



CONTAMINATED LAND STRATEGY
as required under the provisions of the
ENVIRONMENTAL PROTECTION ACT 1990 - PART 2A

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INTRODUCTION

i.1 Background To The Legislation

Industrial change and demographic shift during the 20th century resulted in the need for large-scale re-organisation of our towns and cities. As technologies improved and the means by which ores were extracted, stored, processed and utilised has changed, the need for large-scale industrial units has demised. Industries have either moved to cheaper manufacturing locations or have disappeared altogether leaving large “brownfield” gaps in our urban landscape.

At the same time, changes in heating methods, and the advent of the consumer society, has had a significant effect on the type and volume of refuse it has been necessary to landfill. Inevitably, these changes have left behind a legacy of contaminated land that in some cases may be harmful.

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

“Even before a planning application is made, informal discussions between an applicant and the local planning authority are very helpful.”

“The possibility that the land might be contaminated may thus be brought to the attention of the applicant at this stage, and the implications explained.”

This suggested that it would be practical and advantageous for the planning authorities to have available a list of potentially contaminated sites.

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

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

- The Department of the Environment concern itself with all land, which has been so contaminated as to be a potential hazard to health or the environment, regardless of the use to which it is to be put, and;
- The Government brings forward legislation to lay on local authorities a duty to seek out and compile registers of contaminated land.

Immediately following the House of Commons report, the Environmental Protection Act 1990 had, at section 143, a requirement for local authorities to compile, ‘Public registers of land which may be contaminated’. If enacted, this would have required local authorities to maintain registers of land that was, or may have been contaminated, as a result of

previous (specified) uses. In March 1992 however, the concern about the blighting effect of such registers resulted in a press release published by the Secretary of State, delaying the introduction of section 143 stating:

“The Government was concerned about suggestions that land values would be unfairly blighted because of the perception of the registers.”

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

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

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

It was also made clear that the Government wished to:

- encourage a market in contaminated land;
- encourage its development; and
- that multi-functionality was neither sensible nor feasible.

The proposed new legislation was first published in June 1995 in the form of section 57 of the Environment Act, which amended the Environmental Protection Act 1990 by introducing a new Part 2A to cover contaminated land. After lengthy consultation on statutory guidance, this legislation came into force in April 2000. In August 2006 the regime was extended to cover radioactive contaminated land.

i.2 Explanation Terms

The legislation and guidance is very heavily punctuated with many complex and often unusual terms. To assist in the interpretation of these, an extensive glossary was included in DETR Circular 2/2000, Environmental Protection Act 1990: Part IIA, Contaminated Land. Following the introduction of the radioactive contaminated land legislation in 2006, this document has now been updated (Defra Circular 1/2006, Environmental Protection Act 1990: Part 2A, Contaminated Land).

i.3 National Objectives Of The New Regime

The Government believes contaminated land to be “*an archetypal example of our failure in the past to move towards sustainable development*”. The first priority has therefore been specified as the prevention of new contamination via the pollution control regimes.

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

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

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

The specific stated objectives of the new regime are:

- to improve the focus and transparency of the controls, ensuring authorities take a strategic approach to problems of land contamination;
- to enable all problems resulting from contamination to be handled as part of the same process (previously, separate regulatory action was needed to protect human health and to protect the water environment);
- to increase the consistency of approach taken by different authorities; and
- to provide a more tailored regulatory mechanism, including liability rules, better able to reflect the complexity and range of circumstances found on individual sites.

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

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

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

- reinforce the suitable for use approach, enabling developers to design and implement appropriate and cost-effective remediation schemes as part of their redevelopment projects;
- clarify the circumstances in which future regulatory intervention might be necessary (for example, if the initial remediation scheme proved not to be effective in the long term); and
- set out the framework for statutory liabilities to pay for any further remediation should that be necessary.

i.4 Local Objectives

The Development Plan for Dacorum, which comprises the County Structure Plan, Minerals Local Plan, Waste Land Plan and Dacorum Local Plan, identifies a number of related objectives and policies as follows:

Hertfordshire Structure Plan Review 1991 – 2011 (Adopted April 1998)

Part of the Structure Plan's vision is:

- the environment is protected and enhanced, with limited or minimal noise, water, air and other pollution, creating healthy living environments.

The vision is translated into Aims for Sustainability that includes:

- reduce pollution and the effects it has on ecosystems and human health.

In land use terms the Structure Plan includes the following objectives:

- make adequate provision for development to meet housing, economic and other human needs during the Plan period;
- protect and enhance the air and water environment;
- maximise the benefits from, and minimise the environmental damage caused by waste;
- minimise the effect of mineral operations on the local environment and quality of life while making proper contribution to the mineral needs of the nation.

This strategic policy framework is translated into Development Plan policies as follows:

Structure Plan

Policy 1 promotes sustainable development that aims in particular to “avoid pollution in all its forms, in particular pollution of ground and surface water resources”.

Policy 45 supports the restoration of existing damaged and contaminated land and measures to ensure that new development does not create long term damaged or contaminated land.

