

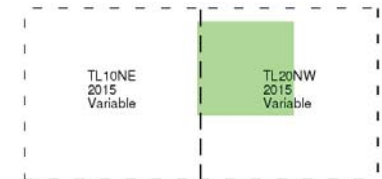
VectorMap Local

Published 2015

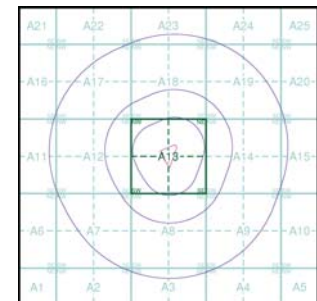
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)



Historical Map - Slice A

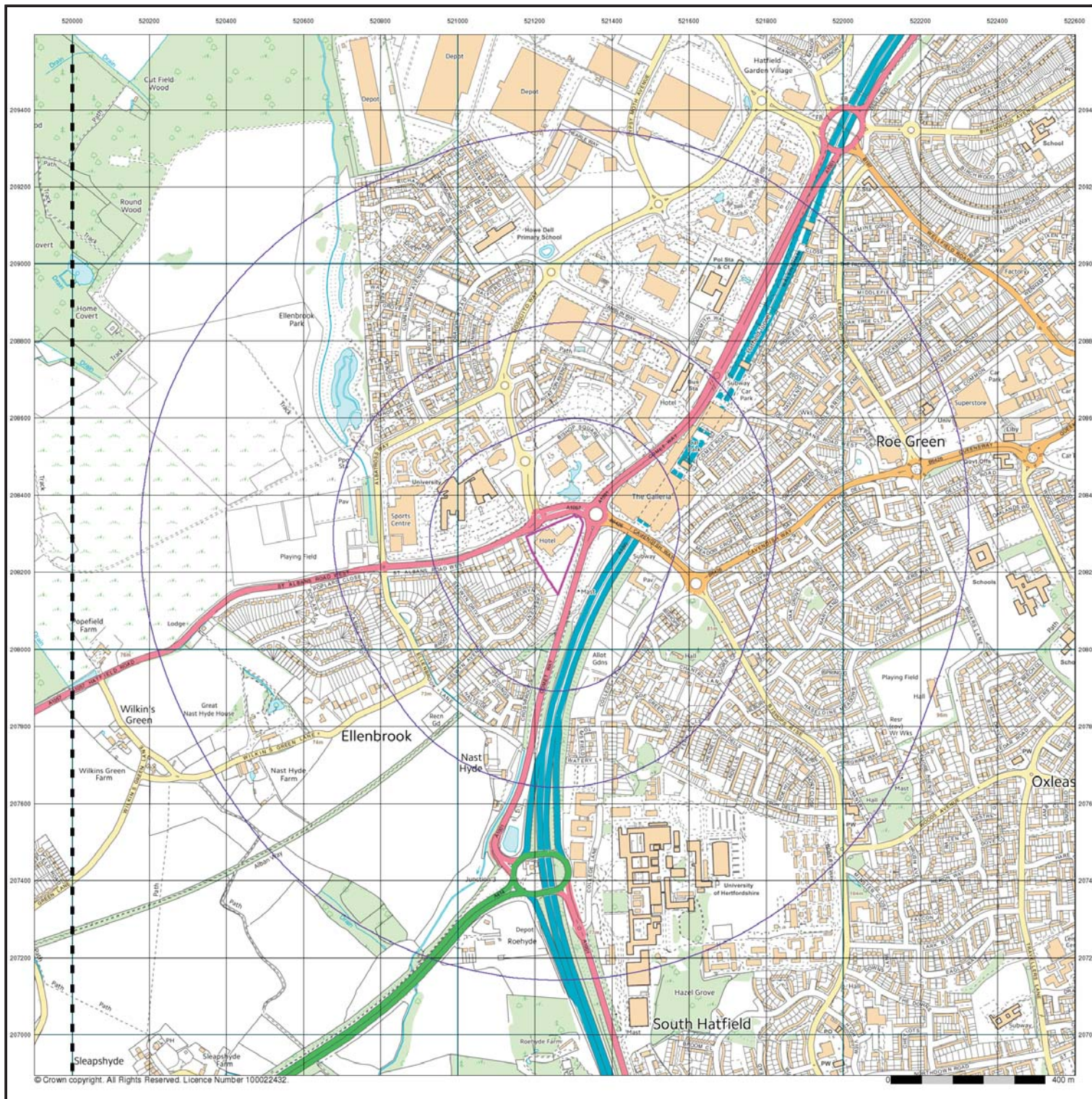


