

Phase I Desk Study Report

Land off West Road, Sawbridgeworth, Hertfordshire

For Taylor Wimpey East Anglia

Delta-Simons Project No. 14-0276.01

Issued: April 2014





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PHASE I DESK STUDY REPORT LAND OFF WEST ROAD, SAWBRIDGEWORTH, HERTFORDSHIRE FOR

TAYLOR WIMPEY EAST ANGLIA DELTA-SIMONS PROJECT NO. 14-0276.01

1.0 INTRODUCTION

1.1 Authorisation

Delta-Simons Environmental Consultants Limited ('Delta-Simons') was instructed by Wormald Burrows Partnership Ltd, on behalf of Taylor Wimpey East Anglia (the 'Client') to undertake a Phase I Desk Study for land off West Road, Sawbridgeworth, Hertfordshire (hereafter referred to as the 'Site').

1.2 Context & Purpose

A Phase I Desk Study Report is considered to be required prior to the redevelopment of the Site in order to support a future planning application. It is understood that current proposals include the redevelopment of the Site with residential properties, with private gardens and supporting infrastructure. The Report is, therefore, designed to address the likely requirements of a planning condition relating to a preliminary risk assessment of contamination.

The Assessment will adhere to the principal aims of BS10175:2011 with regard to the consideration of potential soil and groundwater contamination and ground gas. In summary the Assessment will:

- Δ Assess the likelihood of finding contamination, its nature and its extent;
- Δ Evaluate the environmental setting of the Site and identify sensitive receptors;
- Δ Provide information from which likely contaminant-pathway-receptor relationships can be identified and formulate a Conceptual Site Model (CSM); and
- Consider the need for an intrusive Site investigation.

1.3 Scope of Works

The scope of works for the Phase I Desk Study is presented in Table 1.

Table 1 - Scope of Works

Data Collection	 Documentary research: Review the Site history (location, surroundings); Review the current Site use (including adjacent areas); and Review the Site geology, hydrogeology, hydrology (including Radon & Coal); Review a commercially available regulatory database known as Sitecheck[®];
Interpretation & Reporting	 Formulate an initial CSM; Undertake a preliminary risk assessment; Assess the need for, and scope of, further investigation; and Prepare a final report.

1.4 Data Sources & Third Party Information

In completing this Assessment, Delta-Simons has utilised the following information:

- Δ Site layout plan provided by the Client;
- ∆ Historical maps obtained from Landmark;
- ∆ British Geological Survey (BGS) online data; and
- ∆ Sitecheck[®] Report obtained from Landmark.

1.5 Limitations

This Report provides an assessment of the potential contamination status of the ground below the Site based upon the available information. It does not provide a flood risk assessment and as such, any comments relating to such matters are for information only.

In summary, the Phase I Desk Study has been produced in accordance with the principles of BS10175 in relation to a Preliminary Investigation. However, although reference may be made to archaeological and ecological issues, or the potential presence of Asbestos Containing Materials (ACMs), the Report does not constitute an archaeological or ecological assessment, nor does it constitute an asbestos inspection.

Delta-Simons obtained, reviewed and evaluated information in preparing this Report from the Client, Landmark Information Group and others. Delta-Simons' conclusions, opinions and recommendations are based upon this information. Delta-Simons does not warrant the accuracy of the information provided to it and will not be responsible for any opinions which Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