Dacorum Borough Local Plan 1995

Policy 112 controls the locations for activities storing or using hazardous substances. Also various policies protect sensitive areas of land from inappropriate development such as the Green Belt, the Chilterns Area of Outstanding Natural Beauty and sites of nature conservation and historic value.

Hertfordshire Minerals and Waste Local Plans

Seek to control development relating to mineral extraction and disposal or treatment of waste so as to safeguard against land contamination, require restoration and seek the reclamation of historic sites.

i.5 About This Strategy

The Act itself states in section 78B (1) that:

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

- of identifying contaminated land; and
- of enabling the authority to decide whether any such land is land which is required to be a special site (see Appendix 1).

Section 78B (2) states that the authorities must act in accordance with guidance issued by the Secretary of State. Statutory guidance was first published within DETR Circular 2/2000 in March 2000 and was updated in Defra Circular 1/2006 in September 2006.

The DETR and Defra circulars state that, in inspecting their areas, local authorities should take a strategic approach to the identification of land that merits further detailed inspection and that this approach should:

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

Local authorities were required to publish a Contaminated Land Strategy by July 2001, after which the strategy should be kept under periodic review.

In order to satisfy the far reaching objectives of the contaminated land regime it will be necessary to assess land throughout the whole of the Borough and to collate significant volumes of information. This will ultimately enable this Authority to make the sometimes difficult and inevitably complex decisions relating to its condition, the risks it presents and who may be liable for it under law. It must be noted that local authorities have the sole responsibility for designating sites as contaminated land and this responsibility cannot be delegated to another body. Therefore, this strategy is the commencement of that process and seeks to express as clearly as possible how each stage will be addressed.

To date, there are no formal mechanisms in place for approval of local authority strategies. However, various national and local bodies were consulted on the Council's strategy in 2001, including the Environment Agency, Hertfordshire County Council, English Nature (now Natural England) and all neighbouring local authorities (a full list of consultees is presented in Appendix 2).

i.6 Roles And Responsibilities

The primary regulator in respect of the contaminated land regime is the local authority. For Dacorum Borough Council the strategy will be under the control of the Head of Public Protection. This is a significant responsibility that complements existing local authority duties under the statutory nuisance and development control regimes. The role in broad terms is:

- to cause the area to be inspected to identify potentially contaminated sites;
- to determine whether any particular site is contaminated (by definition);
- to determine whether any such land should be designated a 'special site' ; and
- to act as enforcing authority for contaminated land not designated as a 'special site'.

The Environment Agency also has four main roles:

- to assist local authorities in identifying contaminated land (particularly where water pollution is involved);
- to provide site specific guidance to local authorities on contaminated land where requested;
- to act as enforcing authority for contaminated land designated a 'special site'; and
- to publish periodic reports on contaminated land.

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

- establish who should bear responsibility for remediation;
- decide after consultation what must be done in the form of remediation and ensure it is effectively carried out;
- determine liability for the costs of the remedial works; and
- maintain a public register of regulatory action in relation to contaminated land.

i.7 Outline Of The Statutory Procedure

Contaminated land is defined for the purposes of Part 2A as:

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

- (a) significant harm is being caused or there is a significant possibility of such harm being caused; or
- (b) pollution of controlled waters is being, or is likely to be caused.”

What may or may not constitute the various categories of harm is described in the statutory guidance. Controlled waters include inland freshwater, groundwater and coastal waters.

The Council must search the Borough for land that has both sensitive receptors and sources of potential contamination. Where they have good reason to believe these both exist, they must undertake a formal risk assessment in accordance with established scientific principles in order to establish whether there is the potential for them coming together (through a “pathway”) and causing harm or pollution as described. This is known as a “pollutant linkage”.

Where the Council is satisfied that significant harm is occurring, or there is a significant possibility of such harm, or pollution of controlled waters is occurring, they must declare that a significant pollutant linkage exists and that the land is therefore contaminated land by definition. In every case where the land does not fall within the category of a “special site” the Council must commence regulatory action. This involves a series of complex procedures that must include:

- a formal written record of the determination;
- formal notification of all interested parties;
- determination of the physical extent of the land;
- the extent and seriousness of the risks (need for urgent action);
- the number and type of pollutant linkages;
- the effect each significant pollutant may have on controlled waters (if any);
- the most appropriate and cost effective remedial scheme for each significant pollutant linkage;
- identification of liability groups and, appropriate persons, for each pollutant linkage;
- assessment of hardship in the case of each appropriate person; and
- ensure effective remediation of the site and recovery of costs where appropriate.

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

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

- urgent action is necessary (see Part 5 and Appendix 5);
- there is no appropriate person;
- the authority is precluded from taking enforcement action (specified reasons);
- the authority agrees to carry out the works on behalf of an appropriate person; and
- a remediation notice has not been complied with.