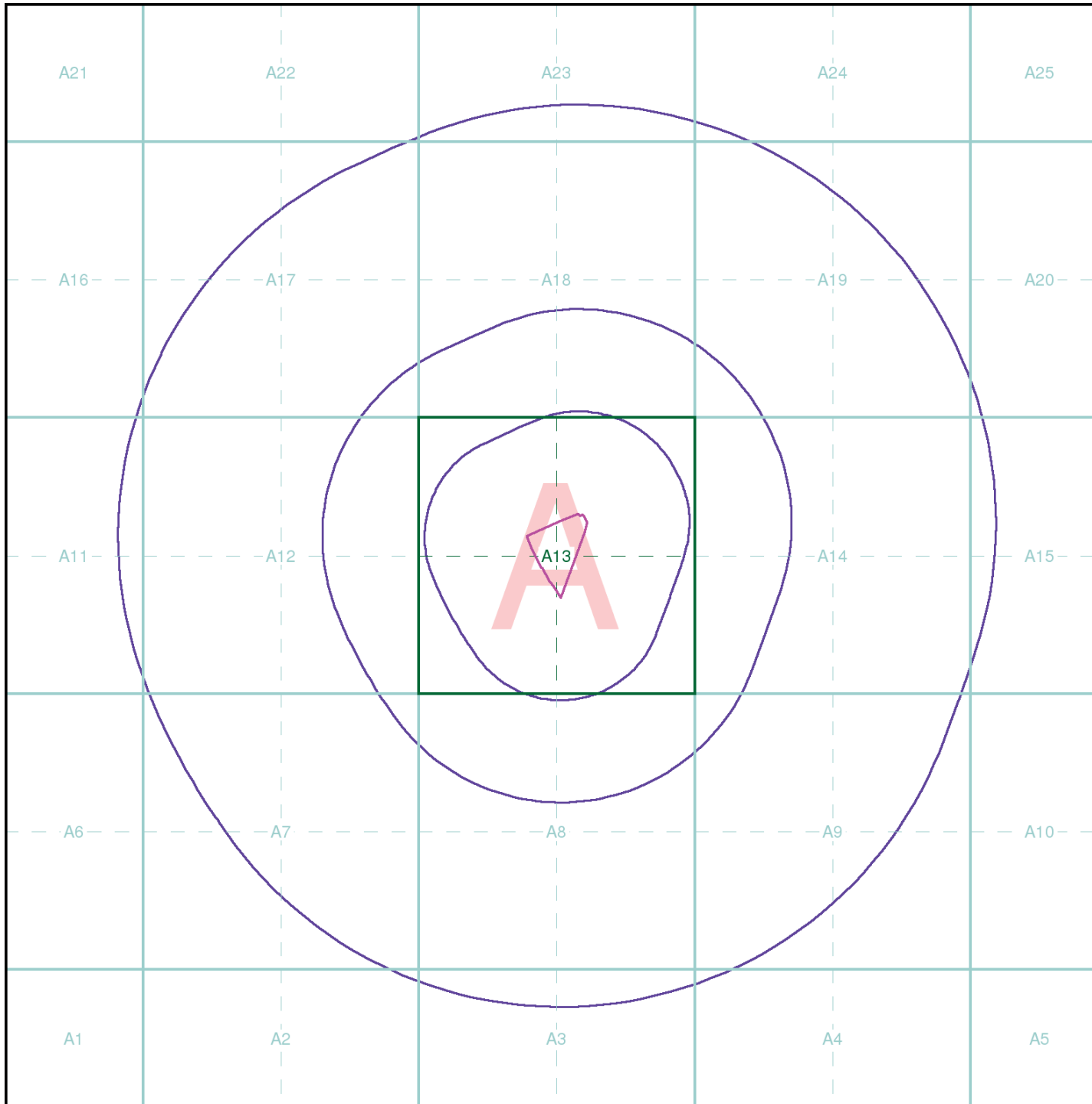
Order Details

Order Number: 71966509_1_1
 Customer Ref: EB1843
 National Grid Reference: 521260, 208250
 Slice: A
 Site Area (Ha): 1.55
 Search Buffer (m): 1000

