

April 2015

Report of	Head of Commercial Services	Author	Chris Downes 01206 282476
Title	Adoption of Land Affected by Contamination: Technical Guidance for Applicants and Developers		
Wards affected	All		

**The Local Plan Committee is asked to adopt formally *Land Affected by Contamination: Technical Guidance for Applicants and Developers*.**

## 1. Decision(s) Required

- 1.1 To adopt formally technical planning guidance governing land contamination in the form of *Land Affected by Contamination: Technical Guidance for Applicants and Developers* (3<sup>rd</sup> Edition, 2014), produced by the Essex Contaminated Land Consortium.

## 2. Reasons for Decision

- 2.1 The adoption of this Technical Guidance will ensure that the Council meets its statutory obligations under the Environmental Protection Act 1990 and informs planning applicants and developers of these requirements.
- 2.2 The appropriate assessment of the risks caused by potentially contaminated land and the remediation and verification is a key part of the planning process and this guidance will ensure that applicants and developers have access to a clear and informative source of guidance.
- 2.3 The Technical Guidance has been produced by the Essex Contaminated Land Consortium, a collaboration of all Essex local authorities, therefore in adopting this guidance the Council will be adopting an approach consistent with the rest of the county.

## 3. Alternative Options

- 3.1 The Committee could decide not to adopt the Technical Guidance. Such a decision would result in applicants and developers not having clear guidance as to what the Council requires in the assessment, remediation and verification of contaminated land. This may have the effect of causing delays and inefficiency in the planning process.

## 4. Supporting Information

- 4.1 Contaminated land in the UK has largely arisen as a result of historic industrial activities and past waste disposal practices. Unfortunately in the past, legal controls and standards within industry were not as high as they are today. In a lot of cases, this has resulted in the ground being polluted by the wastes and materials from the industrial activity. There are some pollutants which are naturally occurring and these may also need to be considered. Section 57 of the Environment Act 1995 inserted Part 2A of the

Environmental Protection Act 1990, which establishes a legal framework for dealing with contaminated land in England. This regime is applicable to the current use of land. It only applies to land which meets the legal definition and which cannot be dealt with by other means, including under the planning process. The way that Colchester Borough Council deals with land under Part 2A is set out in our Contaminated Land Strategy (currently under review).

4.2 Under the framework detailed above, Colchester Borough Council (as an enforcing authority) has certain obligations. These are to:

- Inspect the borough and identify any contaminated land;
- Establish responsibility for the remediation of contaminated land;
- Ensure any necessary remediation takes place, either by agreement or enforcement action; and
- Determine liability for the cost of any remediation.

4.3 Contaminating substances may include:

- Metals/metallic compounds, e.g. cadmium, arsenic, lead, nickel;
- Organic compounds, e.g. oils, petrol, solvents, fats; and
- Gases, e.g. methane, carbon dioxide, hydrogen sulphide.

4.4 A fundamental part of planning is bringing derelict land back into use and controlling risks for future uses of land. However some land, particularly land previously used for industrial processes, may be affected by contamination. This contamination may include soils contaminated by chemicals; radioactive contamination; migration of contaminants to ground and surface waters; and the production of hazardous gases.

4.5 The National Planning Policy Framework (NPPF) came into effect on 27<sup>th</sup> March 2012 and is a material consideration in planning decisions. In terms of contaminated land the Framework replaced *Planning Policy Statement 23: Planning and Pollution Control* (3<sup>rd</sup> November 2004) and the *Letter to Chief Planning Officers: Model Planning Conditions for Development on Land Affected by Contamination* (30<sup>th</sup> May 2008).

4.6 There are 12 core planning principles in the NPPF, including encouraging the re-use of existing resources, conversion of existing buildings and re-using land that has been previously developed ('brownfield' land). The NPPF states (at paras. 120 and 121) that:

- Where a site is affected by contamination, responsibility for securing a safe development rests with the developer and/or landowner.
- After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part 2A of the Environmental Protection Act 1990.
- Adequate site investigation information, prepared by a competent person, is presented.

The thread running throughout the NPPF is that there should be presumption in favour of sustainable development, which is both viable and deliverable. Obligations and policy burdens should not threaten viability of development.

4.7 It is the applicant's responsibility to ensure that the development will be sustainable and that the site can be made suitable for use: it is the Council's responsibility to ensure that this is achieved. The Council's planning application form requires applicants to state if the land is known to be contaminated in whole or part and whether the proposed use would be especially vulnerable to any contamination (certain uses require mandatory assessment such as dwellings, schools, nurseries, hospitals, parks, gardens and allotments). If the answer to any of these questions is 'yes' then an appropriate contamination assessment is required to be submitted in support of the application.