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

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

i.8 Situations Where This Regime Does Not Apply

As stated in i.3 above, the primary aim of the Government is to prevent new contamination occurring. There are several situations therefore where existing pollution control legislation would apply to control the effects of land contamination:

Planning and Development Control (Town and Country Planning Act 1990, Building Regulations 1991)

Land contamination, or the possibility of it, is a material consideration for the purposes of town and country planning. This means that local planning authorities should take account of the potential for contamination both in preparing development plans and in determining

individual applications for planning permission. Planning permission may be granted on condition that the site is remediated to the satisfaction of the local authority. Planning Policy Statement 23 (PPS23) "Planning and Pollution Control" was published in 2004 by the former Office of the Deputy Prime Minister (ODPM). This includes an Annex 2 "Development on Land Affected by Contamination" that sets out detailed policy and practice. In addition to the planning system, the Building Regulations require measures to be taken to protect new buildings and their future occupants from the affects of contamination. "Approved Document Part C (Site Preparation and Resistance to Moisture)" published in 2004 sets out how contamination should be addressed in building control.

Pollution Prevention and Control / Integrated Pollution Control (Pollution Prevention and Control Act 1999 / Environmental Protection Act 1990 Part 1)

Under the Integrated Pollution Control (IPC) regime, the Environment Agency control releases to air, land and water from major industrial processes through a system of prior permitting. The regime gives the Agency the power to take action to remedy harm, which could apply to cases of land contamination. A new Pollution Prevention and Control (PPC) regime has progressively replaced IPC, which implements the requirements of the EC Directive on Integrated Pollution Prevention and Control (IPPC). The IPPC Directive requires a wider range of environmental impacts to be taken into account when issuing permits, including site restoration. In order to meet these requirements, operators are required to submit site condition reports when applying for a permit under PPC, and when a site closes. Any contamination occurring during the period of operation as a result of the permitted activities will need to be remediated by the operator.

Waste on Land (Environmental Protection Act 1990 Part 2)

All waste disposal and processing sites (including scrap yards) should be subject to licensing. Contamination causing harm, or pollution of controlled waters, should be dealt with as a breach of the conditions of the licence. In exceptional circumstances, where the problem arises from an unlicensed activity, it is possible that Part 2A could apply. An example of this would be a leak from an oil tank outside the tipping area. Where there has been illegal tipping of controlled waste (fly tipping) this should also be dealt with under section 59 of the 1990 Act.

Pollution of Controlled Waters not Arising from Land (Water Resources Act 1991)

Where a pollution incident has occurred and the pollutant is discharged directly into the body of water, or it has left land and it is entirely in the body of water (i.e. the land is no longer causing pollution), the Water Resources Act 1991 will apply. Additionally, no remediation notice can require action to be taken that would affect an authorised discharge consent.

Statutory Nuisance (Environmental Protection Act 1990 Part 3)

The relationship between Part 2A and statutory nuisance is not straightforward. If land is declared "contaminated land" by definition, it cannot be considered a statutory nuisance. This is understandable and ensures there is no duplication or confusion between the two regimes. However, if the land is investigated and found not to be contaminated land but, "land in a contaminated state" (defined as land where there are substances in, on or under land which are causing harm, or there is a possibility of harm being caused), it also cannot be considered a statutory nuisance for the purposes of Part 3 of the Act. Where land is not "contaminated land" nor "in a contaminated state", but is causing a nuisance from smell, it could be considered a statutory nuisance.

Health and Safety (Health and Safety at Work etc Act 1974)

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

Major Accident Hazards (Control of Major Accident Hazard Regulations 1999 (COMAH))

COMAH requires operators of establishments handling prescribed dangerous substances to prepare on-site emergency plans, and the local authority to prepare off-site emergency plans. Where a release, explosion or other major incident occurs that causes land contamination, the restoration and clean up of the environment should be carried out as part of the emergency plans.

Food Safety (Food Standards Act 1999)

Part I of the Food and Environment Protection Act 1985 gives ministers emergency powers to issue orders for the purposes of prohibiting specified agricultural activities in a designated area (e.g. land designated as “contaminated land”), in order to protect consumers from exposure to contaminated food. The above powers are now exercisable by the Secretary of State. Where the Council suspects crops may be affected from contaminated land to such an extent they may be unfit to eat, they will consult the Food Standards Agency to establish whether an emergency order may be necessary.

i.9 Land Under Ownership Of An Enforcing Authority

Where land owned by a local authority is found to be contaminated land, unless it is a special site, there will be no enforcing authority. However, local authorities must carry out their duties as though they were the enforcing authority, undertake the same consultations, assessments and seek appropriate remedial works as necessary. To this end a formal relationship should be maintained between the Department responsible for enforcement of the new regime and that responsible for Council owned land. All information relating to the identification, assessment and remediation of Council owned land must be fully reported to satisfy the needs for transparency.

i.10 The Need For Team Working

This strategy impacts on potentially all departments of the Council, in particular:

Planning and Development Control

The inspection of the Borough will identify areas of potentially contaminated land that may be developed, awaiting development, derelict, protected or part of the green belt. This may result in the need to re-examine past development control files or identify development routes for contaminated sites that may subsequently impact on the Local Development Plan.

Building Control

Officers have the duty to enforce protection measures in new build projects to mitigate the impact of contamination on property. Information they hold will be essential to quantify risks.