Site Details

Ramada Hotel, St. Albans Road West, HATFIELD,
 Hertfordshire, AL10 9RH





Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

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Order Details

Order Number: 71966509_1_1
Customer Ref: EB1843
National Grid Reference: 521260, 208260
Site Area (Ha): 1.55
Search Buffer (m): 1000

Site Details

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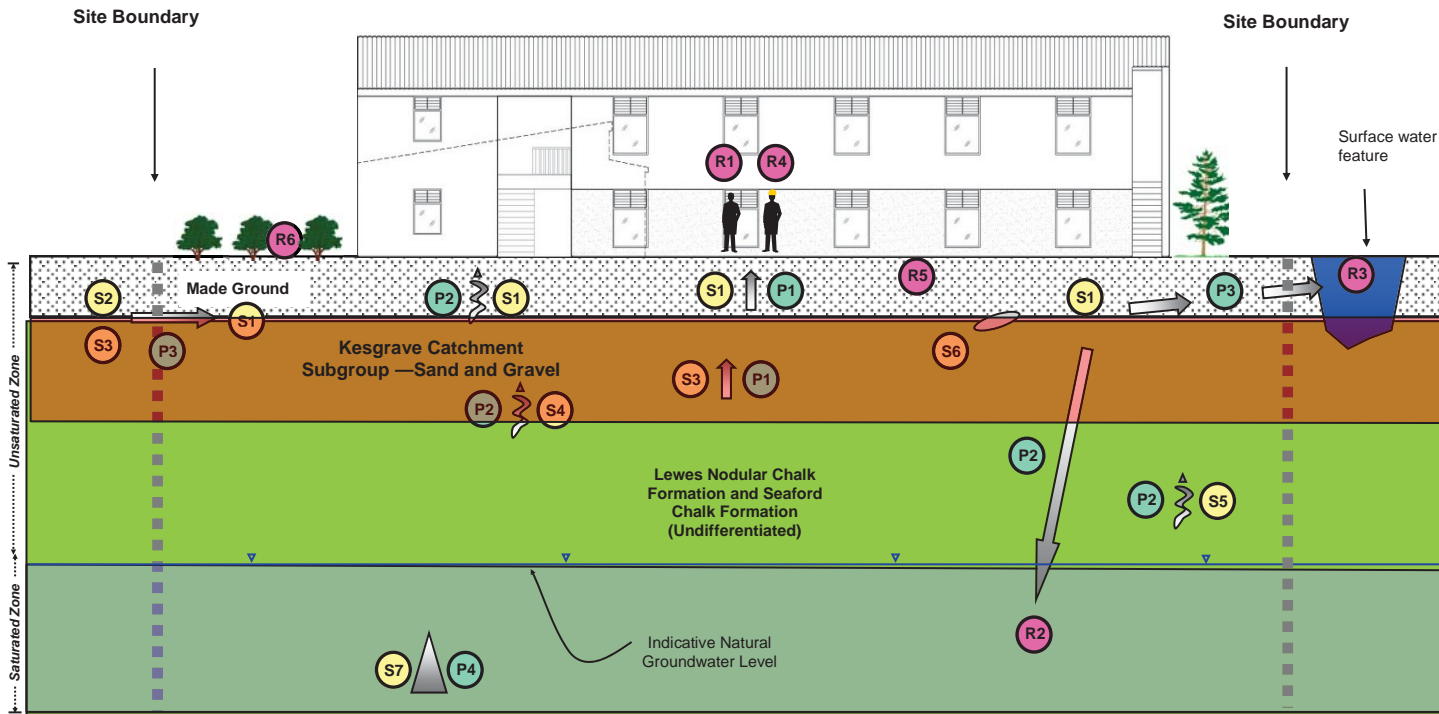
Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>



