WEST OXFORDSHIRE
DISTRICT COUNCIL

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Land Contamination
Developers' guide for planning applications

Table of Contents

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1. Introduction

The purpose of this guidance is to make developers aware of the information West Oxfordshire District Council (as the Local Planning Authority – LPA) requires in order to assess an application for planning permission on land which may be affected by the presence of contamination.

It also provides advice on how to ensure risks from land contamination are appropriately addressed during the development process in line with the National Planning Policy Framework (NPPF).

2. Scope of this document

This guide is intended to prompt engagement with the LPA's Contaminated Land Officer early in the development process. It is not intended as an exhaustive list of requirements.

3. West Oxfordshire District's Heritage

There is a substantial legacy of contaminated land in the United Kingdom due to its long industrial heritage and past waste disposal practices. There are now various regimes in place to prevent new contamination, however historic contamination remains and still has the potential to adversely affect people's health, as well as water quality, ecological systems and property.

The West Oxfordshire District Council area is predominantly rural in character, with agriculture being the main land use, and has not been an area of widespread heavy industry. However, it has a long history of industrial activity based around minerals production and manufacturing. The main manufacturing activities in the past have been centred around blanket production and engineering supplying the car industry. These traditional industries have declined to be replaced by hi-tech industries such as bio-technical, computing and, motor racing. There are a significant number of military sites, most dating from the First and Second world wars, some continuing in operation with the armed forces or in private use.

The geology of West Oxfordshire is dominated by 150 million-year-old Jurassic rocks, and comprises a sequence of limestones and clays The district consequently has many mineral workings which were the source of much of the local stone and as feed material for small local (often roadside) lime kilns and brickworks. Around the village of Stonesfield are old mines where Stonesfield stone slates were produced. Some old mineral workings have been infilled over the years with wastes. There are seven sites in the district designated as geological Sites of Special Scientific Interest (SSSI). This includes quarry sites at Ditchley Road, Horsehay, Long Hanborough, Shipton-on-Cherwell and Whitehall Farm. It also includes gravel pits at Stanton Harcourt and the Stonesfield mines.

FIGURE 1 Example of mineral workings in Oxfordshire

The cloth and blanket industry was very important in both Chipping Norton and Witney until the first decade of the twenty first century when the last mill in Witney closed.

In the past, these types of industrial activities have often resulted in contamination of the land. This is especially so when wastes have been deposited uncontrolled into disused quarries, fuels and other stored chemicals have leaked into the ground and where demolition of disused structures has left a legacy of asbestos fibres in the soil.

Even agricultural land is not necessarily uncontaminated. The nature of agricultural buildings and land is such that contamination of the ground can build up over a number of years. Particular activities that may affect the land in its present state or its proposed end use as residential development include the use of agrichemicals (such as pesticide, herbicide), storage of fuel oils, general farmyard activities (spillage of fuel oils, waste oils, grease and other waste farm products), all of which may have impacted upon the local environment.

4. What is land affected by contamination?

Contaminated land refers to circumstances where ground has become polluted in some way. Most often, this is as a result of substances being spilt or otherwise deposited from historic industrial activity, but elevated amounts of hazardous substances may be present from natural sources too (such as radon, which is a gas formed by the radioactive decay of small amounts of uranium that occur naturally in all rocks and soils).

If contamination of the land is not properly dealt with, it may pose a risk to public health and the environment.

The Council works closely with regulatory partners, including the Environment Agency, to prevent new contamination from being caused, or to require clean-up by the responsible polluter.

Whereas land contamination is a formal part of the planning process, it may also be considered by the Council where land is not being actively proposed for redevelopment, such as land that has fallen out of use or where planning proposals have been rejected or abandoned. There is a legal framework established to deal with historic contaminated land in England. This is Section 57 of the Environment Act 1995, which created Part 2A of the Environmental Protection Act 1990 ("Part 2A").

Land is only considered to be "contaminated land" in the legal sense, if it poses a sufficiently high risk to justify action, and meets the criteria for Part 2A (Link to Part 2a statutory guidance).

FIGURE 2 Disused tank with soil contaminated by leaked fuel, discovered at an industrial estate

5. Roles and Responsibilities

The National Planning Policy Framework (NPPF) sets out roles and responsibilities. Below is a summary of each party's role.