2.0 REVIEW OF SITE SETTING, HISTORY & REGULATORY INFORMATION

Current Site Use & Surrounding Area	The Site is an agricultural field located to the north of West Road, on the western outskirts of the town of Sawbridgeworth, Hertfordshire. A location map is provided as Figure 1.
	The Site is currently undeveloped and is located in a predominantly agricultural area. Residential properties are located to the south and east of the Site, as well as a school, located along the south-eastern boundary of the Site.
	The Site layout is shown in Figure 2.
Proposed Development	It is understood that current proposals include the redevelopment of the Site as residential properties with private gardens and associated infrastructure.
Geology	From the BGS Geology of Britain Viewer on the BGS website, it is understood that the majority of the Site is underlain by superficial deposits of the Lowestoft Formation (Diamicton), with possible Head deposits (clay, silt, sand, and gravel) present in southern areas of the Site. The underlying bedrock geology consists of the London Clay Formation.
Hydrogeology	The Head deposits beneath the Site are classified by the Environment Agency's (EA) aquifer designation maps as being a Secondary (undifferentiated) Aquifer, whilst the Lowestoft Formation and London Clay Formation are classified as Unproductive Strata. The Site lies within a Zone 2 (Outer) Source Protection Zone (SPZ).
	The Sitecheck Report indicates that there are no groundwater abstractions within 250 m of the Site.
Hydrology	The nearest water feature is a stream located along the western boundary of the Site.
	A small section of the south-western corner of the Site is listed as being potentially at risks from extreme flooding from rivers or seas. Remaining areas of the Site are not indicated to be at risk of flooding from rivers or the sea.
	The Sitecheck Report indicates that there are no surface water abstractions within 250 m of the Site.
Coal	The Sitecheck Report indicates that the Site is not in an area which is affected by coal mining activity.
Radon	The Sitecheck Report indicates that the Site is within a lower probability radon area, as less than 1% of homes are above the action level. The guidance document 'Radon: Guidance on protective measures for new buildings' states that protection measures are not required for new dwellings/buildings in this location.
Historical Map Review	The following historical maps have been obtained and reviewed: 1880 and 1982. The historical map extracts are provided as Appendix I.
Site:	From the earliest map edition, until the current map edition, the Site has remained undeveloped agricultural land. On the earliest map edition, the Site forms part of the larger field, with the current Site boundary shown by the 1982 map edition.
Surrounding Area:	From the earliest map edition, the majority of the surrounding area is shown to be undeveloped agricultural land. Residential properties have been constructed beyond the southern and eastern boundaries of the Site by 1947. A school is located to the south-east of the Site by 1977.
Sitecheck Report	A Sitecheck Report has been obtained for the Site and has been provided as Appendix II.
	A review of the Sitecheck data has identified the following:

	 Δ Three contemporary trade entries are present within the surrounding area, the closest located approximately 200 m to the east of the Site and relating to domestic cleaning services; and Δ Five electricity substations have been recorded on historical maps within 250 m of the Site. The closest entry is located approximately 75 m to the east of the Site. Given their distances from the Site, these entries are not considered to represent 	
	theoretical potential off-Site sources of contamination.	
Regulatory Information	Delta-Simons has contacted the Environmental Protection department of East Herts District Council to ascertain what records they hold relating to the Site and surrounding area, if the Site is on their list of sites prioritised for inspection under Part 2A, and the likely conditions relating to contaminated land associated with future planning permission.	
	At the time of writing, Delta-Simons has yet to receive any information, although likelihood of the Site being prioritised is considered low	

3.0 CONCEPTUAL SITE MODEL

3.1 Introduction

A conceptual exposure model represents the relationships between contaminant sources, pathways and receptors, to support the identification and assessment of possible pollutant linkages (PPL) and an assessment of known pollutant linkages, where identified from existing information.

Where PPLs are identified, a preliminary risk assessment is carried out to assess the likelihood that each possible linkage exists and to decide whether these pose potentially unacceptable risks to identified receptors and require further assessment. Where this linkage is of a form that subsequently leads to land being identified as 'contaminated land' under the terms of Part 2A of the Environmental Protection Act 1990, the linkage is termed a significant pollutant linkage.

At the preliminary risk assessment stage, which is usually based upon desk top information, the decision on whether a PPL poses a potentially unacceptable risk is based upon professional judgement. The significance of the PPL will also be determined dependent on the context of the land use and the purpose of the assessment.

