the Council is required to maintain a public contaminated land register. It will be paper-based (rather than electronic) and be accessible on request, copies of the register can be obtained after payment of a suitable copying charge. The contaminated land register will be available during office hours, Monday to Friday, at the following location:-

South Cambridgeshire Hall  
Cambourne Business Park  
Cambourne  
Cambridge  
CB3 6EA.

Tel: 08450 450 063  
Fax: 01954 443248  
e-mail: [env.health@scambbs.gov.uk](mailto:env.health@scambbs.gov.uk)

The Regulations clearly specify the information that should be recorded on this register and this is summarised in Appendix 8. Entries to the public register will be made within five days of determination of contaminated land or service of a notice.

The public register will not include details of historic land use and other records used in the investigation of potentially contaminated land. These will continue to be held within the Departmental filing system. Any new information gathered as part of the investigation into contaminated land will be added to our records in a suitable form and used to respond to requests for information about specific sites as an additional local land search enquiry.

## 11.8 Key Contacts within the Council

Statutory Contaminated Land – All queries relating to the contamination of land will be handled within the Specialist Support Unit of the Environmental Health Department. This team is led by the Environmental Health Officer (Scientific), who is supported by an Assistant Scientific Officer and a part-time Scientific Officer (Contaminated Land).

Planning Issues – The Environmental Health Officer (Scientific) also acts as the Planning Liaison Officer for the Environmental Health Department and is consulted weekly on the planning applications submitted to the Council. This is an ideal opportunity to note any proposed land use changes or the introduction of receptors to an area of potentially contaminated land.

## 11.9 Provision of information to the Environment Agency

The Environment Agency is required to prepare an Annual Report for the Secretary of State on the state of contaminated land in England and Wales. This report will include:

- A summary of local authority inspection strategies, including progress against the strategy and its effectiveness
- The amount of contaminated land and the nature of the contamination
- Measures taken to remediate land.

As local authorities are the lead regulators on contaminated land, with the Environment Agency regulating only some categories of sites, the national survey will clearly be reliant on information provided by local authorities. A memorandum of understanding has been drawn up between the Environment Agency and the Local Government Association that describes how information will be exchanged between the local authority and the Environment Agency. The Council will, therefore, provide information to the Environment Agency following the guidelines agreed through this national forum.

The local authority must also provide information to the Environment Agency whenever a site is designated as contaminated land, and whenever a remediation notice, statement or declaration is issued or agreed. The Environment Agency has provided standard forms allowing this information to be provided in a consistent format and the Council will adopt these to fulfil its reporting requirements.

## 12. Information Management

In order to implement the strategy, a large amount of information must be gathered relating to land use. The information will comprise a large number of individual records taking many different forms. These will be transferred to the land quality database. This database will consist of historic uses, contaminant sources, pathways and receptors as illustrated in Appendix 9 and will form the basis for the site prioritisation model described in section 9. It is important to ensure that the information is managed systematically and is kept up-to-date.

All information will be subject to in-house quality assurance and control procedures covering:-

- data verification, such as unique site referencing and checks on authenticity and accuracy of information entered and retrieved;
- responsibilities and procedures for those handling information;
- measures to keep the information safe from loss, damage or deterioration and to prevent unauthorised access or amendment; and
- periodic audits of the system.

Much of the information gathered in the course of the Council's duties will often be of a highly sensitive nature. Some will be subject to statutory entry on the Public Register. However, there will also be information gathered during the strategy about the state of the land which is not prescribed for entry on to the public register. The Council will ensure that the relevant Acts will be complied with in respect of data protection and access to environmental information.

**The Data Protection Act 1984** applies to all personal data that is processed automatically. Holding information on the state of land and the persons associated with that land may be significant. The Council's Legal Services will consider the implications of database development to ensure that the requirements of the Act being met.

**The Access to Environmental Information Regulations 1992** require public bodies, including local authorities, to make available to any person who requests it information relating to the environment within two months of the request. Information about the state of land is covered by the Regulations, as well as measures taken by the Council or other parties in relation to contaminated land. Notwithstanding the requirements of the Regulations, requests for information held by the Council as part of the Strategy will be responded to promptly and within 10 days of receipt of the enquiry wherever possible.

## 13. Review Mechanisms

Periodic review of the strategy is essential to ensure that it is up to date. The statutory guidance does not prescribe the frequency at which re-inspections should occur. This will be an on-going process within the terms of the strategy as defined and the likely review types are described below.

### 13.1 Triggers for undertaking inspection

- Unplanned events – e.g. if an incident such as a spill has occurred
- Introduction of new receptors – e.g. if housing is to be built on a potentially contaminated site, designation of a new protected ecosystem, persistent trespass onto a site by young people
- Supporting voluntary remediation – e.g. a potentially liable party wishing to undertake clean-up before their land has been inspected by the local authority
- Identification of localised health effects which appear to relate to a particular area of land
- Responding to information from other statutory bodies, owners, occupiers, or other interested parties

### 13.2 Triggers for reviewing inspection decisions

In addition, there may be occasions where the findings of previous inspection decisions should be reviewed. This might occur, for example, if there were

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

It is important therefore that all decisions are made and recorded in a consistent manner that will allow efficient review.

### 13.3 Reviewing the strategy

As part of the overall quality management of this work, it is important to consider the need to review the strategy from time to time.

The strategy will be finalised following consultation and work will then begin in earnest on-site inspection. It will be appropriate to review the milestones in light of progress after the first full year of operation. This review will, therefore, take place in July 2002.