5.1 Who's responsible for ensuring the site is suitable for use?

It is the responsibility of the developer to ensure that the land will be suitable for the proposed use. The NPPF requires the local planning authority to view land contamination as a material consideration when deciding planning applications. The Council will ensure that the developer carries out necessary assessments to determine any measures needed for the development process to be completed safely, leaving the site suitable for its ongoing use.

> The responsibility for dealing with land affected by contamination rests, in the case of land being developed, with the person redeveloping it.

5.2 What's suitable for use?

A site is suitable for use when it poses no unacceptable risk from contamination.

5.3 The role of the Local Planning Authority (LPA)

The Local Planning Authority is the planning department of the Council and has a duty under NPPF to take account of all material planning considerations, including potential contamination, when considering an application.

The local authority will call on in-house or contracted expertise for specialist support on whether the land is likely to be suitable for the intended use, with or without further intervention.

The LPA will also consult on the application with statutory and other consultees.

It may refuse to grant planning permission on land contamination grounds, which is rare, or it may request further information. Alternatively, it may grant planning permission with conditions that require the developer to produce further information and undertake certain activities to improve the land condition.

> Where land is suspected of being contaminated the Local Planning Authority will expect technical reports to accompany planning applications.

The LPA will review the further information provided and may invite the developer to propose then carry out further assessment or a scheme of land improvement with the ultimate aim that the site is suitable for it ongoing use. The Council may require the improvement measures to be completed before the new development is occupied.

On sites where land contamination is anticipated it is strongly advised that pre-application advice is sought from the LPA so that all parties understand what is expected of them before development commences.

5.4 Role of the Environment Agency

The Environment Agency engages in the planning process in relation to its responsibilities for matters such as flooding, waste, pollution, biodiversity, coastal erosion and waterways. The Environment Agency will be particularly interested in sites where there is a risk of pollution to controlled waters. It may require specific measures to address this as part of the development process. Applicants should also check whether an environmental permit is required before development can start. This may be required in some circumstances such as the treatment and/or redeposit of contaminated soils.

5.5 The Developer's Responsibilities

Where significant contamination issues are anticipated on a development, developers are encouraged to undertake pre-application consultation with the Contaminated Land Officer (and the Environment Agency where it meets their statutory requirements). Submission of a desk study report or other supporting information with the application may assist the decision-making process.

The developer is responsible for ensuring that a development is safe and that it is suitable for its intended use, or can be made so through remediation.

5.6 The role of other organisations

Other organisations may have a role depending on the type or location of development. In particular the Building Control Inspector will need to be satisfied that any risks to the development from potential contamination have been adequately addressed. The Building Regulations require that reasonable precautions are taken to avoid risks to health caused by ground contamination at development sites.

6 The Development Process

6.1 Pre-application checks

On sites where land contamination is anticipated it is strongly advised that pre-application advice is sought from the LPA so that all parties understand what is expected of them before development commences. If the current or historic land use is commercial/industrial, a contaminated land risk assessment is likely to be required.

The Council holds information on land in its area which it will normally share with the developer. This may include historical land use information and sometimes detailed technical information on the condition of the ground. Sometimes this information was provided to the Council to support previous planning applications. This information will usually be available on the Council's website's planning applications public access pages:

Link to West Oxfordshire District planning applications website

The developer is also advised to commission a commercial environmental search to ascertain the site's historical and environmental history.

An overview of the process can be found here: Land affected by contamination - GOV.UK (www.gov.uk)

Failing to deal adequately with contamination can cause harm to human health, property and the wider environment. It can also limit or preclude new development; and undermine compliance with the Water Environment Regulations 2017.

6.2 Applying for planning permission

When submitting a planning application the applicant should provide information to help determine whether the site might be contaminated. There is a section within the planning application form for this.

The form asks if the proposal involves any of the following:

- Land which is known to be contaminated?
- Land where contamination is suspected for all or part of the site? (Note: this is not restricted to former industrial land but also includes agricultural land and other land such as landfill sites)
- A proposed use that would be particularly vulnerable to the presence of contamination?

If the answer is yes to any of these questions, or if the pre-application checks indicate that the land to be developed may be affected by contamination, as a minimum it will be necessary to submit a **Stage 1 Land Contamination Assessment** (often referred to as a Preliminary Risk Assessment or Phase 1 Investigation) in order for the application to be validated. This is described in more detail in Section 7.