Assessing risks from land contamination underpins the "suitable for use" approach adopted for Part 2A of the Environmental Protection Act 1990 regulatory regime and for planning policy.

3.2 Conceptual Model & Risk Assessment

The Site is currently undeveloped agricultural land. Proposals for the Site include the redevelopment of the Site as residential properties with private gardens and associated infrastructure. The Site is located in a predominantly residential and rural area.

Based on the information obtained from this assessment, a preliminary risk assessment using the source-pathway-receptor approach has been formulated, which identifies plausible pollutant linkages at the Site in the context of the proposed end-use. These are detailed in Table 2 and Risk Definitions are provided in Appendix III.

Table 2 - Identified Pollutant Linkages

Source	Pathway	Receptor	Matrix Assessment	Assessment of Linkage Significance/Potential Mitigation Measures
	Direct ingestion, direct contact &	Future Site users.	Very Low	No potential sources of contamination, current or historical, have been identified at the Site. Topsoil should be assessed for the suitability for use at the Site as part of any geotechnical investigation undertaken at the Site.
	inhalation of dust/ vapours.	Construction workers.	Low	Though the presence of contamination is considered unlikely, construction workers should be made aware of the possibility of encountering contamination and appropriate safe working methods should be in place with appropriate personal protective equipment (PPE) provided as and when necessary. Safe working practices, including a 'hotspot' protocol, to be implemented.
Potentially contaminated soils and/or groundwater at the Site from	Leaching and vertical & lateral migration	Controlled waters (watercourses including adjacent stream and underlying Secondary Aquifer)	Very Low	Apparent absence of source. No potential sources of contamination, current or historical, have been identified at the Site.
unrecorded historical and current on-Site sources of contamination	on-Site ces of Direct infiltration in water supply pines	Service conduits.	Low	Significant sources of contamination have not been identified at the Site as part of the desk-based assessment. Though the need for upgraded pipework is considered unlikely, testing of shallow soils should be undertaken and liaise with the local water authority in order to confirm any requirement for upgraded pipework.
	Plant uptake.	Vegetation within landscaped areas.	Low	Given the current use of the Site, it is likely that current topsoil will be suitable for reuse in regions of soft landscaping and private gardens. Topsoil should be assessed for the suitability for use at the Site as part of any geotechnical investigation undertaken at the Site.
	Lateral migration through any groundwater beneath the Site.	Off-Site neighbouring properties.	Very Low	Given the lack of identified potential on-Site sources of contamination, there is considered to be a low risk of contaminants migrating through underlying geology or shallow perched groundwater off-Site.
Potentially contaminated groundwater (migration from off- Site sources)	Direct contact/ingestion and inhalation of dust and vapours	Future Site users.	Very Low	Given the limited off-Site potential sources of contamination, and distance to sensitive receptors, there is considered to be a low risk of contaminants migrating through underlying geology or shallow perched groundwater onto the Site.

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Land off West Road, Sawbridgeworth, Hertfordshire
Delta-Simons Project No. 14-0276.01

Source	Pathway	Receptor	Matrix Assessment	Assessment of Linkage Significance/Potential Mitigation Measures
Potential for ground gas	Vertical and lateral migration	Human Health and buildings	Low	No sources of ground gas have been identified on or off-Site, however, limited ground gas assessment should be included with any proposed intrusive investigation prior to the development of the Site to further reduce these risks.

4.0 CONCLUSIONS & RECOMMENDATIONS

4.1 Conclusions

The Site is currently undeveloped agricultural land, which historically has remained undeveloped. The Site is located within a predominantly residential and rural area.

Potential sources of contamination have not been identified at the Site as part of the desk-based assessment. Very limited potential off-Site sources of contamination in the form of electricity substations have been identified in the immediate surrounding area, however, given the distance from the Site, these are not considered to pose a significant risk to the Site.