- 4.8 The nature of an appropriate assessment will be site-specific and dependent on identified risks, but is likely to require the minimum of a 'Phase 1' desktop study, site walkover and initial assessment of potential risks. Additional information may be required, either before or after determination of the planning application. The applicant will need to provide enough information to show that any risks are sufficiently understood and can be managed, both economically and technically. Once sufficient information has been provided by the applicant to show this, the Council can ensure that any additional actions are dealt with by way of condition(s).
- 4.9 These conditions may include a requirement for a 'Phase 2' intrusive investigation: physical inspection and testing of samples on the site to determine whether there is an unacceptable risk of harm to health, the environment and/or property. If the outcome of this investigation and risk assessment is that there is an unacceptable risk of harm, then site remediation is required.
- 4.10 An appropriate 'Remediation Scheme' will be agreed, in consultation with the Council, before any clean-up works start. Once the remediation is finished, and before the first use of the site, the applicant will need to show the Council that the remediation measures have been successful ('Verification' or 'Validation').
- 4.11 Once the council is satisfied that the developer has shown that there are no unacceptable risks remaining, a Validation Certificate is completed by the applicant and developer and submitted to the Council. The site is then considered suitable for use.

## **5. Proposals**

- 5.1 The Technical Guidance will guide applicants and developers through the planning process to ensure that they meet the requirements of the Council in the assessment, remediation and verification of contaminated land sites in a manner which is both compliant with environmental protection law and national planning policy. It will also ensure consistency with the approach of other Essex Councils. It is therefore proposed that the document is adopted as a material planning consideration.

## **6. Strategic Plan References**

- 6.1 The Strategic Plan Action Plan includes a commitment to make Colchester a vibrant, prosperous, thriving and welcoming place.
- 6.2 The adoption of this Technical Guidance will help the Council achieve these objectives through promoting the efficient use of land in the Borough.

## **7. Consultation**

- 7.1 There is no requirement to consult on the adoption of this Technical Guidance.

## **8.0 Publicity Considerations**

- 8.1 It is considered unlikely that the adoption of the Technical Guidance will attract publicity.

## **9. Financial Implications**

- 9.1 There are no identified financial implications to the Council in adopting this Technical Guidance.

## **10. Equality, Diversity and Human Rights implications**

10.1 An Equality Impact Assessment has been prepared for the Local Plan and is available to view on the Colchester Borough Council website by following this pathway from the homepage: Council and Democracy > Policies, Strategies and Performance > Diversity and Equality > Equality Impact Assessments > Commercial Services > Local Development Framework.

10.2 There are no identified Human Rights implications.

## **11. Community Safety Implications**

11.1 None.

## **12. Health and Safety Implications**

12.1 None

## **13. Risk Management Implications**

13.1 The adoption of the *Land Affected by Contamination: Technical Guidance for Applicants and Developers* (3rd Edition, 2014) will ensure that risks from contaminated land are identified at an early stage and where possible effectively mitigated.

## **Appendices**

Appendix A – *Land Affected by Contamination: Technical Guidance for Applicants and Developers* (3rd Edition, Essex Contaminated Land Consortium, 2014).

# LAND AFFECTED BY CONTAMINATION

## Technical Guidance for Applicants & Developers

Third Edition



Essex Contaminated Land Consortium

30<sup>th</sup> September 2014

**Basildon Council**  
BASILDON • BILLERICAY • WICKFORD

**Braintree**  
District Council



**castlepoint**  
Swifford • Gaining • Hadleigh • Thurderley

**Chelmsford**  
City Council

**Colchester**

**Epping Forest**  
District Council

**Harlow**  
Council  
Working together for Harlow

**MALDON DISTRICT**  
COUNCIL

**Rochford**  
District Council

**southend**  
on sea  
BOROUGH COUNCIL

**Tendring**  
District Council



**THURROCK** COUNCIL

**UTTLESFORD DISTRICT COUNCIL**  
It's Our Community

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Cover photograph: Cyanide containing gas works waste 'Blue Billy' being removed from a domestic garden.



## 1. Introduction

- 1.1 Our past industrial history has left some areas of land with an inheritance of contamination, with much of it being caused by polluting processes dating from the 19<sup>th</sup> and 20<sup>th</sup> centuries. This can include contamination of soils by chemicals or other hazardous substances, migration of contaminants to groundwater and surface waters and the production of hazardous gases from decomposing organic material in landfills etc. A legacy of contamination can also be left by processes that are carried out on sites that are not normally considered as 'industrial' (e.g. farms, stables & kennels etc.).
- 1.2 In order to deal with this legacy of historical contamination, Part 2A of the Environmental Protection Act 1990 imposes certain obligations. These are to ensure that following development, the final condition of the land will prevent it being designated as contaminated at some future point.
- 1.3 This guidance has been produced via collaborative working between all Essex Local Authorities as part of the Essex Contaminated Land Consortium. It aims to offer consistent and informative assistance to developers, consultants and landowners who intend to redevelop land or bring derelict land back into use under the Development Control process.

Following this guidance will also allow the Council to discharge its statutory Planning and Building Regulations responsibilities.