6.3 Before and During the Development Process

Whilst the planning application is being considered by the LPA, it may ask for further information to be provided. This might include technical surveys to determine the extent and nature of contaminants at site and confirm contaminant linkages. These are normally required to be undertaken before development commences in order to determine whether any remedial measures are required. Section 7 provides more detail about the information required.

During site works, the developer should maintain contact with the Council's Contaminated Land Officer and consult in the event that any unexpected contamination or ground conditions are found.

6.4 Applying for discharge of contaminated land conditions

The developer can apply for discharge of a contaminated land condition once the requirements of the condition have been met. This might include the completion of site investigations or the approved remediation works.

The LPA would need to receive from the developer appropriate technical information that demonstrate risks from land contamination to the health of future users and the local environment have been addressed. This should be submitted to the Local Planning Authority accompanied by the appropriate condition discharge application forms and fee.

For this process to be valid, developers should submit complete reports, including all appendices and accompanying data directly to the Planning Case Officer and not to the Contaminated Land Officer, except as a copy.

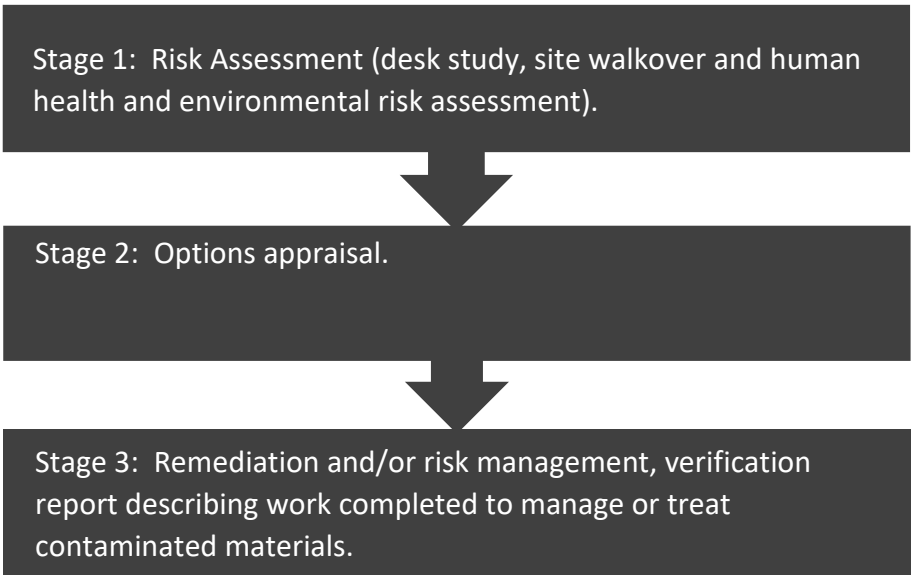
FIGURE 3 Contamination found under old slab base

7 Technical Information to support the Planning Process

7.1 Overview

When it is necessary to provide technical information on land condition to support a planning application, the following approach will be taken.

There are three stages of contaminated land investigation and management that may be undertaken dependent upon the condition of the site. These are:



When each of these stages is completed, the corresponding technical documents should be submitted to the LPA to support the planning application decision process. Further information on the above stages is given below.

7.2 Stage 1 Risk Assessment

A Stage 1 assessment is divided into 3 tiers.

Tier 1: Preliminary risk assessment

The preliminary assessment should include a desk-based study (which looks at all the available historical and environmental information), a site walkover, and the generation of a risk-based conceptual model of the site identifying the potential contaminant sources, pathways and receptors at the site (the "preliminary risk assessment"). It could also include an exploratory (limited) intrusive or non-intrusive investigation.

At this tier of risk assessment an exploratory investigation is a limited investigation. However intrusive exploratory investigations at this or subsequent tiers might include hand-tool soil sampling, excavation of trial pits, drilling exploratory boreholes and constructing gas, vapour and groundwater monitoring wells. Non-intrusive investigations might include geophysics, aerial surveys and satellite image analysis, which can be used for example, to help locate below-ground structures such as fuel tanks or buried foundations.