## Appendix 1

### Categories of Significant Harm

| Table A DETR Circular<br>2 / 2000  | Categories of Significant Harm   |
|--|--|
| Type of Receptor   | Description of Harm to that Type of Receptor that is to be regarded as Significant Harm  |
| Human beings   | <p>Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions.</p> <p>For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned.</p> <p>This description of significant harm is referred to as a "human health effect".</p>   |
| <p>Any ecological system, or living organism forming part of such a system, within a location which is:</p> <ul style="list-style-type: none"> <li>• an area notified as an area of special scientific interest under section 28 of the Wildlife and Countryside Act 1981;</li> <li>• any land declared a national nature reserve under section 35 of that Act;</li> <li>• any area designated as a marine nature reserve under section 36 of that Act;</li> <li>• an area of special protection for birds,</li> </ul> | <p>For <b>any</b> protected location:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• 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.</li> </ul> <p>In addition, in the case of a protected location which is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is incompatible with the favourable conservation status of natural habitats at that location or species typically found there.</p> <p>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.</p> <p>This description of significant harm is referred to as an "ecological system effect".</p> |

| Table A DETR Circular<br>2 / 2000  | Categories of Significant Harm  |
|--|---|
| Type of Receptor   | Description of Harm to that Type of Receptor that is to be regarded as Significant Harm |
| <p>established under section 3 of that Act;</p> <ul style="list-style-type: none"> <li>• any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (i.e. Special Areas of Conservation and Special Protection Areas);</li> <li>• any candidate Special Areas of Conservation or potential Special Protection Areas given equivalent protection;</li> <li>• 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);</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>• any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.</li> </ul> |   |

| Table A DETR Circular<br>2 / 2000   | Categories of Significant Harm  |
|---|---|
| Type of Receptor  | Description of Harm to that Type of Receptor that is to be regarded as Significant Harm   |
| <p>Property in the form of:</p> <ul style="list-style-type: none"> <li>• crops, including timber;</li> <li>• produce grown domestically, or on allotments, for consumption;</li> <li>• livestock;</li> <li>• other owned or domesticated animals;</li> <li>• wild animals which are the subject of shooting or fishing rights.</li> </ul> | <p>For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage.</p> <p>A substantial loss in value is deemed to occur only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss.</p> <p>This description of significant harm is referred to as an "animal or crop effect".</p> |
| <p>Property in the form of buildings.</p> <p>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.</p>  | <p>Structural failure, substantial damage or substantial interference with any right of occupation.</p> <p>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.</p> <p>Additionally, in the case of a scheduled Ancient Monument, substantial damage should be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled.</p> <p>This description of significant harm is referred to as a "building effect".</p>   |

|   |   |
|---|---|
| Table B DETR Circular<br>2 / 2000   | Significant Possibility of Significant Harm   |
| Descriptions of<br>Significant Harm (As<br>Defined In Table A)  | Conditions for there being a Significant Possibility of Significant Harm  |
| <p>Human health effects arising from</p> <ul style="list-style-type: none"> <li>• the intake of a contaminant, or</li> <li>• other direct bodily contact with a contaminant.</li> </ul> | <p>If the amount of the pollutant in the pollutant linkage in question:</p> <ul style="list-style-type: none"> <li>• which a human receptor in that linkage might take in, or</li> <li>• to which such a human might otherwise be exposed,</li> </ul> <p>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.</p> <p>Such an assessment should take into account:</p> <ul style="list-style-type: none"> <li>• 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;</li> <li>• the relative contribution of the pollutant linkage in question to the likely aggregate intake of, or exposure to, the relevant substance or substances; and</li> <li>• the duration of intake or exposure resulting from the pollutant linkage in question.</li> </ul> <p>The question of whether an intake or exposure is unacceptable is independent of the number of people who might experience or be affected by that intake or exposure.</p> <p>Toxicological properties should be taken to include carcinogenic, mutagenic, teratogenic, pathogenic, endocrine-disrupting and other similar properties.</p> |
| All other human health effects (particularly by way of explosion or fire).  | <p>If the probability, or frequency, of occurrence of significant harm of that description is unacceptable, assessed on the basis of relevant information concerning:</p> <ul style="list-style-type: none"> <li>• that type of pollutant linkage, or</li> <li>• that type of significant harm arising from other causes.</li> </ul>  |

|  |  |
|--|--|
| Table B DETR Circular<br>2 / 2000                              | Significant Possibility of Significant Harm  |
| Descriptions of<br>Significant Harm (As<br>Defined In Table A) | Conditions for there being a Significant Possibility of Significant<br>Harm  |
|  | <p>In making such an assessment, account should be taken of 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:</p> <ul style="list-style-type: none"> <li>• would be irreversible or incapable of being treated;</li> <li>• would affect a substantial number of people;</li> <li>• would result from a single incident such as a fire or an explosion;<br/>or</li> <li>• would be likely to result from a short-term (that is, less than 24-hour) exposure to the pollutant.</li> </ul>  |
| All ecological system<br>effects                               | <p>If either:</p> <ul style="list-style-type: none"> <li>• significant harm of that description is more likely than not to result from the pollutant linkage in question; or</li> <li>• 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.</li> </ul> <p>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.</p> |
| All animal and crop<br>effects.                                | <p>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.</p>   |
| All building effects   | <p>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.</p>  |

## Appendix 2

### Summary of the Property Assets of South Cambridgeshire District Council

| Address   | Site Area (Acres)      | Comments   |
|---|------------------------|--|
| South Cambridgeshire Hall                               | 0.95                   | Headquarters Building<br>Freehold  |
| Cambridgeshire House                                    | Included with<br>above | Headquarters Building<br>Freehold  |
| Oakington Depot   | 1.50                   | Used as a depot for in-house<br>contractor, including workshops and<br>office accommodation        |
| 32 – 34 Station Road                                    | 754 m <sup>2</sup>     | Satellite Headquarters<br>Tenancy until 31 May 2004  |
| 6,707 dwelling units<br>1,176 garages                   | Unknown                | Council housing subject to secure<br>tenancies. Council retains freehold.                          |
| High Street, Histon                                     | 0.23                   | Car Park, Freehold   |
| Coles Lane, Linton                                      | 0.22                   | Car Park, Freehold   |
| High Street, Melbourn                                   | 0.30                   | Car Park, Freehold   |
| High Street, Sawston                                    | 0.68                   | Car Park, Freehold   |
| Woollards Lane, Great Shelford                          | 0.40                   | Car Park, Leasehold  |
| Linton Hostel, Back Road, Linton                        | 0.61                   | Building demolished, site planned for<br>development   |
| Robson Court, Waterbeach                                | Unknown                | Flats, Freehold  |
| 73 Bramley Avenue, Melbourn                             | Unknown                | Group home, Freehold   |
| 4 Kay Hitch Way, Histon                                 | Unknown                | Group home, Freehold   |
| 25 Denson Close, Waterbeach                             | Unknown                | Group home, Freehold   |
| Freshfields, Primrose Lane,<br>Waterbeach               | Unknown                | Group home, Freehold   |
| 12 Wisbeys Yard, Haslingfield                           | Unknown                | Group home, Freehold   |
| 32 Windmill Walk, Sutton                                | Unknown                | Staff House, Freehold  |
| Milton Country Park, Visitor Centre<br>and Toilet Block | 90                     | Site freehold, apart from 9.8 acres<br>held under licence and 22.3 acres<br>held on 99 year lease. |
| School Lane, Chittering                                 | 544m <sup>2</sup>      | Operational STW serving local<br>property, Freehold  |
| Larkins Road, Croydon                                   | 112m <sup>2</sup>      | Operational STW serving local<br>property, Freehold  |