Please note that this guidance should be read in conjunction with DEFRA & the Environment Agency's Model Procedures for the Management of Land Contamination (CLR11), the National Planning Policy Framework (NPPF, 2012) and any other such statutory guidance that may be published from time to time.

- 1.4 The presence of contamination does not necessarily present an unacceptable risk. Risk exists when a source (a contaminant) and a vulnerable receptor (e.g. people, controlled waters or the wider environment) both exist at a site with a pathway linking the two. To that end, when dealing with a proposed development, the Council in whose area it is located will take into account comments made by other statutory bodies, such as the Environment Agency in relation to the protection of groundwater and surface waters. Other agencies may also need to be consulted.
- 1.5 In the interests of efficiency, the Council will provide as much information as possible about dealing with contamination during an application process. However, as the matter of contaminated land can be complex and varied, each site will have to be considered on its own merits. Sometimes, this may require that extra and individual conditions be applied.
- 1.6 It is important to note that all reports must address all the relevant issues referred to in this technical guidance in order to avoid rejection.

Early consultation and submission of all environmental reports is recommended but please note that environmental data reports *without* any interpretation (i.e. produced for property/land purchase purposes) which are submitted in isolation, **will not** be sufficient to provide all of the information required by the Local Authority. However, it is acceptable for such a report to be included as part of a more detailed submission.

## 2. Site Characterisation & Risk Assessment

- 2.1 Although contamination is widespread, it may not always be present in a form that would pose an unacceptable risk to human health, controlled waters, property, ecological systems or the environment. Therefore, it would be unreasonable to require every application to be supported by an intrusive investigation.
- 2.2 Site characterisation consists generally of Phase 1 and 2 investigations. The objective of these is to establish a risk assessment to enable the applicant and the regulators to clearly define the risk of harm to existing and proposed end users and other environmental receptors from contamination.
- 2.3 The Council's requirement to characterise the site for contamination will be proportionate to the risk of harm perceived in the light of information available. Therefore, for all proposed residential developments, a minimum of a Phase 1 desk study report **must** be submitted in support of the planning application.

For all sites where contamination is known or there is a reasonable suspicion of contamination, because of the lands previous use, or where there are indications of contamination (either on site or sufficiently close to be potentially affected), then a Phase 2 (intrusive investigation) report and remediation statement may also be required. This is based on the staged or tiered approach set out in CLR11.

- 2.4 Competent and experienced persons must carry out all elements of the site characterisation. Usually this would mean commissioning consultants or specialists. These persons must be familiar with all elements of modern risk assessment and site investigation techniques. They should also be familiar with current UK policy and the legislative framework surrounding land affected by contamination. See Section 6.
- 2.5 All risks identified must be evaluated fully to ensure that justifiable conclusions about the nature and level of risk have been drawn. This will include use of any non UK standards and adjustments made to those models. Any recommendations made as a result of the assessments must therefore be defensible. The risk evaluation will also contain any uncertainties surrounding the assessment.

### *Phase 1 – Desktop Study, Site Walkover and Preliminary Risk Assessment*

- 2.6 Applicants should familiarise themselves with the site (& surrounding areas), its former use and its potential to cause contamination. Failure to demonstrate this may result in the Planning Authority refusing an application as important information could be missed.
- 2.7 The object of the study is to formulate a Conceptual Model and Preliminary Risk Assessment (Tier 1). The study must contain all relevant information, including:
- A plan of the proposed site layout;
  - Site reconnaissance or walkover;
  - A physical site description including geology, hydrogeology, etc;



- The condition of soil and vegetation, and any evidence of fly-tipped or similar material;
  - The condition of structures on site, including any potential for the presence of asbestos, fuel storage (including heating oil);
  - Review of current and historical maps;
  - Previous, present and proposed uses of the site and direct vicinity;
  - Previous and current industrial processes carried out on site;
  - Details of any waste disposal practices;
  - Details of spillage or pollution incidents;
  - Any excavation and infilling activities (including current or historic landfill within 250m);
  - A review of any previous investigations;
  - Initial sampling of soils, water and gas where deemed appropriate; and
  - An appreciation of all potential receptors on and outside of the site.
- 2.8 During the desktop study it will be expected that initial contact is made with the Local Authority.
- 2.9 From the findings of this study an initial Conceptual Model will be produced. This is usually in the form of a diagram or table that illustrates any potentially significant **sources** of contamination; **pathways** through which contaminants can travel; and **receptors** that ultimately can be affected.
- 2.10 The risk assessment derived from the Conceptual Model will indicate whether it is necessary for it to be followed up by a further “Intrusive or Phase 2 Investigation and Risk Assessment (Tier 2).”
- 2.11 The Desktop Study should be submitted to the Council as a written report **prior** to the commencement of a Phase 2 investigation. At this stage the Council or Environment Agency may request further information or clarification of points.