Required Outputs: A preliminary risk assessment report describing all possible sources of contamination, the 'receptors' on site, and those that will be brought to site as a consequence of development, the pathways that exist and may be created. Then, a conceptual model to confirm if further investigation or remediation is required. Details of proposed further work. At this point it may be concluded that:

- there are no unacceptable risks and so complete the process
- more information is needed and to proceed to a generic quantitative risk assessment (Tier 2) or go direct to a detailed quantitative risk assessment (Tier 3)
- there are clear risks and decide to proceed to the management/treatment options appraisal stage

FIGURE 4 Site investigation in progress, borehole drilling for soil sampling

Tier 2 Generic quantitative risk assessment

At this point one or more potential contaminant linkages identified at Tier 1 stage may need further assessment. It will be necessary to carry out intrusive site investigation to determine the nature and extent of contamination present, then compare contaminant concentrations against appropriate generic assessment criteria. Examples of available human health generic assessment criteria include C4SLs and published soil guideline values (SGVs).

Further criteria are available for other types of linkage, involving water, ground gas and ecology. For more on the use and availability of screening criteria see LCRM here: Link to LCRM Stage 1 Risk Assessment

Each potential contaminant linkage will be assessed and appraised.

Required Outputs: a generic quantitative risk assessment report which updates the conceptual site model and sets out all of your findings. At this point it may be possible to:

- Show that risks are low enough that no further action is needed
- Decide further assessment, site investigation and monitoring are required to address uncertainties and complete the risk assessment
- Identify unacceptable risks needing detailed quantitative risk assessment or going direct to the options appraisal stage

Tier 3: Detailed quantitative risk assessment

This is to address one or more potential contaminant linkages, identified by the preceding assessment tiers and that need a detailed assessment. It is likely that detailed investigation will be required at this point.

The investigation should provide detailed site-specific information on substances in or on the ground, geology and controlled waters, and investigate more fully/confirm any possible contaminant-pathway-receptor significant contaminant linkages identified in Stage I. Investigations should be designed, supervised and reported by a suitably qualified person (see below). It may be necessary to use modelling to derive site-specific assessment criteria.

Upon completion, the developer must make a decision whether there are any unacceptable risks and whether any further action is needed to reduce risks from contamination and proposed actions required to make land "suitable for use".

Required outputs: a detailed quantitative risk assessment report, including all information from the risk assessments and if unacceptable risks are present, proceed to the options appraisal phase.

7.3 Stage 2 Options Appraisal

At this point a decision has been made to remediate the contamination. Therefore it will be necessary to identify, evaluate and select feasible remedial options that are most readily available and applicable to the types of contamination and contaminant linkages. It will be necessary to decide if more than one treatment option is required to deal with multiple contaminant linkages and how these will work in combination or in parallel, in the circumstances of the site.

Required outputs: an options appraisal report, identifying feasible remediation options, evaluating them and setting out the final preferred remediation option(s).

Further information can be found here: Link to LCRM Stage 2 Options Appraisal

7.4 Stage 3 Remediation and Verification

At this stage the recommendations from the options appraisal, derived from the environmental and human health risk assessment, may be developed into a written strategy setting out how land might be made "suitable for use".

A "remediation method statement (RMS)" might be produced at this point to present details of how the remediation will be undertaken, what methods will be used and what is to be achieved. It will also set out any ongoing monitoring that is required to demonstrate the effectiveness of the remediation. A clear remediation end point should be stated, such as site contaminant levels or risk management action and how this will be verified.

It will be necessary to consider concerns of local residents and any possible impacts upon them. This might include considering their health concerns such as how dust, noise and odour might affect them, vehicle movements, boundary and party wall agreements.

When the remediation strategy has been agreed by the Council and once the correct regulatory controls are in place measures to reduce or manage the previously identified unacceptable risks due to contamination will be put in place, as set out in the RMS.

Required outputs: a remediation method statement then at completion, a verification report to confirm that the agreed end points (as set out in the RMS) have been achieved and the remediation has been successful or that long term monitoring and maintenance has been proposed, for which the results will need to be reported.

7.5 Special Requirements for Soil Gas verification

The requirements for verifying correct supply and installation of a gas-resistant membrane are set out in BS 8485:2015+A1:2019 operating alongside the CIRIA 735 code of practice. Best practice is that an independent third party is used for verification to avoid conflicts of interest. In addition, integrity testing should be used as well as visual inspection to demonstrate a gas tight seal is present across the membrane. The British Standard sets out reporting requirements: specifically in Table 8 — Information to be included in the design, installation and verification report.