Legal

Part 2A is a highly complex piece of legislation that could have significant implications for the Council, landowners and occupiers. The Council solicitor’s advice may be required on

many aspects including those relating to enforcement, liability, powers of entry, data protection and access to information.

Engineers and Highways

Land under highways, pavements, verges and common areas may be contaminated and present a risk to potential receptors. Highways Authorities must maintain registers under Part III of the New Roads and Street Works Act 1991 regarding, amongst other things, streets with “special engineering difficulties”. This includes risks from contamination.

Information Technology

Significant volumes of data need to be held both on database and geographical information systems (GIS). Support is required on the use of these systems and with data protection issues.

Amenities and Housing

Land in use and controlled by other service units may be contaminated and require remediation. Appropriate Heads of Service will be consulted.

Property

The Head of Public Protection will advise the Council on the remediation of any contaminated sites within its ownership.

Finance

This legislation has the potential to have significant resource implications for the Council, both as an Enforcing Authority and landowner.

In addition to close corporate team working, collaboration with neighbouring authorities, interested parties and other statutory consultees will be undertaken to ensure the smooth implementation of the strategy.

i.11 Financial And Manpower Implications

The Government has accepted that successful operation of the Act demands considerable resources.

THE STRATEGY

PART 1 - DESCRIPTION OF THE DACORUM AREA AND HOW IT'S PARTICULAR CHARACTERISTICS IMPACT ON THE INSPECTION STRATEGY

1.1 Brief History

Situated in West Hertfordshire, the Borough of Dacorum was created in 1974 following a review of local government in England & Wales. It is composed of the main towns of Hemel Hempstead, Berkhamsted and Tring, plus a number of large and small villages. Prior to 1974 the area was broken up into five smaller council areas, originally known as the Borough of Hemel Hempstead, the Urban Districts of Berkhamsted and Tring and the Rural Districts of Hemel Hempstead and Berkhamsted.

The towns and villages that make up the Borough of Dacorum have a rich cultural heritage that is portrayed in much of the literature that is available. Situated along the Gade Valley, in the chalk hills of the Chilterns, historical evidence indicates that the Borough was used as a main thoroughfare for trade as far back as Roman times. Indeed it was once known as the Granary of London due to its rich fertile soils and flour making capabilities.

Around 1760-1770, some of the old mills near Hemel Hempstead were converted from grinding corn to papermaking, an industry that has lasted until the present day.

Also in the eighteenth century came the building of the Grand Junction, now known as the Grand Union Canal, which linked London with the industrial West Midlands. Inevitably, as trade grew along the canal, entrepreneurs such as John Dickinson and William Cooper thrived. John Dickinson, the first to move into the area in 1809, bought mills at Apsley and Nash Mills for the production of papermaking. Later came William Cooper, the inventor of the world famous Coopers Sheep Dip (the main active ingredients of which were sulphur and arsenic), who erected his first mill in 1852 at Ravens Lane, Berkhamsted.

Up until the late 1940's, agriculture and the above industries were the mainstay of the Borough. However, this changed when, following the Second World War, new housing was required for the homeless of London. Hemel Hempstead was earmarked for development as a new town and large areas of greenbelt land gave way to housing developments. With the new influx of people came new industries to the area, many of which remain today.

However, with rebirth and an ever increasing technological world, many of the older industries have ceased operating or have left for pastures new and the sites they once occupied have been, or are, in the process of being redeveloped into housing.

1.2 Population Size and Distribution

The population distribution of the borough following the 2001 Census is recorded in the following table.

Location	Population
Hemel Hempstead	81143
Berkhamsted	16498
Tring	13319
Rural	26839
Total	137799

1.3 Land owned by the Council

The Council has tried to be sympathetic in its development of the Borough and has tried to maintain as much as possible of the open spaces and parkland for the enjoyment of residents and visitors. Inevitably historic development has resulted in areas that have become contaminated through operations undertaken over the years, for example waste recycling and small-scale landfill. Therefore, it is accepted that the Borough may have areas of land that may be contaminated. These will be considered under the strategy in the same ways as all other land.

1.4 Broad Geological Characteristics

The make-up of the land covered by the Borough is primarily chalk hills. These are overlain with glacial gravels and boulder clay in the valleys and clay-with-flint covering some areas of higher ground. A major chalk aquifer underlies most of the area covered by the Borough and there are around 30 known private water supplies.

1.5 Protected Locations

The County Archaeological Group is consulted on all planning applications affecting areas of archaeological significance and archaeological potential. It is envisaged that the same consideration will be given to sites that are identified as contaminated land. A substantial part of the Borough is within an Area of Outstanding Natural Beauty, including land occupied by the National Trust at Ashridge. In accordance with the Borough Local Plan 1991-2011, every effort will be made to prevent the loss of any historic park or garden or harm to its historic structure, character, principal components or settings.

1.6 Known information regarding Contamination

There are a number of sites within the Borough that are perceived to be contaminated due to present and past activities. The perceived nature of the contamination in some cases is speculative and is not held on record. These sites will be investigated in order that they can be correctly identified.