*Early submission of the Desktop Study is therefore recommended to ensure that all of the information has been provided to the Council’s satisfaction and to prevent costly delays*

## **Phase 2: Intrusive Site Investigation**

- 2.12 If the Phase 1 study indicates that there is a potential risk of harm from contamination an investigation shall be undertaken to look at the elements of the Conceptual Model. Therefore, the Phase 2 Investigation should seek to clarify the findings of the Phase 1 Investigation.
- 2.13 This is the opportunity for further consultation with the Environment Agency on matters relating to groundwater and surface waters.

- 2.14 There may also be the need to monitor off-site to assess impacts of migrating contaminants.
- 2.15 Where the potential for migration of ground gases has previously been identified, further investigations will be required. These investigations will need to be carried out in accordance with suitable risk assessment methods and sufficient time must be allowed to complete them (see section 8). Where the Conceptual Model indicates hydrocarbon vapour risks, these must also be evaluated (see *CIRIA 2012*).
- 2.16 It is strongly recommended that further contact with the Local Authority is made prior to undertaking any gas migration investigations.
- 2.17 The intrusive investigation must be carried out by suitably competent and experienced consultants or specialists. This will include access to specialist contractors and engineers.
- 2.18 The investigation including sampling techniques should be carried out in accordance with *BS10175:2011 Investigation of potentially contaminated sites – code of practice (or any revisions)* & CLR 11.
- 2.19 Analysis of all samples shall take place at MCERTS & UKAS accredited laboratories.
- 2.20 When completed, the results of the investigation should be compared against relevant, authoritative and up-to-date criteria. In the first instance, these should be the Environment Agency SGVs, or other values derived in accordance with the Contaminated Land Exposure Assessment (CLEA) methodology, in accordance with the “acceptable risk” approach, such as the *CIEH/LQM 2009 Generic Assessment Criteria (GAC) for Human Health Risk Assessment*.  
  
Category 4 Screening Levels (C4SLs) (*SP1010, DEFRA, 2014*) have been produced as levels where there is no ‘Significant Possibility of Significant Harm’ *under the Pt2A regime*. Whilst the Department for Communities and Local Government (DCLG) Planning Practice Guidance has made reference to these, the CIEH position is that they are not precautionary enough when considering redevelopment of contaminated sites *under the planning regime* (*CIEH Position Statement, July 2014*). In the absence of definitive guidance on the use of C4SLs in the planning process, Essex Local Authorities will expect developers/owners to demonstrate that land is safe for its permitted use, and multiple lines of evidence may be required to support any values relied upon.
- 2.21 Where a substance is not covered by the above, other Risk Assessment tools will be considered. However their relevance must be fully justified, conforming to current UK Policy. Please note that models are also specific to certain land uses and receptors.
- 2.22 Risks to controlled waters should be assessed in line with Environment Agency’s publication Remedial Targets Methodology: Hydrogeological Risk Assessment for Land Contamination, in accordance with CLR11 and EA’s requirements. Please contact the EA for further information.
- 2.23 Underground structures such as foundations, fuel tanks, pipe work and archaeological sites need to be identified. Archaeological sites are treated as contamination receptors and advice from local and national agencies such as English Heritage may be required.
- 2.24 After the completion of the investigation works, a report detailing the methodologies used in the investigation, results, conclusions and recommendations must be submitted to the Local Authority. The report must also include:-

- A rationale for sampling locations;
- Rationale for range of contaminants analysed;
- Use of statistical analysis where relevant (data is appropriate, sufficient and representative (unbiased) – see CIEH 2008);
- Field sampling techniques utilised;
- Scaled sampling plans;
- Borehole logs and soil profile;
- Plan showing location of significant contamination;
- Any uncertainties relating to the conclusions; and
- Recommendations.

2.25 After the Phase 2 investigation has been completed, the preliminary conceptual model and risk assessment must be reviewed to see if the potential risks to human health, controlled waters and the environment have been realised, to the satisfaction of the Local Authority and the Environment Agency.

### **3. Remediation Scheme**

- 3.1 Where unacceptable risks to human health, property or the environment have been identified during Phases 1 and 2, a report detailing suitable remediation scheme(s) must be produced, in order to manage these risks for the proposed use of the land. This report should include information on how the works will be verified, to ensure that the remediation objectives have been met. This report must be submitted to, and agreed by, the Local Authority, before any work commences.
- 3.2 Where remediation of groundwater or surface water is required, or existing land contamination may present a risk to such, work will also need to be agreed by the Environment Agency. Details of the proposed work must be submitted in writing to the Council and the Environment Agency for written approval.
- 3.3 If any ground works are required to be undertaken prior to the commencement of the remediation scheme, they must be approved by the Local Planning Authority.
- 3.4 Where remediation includes importation of soils onto the site, either for gardens or soft landscaping purposes, then these must be suitable for use. The Local Authority will require you to undertake certain measures in order to be able to demonstrate this. These requirements are set out in Appendix 1.