| Address   | Site Area (Acres) | Comments   |
|---|-------------------|--|
| High Street, Abington Piggots                   | 0.033             | Disused STW but with drains serving residential property, Freehold |
| Great Eastern House,<br>Tenison Road, Cambridge | 0.986             | Freehold subject to lease for use as offices                       |
| 59 High Street, Sawston                         | 0.13              | Freehold. Offices and Shop let on separate leases.                 |
| Magna Close, Great Abington                     | 0.502             | Vacant Land; Freehold  |
| Bourn Bridge Road, Little Abington              | 0.18              | Vacant Land; Freehold  |
| Cambridge Road, Balsham                         | 0.138             | Vacant Land; Freehold  |
| Malthouse Way, Barrington                       | 1.07              | Vacant Land; Freehold  |
| West Green, Barrington                          | 0.61              | Vacant Land; Freehold  |
| Allens Close, Barton                            | 0.51              | Vacant Land; Freehold  |
| Bartlow Road, Castle Camps                      | 0.4               | Vacant Land; Freehold  |
| Hall Lane, Great Chishill                       | 0.14              | Vacant Land; Freehold  |
| Silverdale Avenue, Coton                        | 0.326             | Vacant Land; Freehold  |
| Rampton Road, Cottenham                         | 0.5               | Vacant Land; Freehold  |
| Hunts Road, Duxford                             | 0.39              | Vacant Land; Freehold  |
| Fardells Lane, Elsworth                         | 3.85              | Vacant Land; Freehold  |
| Hall Close, Bourn                               | 0.54              | Grazing land outside village boundary; Freehold                    |
| Chapel Lane, Great Eversden                     | 2.0               | Agricultural tenancy; Freehold                                     |
| Girton Road, Girton                             | 0.271             | Vacant Land; Freehold  |
| Primrose Walk, Little Gransden                  | 0.151             | Vacant Land; Freehold  |
| Land at Footpath, Harston                       | 0.55              | Vacant Land; Freehold  |
| Bakersfield, Horseheath                         | 0.97              | Vacant Land; Freehold  |
| Church Lane, Guilden Morden                     | 1.41              | Vacant Land; Freehold  |
| Jubilee End, Steeple Morden                     | 0.62              | Vacant Land; Freehold  |
| Town Green Road, Orwell                         | 3.286             | Vacant Land; Freehold; Archaeological land.                        |
| Westmore Avenue, Sawston                        | 0.06              | Vacant Land; Freehold  |
| Streetly End, West Wickham                      | 0.836             | Vacant Land; Freehold  |
| Tithe Barn, Landbeach                           | Unknown           | Conservation Site; Freehold  |
| Church of St Denis, East Hatley                 | Unknown           | Conservation Site; Freehold  |

## Recreation Grounds

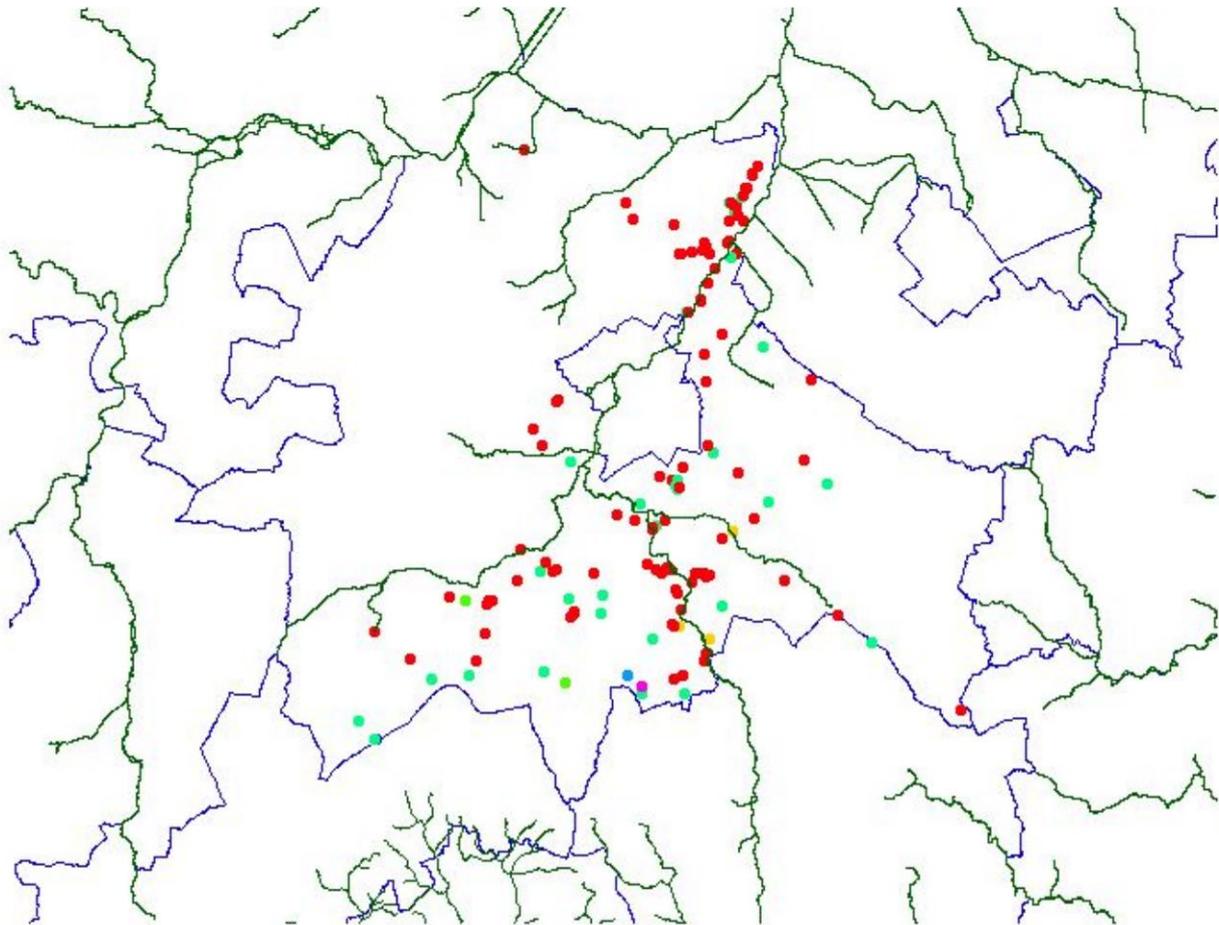
Freehold, subject to lease for terms of 99 years on a rent free basis to Parish Councils