1.7 Aims of the Strategy

The legislation and accompanying guidance for the risk-based approach to dealing with contaminated land requires a fair and systematic approach, which depends on help from the community. This Strategy will be implemented by the Environmental Health Division and will emphasise the pursuit of sustainable development, support for the local economy and pursuit of good health, community safety and well being. Specifically the Council aims to ensure:

- A risk-based approach, that is both systematic and objective in order to prioritise those areas which are in need of further investigation and possible remedial action.

- Where possible, site owners are encouraged to voluntarily remediate sites and help promote the use of these sites for redevelopment rather than use “greenfield” sites.
- Where voluntary remediation is not forthcoming, determination of the most appropriate action to ensure compliance with, and enforcement, of the appropriate legislation.
- That sites identified as “contaminated land” are effectively dealt with through consultation and monitoring.
- Any previous action taken to deal with contaminated land is checked to ensure that the previous regime was stringent enough to deal with the contamination in order to meet with current guidelines.
- Procedures are in place to produce and publish a Public Register of the enforcement history of land statutorily designated as “contaminated land”.

1.8 Objectives

- To provide an efficient mechanism by which information derived from existing records, members of the public, industry, etc can be collected, collated, assessed, updated and disseminated.
- To review procedures and standard legal documentation for property searches to minimise possible future liabilities.
- To formalise a protocol for the dissemination of information, when requested, which is not in contravention of relevant legislation.
- To standardise the information in a format that can be readily understood by officers of other disciplines and other interested parties.

PART 2 - IDENTIFICATION OF POTENTIALLY CONTAMINATED SITES AND THEIR PRIORITISATION ACCORDING TO RISK

2.1 Information

In undertaking its duty to inspect the Borough under Part 2A, the Council will take into consideration the particular characteristics of the area, including:

- Potential sources of contamination.
- Relevant geology, hydrogeology and hydrology.
- Potential specified receptors (all human receptors, sensitive water receptors, sensitive property receptors and relevant ecological receptors).

Consideration will also be given to the existence of sites and receptors which, if found to be contaminated land, would be designated as “special sites” (see Appendix 1).

2.2 Potential Sources of Contamination

Past Industry

The vast majority of potentially contaminated sites will be identified through the close examination of historical data in the form of old ordnance survey maps, plans and photographs for evidence of past industrial use. Consultation with the Town and Parish Councils and with members of the public for local knowledge of past industry will also be an important information source.

Current Industry

The present industrial areas of the Borough are potential sources of contamination and these will be inspected in accordance with the statutory guidance to establish whether there is a potential for contamination, and if there is, whether it is controlled by another agency.

Pollution Prevention and Control

The Pollution Prevention Control (PPC) regime has gradually replaced Integrated Pollution Prevention Control (IPC), which both control releases to air, land and water from industrial processes. There are numerous permitted activities within the Borough ranging from petrol storage facilities to concrete crushers and vehicle finishing processes. Both regimes should control unauthorised discharges to land, but their presence will need to be noted and the potential for long-term pollution assessed, particularly post closure.

Hazardous Substances

The Planning (Hazardous Substances) Act 1990, the Planning (Hazardous Substances) Regulations 1992 and the Planning (Control of Major Accident Hazards) Regulations 1999 (COMAH) require that Hazardous Substances consent be sought in respect of any proposal which would result in the presence on site of hazardous substances in excess of certain specified quantities. A register of applications for hazardous substances consent (and decisions on those applications) is maintained by the Council's Planning Department.

COMAH Sites

The Control of Major Accident Hazards Regulations 1999 are enforced by the Environment Agency and Health and Safety Executive (HSE) to control both on and off site risks from industries with a high potential for disaster from dangerous substances (flammable, toxic

or explosive). The Council's Planning Department maintains a list of sites within the Borough that have been notified to the Council by the HSE because of the presence of toxic, highly reactive, explosive or inflammable substances.

Explosives

Explosives are not directly covered by the hazardous substances regulations but are controlled by the Health and Safety Executive under licences issued under the Explosives Act 1875. Any licensed sites will be identified.

Current Landfill and Waste Processing Sites

Such sites are licensed by the Environment Agency under the provisions of Part 2 of the Environmental Protection Act 1990. Details of all these sites have already been provided by the Agency.

Closed Landfill Sites

These are a potentially significant source of risk, especially those that operated before the licensing requirements of the Control of Pollution Act 1974. All closed landfills in the Borough will be identified and their association with any specified receptors considered.

Sewage Works and Land Used for the Disposal of Sewage Sludge

Land dedicated for the disposal of sewage sludge is notified to the Environment Agency under the Sludge (Use in Agriculture) Regulations 1989. This land, together with all operating and redundant sewage works, will be identified and assessed.

Mines and Minerals Extraction

The geology of the area has resulted in areas used for the extraction of minerals, particularly chalk and clay. Many of the resulting quarries and pits have been filled with refuse or other materials. These can present a particular risk to water resources. An attempt will be made to identify all past quarrying sites and assess the risk that they present.