Site derived soils must similarly be shown to be suitable for use.

Please note that the BRE 2004 cover system approach is considered by the ECLC to be a discussion document **only**: it would generally be expected that residential garden areas will include a minimum cover of 600mm (i.e. two spade depths) of verified “clean” soils but some sites or contaminants may require a greater depth of cover.

- 3.5 Suitably trained and competent persons must be appointed to oversee the remediation works. They must also be responsible for the safety of site workers and the public. These procedures must be in place before the work commences.
- 3.6 Contaminated soil that must be disposed of is waste. The appointed person will be responsible for the documented identification, handling, storage and fate of contaminated waste. There may also be a requirement to apply for an environmental permit or register an exemption. Please contact the Environment Agency for advice.
- 3.7 Any unexpected contamination or pathways that become evident during the development of the site must be reported to the local planning authority immediately. The risk assessment must then be reviewed and revised as necessary.
- 3.8 The Council will also have preference to the use of alternative, more sustainable remediation techniques as opposed to the “dig-and-dump” method. Off-site disposal of grossly contaminated soils and waters may still be necessary. However, current technology often allows soils and waters contaminated to certain levels to be treated for reuse.
- 3.9 The Environment Agency should be consulted where such techniques are proposed, as certain remedial activities may require a mobile plant permit or a site-based permit and treatment studies to show that the method is effective. Please refer to Environment Agency’s Remediation Position Statements document for further information.

Please note that, where *ex-situ* remediation techniques are employed, the reuse of treated soils may require an environmental permit or may require the developer to register an exemption (unless an existing exemption applies). Alternatively, the developer may be able to register under the ‘CL:AIRE Definition of Waste: Development Industry Code of Practice.’ We recommend the Environment Agency be consulted at an early stage in order to avoid delays.

- 3.10 Although these methods may take more time, there is often a cost benefit associated with them e.g. reduced waste disposal and transportation costs and less landfill tax. They will also avoid pollution caused by excessive vehicle movements and the need for landfill.

## 4. Verification

- 4.1 After completion of the remediation works, a verification report must be submitted to the Council for approval before construction begins (unless the remediation forms part of the construction). This will usually be a single document that demonstrates that **all** of the previously agreed remediation objectives have been met (where partial verification is proposed, this must be agreed by the Council in writing). It should include:
  - A summary of the risks that have been managed;
  - Verification sampling of any imported topsoil and certification of the source of the material (including sufficient appropriate analysis);

- Verification of depths of “clean” soils where plants and vegetables could be grown (private gardens) and in soft landscaped areas, together with evidence of the placement of any break layers;
  - Photographs;
  - Site plans;
  - Appropriate inspection and certification of any gas protection measures installed in individual plots (relative to the level of protection required);
  - “Duty of Care” waste disposal documentation; and
  - Any other relevant information required by the Council or the Environment Agency
- 4.2 There may be a requirement for future monitoring of the site to verify whether the remediation has been successful, particularly where on-site treatment processes have been used.
- 4.3 Subject to the findings of the verification report, the Council may require further works, including sampling and remediation to be undertaken.
- 4.4 When the Council is satisfied that the site has been remediated to an acceptable standard and is suitable for use the applicant and the developer will be expected to sign a Certificate to confirm that the site has been remediated in accordance with the scheme previously agreed between themselves and the Council (Appendix 3).

## **5. Local Authority Considerations**

We will consider the following:

- 5.1 Site Characterisation & Risk Assessment (“Phase 1” and “Phase 2” reporting)
- Has the site been determined as contaminated land under Part 2A of the Environmental Protection Act 1990?
  - Is the site known or suspected to be contaminated, or would the proposed use be vulnerable to any contamination?
  - Is there any land in the vicinity of the site known, suspected or with the potential to be contaminated and which may have an effect on the development (including filled land within 250m)?
  - Does the Council possess any information about the site?
  - Are the previous uses likely to have left the site in a contaminated state? See the DoE Industrial Profiles for examples (DoE 1994-2007).
  - Does the site require investigation prior to the application being determined?
  - Have competent persons carried out the investigation (see section 6)?

- Has the applicant gathered sufficient information?
- Has sufficient sampling been undertaken?
- What levels of confidence and uncertainty are included with the results?
- Has an appropriate laboratory been used to carry out the analyses?
- Has the Environment Agency been consulted regarding (the risk of) groundwater & surface water contamination?
- Have suitable threshold criteria been used, and have any derived criteria been justified?
- Does the condition of the site pose an acceptable risk?
- Does the site require remediation for its proposed use?

## 5.2 Remediation

A Remediation Method Statement (RMS) can only be submitted for approval once it has been agreed that the site has been sufficiently characterised and all potential pollutant linkages identified. Whilst it is acceptable for outline proposed remedial measures to be included in the risk assessment, a separate, stand-alone, detailed RMS will be required to be submitted for approval, before remedial works commence.

