

Site Investigation Reports

A site is typically characterised by undertaking site investigations (desk Study, walkover survey and intrusive investigations) in association with a risk assessment, to develop a conceptual site model.

Site investigations should always begin with a desk study so that consideration can be given to health, safety and environmental hazards prior to fieldwork commencing.

A. DESK STUDY/ 'PHASE I' REPORTS

- (a) Purpose and aims of study
- (b) Site location and layout plans
- (c) Appraisal of site history
- (d) Assessment of environmental setting, to include:
 - geology, hydrogeology, hydrology
 - information on coal workings (if appropriate)
 - information from Environment Agency on abstractions, pollution incidents, water quality classification, landfill sites within 250m etc.
- (e) Assessment of current/proposed site use and surrounding land uses
- (f) Review of any previous site contamination studies (desk-based or intrusive) or remediation works
- (g) Preliminary (qualitative) assessment of risks:
 - Appraisal of potential contaminant sources, pathways and receptors
 - Conceptual site model
- (h) Recommendations for intrusive contamination investigation if necessary.

If the initial investigation gives cause to believe there maybe a problem with contamination then further more detailed investigations will be required.

B. SITE INVESTIGATION/ 'PHASE II' REPORTS

- (a) Review of any previous site contamination studies (desk-based or intrusive) or remediation works.
- (b) Site investigation methodology
 - methods of investigation
 - plan showing exploration locations
 - justification of exploration locations
 - sampling and analytical strategies
- (c) Results and findings of investigation
 - ground conditions (soil and groundwater regimes, including made ground)
 - discussion of soil/groundwater/surface water contamination (visual, olfactory, analytical)
- (d) Conceptual site model.
- (e) Risk assessment - as a minimum, based on contaminant - pathway-receptor model. Should take account of severity of consequences and likelihood of occurrence. Justification of any QRA models used.
- (f) Recommendations for remediation - justification should relate to proposed site use, risk assessment findings, as well as technical and financial appraisal.
- (g) Recommendations for further investigation (if necessary).

C. REMEDIATION STATEMENTS (submitted before remediation)

- (a) Objectives of the remediation works
- (b) Detailed outline of the works to be carried out
 - Description of ground conditions (soil and groundwater)
 - Type, form and scale of contamination to be remediated
 - Remediation methodology
 - Site plans/drawings
 - Phasing of works and approximate timescales
- (c) Consents, agreements and licences (discharge consents, waste management licence etc)
- (d) Site management procedures to protect site neighbours, environment and amenity during works, should include where appropriate:
 - Health and Safety procedures
 - Dust, noise and odour controls
 - Control of surface run-off
- (e) Details of how any necessary variations from the approved remediation statement arising during the course of works will be dealt with, including notification of Development Services.
- (f) Details of how the works will be validated to ensure the remediation objectives have been met; should include details on:
 - Sampling strategy
 - Use of on-site observations, visual/olfactory evidence
 - Chemical analysis
 - Proposed clean-up standards (i.e. contaminant concentrations)

D. VALIDATION REPORTS (submitted following remediation)

- (a) Include information as per C(a) to C(f)
- (b) Details of who carried out the work
- (c) Details and justification of any changes from original Remediation Statement
- (d) Substantiating data - should include where appropriate:
 - Laboratory and in situ test results
 - Monitoring results for groundwater and gases
 - Summary data plots and tables relating to clean-up criteria
 - Plans showing treatment areas and details of any differences from original Remediation Statement
- (e) Confirmation that remediation objectives have been met.

CONTACTS

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Contaminated Land

A Guide to Submitting Planning Applications for Development on Contaminated Land



BRADFORD
one landscape many views



Introduction

Due to the industrial legacy of the Bradford District, some of the land is potentially contaminated. In recent years the Government has recognised the value of bringing such previously used land back into use to aid urban regeneration and minimise the pressures for development on green field land. In particular Government guidance on housing sets a national target for 2008 of 60% (65%) of additional housing to be sited on previously used land.

Bradford Metropolitan District Council is receiving an increasing number of applications for development on previously used and therefore potentially contaminated land. Contaminated land is a material consideration to be taken into account when determining a planning application.

It is the responsibility of the applicant to provide information as to whether the site is contaminated as set out in Government guidance on contaminated land and in Policy P4 of the Bradford Replacement Unitary Development Plan. This guidance aims to provide assistance to developers and their agents on submitting the appropriate information required by the Council to assess a planning application.



The Council's Approach

Whilst the Council wishes to encourage effective use of land in the urban areas, it is important that the development of land, which may be contaminated, does not endanger public health and safety. Therefore the Council encourages pre application discussions as early as possible to identify the best way of dealing with land that is potentially affected by contamination.

In instances where it is known or "suspected" that the site is contaminated to an extent that would adversely affect the proposed development, an investigation of the hazards by the developer and proposals for any necessary remedial measures required to deal with the hazards will be required in the form of a Phase II / Site Investigation Report before the planning application is determined. Any subsequent grant of planning permission will include conditions requiring the remedial measures to be carried out.

Where there is only a "suspicion" that the site might be contaminated, be it from the previous use or proximity to landfill etc or where the evidence suggests that there may be only slight contamination, a Phase I / Desk Top Study Report will be required prior to the application being determined. If the initial report shows that contamination is evident then a Phase II / Site Investigation Report and Quantitative Risk Assessment would be appropriate.