Waste or Derelict Land

Such land may have been used to dispose of wastes and effluents illegally. Records of reported pollution incidents of this type will be reviewed to identify such sites.

Ministry of Defence Land

There are currently no areas occupied by Defence Agencies within the Borough.

Previously Developed Contaminated Sites

Inspection of the Borough will identify many potentially contaminated sites that have been redeveloped over the years. In some cases the methods and extent of remediation may be unknown; in others it may be known but the adequacy of the remediation will need to be examined.

A more comprehensive list of previous uses considered to be potentially contaminative can be found in Appendix 4. Any site with the potential to cause pollution will be identified at this preliminary stage.

2.3 Potential Specified Receptors

Land can only be considered contaminated if it impacts on specified receptors:

Human

The present population of the Borough is approximately one-hundred and thirty-eight thousand, mainly distributed amongst the three main population centres of Hemel Hempstead, Berkhamsted and Tring. The remainder are distributed throughout the many villages and smaller settlements of the rural area. Human receptors may therefore be present to some degree at almost any location within the Borough. The potential for persons either living on or frequenting a potentially contaminated site will be considered in every case. Priority will be given to sites frequented by children.

Property - Buildings

All buildings and underground services (within the footprint of the building) are potential receptors and will be considered in every case where contamination and buildings exist. Ancient Monuments as listed by English Heritage will also be specifically identified as part of the strategy and the potential impact of contaminants considered. A full list of scheduled Ancient Monuments is provided in the Dacorum Borough Local Plan 1991-2011.

Property - Crops including Timber

Being a largely rural area, crop growing regions will not be specifically identified but taken into consideration as necessary. Where contamination is known or suspected, associations with poor yield and crop failure will be investigated. There are several parts of the Borough growing timber. Crop failure as a result of contamination is, however, most unlikely except perhaps where trees have been planted on contaminated land as part of a remediation programme.

Property - Produce Grown Domestically and on Allotments

There are many acres of allotments within the Borough and these will all be identified and their potential for contamination considered as a result of previous uses or activities. Similarly any domestic gardens likely to be contaminated will be identified and assessed.

Property - Livestock, Game and other Owned Animals

Again being a largely rural area, the presence of livestock or other animals in an area will not be specifically identified but taken into consideration as necessary.

Ecological Receptors

All identified ecological receptors will be considered as part of the strategy. There are several specified sites including Sites of Special Scientific Interest (SSSI), Local Nature Reserves (LNR) and other areas of ecological importance. Significant contamination is unlikely but all areas will be identified, examined and any risks carefully quantified with Natural England and the Environment Agency.

Water - Controlled Waters

All surface water receptors, such as rivers, streams, tributaries, reservoirs and lakes, will be considered as part of the inspection strategy. All groundwater receptors including major, minor and non-aquifers will be specifically identified with their location, depth and vulnerability according to cover. Potential risks from identified sources of contamination will be considered carefully with advice from the Environment Agency.

Water - Public Water Supplies

All public water supply abstraction points will be considered with their location, depth, strata/surface water supply they draw from and volume of supply. All other authorised abstraction points will also be considered including those used for agricultural or recreational use.

Water - Private Water Supplies

There are approximately thirty known private water supplies in the Borough. The protection of these is particularly important due to the heavy reliance on them by local communities. The Council already monitors these supplies as part of its duties under the Private Water Supplies Regulations 1991.

2.4 Prioritising According to Risk

The identification of contaminated land will be carried out in an ordered, rational and efficient manner based firmly on the principles of risk assessment. Any significant and imminent risks to human health will always be given the highest priority.

Before a piece of land can be determined as “contaminated land”, a “significant pollutant linkage” must be identified. The process of identifying pollutant linkages and of assessing the significance of each linkage is based on “contaminant-pathway-receptor” methodology.

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

A **receptor** is either (a) a living organism, a group of living organisms, an ecological system or piece of property and is being or could be harmed by a contaminant, or (b) controlled waters that are being or could be polluted by a contaminant, or (c) any person who is, or could be, subject to lasting exposure so far as is attributable to radioactivity.

A **pathway** is one or more route(s) 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.

Unless all three elements of a pollutant linkage are identified, land cannot be considered contaminated. All search strategies will therefore be prioritised on areas where both contaminants and receptors are known or likely to exist. It is important to fully understand this concept as it forms the basis of all future site investigation and prioritisation procedures.

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

In summary, for land to be determined as “contaminated land”, the following are prerequisites:

- one or more contaminant substances;
- one or more specified receptors;
- at least one plausible pathway between contaminant and receptor (to complete a pollutant linkage); and
- a reasonable chance that the pollutant linkage will result in significant harm to one of the specified receptors or cause pollution of controlled waters.

The strategy for identification will therefore be initially based on a desk top survey of the Borough and will involve:

- Initial identification of all potentially contaminated land.
- Review of all such land to identify candidate “contaminated land” sites and assign a priority for inspection.
- “Detailed inspection” of sites, which may include any or all of the following:
 - the collation and assessment of documentary information, or other information from other bodies;
 - a visit to the particular area for the purposes of visual inspection and, in some cases, limited sampling (for example of surface deposits); or
 - intrusive investigation of the land (for example by exploratory excavations).