| Number of Sites | Locations   |
|-----------------|---|
| 14              | High Street, Barton; Alms Hill, Bourn; Harlton Road, Little Eversden; Church Road, Hauxton; Bridge Road, Impington; Green End, Landbeach; King Street, Rampton; Babraham Road, Sawston; Station Road, Shepreth; Haverhill Road, Stapleford; High Street, Teversham; High Street, Toft; Orchard Close, Little Wilbraham; Stulpfield (Youth Hut), Grantchester. |

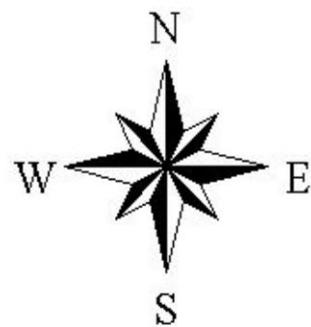
# Appendix 3

## Rivers and Private Water Supplies

### South Cambridgeshire



-  Rivers
- Private water**
-  CAT 1 D
-  CAT 1 E
-  CAT 1 F
-  CAT 2 2
-  CAT 2 3
-  CAT 2 4
-  CAT 2 5
-  District boundary
-  County boundary



Source Environment Agency  
South CambridgeshireDC

## Appendix 4

### Sites of Special Scientific Interest in South Cambridgeshire

- Alder Carr (Hildersham)
- Balsham Wood (Balsham)
- Barrington Pit (Barrington)
- Buff Wood (Hatley)
- Caldecote Meadows (Caldecote)
- Cam Washes (Waterbeach)
- Carlton Wood (Carlton)
- Dernford Fen (Sawston)
- Elsworth Wood (Elsworth)
- Eversden Wood (Great Eversden)
- Fleam Dyke (Fulbourn, Balsham)
- Wilbraham Fens (Little Wilbraham)
- Whittlesford-Thriplow Hummocky Fields (Whittlesford, Thriplow)
- Thriplow Meadows (Thriplow)
- Stow-cum-Quy Fen (Stow-cum-Quy)
- Sawston Hall Meadows (Sawston)
- Roman Road (Fulbourn, Wilbraham)
- Papworth Wood (Papworth Everard)
- Overhall Grove (Boxworth)
- Over and Lawn Woods (West Wickham)
- Orwell Clunch Pit (Orwell)
- Kingston Wood and Outliers (Kingston)
- Langley Wood (Castle Camps)
- L-Moor (Shepreth)
- Madingley Wood (Madingley)
- Histon Road (Impington)
- Holland Hall Railway Cutting (Melbourn)
- Hildersham Wood (Hildersham)
- Hayley Wood (Little Gransden)
- Hardwick Wood (Hardwick)
- Great Wilbraham Common (Great Wilbraham)
- Gog Magog Golf Course (Great Shelford / Stapleford)
- Gamlingay Wood (Gamlingay)
- Furze Hill (Hildersham)

- Fulbourn Fen (Fulbourn)
- Fowlmere Watercress Beds (Fowlmere)

## Appendix 5

### Parkland including Listed Buildings in South Cambridgeshire

- Abington Pigotts Hall and Rectory,
- Babraham Hall,
- Barrington Hall,
- Bartlow Park,
- Conington Hall,
- Fulbourn Hospital,
- Fulbourn Manor,
- Great Abington Park,
- Girton College,
- Harston Manor,
- Hildersham Hall,
- Horseheath Hall,
- Histon Manor,
- Ickleton Caldrees Manor,
- Kingston Wood Farm,
- Kneesworth Hall,
- Little Shelford Manor,
- Melbourn Bury,
- Milton Hall,
- Newton Hall,
- Papworth Hall,
- Papworth St Agnes
- Lattenbury Hill,
- Quy Hall,
- Shepreth Tyrells Hall,
- Shudy Camps Park,
- Tadlow House and Vicarage,
- Weston Colville Hall and
- Westwick Hall.

## Appendix 6

### Department of Environment Industry Profiles

Airports

Animal and animal products processing works

Asbestos manufacturing works

Ceramics, cement and asphalt manufacturing works

Chemical works: coatings (paints and printing inks) manufacturing works

Chemical works: cosmetics and toiletries manufacturing works

Chemical works: disinfectants manufacturing works

Chemical works: explosives, propellants and pyrotechnics manufacturing works

Chemical works: fertilizer manufacturing works

Chemical works: fine chemicals manufacturing works

Chemical works: inorganic chemicals manufacturing works

Chemical works: linoleum, vinyl and bitumen-based floor covering manufacturing works

Chemical works: mastics, sealants, adhesives and roofing felt manufacturing works

Chemical works: organic chemicals manufacturing works

Chemical works: pesticides manufacturing works

Chemical works: pharmaceuticals manufacturing works

Chemical works: rubber processing works (including works manufacturing tyres or other rubber products)

Chemical works: soap and detergent manufacturing works

Dockyards and dockland

Engineering works: aircraft manufacturing works

Engineering works: electrical and electronic equipment manufacturing works (including works manufacturing equipment containing Polychlorinated biphenyls (PCBs))

Engineering works: mechanical engineering and ordnance works

Engineering works: railway engineering works

Engineering works: shipbuilding, repair and shipbreaking (including naval shipyards)

Engineering works: vehicle manufacturing works

Gas works, coke works and other coal carbonization plants

Metal manufacturing, refining and finishing works: electroplating and other metal finishing works