Please note that even where there is only suspicion of contamination, the Council will encourage developer's to undertake a site investigation and assessment prior to any grant of planning permission since there are advantages to both parties. For the developer, an early site investigation can avoid unnecessary expense in the longer term and can help in negotiating a purchase price for the application site. For the Council, there can be reassurance that in granting planning permission, the proposed development is feasible.

The above approach will apply to both outline and full applications for planning permission.

When there is a Suspicion of Contamination

At pre-application stage you may find the following information of use:

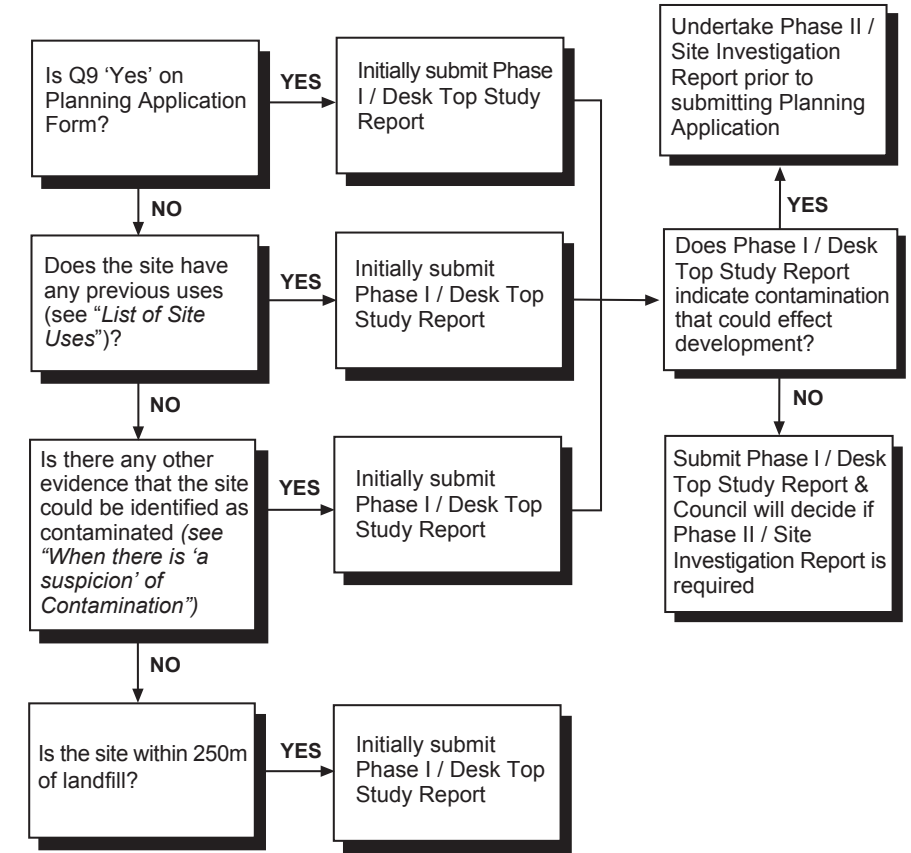
Information on contamination:

- Has the site been classified as statutorily contaminated?
- Is the site known or suspected to be contaminated?
- Are previous uses likely to have left the site in a contaminated state?
- Does the site require investigation prior to the determination of the application?
- Has the local authority gathered information on the site in meeting the requirements of Part IIA?
- Does the local authority possess any information on the type and extent of contamination?
- Have studies already been undertaken on the site?



When Contamination is Known or Suspected

The planning system has a key part to play in addressing the problem of historical contamination. The key role of the planning system with regard to contaminated land, is to ensure that the land is made suitable for any new use, as planning permission is given for that new use. Therefore in order to help you fulfil the requirements of Question 9 on the planning application form please use the flow chart shown:-



N.B Planning Approval may be delayed if all necessary information is not submitted at time of application.

List of Site Uses

Chemicals are extensively used in industrial, domestic and agricultural applications. They may be introduced to the land during their manufacture, use or disposal and may be deposited from the atmosphere, accidental spills, migration, leaks and illegal disposal. There are also natural sources of contamination, whereby concentrations of certain substances in the soil are elevated and may pose a threat to people or the environment.

Contamination is likely to be an issue where land has been used for the following activities: -

- Agricultural uses
- Chemical works
- Energy Industry - Power stations
- Engineering and manufacturing processes
- Extractive Industry & Mineral processing
- Food processing industry
- Gas works
- Glass making and ceramics
- Hospitals & Cemeteries
- Infrastructure
- Landfill
- Manufacturing of asbestos
- Metal processing
- Mills
- Oil refineries
- Paper, pulp and printing industries
- Petrol stations
- Production of metal
- Production of non-metals and their products
- Railway Land
- Road Vehicle maintenance
- Rubber industry
- Sewerage treatment
- Textile industry
- Timber and timber products industry
- Use as a scrap metal store
- Waste Disposal
- Waste management facility
- Wood preserving yards
- Works non-specified
- Miscellaneous - premises for dry cleaning, laboratories, and demolition of buildings for any of the above uses.

This list is not exhaustive, if unsure consult the Minerals and Waste team.