- Can the design of a remediation scheme be conditioned or is it required before the permission is determined?
- Will the scheme render the site suitable for its end use?
- Has the Environment Agency been consulted regarding waste management practices?
- Does the site require post-development monitoring?
- Has a monitoring scheme been agreed with the Local Authority and/or the Environment Agency?

## 5.3 Validation/ Verification

- Has all of the verification of remediation information been supplied in a single document?
- Has the developer complied with the previously agreed remediation scheme?
- Will there still be liabilities relating to Part 2A of the Environmental Protection Act 1990?
- Has the post remediation sampling and analysis been carried out sufficiently for verification?
- Are there any uncertainties remaining?



- Is all the necessary documentary evidence attached to the verification report?
- Has the applicant met the objectives agreed by the Council?

#### 5.4 Certificate

Once the agreed remediation scheme has been implemented, a verification report must be submitted and the applicant should sign and submit a certificate confirming this. A copy of the required format can be found at Appendix 3.

## 6. General Requirements

There are some matters that an applicant has to consider for all parts of the investigation, remediation and verification.

### 6.1 Competency

- 6.1.1 Care must be taken to ensure that additional pollutant linkages are not created during any works carried out at the site. This could result in the site being determined as contaminated under Part 2A of the Environmental Protection Act 1990.

Particular care must be taken when any piling is necessary as piling can create direct pathways between the contamination and the groundwater. Piling may also allow the migration of ground gases or expose site workers to the risk from contaminated waste materials. A Foundation Works Risk Assessment should be undertaken for developments involving piling on sites potentially affected by contamination to underpin the choice of founding technique and any mitigation measures required.

This highlights the need for specialist advice for all parts of the investigation.

- 6.1.2 Many organisations feel able to complete part of the assessment (usually the desktop study). The Council will have regard both to the content of reports and to professional experience, affiliation and demonstrable expertise. A failure to demonstrate this could lead to the report being rejected.
- 6.1.3 The NPPF requires site investigation information to be prepared by a “competent person”, defined as “a person with a recognised relevant qualification, sufficient experience in dealing with the type(s) of pollution or land instability, and membership of a relevant professional organisation”.
- 6.1.4 In all cases, all reports should be rational, ordered and in sufficient detail to demonstrate a logical progression of the assessment procedure. The reports should be clear and avoid excessive use of scientific terminology. They should also include a summary written in non-technical language.

*NOTE: We are not able to recommend consultants. You will need to look in directories (such as Yellow Pages, ENDS, Spill on Line (accredited oil spill contractors) etc.) and satisfy yourself that they are sufficiently experienced to be able to deal with all matters relevant to your particular site e.g. experience in ground gas/ground water monitoring, asbestos surveying/disposal, hydrocarbon contamination etc.*

### 6.2 Health and Safety

- 6.2.1 The developer is responsible for ensuring that site workers and members of the public are

protected from the potential effects of contamination during the entire process. Enforcement for health and safety matters on construction sites is the responsibility of the Health and Safety Executive (HSE).

## 7. And finally ...

7.1 The applicant is responsible for providing sufficient and accurate information to ascertain whether a site was contaminated and that it has been remediated, commensurate with its intended final use. Many of the decisions made by the Council will be on the basis of the information that has been provided to it. Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner (NPPF, March 2012)

7.2 Part 2A of the Environmental Protection Act 1990:

7.2.1 Local authorities are obliged to identify and have land remediated where contamination is causing unacceptable risks to human health and the wider environment, assessed in the context of its current land use and circumstances of the land.

7.2.2 Such land is determined “contaminated land” which is defined under Section 78A(2) of the Act as:

*“land which appears to the Local Authority... to be in such a condition, by reason of substances in, on, or under the land that – (a) significant harm is being caused or there is a significant possibility of such harm being caused; or (b) significant pollution of controlled waters is being, or there is a significant possibility of such pollution being caused.”*

7.2.3 “Harm” is subsequently defined as:

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

7.2.4 Therefore, should there be any failure to remediate land to a state that removes these risks which should have been identified in any investigation, remediation may be enforced post development at the expense of those persons deemed “appropriate” at the time as defined by the Act.

7.2.5 Section 78F(2) of the Environmental Protection Act 1990 defines “appropriate persons” as those who have caused or knowingly permitted a pollutant to be in, or under the land. As such they may be liable for the remediation of the site if it is subsequently determined as contaminated land by the local authority.