Metal manufacturing, refining and finishing works: iron and steel works

Metal manufacturing, refining and finishing works: lead works

Metal manufacturing, refining and finishing works: non-ferrous metal works (excluding lead works)

Metal manufacturing, refining and finishing works: precious metal recovery works

Oil refineries and bulk storage of crude oil and petroleum products

Power stations (excluding nuclear power stations)

Pulp and paper manufacturing works

Railway land

Road vehicle fuelling, service and repair: garages and filling stations

Road vehicle fuelling, service and repair: transport and haulage centres

Sewage works and sewage farms

Textile works and dye works

Timber products manufacturing works

Timber treatment works

Waste recycling, treatment and disposal sites: drum and tank cleaning and recycling plants

Waste recycling, treatment and disposal sites: hazardous waste treatment plants

Waste recycling, treatment and disposal sites: landfills and other waste treatment or waste disposal sites

Waste recycling, treatment and disposal sites: metal recycling sites

Waste recycling, treatment and disposal sites: solvent recovery works

Profile of miscellaneous industries incorporating:

- Charcoal works
- Dry-cleaners
- Fibreglass and fibreglass resin manufacturing works
- Glass manufacturing works
- Photographic processing industry
- Printing and bookbinding works

## Appendix 7

### Liabilities, Exclusions and Cost Apportionment

#### Introduction

The Council is required to:-

- i) identify and notify Appropriate Persons of their responsibility to deal with contaminated land;
- ii) inform each Appropriate Person about the tests for exclusion from, and apportionment of, liabilities;
- iii) identify appropriate remediation requirements; and
- iv) monitor and ensure remediation.

Each step is set out in DETR Circular 02 / 2000. A brief summary is given below.

Following determining contaminated land, the Council needs to notify in writing those who are liable in either the Class A or Class B liability groups. A notice will be issued which starts the consultation process on what remediation might be appropriate.

Having identified the liability groups, the Council will first have regard to any agreements that exist on liabilities between the parties. If there are no agreements, then regard will be given to the remainder of the Statutory Guidance to determine whether any persons can be regarded as an Exempt, Person whether any Class A or B person can be excluded and then, finally, to apportion the costs of remediation between the remaining person.

Where there is no Class A person for a significant pollutant linkage, liability switches to Class B persons who (where there is more than one) form a Class B liability group. Where no Class A or B persons can be found, where the linkage solely relates to pollution controlled waters and no Class A person can be found, or where all liable persons are exempted for certain reasons, there will be no liability group for that linkage and the Council will take responsibility for the remediation. Such sites are called "Orphan Sites". Once all the appropriate exclusions have taken place, the Council will apportion liability amongst the remaining members of each Liability Group. For Class A Liability Groups, the general principle is that liability, hence the ensuing costs of remediation, will be apportioned to reflect the relative responsibility of each of these members for creating or continuing the risk now being caused by the significant pollutant linkage in question.

A number of factors are considered:

- a) the persons involvement with the pollutant linkage;
- b) his / her knowledge as to the nature of the pollutant:
- c) his / her ability and opportunity to prevent or remove the pollutant.

If appropriate information is not available to enable some other apportionment to be made, then liability, hence the cost, will be apportioned in equal shares.

There are six tests applied when considering whether a Class A person should be excluded:

- i) Is it a benign activity which has not contributed to the contamination?
- ii) Have they already paid another member of the liability group to carry out adequate remediation?
- iii) Have they provided proper information to a purchaser about the contamination on the site?
- iv) Are they responsible for a contaminative substance which only caused harm or pollution because another substance was later introduced?
- v) Would there have been a need for remediation were it not for another “appropriate person” causing or permitting the escape of contaminative substances from other land?
- vi) Have others introduced relevant pathways or receptors so as to create a pollutant linkage?

Where appropriate remediation is to proceed by agreement, remediation will continue without a Remediation Notice. The Council will assess the proposed actions and, where satisfied, the appropriate person will be required to prepare and publish a Remediation Statement. Where the Statement is not satisfactory, the Council had the powers to prepare a Statement itself. All statements will be entered on the Public Register.

Where the Council considers that remediation will not be achieved by agreement, it will serve a Remediation Notice. The Notice will establish who is to bear responsibility, the actions required by way of remediation, and the timescale for that remediation. Before serving, the Council will consult the appropriate persons. Unless in an emergency, a minimum of three months must elapse between the date of notifying the appropriate persons and serving the Notice. Any person who receives a Remediation Notice has 21 days to appeal against it. Details of the appeals procedure may be obtained from the Council.

Those found guilty of breaching a Remediation Notice are liable to a fine of up to £5,000, plus an additional fine of £500 for each day after conviction that the action is not carried out and before the Council starts to carry out the work itself. The level of fines increase where the site is an industrial, trade, or business premises. The Council has the power to carry out the work specified in the Notice itself and recover the cost from the appropriate person.

## Appendix 8

### Summary of Information required to be held on Public Register

Section 78R in the Act requires each enforcing authority to keep a Public Register. The Register is intended to act as a full and permanent record of all regulatory action taken by the enforcing authority in respect of remediation of contaminated land. It will include information about the condition of the land. It is required to be open for public inspection.

The following particulars about contaminated land will be placed on the Public Register:

- (a) Remediation Notices / Statements / Declarations.
- (b) Notifications of claimed remediation.
- (c) Information about site contamination:
  - Location / extent of contaminated land;
  - Reason for designation;
  - Presence of substances;
  - Current land use.
- (d) Remediation information:
  - Name / address of persons on whom notices served;
  - Action taken / to be taken by each appropriate person.
- (e) Site investigation information:
  - Description of information obtained or provided to the enforcing authority;
  - Date information received;
  - Person providing / preparing the information;
  - Where information is held for inspection.
- (f) Environment Agency site-specific guidance.
- (g) Information on Special Sites:
  - Designation notice / notification;
  - Site / land description;
  - Notification from appropriate agency adopting responsibility;
  - Notice terminating designation.
- (h) Appeals against remediation notices:
  - Appeals;
  - Decisions.
- (i) Appeals against charging notices:
  - Appeals;
  - Decisions.

- (j) Corrections.
- (k) Statements of confidentiality.

The Act requires that information will only be excluded from the Public Register on the basis that inclusion of the information would be:

- (a) against the national interest; or
- (b) commercially confidential.