Potentially contaminated land will, prior to detailed inspection, be listed and categorised according to a preliminary assessment of risk. The approach used will be based on the “PG01: Risk Prioritisation Methodology for sites of potentially contaminated land” developed for the Manchester Area Pollution Advisory Council (MAPAC). This methodology has been adopted by many local authorities in their prioritisation work. Full details of the methodology are presented in Appendix 6. Each potentially contaminated site is risk scored depending on its past and current use as well as various other environmental factors. Following completion of the risk scoring, the sites are ranked into order, highest first, to give a final prioritised list of sites. Detailed inspection of sites will then proceed with the site ranked highest in the prioritised list and will continue until all sites have been assessed.

2.5 Information, Complaints and Queries from Members of the Public

All information supplied to the Council will be dealt with confidentially, especially where the informant requests to remain anonymous. An initial investigation will be made by the appointed officer within 5 days to aid the prioritisation process. Information supplied that is non-specific and generalised will not be considered sufficient for initial investigation, although this will be at the discretion of the appointed officer.

It is envisaged that complaints will continue to be received about fly-tipping, accumulations, with the consequent potential for contaminated land. These complaints will be investigated in accordance with existing protocols and enforcement policies to establish whether the complaint is justified. If so, the particular circumstances will be evaluated to establish which enforcement process would be most appropriate.

Complaints may be received about particular sites needing further investigation that may give rise to concern, especially where a potential sale has failed as a direct result of the suggestion that the land may be contaminated. Those so affected may seek an early investigation to clarify their position, thereby seeking to circumvent the prioritisation process. Such requests for priority inspection will, where resources allow, be dealt with as considerately as possible.

2.6 Concluding Comments on Identification and Prioritisation

Assessments at the preliminary stage are made on a limited amount of often incomplete basic data and information, such as old surveys, maps, geological information, etc. As

more knowledge of sites is obtained, assessments will be revised and the order of prioritisation may change.

PART 8 - PROJECTED COSTS AND TIMETABLE

The Government has identified that to implement this highly complex and demanding piece of legislation will involve local authorities in considerable expenditure. The Defra Contaminated Land Capital Projects Programme is available to assist local authorities in fulfilling their responsibilities under Part 2A, including the costs of site investigations and also remediation in certain cases. However, applications for funding of projects must be accompanied by appropriate supporting evidence to show that it is likely that a contaminant is actually present and that, given the current use of the land, a receptor is present, or is likely to be present. This evidence should be presented in the form of an initial conceptual site model developed from information obtained from desk study, site walkover and, where appropriate, limited surface sampling investigations. The costs of this preliminary work are not eligible for funding, as these are constituted as revenue expenditure.

The Council's Contaminated Land Strategy was first published in 2001. The strategy was produced with the help of consultants at a cost of approximately £1,000. It was envisaged that the initial identification of potentially contaminated sites and their prioritisation for further more detailed inspection would take between one and two years, would cost in the region of £5,000 and would require no additional employment of staff. However, this process actually took over five years to complete, required £12,000 investment in electronic historical land use data and involved payment of £10,000 to consultants for the development of a GIS database for prioritising potentially contaminated sites. Additionally, the Council's first full-time Contaminated Land Officer was appointed in the autumn of 2006 in order to progress the implementation of the strategy, which initially included the completion of the site prioritisation exercise.

The detailed investigation of the prioritised sites (around 700 sites have been identified) commenced in 2007 and is expected to take many years to complete. The first stage of detailed inspection for each site will involve a review of any Council records held (including planning and environmental health files). Should this review identify further work is required, a desk study and site walkover will then be performed. The current annual Contaminated Land budget has provision for some limited surface soil sampling from sites if this proves to be necessary. However, potentially significant sums may be required to perform more detailed site investigations, and possibly, to take enforcement action and to carry out remediation. Should significant site investigations and/or remediation requirements be identified for a specific site, it is anticipated that an application for funding from the Contaminated Land Capital Projects Programme would be made.

It should be noted that the above arrangements relate specifically to the Council's regulatory and enforcement role and not that as landowner. Should land in possession of the Council be identified as contaminated land, then funding of remediation will be considered on a case-by-case basis. In the event of significant remediation costs being involved, it is likely that an application will be made for funding via the Contaminated Land Capital Projects Programme.

APPENDIX 1 - SPECIAL SITES

Once the Council has formally identified land as “contaminated land”, it must also consider whether it falls into the category of a “special site”. For any “special site”, the Environment Agency is the enforcing authority for the purposes of the Part 2A regime. What constitutes a “special site” is specified in the Contaminated Land (England) Regulations 2006. There are four main groups of cases where land can be designated a “special site”.

Water Pollution Cases

- Wholesomeness of drinking water – where contaminated land affects controlled waters used for the supply of drinking water.
- Surface water classification criteria – where controlled waters are being affected so that those waters do not meet relevant surface water criteria.
- Major aquifers – where particularly difficult pollutants are affecting major aquifers.