FIGURE 5 New floor slab with service penetrations sealed against ground gas ingress

7.6 Sustainable remediation

Government policy is to encourage sustainable methods of remediation. Where remediation work is required on site to manage contamination risks, the LPA recommends that the principles of sustainable remediation be followed as far as possible. The approach to sustainable remediation is described in ISO 18504:2017 and the principles and best practice are promoted by SuRF-UK: Link to SuRF-UK Sustainable Remediation Forum

In essence, sustainable remediation should produce benefits that are greater than the impact of carrying out the remedial work.

Risks due to climate change should be considered. Climate change can have adverse effects on remedial schemes if it these are not completed with this in mind. Remedial works must be designed to withstand a changing climate and extreme weather events. For example, where the finished ground surface is to be reprofiled, it should consider how additional surface water runoff from a heavy rainfall event be accommodated.

8 Qualifications and site assessors

Contaminated land is a very complex technical discipline and compliance is necessary with an ever-increasing amount of new legislation and guidance. The individual and/or consultancy who is carrying out the site assessment must have the necessary experience, qualifications and skills.

The NPPF requires that technical assessments to support the planning process, such as site investigation information, is prepared by a competent person. This is defined in the NPPF 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.

It is essential that a proper scientific and evidence-based approach is taken to the gathering of information about a site. Current good practice should be followed.

There are currently three national accreditation schemes for professionals in land contamination. These are:

- the Specialists in Land Contamination (SiLC) Link to Specialist in Land Condition Register (SiLC);
- the Suitably Qualified Person register for the National Quality Mark Scheme (NQMS) Link to CL:AIRE NQMS SQP Register; and
- The Society of Brownfield Risk Assessment (SoBRA) accreditation scheme, specifically for those working in the area of land contamination risk assessment Link to Register of SoBRA Risk Assessors

The National Quality Mark Scheme for Land Contamination Management (NQMS) is a voluntary scheme established in 2017 which provides visible identification of documents that have been checked for quality by a Suitably Qualified and experienced Person (SQP).

The NQMS uses an SQP who is a qualified and experienced professional in land contamination. The SQP will check and approve the technical submission and issue a signed "declaration".

The Council supports any industry effort to improve the quality of information submitted, however all land contamination reports and information submitted to the Local Planning Authority will continue to be reviewed and assessed by the Council's specialist staff in the normal way. Technical reports are reviewed by the Council not only for their technical quality but for their relevance to the development proposals and in relation to the known history of the site by comparison with the Council's own data and local knowledge.

The Council expects that site assessors should:

- Be a competent person belonging to an accredited body
- Be aware of current legislation as it relates to land contamination and pollution, including health and safety and the relevant codes of practice.
- Use an accredited and quality assured laboratory (UKAS) employing MCERTS methods to analyse samples.

9 When the Council might reject a technical report

As indicated above the Council will expect technical documents to accompany planning applications for land where contamination is a possibility and will undertake a review of the information supplied to ensure that it is relevant and sufficiently detailed.

There are several reasons why a Local Planning Authority may reject a technical submission report, including the following circumstances:

- Some of the information required is missing or there are gaps in the data provided
- Where information is not clearly presented, requires clarification and where conclusions have not been drawn from the information
- The report does not address sufficiently the concerns of the Planning Authority
- The report has not included technical work previously agreed with the Planning Authority
- Investigations into potential land contamination have deviated from guidelines within relevant British Standards and current UK guidance without valid reason
- The report has not been carried out by a suitably qualified person (in accordance with the NPPF).

The Planning Authority will write to applicants/agents with details of why it has been rejected and ask for a re-submission of an amended copy. If you are unclear about this, you should make an appointment to discuss this with the Planning Case Officer dealing with your development.

Where the Council has rejected a report submitted as part of the application this could lead to delays in the application process and incur additional development costs, so it is important for all the developer's team to be aware of this and national contaminated land guidance.

10. Waste management and reuse of materials

Most construction sites will generate materials surplus to requirements and not least soils, generated from foundation excavations, installing underground utilities and so on.

> Excavated Material generated by construction may be waste and subject to waste regulatory controls. In general, if the material is to be discarded / surplus to requirements, it is waste and if the material is not fit for purpose and requires treatment to render it acceptable it is also waste.

In times past, the main destination of this material has been landfill sites as waste, however modern approaches seek to find a suitable use for this soil, on or off site. This may result in agreements being reached between developers and their subcontractors to transport surplus soils between sites.