## 8. References and Useful Sources of Information

*(Please note that this is not an exhaustive list and always refer to the most recent guidance)*

BRE *Cover systems for land regeneration - thickness of cover systems for contaminated land*, BRE 2004, P Tedd, P Witherington, D Earle, S Hollingsworth, B Furlong, L Bradley, H Mallett, D Laidler

British Standards Institution, *BS10175:2011 + A1: 2013 Investigation of potentially contaminated sites – code of practice*, 2013

British Standards Institution, *BS8576:2013 “Guidance on Investigations for Ground Gas – Permanent Gases and Volatile Organic Compounds (VOCs)”*, 2013

CIEH, *Guidance on Comparing Soil Contamination Data with a Critical Concentration*, CIEH/ CL:AIRE 2008

CIEH/LQM, *Generic Assessment Criteria for Human Health Risk Assessment 2<sup>nd</sup> Edition*, Nathanail et al, Land Quality Press, 2009

CIRIA, 665 - *Assessing Risks Posed by Hazardous Ground Gases to Buildings*, Wilson et al, 2007

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## Appendix 1. Guidance on the importation of soils

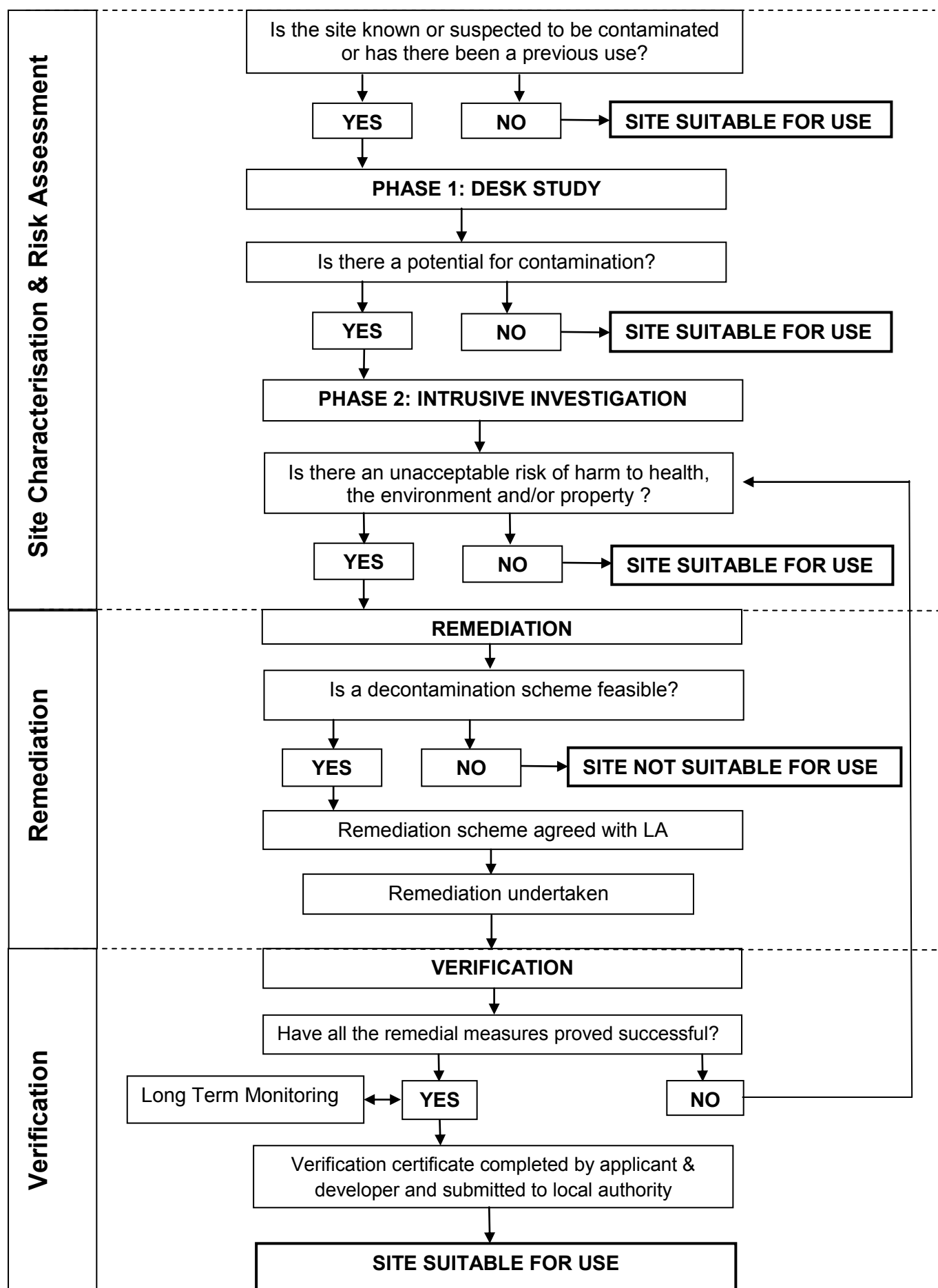
The following requirements will need to be met, in order to show that any soils brought on to the site are suitable for use and will not cause harm to human health, property, the environment or controlled waters:

- Details of the source and supplier of the soil(s) must be supplied to the Local authority;
- Soils must not be contaminated with materials such as plastics, metals, asbestos, glass, tarmac etc.;
- For soil from a single source, it will be necessary to take a minimum of two random samples for every 15m<sup>3</sup>. For small quantities of soils, a minimum of three samples will be required in total. Where large quantities of soil from a single source are involved, it may be possible to reduce the frequency of sampling - however, this must have been previously agreed with the Local Authority;
- Analysis of these soil samples must take place in independent UKAS<sup>(1)</sup> or MCERTS<sup>(2)</sup> accredited laboratories. The Local Authority will not accept sampling or analysis certificates which have been submitted by the supplier of the soils;
- The analytical suite must include a minimum of metals, speciated PAH, total TPH and pH. Analysis of additional substances may be required by the Local Authority depending on source: e.g. a pesticide suite for soils from agricultural sources. Analysis must be recent and clearly relate to the actual soils to be imported – a clear chain of custody is required;
- The results of the analysis must be compared with approved current guideline values. i.e. CLEA Soil Guideline Values, GACs, C4SL's or other values that may have been previously agreed with the Local Authority;
- The Local Authority must approve results of the analysis before the soils are placed on the site;
- If not for immediate use, "clean" soils must be segregated.
- Further representative sampling may be required following placement.

<sup>(1)</sup> The United Kingdom Accreditation Service

<sup>(2)</sup> Environment Agency Monitoring Certification Scheme

## Appendix 2. Site Assessment Procedure Flow Chart



## Appendix 3. Verification Certificate

**To be completed by the applicant and developer  
(a separate certificate to be completed by each relevant party)**

To .....(Council address)

This is to Certify that the scheme of remediation\*, decontamination and reclamation at the site known as: .....

.....  
(in relation to planning application reference: .....)

was carried out between the dates of: .....and.....

and was completed in accordance with best practice and in accordance with the Council's document *Land Affected by Contamination: Technical Guidance for Applicants and Developers*, and to the agreed remediation scheme, detailed in the document:

.....  
.....

Document Reference:.....

Dated: .....

[\*\*Together with the following amendments that have been submitted to and agreed in writing with the local planning authority:

.....  
.....

Document Reference: .....

Date: .....]

which were designed to afford protection from contamination\* on the site to all known receptors\*.

Signed: ..... Dated: .....

Name: .....

Position: .....

Company Name and Address: .....

.....

\* The words "contamination", "remediation" and "receptors" are as defined by Part 2A of the Environmental Protection Act 1990.

\*\* Complete/delete as applicable.



## Appendix 4. Local Authority Contact Information

### Basildon Borough Council

Customer Services: 01268 533333  
Email: [customerservices@basildon.gov.uk](mailto:customerservices@basildon.gov.uk)

### Braintree District Council

Phone: 01376 552525  
Email: [csc@braintree.gov.uk](mailto:csc@braintree.gov.uk)

### Brentwood Borough Council

Phone: 01277 312500  
Environmental Health – 01277 312504  
Fax: 01277 312744  
Email: [enquiries@brentwood.gov.uk](mailto:enquiries@brentwood.gov.uk)

### Castle Point Borough Council

Phone: 01268 882200  
Fax: 01268 882327  
Email: [environmentalhealth@castlepoint.gov.uk](mailto:environmentalhealth@castlepoint.gov.uk)

### Chelmsford City Council

Phone: 01245 606606  
Fax: 01245 606415  
Email: [scientific.team@chelmsford.gov.uk](mailto:scientific.team@chelmsford.gov.uk)

### Colchester Borough Council

Phone: 01206 282592  
Email: [Environmental.ProtectionTeam@colchester.gov.uk](mailto:Environmental.ProtectionTeam@colchester.gov.uk)

### Epping Forest District Council

Telephone: 01992 564608  
Email: [publichealth@eppingforestdc.gov.uk](mailto:publichealth@eppingforestdc.gov.uk)

### Harlow District Council

Phone: 01279 446111  
Fax: 01279 446639  
Email: [env.health@harlow.gov.uk](mailto:env.health@harlow.gov.uk)

### Maldon District Council

Phone: 01621 854477  
Fax: 01621 852575  
Email: [contact@maldon.gov.uk](mailto:contact@maldon.gov.uk)

### Rochford District Council

Phone: 01702 318111  
Email: online form from website

### Southend-On-Sea Borough Council

Phone: 01702 215005  
Email: [council@southend.gov.uk](mailto:council@southend.gov.uk)

### Tendring District Council

Phone: 01255 686767  
Email: [environmental.services@tendringdc.gov.uk](mailto:environmental.services@tendringdc.gov.uk)

### Thurrock Council

Phone: 01375 652955  
Email: [environmental.health@thurrock.gov.uk](mailto:environmental.health@thurrock.gov.uk)

### Uttlesford District Council

Phone: 01799 510510  
Fax: 01799 510550  
Email: [environmentalhealth@uttlesford.gov.uk](mailto:environmentalhealth@uttlesford.gov.uk)

### Environment Agency (National Customer Contact Centre)

Phone: 03708 506 506  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)