Industrial Cases

- Land contaminated with waste acid tar.
- Land used for oil refining.
- Land used for the manufacture or processing of explosives.
- Integrated Pollution Control (IPC) sites with Part A prescribed processes.
- Pollution Prevention and Control (PPC) sites with Part A(1) installations.
- Land used as nuclear sites.

Defence Cases

- Land owned or occupied by a defence organisation for naval, military or air force purposes.
- Atomic Weapons Establishment land.
- Land used for the production or disposal of chemical and biological weapons.
- Certain land at Greenwich Hospital.

Radioactivity Cases

- Land contaminated by radioactivity.

Where adjacent or adjoining land to a special site has been affected by the contamination so that it meets the definition of “contaminated land”, this land also forms part of the special site.

APPENDIX 2 - LIST OF CONSULTEES

Dacorum Borough Council (Internal)

- Building Control Manager
- Chief Financial Officer
- Head of Community and Culture
- Head of Planning
- Head of Public Protection
- Head of Street Care
- Senior Manager – Corporate Property and Assets
- Senior Manager – Landscape and Recreation
- Service Development Manager – E-Government
- Solicitor to the Council

Hertfordshire County Council

Town & Parish Councils

- Aldbury Parish Council
- Berkhamsted Town Council
- Bovingdon Parish Council
- Chipperfield Parish Council
- Flamstead Parish Council
- Flaunden Parish Council
- Great Gaddesden Parish Council
- Kings Langley Parish Council
- Little Gaddesden Parish Council
- Markyate Parish Council
- Nash Mills Parish Council
- Nettleden with Potten End Parish Council
- Northchurch Parish Council
- Tring Rural Parish Council
- Tring Town Council
- Wigginton Parish Council

Neighbouring Local Authorities

- Aylesbury Vale District Council
- Chiltern District Council
- St Albans District Council
- South Bedfordshire District Council
- Three Rivers District Council

External Consultees

- Dacorum Environmental Forum
- Department for Environment, Food and Rural Affairs (Defra)
- English Heritage
- English Partnerships
- Environment Agency
- Food Standards Agency
- Health and Safety Executive
- Natural England

APPENDIX 3 - POLLUTION OF CONTROLLED WATERS

For the purposes of Part 2A, controlled waters are defined as in Part 3 (section 104) of the Water Resources Act as:

- Coastal waters including docks
- Relevant territorial waters (usually to three miles)
- Inland fresh waters (relevant rivers, watercourses, lakes, ponds and reservoirs)
- Ground waters

Section 86 of the Water Act 2003 amended the definition for Part 2A purposes so that “ground waters” does not include waters contained in underground strata above the saturation zone (often known as the “unsaturated zone”). This ensures that the regime deals effectively with situations where contaminating substances have left the surface of land, are contained in underground strata, but have not yet fully entered the saturation zone.

Part 2A defines the pollution of controlled waters as:

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

There is currently no power in the Act to enable the Secretary of State to issue guidance on what degree of pollution may constitute pollution of controlled waters. However, section 86 of the Water Act 2003, once fully commenced, will amend the crucial definition of “contaminated land” so that Part 2A will only apply where “significant” pollution of controlled waters is being caused, or there is a “significant” possibility of such pollution being caused. This will ensure that only “significant” water pollution will trigger the regime, thus avoiding land being formally identified as “contaminated land” on the basis of very small amounts of matter entering controlled waters. Section 86 also provides for statutory guidance to be issued by the Secretary of State for the determination of what is “significant” pollution in this context.

Before determining that pollution of controlled waters is being, or is likely to be, caused, the local authority must be satisfied that a substance is continuing to enter controlled waters or is likely to. Land should not be designated as contaminated land where:

- a substance is already present in controlled waters;
- entry into controlled waters of that substance from land has ceased; and
- it is not likely that further entry will take place.

Substances should be regarded as having entered controlled waters where:

- they are dissolved or suspended in those waters; or
- if they are immiscible with water, they have direct contact with those waters on or beneath the surface of the water.

Local authorities will rarely deal with pollution of controlled waters, with most cases being assessed by the Environment Agency. Below is a summary of the issues relating to controlled waters.

APPENDIX 5 - POWERS OF ENTRY AND THE APPOINTMENT OF “SUITABLE PERSONS”

Section 108 of the Environment Act 1995 gives the Council power to authorise, in writing, “suitable persons” to investigate potentially contaminated land. These powers are extensive and will be considered in detail with the Council’s Solicitor prior to any resisted entry being attempted. It should be noted that these powers are not available to the Environment Agency. The powers of an authorised officer include:

- Entering at any reasonable time (or in urgent cases, at any time, if need be by force) any premises / land to make such examination and investigations as necessary.
- Taking samples, photographs, carrying out tests, installing monitoring equipment, etc.

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

There are no circumstances in which the Council will use these powers to obtain information about the condition of land, where:

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

URGENT ACTION

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

The terms “imminent” and “serious” are not defined, therefore the Council will use the normal meaning of these words. There is, however, guidance on what may constitute “seriousness” when assessing the reasonableness of remediation.

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

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

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

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

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