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Appendix A3 – Diagrammatic Conceptual Model

Comet Hotel, Hatfield



- | Sources | |
|---------|-------------------------------|
| S1 | Made-ground (On site) |
| S2 | Made-ground (Off site) |
| S3 | Natural soils (On & off site) |
| S4 | Ground gas sources |
| S5 | Radon geology |
| S6 | Unexploded ordnance |
| S7 | Mine workings |
- | Pathways | |
|----------|---|
| P1 | Direct contact, ingestion and or inhalation |
| P2 | Vertical migration |
| P3 | Horizontal migration |
| P4 | Collapse |
- | Receptors | |
|-----------|------------------------|
| R1 | End users |
| R2 | Groundwater |
| R3 | Surface water |
| R4 | Construction workers |
| R5 | Construction materials |
| R6 | Local ecology |



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Project

Comet Hotel

Drawing Title

Diagrammatic Conceptual Model

Job Reference

EB1843

Date

02.09.2015

Author

GB

Checked

SH

Client

Fusion Students

Not to scale

Appendix A4 – Qualitative Risk Assessment Rationale

The site-specific qualitative risk assessment of environmental harm, as detailed in Section 3.0 of this reporting, is summarised in Table A4.1 hereafter; the principle being to establish connecting links between a hazardous source to a potential receptor via an exposure pathway.

The qualitative risk assessment corresponds with the **total** site area.

Risk assessment is the process of collating known information on a hazard or set of hazards in order to estimate actual or potential risk to receptors. The receptor may be humans, a water resource, a sensitive local ecosystem or future construction materials. Receptors can be connected to the hazardous source by one or several exposure pathways such as direct contact for example. Risks are generally managed by isolating the receptor or intercepting the exposure pathway or by isolating or removing the hazard.

Without the three essential components of a source, pathway and receptor there can be no risk. Therefore the presence of hazard on a site does not necessarily mean there is a risk.

By considering where a viable pathway exists which connects a source with a receptor the risk assessment in Section 3.0 and Table A4.1 identifies where pollutant linkage exists. If there is no pollutant linkage there is no risk and only where a pollutant linkage is established does the risk assessment consider the level of risk.

The risk assessment considers the likelihood of a particular event taking place (accounting for the presence of the hazard and receptor and the integrity of the exposure pathway) in conjunction with the severity of the potential consequence (accounting for the potential severity of the hazard and the sensitivity of the receptor).

In the risk assessment the consequence of the hazard has been classified as severe or medium or mild or minor and the probability (likelihood) of the circumstances actually occurring classified as high likelihood or likely or low likelihood or unlikely.

The consequences and probabilities are subsequently cross-correlated to give a qualitative estimation of the risk using Department of the Environment risk classifications as detailed in the table below and as referenced in CIRIA C552.

		Consequence			
		Severe	Medium	Mild	Minor
Probability (Likelihood)	High Likelihood	Very High Risk	High Risk	Moderate Risk	Negligible Risk
	Likely	High Risk	Moderate Risk	Moderate/Low Risk	Negligible Risk
	Low Likelihood	High/Moderate Risk	Moderate/Low Risk	Low Risk	Negligible Risk
	Unlikely	Moderate/Low Risk	Low Risk	Negligible Risk	Negligible Risk

EB1843/GB/5007 Comet Hotel, Hatfield

Phase 1 Detailed Desk Top Study

In accordance with DoE guidance, the following categorisation of **consequence** has been developed.

Classification	Definition	Examples
Severe	Short-term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resource. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem or organisation forming part of such ecosystem.	High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Explosion, causing building collapse (can also equate to a short-term human health risk if buildings are occupied).
Medium	Chronic damage to Human Health. Pollution of sensitive water resources. A significant change in a particular ecosystem or organism forming part of such ecosystem.	Concentration of a contaminant from site exceeds the generic or site-specific assessment criteria. Leaching of contaminants from a site to a Principal or Secondary A aquifer. Death of a species within a designated nature reserve. Lesser toxic and asphyxiate effects
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services. Damage to sensitive buildings/structures/services or the environment.	Pollution of non-classified groundwater (inc. Secondary B aquifers). Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	Harm, although not necessarily significant harm, which may result in a financial loss or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as personal protective clothing, etc). Easily repairable effects of damage to buildings, structures and services.	The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discoloration of concrete.