The Council will not, without the relevant person's prior permission include any of the information on the Register which:

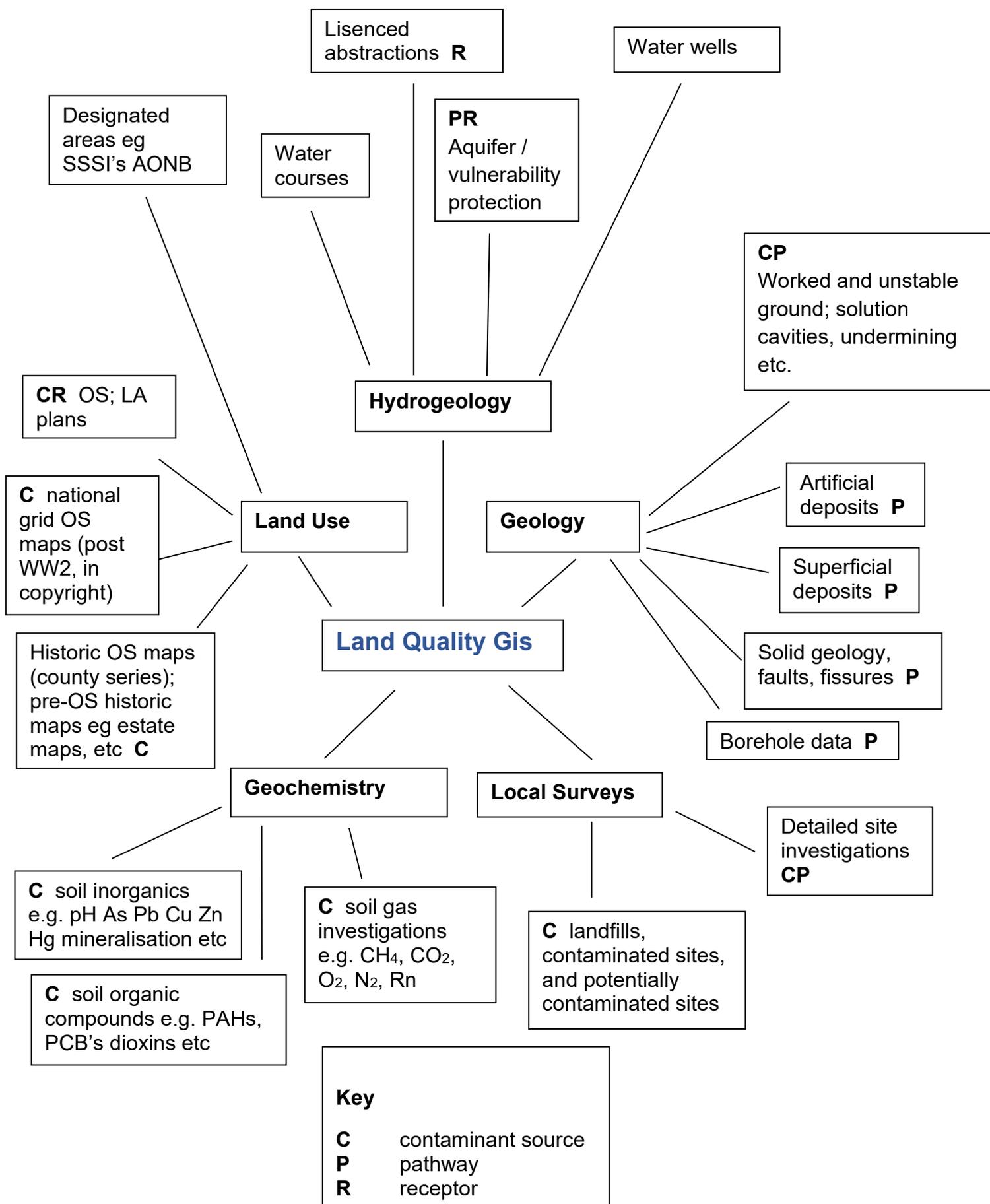
- (a) Relates to the affairs of any individual's business; and
- (b) Is commercially confidential to that individual or person carrying on that business.

However, commercial interest relating to the value of contaminated land, or its ownership or occupation, are specifically disregarded in the Act. The Council will consider any representation relating to exclusion because of commercial confidentiality, or national security, before placing information on the Public Register.

Information, which is not placed on the Public Register may, in any case, be accessible under Environmental Information Regulations 1992. It is the Council's intention to place an entry in the Public Register of the particulars of site investigation reports that have been received which relate to the condition of the land or any remediation action.

## Appendix 9

Outline of land quality database structure source: "Guidance on the use of digital environmental data" (BGS / EA,2000)



## Appendix 10

### References

The Environmental Protection Act 1990

The Environment Act 1995

The Contaminated Land (England) Regulations 2000.

Environmental Protection Act 1990: Part IIA – Contaminated Land. DETR Circular 02 / 2000.

Planning Policy Guidance: Planning and Pollution Control (PPG 23), 1994

DoE Circular 11 / 95 The Use of Conditions in Planning Permissions. (In preparation).

Building Regulations 1991

Pollution Prevention and Control Regulations 2000

DoE Circular 11 / 94

Water Resources Act 1991

Food and Environment Protection Act 1985

Health and Safety at Work etc Act 1974

Construction (Design and Management) Regulations 1994

Finance Act 1996

Control of Major Accident Hazards Regulations 1999

Wildlife and Countryside Act 1981

National Parks and Access to the Countryside Act 1949

Data Protection Act 1984

Access to Environmental Information Regulations 1992

Memorandum of Understanding: Environment Agency and Local Government Association.  
Annexe C. Draft Protocol for Land Contamination 1999.

Contaminated Land Inspection Strategies – Technical Advice for Local Authorities. Draft for  
Comment, DETR, April 2000.

Information Exchange with Local Authorities for the State of the Contaminated Land Report.  
Environment Agency, 20 July 2000.

Some Guidance on the Use of Digital Data. British Geological Survey and the Environment  
Agency (2000).

Interdepartmental Committee on Redevelopment of Contaminated Land (ICRCL) 59 / 83 (2<sup>nd</sup> Edition, July 1987) Guidance on the assessment and redevelopment of contaminated land.