At some sites there is a need to import additional soil. Activities such as bringing in soil from somewhere else to use in landscaping at housing developments may be carried out with a permission known as a "U1 exemption". This allows the use of suitable waste rather than virgin raw material or material that has ceased to be waste, such as treated contaminated soil. There are various rules and requirements that should be followed and for more information on this see Government guidance:

Guidance on U1 waste-exemption for the use of waste in construction

This can be used for lower volumes up to 1,000t of soil and 5,000t of aggregates. However for larger volumes of soil it will be necessary to apply the CL:AiRE DoWCoP (Definition of Waste: Code of Practice). DoWCoP is a recognised procedure that enables the reuse of excavated soil (including both contaminated/uncontaminated materials) on-site or their movement between sites. DoWCoP is applied where it can be demonstrated that there is a certainty of use at the receiving site (such as a planning permission for a site feature that requires the soil). This is discussed in the next section.

Reuse of material within larger developments in particular may result in fewer lorry journeys to/from the site and thus in lower carbon emissions, helping to minimise contributions to climate change.

11 Other permissions that may be required

11.1 Consents and licences

There are a range of consents that may be required before development can occur, from listed building consents to protected species licences. This guidance applies to the assessment and remediation of contaminated and potentially contaminated sites that are being considered under the planning process and this section provides an outline of those requirements.

Sometimes investigation and remediation activities require permits or consents from the Environment Agency or additional planning permission from the Local Planning Authority. Consents from the Environment Agency might relate to use of specialist plant for the treatment of soil and groundwater, abstraction and disposal of groundwater and management of wastes. Consent may be required from the local water/sewerage company to receive wastewater arisings.

Building regulations approval may also be required and the applicant must ensure that the Building Control Officer is aware of contamination issues and that the appropriate requirements are met. It may be necessary for the developer to provide evidence of any measures that were incorporated into the development to protect it from contamination. For example, such measures could include protection from soil gas ingress, and these may need to be checked and approved by the building control body before any remediation can be deemed complete and before discharge of any conditions will be considered.

FIGURE 6 Unauthorised wastes deposit

11.2 Regulation of wastes:

All developments generate wastes. As well as general construction and office waste, some developments have a surfeit or deficit of soil arising from the construction process. Soil in those circumstances is a waste material.

If using, treating, storing or disposing waste soil then you need either:

- an 'environmental permit' or;
- an 'exemption' (permission for a waste operation that is exempt from needing an environmental permit, if the material falls within the criteria/limits)

Where that soil is surplus to requirements it can in some circumstances be passed to other developments to use. Soils that are required for a particular development can be brought to site under a DoWCoP arrangement (as noted in the previous section).

To be able to demonstrate that material is not waste within a development, it is necessary to demonstrate that the material:

- Is suitable for its intended use – doesn't pose a risk to human health or the environment
- Has certainty of use – was the material always intended to be used from the planning and design stage
- Has certainty of volume – the defined amount and no more being used
- Has been manufactured in accord with the WRAP protocol – demonstrating the material is no longer waste.

12 References

Guidance for the Safe Development of Housing on Land Affected by Contamination, NHBC/EA/CIEH, R&D Publication 66: 2008

Environment Agency guidance 'Land contamination risk management' (LCRM)

British Standard BS 10175:2011+A2:2017 Investigation of potentially contaminated sites. Code of practice - Code of practice

CIRIA 735, Good practice on the testing and verification of protection systems for buildings against hazardous ground gases, CIRIA, 2014

Appendix 1 West Oxfordshire District Council Planning Policy

The West Oxfordshire Local Plan was formally adopted on 27 September 2018 and sets out the overall planning framework for the district from 2011 to 2031.

The relevant current Local Plan (2031) policies, as applicable to contaminated land are **Policy EH8: Pollution, which in relation to contaminated land states:**

> Proposals which are likely to cause pollution or result in exposure to sources of pollution or risk to safety, will only be permitted if measures can be implemented to minimise pollution and risk to a level that provides a high standard of protection for health, environmental quality and amenity.
>
> **Contaminated land**
>
> Proposals for development of land which may be contaminated must incorporate appropriate investigation into the quality of the land. Where there is evidence of contamination, remedial measures must be identified and satisfactorily implemented. Hazardous substances, installations and airfields Development should not adversely affect safety near notifiable installations and safeguarded airfields.

For full details of other environmental matters such as air quality, artificial light, noise, water resources and waste covered by Policy EH8, please refer to the West Oxfordshire Local Plan via the link below:

Link to West Oxfordshire District Council Local Plan 2031