In accordance with DoE guidance, the following categorisation of **probability** has been developed.

Classification	Definition
High Likelihood	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution.
Likely	There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low Likelihood	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.
Unlikely	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

In accordance with DoE guidance, the following categorisation of **risk** has been developed.

Classification	Definition
Very High Risk	There is a <i>high probability</i> that <i>severe harm</i> could arise to a designated receptor from an identified hazard at the site without appropriate further action.
High Risk	<i>Harm is likely to arise</i> to a designated receptor from an identified hazard at the site without appropriate further action.
Moderate Risk	<i>It is possible</i> that without appropriate further action <i>harm could arise</i> to a designated receptor. It is relatively <i>unlikely</i> that any such harm would be <i>severe</i> , and if any harm were to occur it is <i>more likely</i> that such harm would be <i>relatively mild</i> .
Low Risk	<i>It is possible</i> that <i>harm could arise</i> to a designated receptor from an identified hazard. It is <i>likely</i> that, at worst, if any harm was realised any effects would be <i>mild</i> .
Negligible Risk	The presence of an identified hazard does not give rise to the potential to cause harm to a designated receptor.

The term 'risk' in this instance refers to the risk that the source, pathway, receptor linkage for a given source of contamination is complete. It does not refer to immediate risk to individuals or features present on the site from potential contaminants and is intended to be used as a tool to assess the necessity of further investigation.

Appendix A4.1 – Table and Summary of Potential Risks, Sheet 1

Conceptual Site Model			Qualitative Risk Assessment		
Source	Pathway(s)	Receptor(s)	Consequence (Potential Severity)	Likelihood of Occurrence	Risk*
S1: Made ground soils on site	P2: Vertical migration	R2: Controlled waters (Groundwater)	Medium	Low	Moderate / Low
	P3: Horizontal migration	R3: Controlled waters (Surface Waters)	Medium	Unlikely	Low
	P1: Direct contact, ingestion, inhalation (dust and vapours)	R1: End user of site	Medium	Low	Moderate / Low
	P1: Direct contact, ingestion, inhalation (dust and vapours)	R4: Construction workers	Minor	Low	Negligible
	P1 & P3: Direct contact, ingestion, inhalation (dust and vapours) and horizontal migration	R5: Construction materials	Mild	Low	Low
	P1 & P3: Direct contact, ingestion, inhalation (dust and vapours) and horizontal migration	R6: Local ecology	Minor	Low	Negligible
S2: Made ground soils off site	P3 & P1: Horizontal migration and direct contact, ingestion, inhalation (dust and vapours)	R1: End user of site	Medium	Low	Moderate / Low
	P3 & P1: Horizontal migration and direct contact, ingestion, inhalation (dust and vapours)	R4: Construction workers	Minor	Low	Negligible

Appendix A4.1 – Table and Summary of Potential Risks, Sheet 2

Conceptual Site Model			Qualitative Risk Assessment		
Source	Pathway	Receptor	Consequence (Potential Severity)	Likelihood of Occurrence	Risk*
S3: Natural soils on or off site	P1 & P3: Direct contact, ingestion, inhalation (dust and vapours) and horizontal migration	R1: End user of site	Medium	Unlikely	Low
	P1 & P3: Direct contact, ingestion, inhalation (dust and vapours) and horizontal migration	R4: Construction workers	Minor	Unlikely	Negligible
S4: Ground gases	P2 & P3: Vertical and horizontal migration	R1: End user of site	Severe	Low	High / Moderate
S5: Radon	P2 & P3: Vertical and horizontal migration	R1: End user of site	Severe	Unlikely	Moderate / Low
S6: Unexploded ordnance	P1: Direct contact	R1: End user of site	Severe	Unlikely	Moderate / Low
	P1: Direct contact	R4: Construction workers	Severe	Unlikely	Moderate / Low

**Risk refers to the potential risk that the Source, Pathway, Receptor linkage is complete and is used to determine if any further investigation is required. It does not indicate immediate emergency risk to any individual or feature present on the site unless specifically noted.*

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