Prioritisation and Categorisation Procedure for Sites which may be Contaminated.

Contaminated Land Report CLR No 6. DoE 1995.

Methodology for the Derivation of Remedial Targets from Soil and Groundwater to Protect Water Resources. Environment Agency Research and Development Publication 20, 1999.

Groundwater Directive (80 / 86 / EC)

Industry Profiles, DoE.

Package of Information for use in Local Authorities Inspection Strategies, Environment Agency Anglian Region. 5 September 2000.

Cameron D G Bell, T K & Colman T British Geological Survey Technical Report 3 (1993): An appraisal of the potential of the rock types of South Cambridgeshire A report to South Cambridgeshire District Council.

Cambridge Water Company (1995): Report on Drinking Water Quality

Nathanail P D (2000): Contaminated Land Training for Local Authorities Land Quality Management Ltd.

Ponsford D R A (1995): Radioactivity Studies of some British Sedimentary Rocks Bulletin of the Geological Survey of Great Britain No 10 pp24 – 44

South Cambridgeshire District Council (1993): South Cambridgeshire Local Plan

Ward R S (1989): Tracer and Natural <sup>222</sup>Rn Studies of the East Anglian Chalk Aquifer – PhD Thesis University of East Anglia .

## Glossary Of Terms

The statutory guidance (and other parts of this circular) uses a number of terms which are defined in Part IIA of the 1990 Act, other Acts or in the guidance itself. The meaning of the most important of these terms are set out below, along with a reference to the section in the Act or the paragraph in which the relevant term is defined.

Terms which are defined in statutes (mostly in section 78A of the 1990 Act) are shown with underlining.

**Animal or crop effect:** significant harm of a type listed in box 3 of Table A of Chapter A

**Apportionment:** any determination by the enforcing authority under section 78F(7) (that is a division of the costs of carrying out any remediation action between two or more appropriate persons).

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

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

**Assessment action:** a remediation action falling within the definition in section 78A(7)(a), that is the doing of anything for the purpose of assessing the condition of the contaminated land in question, or any controlled waters affected by that land or any land adjoining or adjacent to the land.

**Attribution:** the process of apportionment between liability groups

**Building:** any structure or erection, and any part of a building including any part below ground, but not including plant or machinery comprised in a building.

**Building effect:** significant harm of a type listed in box 4 of Table A of Chapter A.

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

**Changes to Substances:** an exclusion test for Class A persons set out in part 5 of Chapter D. Paragraphs D.62 to D.64

**Charging notice:** a notice placing a legal charge on land served under section 78P(3) (b) by an enforcing authority to enable the authority to recover from the appropriate person any reasonable cost incurred by the authority in carrying out remediation.

**Class A liability group:** a liability group consisting of one or more Class A persons. Paragraph D.5(c)

**Class A person:** a person who is an appropriate person by virtue of section 78F(2) (that is because he has caused or knowingly permitted a pollutant to be in, on or under the land). Paragraph D.5(a)

**Class B liability group:** a liability group consisting of one or more Class B persons. Paragraph D.5(c)

**Class B person:** a person who is an appropriate person by virtue of section 78F(4) or (5) (that is, because he is the owner or occupier of the land in circumstances where no Class A person can be found with respect to a particular remediation action) Paragraph D.5(b)

**Collective action:** a remediation action which addresses together all of the significant pollution linkages to which it is referable, but which would not have been part of the remediation package for every one of those linkages if each of them had been addressed separately. Paragraph D.22(b)

**Common action:** a remediation action which addresses together all of the significant pollution linkages to which it is referable, and which would have been part of the remediation package for each of those linkages if each of them had been addressed separately. Paragraph D.22 (a)

**Contaminant:** a substance which is in, or under the land and which has the potential to cause harm or to cause pollution of controlled waters. Paragraph A12

**Contaminated Land:** defined in section 78A(2) 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 water is being, or is likely to be caused

**Contaminated Land (England) Regulations 2000:** regulations (S.1.2000 / 227) made under part IIA – described in Annex 4.

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

**Cost recovery decision:** any decision by the enforcing authority whether :

- (i) to recover from the appropriate person all the reasonable costs incurred by the authority in carrying out remediation, or
- (ii) not to recover those costs or to recover only part of those costs.

**Current use:** any use which is currently being made, or is likely to be made, of the land and which is consistent with any existing planning permission (or is otherwise lawful under town and country planning legislation). This definition is subject to the following qualifications:

- (a) the current use the current use should be taken to include any temporary use, permitted under town and country planning legislation, to which the land is or is likely to be put from time to time;
- (b) the current use includes future uses or developments which do not require a new or amended, grant of planning permission;
- (c) the current use should, nevertheless, be taken to include any likely informal recreational use of the land, whether authorised by the owners or occupiers or not, (for example, children playing on the land); however; in assessing the likelihood of any such informal use, the local authority should give due attention to measures taken to prevent or restrict access to the land; and
- (d) in the case of agricultural land, however the current agricultural use should not be taken to extend beyond the growing or rearing of the crops or animals which are habitually grown or reared on the land. Paragraph A.26

**Ecological system effect:** significant harm of a type listed in box 2 of Table A of Chapter A

**Enforcing authority:** defined in section 78A (9) as:

- (a) in relation to a special site, the Environment Agency;
- (b) in relation to contamination land other than a special site, the local authority in whose area the land is situated.

**Escaped Substances:** an exclusion test for Class A persons set out in Part 5 of Chapter D

**Excluded Activities:** an exclusion test for Class A persons set out in Part 5 of Chapter D

**Exclusion:** any determination by the enforcing authority under section 78F (6) (that is that a person is to be treated as not being an appropriate person.)

**Favourable conservation status:** defined in Article 1 of Council Directive 92 / 43 / EEC on the conservation of natural habitats and of wild fauna and flora.

**Hardship:** a factor underlying any cost recovery decision made by an enforcing authority under section 78P(2). See paragraphs 10.8 to 10.10 of Annex 3 for a discussion of the interpretation of this term.

**Harm:** defined in section 78A(4) as: “harm to health of living organisms or other interference with the ecological systems of which they form part and in the case of man, includes harm to his property”

**Human health effect:** significant harm of a type listed in box 1 of Table A of Chapter A.

**Industrial, trade or business premises:** defined in section 78M(6), for the purpose of determining the penalty for failure to comply with a remediation notice as:

“premises used for any industrial, trade or business purposes or premises not so used on which matter is burnt in connection with any industrial, trade or business process, and premises are used for industrial purposes where they are used for the purpose of any treatment or process as well as where they are used for the purpose of manufacturing”

**Inspection using statutory powers of entry:** any detailed inspection of land carried out through use of powers of entry given to an enforcing authority by section 108 of the Environment Act 1995. Paragraph B21

**Inspection of Pathways or Receptors:** an exclusion test for Class A persons set out in Part 5 of Chapter D paragraphs D.68 to D.72

**Intrusive investigation:** an investigation of land (for example by exploratory excavations) which involves actions going beyond simple visual inspection of the land, limited sampling or assessment of documentary information.

**Liability group:** the persons who are appropriate persons with respect to a particular significant pollutant linkage.

**Local authority:** defined in section 78A (9) as meaning any unitary authority, district council, the Common Council of the City of London, the Sub-Treasurer of the Inner Temple and the Under-Treasurer of the Middle Temple.

**Monitoring action:** a remediation action falling within the definition in section 78A(7)(c), that is “making of subsequent inspections from time to time for the purpose of keeping under review the condition of the land or waters”. Paragraphs D.12, D.14 and D.17.

**Orphan linkage:** a significant pollutant linkage for which no appropriate person can be found, or where those who would otherwise be liable are exempted by one of the relevant statutory provisions. Paragraphs D.12, D.14 and D.17

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

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

**Part IIA:** Part IIA of the Environmental Protection Act 1990.

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

- (a) is being exposed to, or affected by, a contaminant or
- (b) could be so exposed or affected. Paragraph A.14

**Payments Made for Remediation:** an exclusion test for Class A persons set out in Part 5 of chapter D. Paragraphs D51. to D.56

**Person acting in a relevant capacity:** defined in section 78x (a), for the purposes of limiting personal liability, as any of the following:

- a) a person acting as an insolvency practitioner, within the meaning of section 388 of the Insolvency Act 1986 (including that section as it applies in relation to an insolvent partnership by virtue of any order made under section 421 of that Act);
- b) the official receiver acting in a capacity in which he would be regarded as acting as an insolvency / practitioner within the meaning of section 388 of the Insolvency Act 1986 if subsection (5) of that section were disregarded;
- c) the official receiver acting as a receiver or manager;
- d) a person acting as a special manager under section 177 or 370 of the Insolvency Act 1986;
- e) a person acting as a receiver or receiver and manager under or by virtue of any enactment, or by virtue of his appointment as such by an order of a court or by any other instrument”.

**Pollutant:** a contaminant which forms part of a pollutant linkage. *Paragraph A.17*

**Pollutant linkage:** the relationship between a contaminant, a pathway and a receptor. Paragraph A.17

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

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

**Possibility of significant harm:** a measure of the probability, or frequency, of the occurrence or circumstances which would lead to significant harm being caused. Paragraph A.27

**Receptor:** either:

- a) a living organism, a group of living organisms, an ecological system or a piece of property which:
  - (i) is in category listed in Table A in Chapter A as a type of receptor, and
  - (ii) is being, or could be, harmed, by a contaminant; or
- b) controlled waters which are being, or could be, polluted by a contaminant. Paragraph A.13

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

**Related companies:** are those which are, or were at the “relevant date”, members of a group of companies consisting of a “holding company” and its “subsidiaries”. The “relevant date” is that on which the enforcing authority first served on anyone a notice under section 78B (3) identifying the land as contaminated land, and the terms “holding company” and “subsidiaries” have the same meaning as in section 736 of the Companies Act 1985. Paragraph D.46

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

- (a) scientifically-based;
- (b) authoritative;
- (c) relevant to the assessment of risks arising from the presence of contaminants in soil;  
and
- (d) appropriate to the determination of whether and land is contaminated land for the purposes of Part IIA, in that the use of the information is consistent with providing a level of protection of the risk in line with the qualitative criteria set out in Tables A and B of Chapter A. Paragraph A.31

**Relevant land or waters:** the contaminated land in question, any controlled waters affected by that land and any land adjoining or adjacent to the contaminated land on which remediation might be required as a consequence of the contaminated land being such land. Paragraph C.8 (d)

**Remedial treatment action:** a remediation action falling within the definition in section 78A (7)(b), that is the doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land or waters for the purpose:

- (a) of preventing or minimizing, or remedying or mitigating the effects of any significant harm, or any pollution of controlled waters, by reason of which the contaminated land is such land, or
- (b) of restoring the land or waters to their former state. Paragraph C.8 (f)

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

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

**Remediation action:** any individual thing which is being, or is to be, done by way of remediation. Paragraph C.8(a)

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

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

**Remediation package:** the full set or sequence of remediation actions, within a remediation scheme, which are referable to a particular significant pollutant linkage. Paragraph C.8(b)

**Remediation scheme:** the complete set or sequence of remediation actions (referable to one or more significant pollutant linkages) to be carried out with respect to the relevant land or waters. Paragraph C.8(c)

**Remediation statement:** defined as section 78H(7). It is a statement prepared and published by the responsible person detailing the remediation actions which are being, have been, or are expected to be, done as well as the periods within which these things are being done.

**Risk:** the combination of:

- (a) the probability, or frequency, of occurrence of a defined hazard (for example, exposure to a property of a substance with the potential to cause harm); and
- (b) the magnitude (including the seriousness) of the consequences. Paragraph A.9

**Shared action:** a remediation action which is referable to the significant pollutant in more than one significant pollutant linkage. Paragraph D.21 (b)

**Single-linkage action:** a remediation action which is referable solely to the significant pollutant in a single significant pollutant linkage. Paragraph D.21 (a)

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

**Significant pollutant:** a pollutant which forms part of a significant pollutant linkage. Paragraph A.20

**Significant pollutant linkage:** a pollutant linkage which forms the basis for a determination that a piece of land is contaminated land. Paragraph A.20

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

**Sold with Information:** an exclusion test for Class A persons set out in Part 5 Chapter D.

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

“any contaminated land –

- a) which has been designated as such a site by virtue of section 78C(7) or 78D(6), and
- b) whose designation as such has not been terminated by the appropriate Agency under section 78Q(4).”

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

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

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