A source-pathway-receptor risk assessment has been undertaken in the context of the proposed redevelopment and in accordance with Part 2A of the Environmental Protection Act, 1990. PPL have been identified and the key potential receptors are considered to be construction workers, water supply pipes, and plants in landscaped areas.

4.2 Recommendations

On the basis of the information obtained and reviewed as part of this Assessment and the conclusions drawn above, Delta-Simons considers that the following activities should be undertaken at the Site:

- Any groundworkers who are required to perform sub-surface work at the Site should be made aware of the possibility of encountering unforeseen contamination. Therefore, good standards of personal hygiene should be observed with appropriate PPE provided and utilized, and toolbox talks should be given to contractors prior to the commencement of works. Safe working practices, including a 'hotspot' protocol, to be implemented;
- ∆ A ground gas risk assessment should be undertaken alongside any geotechnical assessment of the Site;
- An intrusive investigation is recommended in order to obtain Site-wide coverage of topsoil suitability for the proposed future end-uses once the proposed development plan is finalised; and
- Δ Confirmation should be sought from the Local Water Authority as to whether drinking water supply pipes require upgrading.

In addition, the following development considerations are made:

- Δ Should any soil material need to be disposed of at an off-Site landfill facility, these materials will need to be tested and classified and may attract elevated waste disposal costs; and
- Δ An appropriate depth of clean, imported topsoil may be required in areas of proposed gardens or landscaping.

5.0 LIMITATIONS TO ENVIRONMENTAL ASSESSMENTS

The recommendations contained in this Report represent Delta-Simons' professional opinions, based upon the information referred to in Section 1.0 of this Report, exercising the duty of care required of an experienced Environmental Consultant. Delta-Simons does not warrant or guarantee that the Site is free of hazardous or potentially hazardous materials or conditions.

Delta-Simons obtained, reviewed and evaluated information in preparing this Report from the Client, Landmark Information Group and others. Delta-Simons' conclusions, opinions and recommendations have been determined using this information. Delta-Simons does not warrant the accuracy of the information provided to it and will not be responsible for any opinions which Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

This Report was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed as defined in Section 1.1 of this Report. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

This Report was prepared by:

Adam Worley

Senior Environmental Scientist

24th April 2014

Date

This Report was reviewed and authorised by:

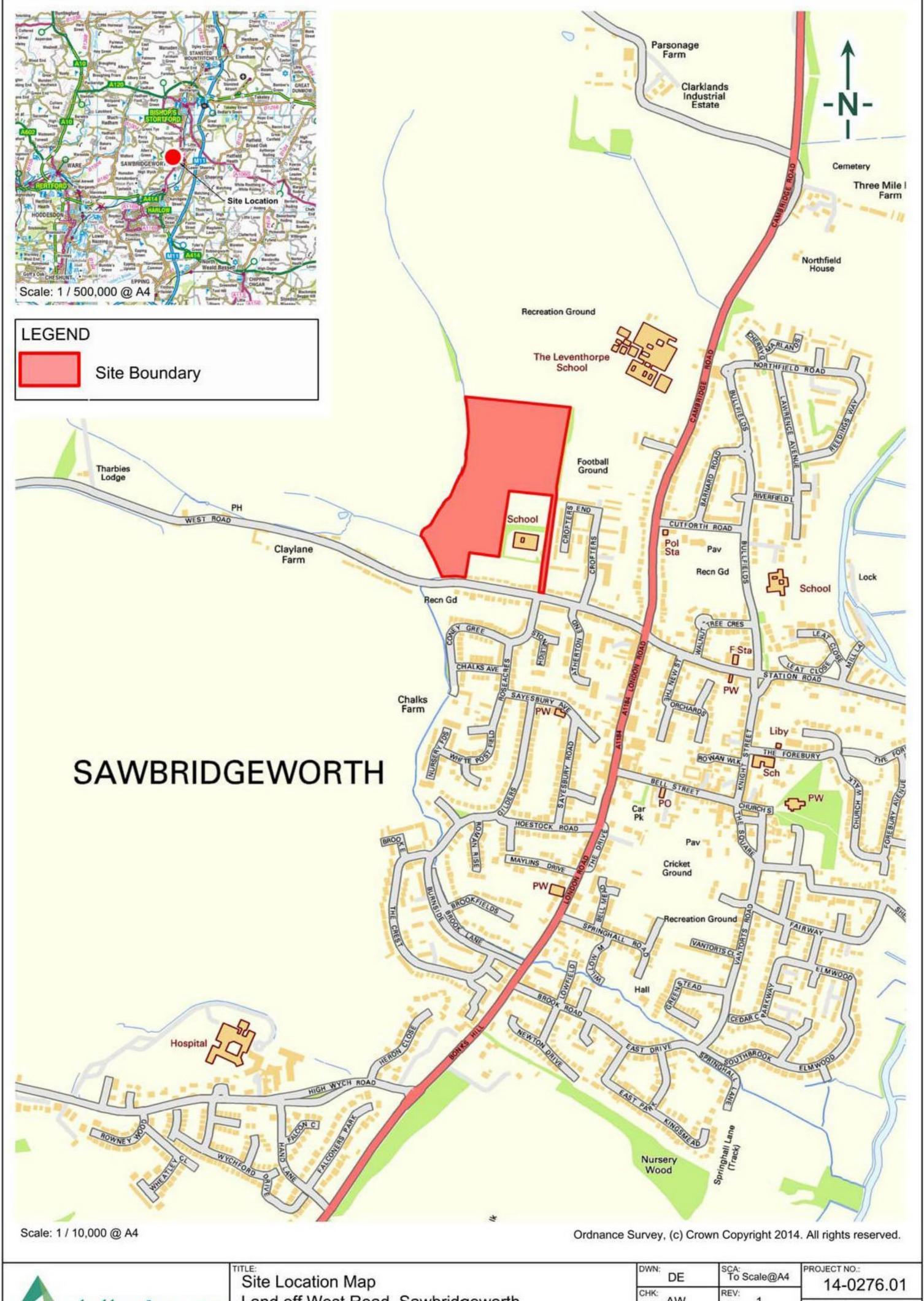


24/4/14

Date



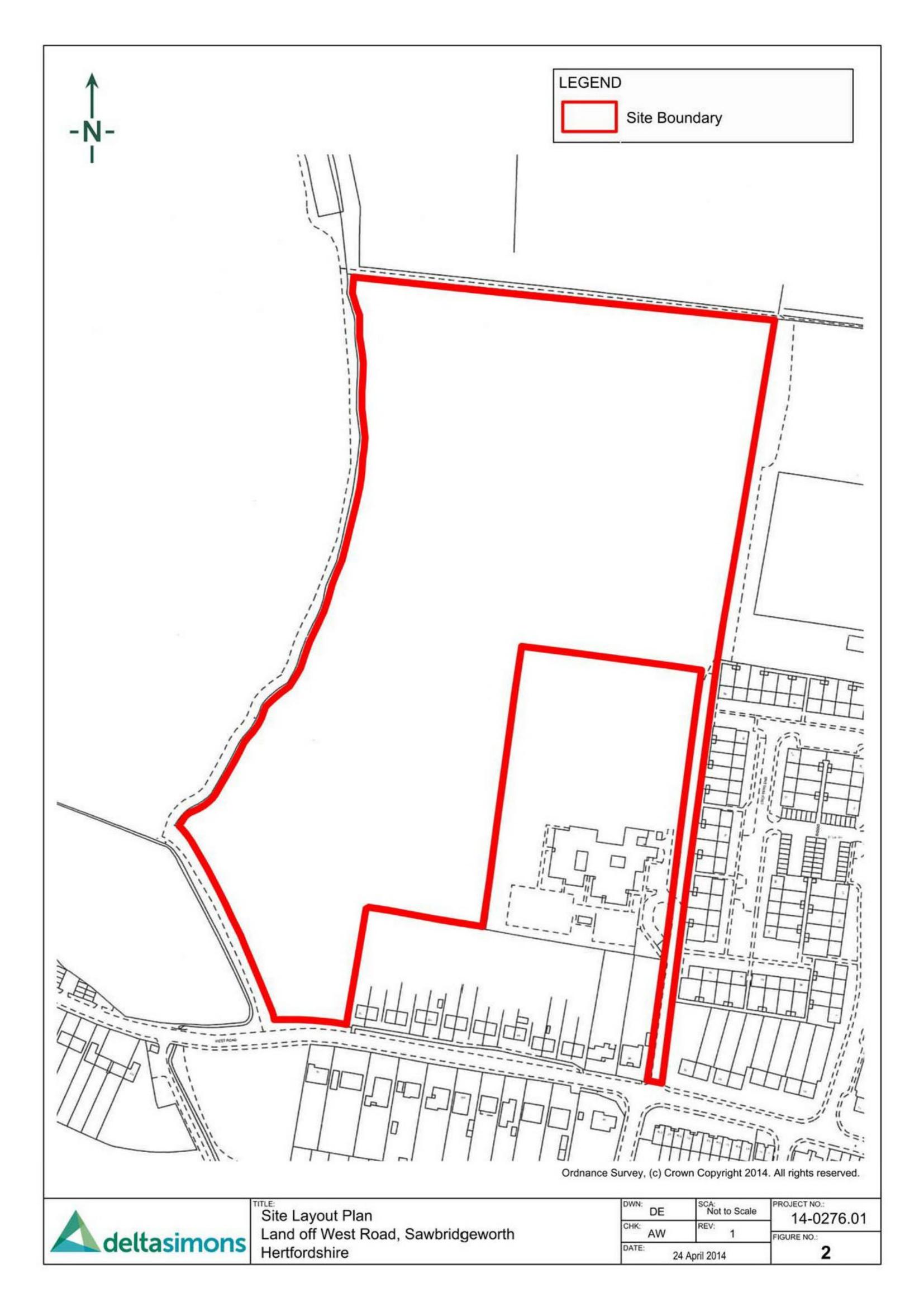




deltasimons

Land off West Road, Sawbridgeworth Hertfordshire

DWN: DE	SCA: To Scale@A4	PROJECT NO.: 14-0276.01
CHK: AW	REV:	FIGURE NO.:
DATE: 24	April 2014	1



Appendix I

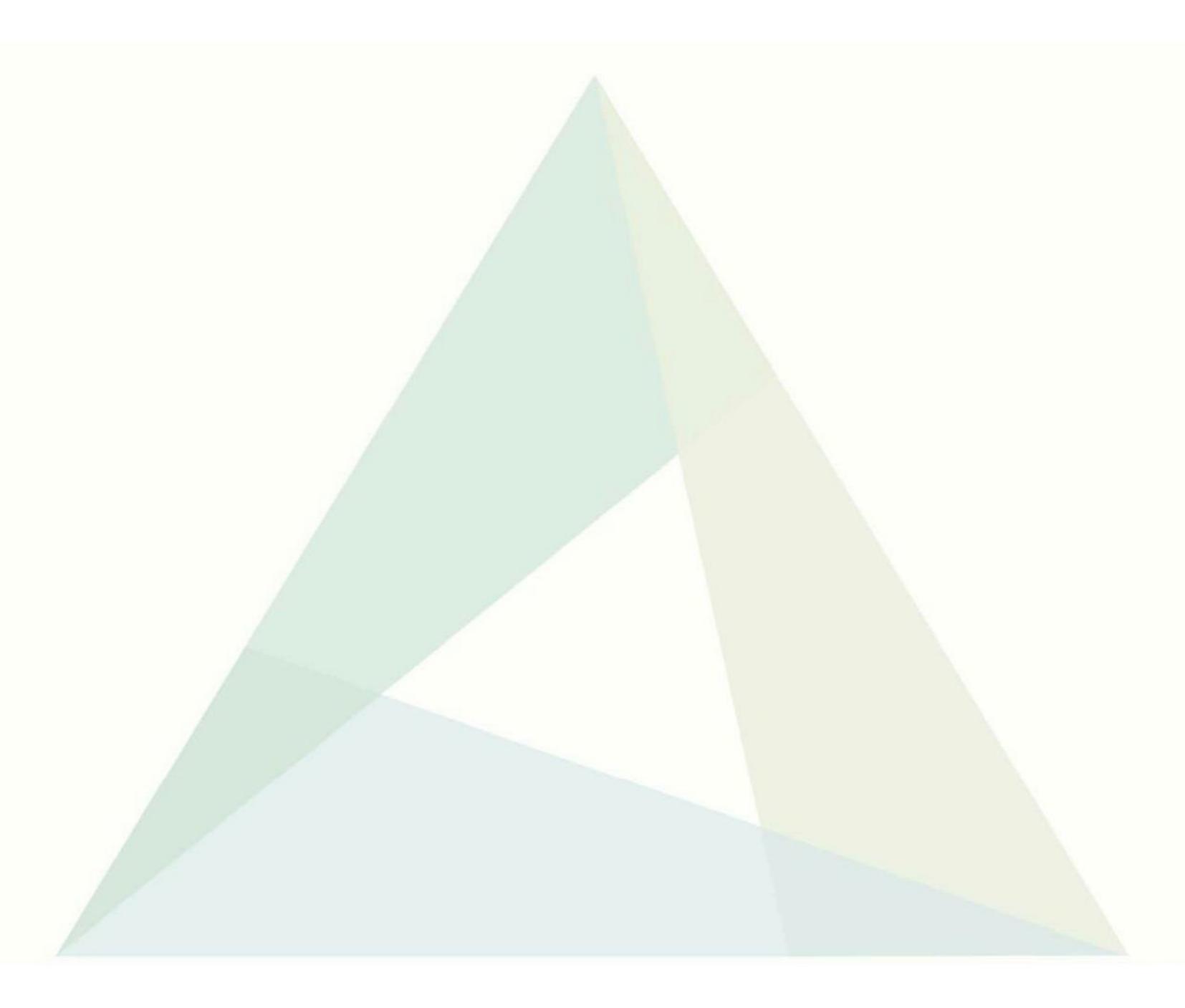








Appendix II







West Road, SAWBRIDGEWORTH, Hertfordshire, CM21 0BL

Prepared for:

Ms J Trevelyan
Delta Simons
3 Henley Office Park
Doddington Road
Lincoln
LN6 3QR

Report Reference: SCD_55551944_1_1

Report Date: 23-APR-2014

Customer Reference: 14-0276.01

National Grid Reference: 547890 215500

Site Area: 60445 m²





If you have any questions on the contents of this Report please contact Landmark Customer Helpdesk which is open from 9:00am - 5:30pm, Monday - Friday, via one of the following channels:

Telephone: 0844 844 9966 Fax: 0844 844 9980

Email: info@landmarkinfo.co.uk Website: www.sitecheck.co.uk





Report Sections and Details

Page

Summary of Site

-

This section comprises contaminant, pathway and receptor information found on site. Other factors which may affect the site are also included.

Aerial Photo

The aerial photo gives an overall view of the area. The smaller large-scale Ordnance Survey map includes the site boundary and search zone buffer at 250m.

Location Map

The large-scale Ordnance Survey map includes the site boundary and search zone buffer at 250m. The smaller aerial photo also includes the site boundary.

Summary Table

This section comprises of a summary table of the information found on site and in its vicinity.

Current Land Use

This section contains a map, which shows current land use features. The following pages detail these features and identify the Reference Number and direction.

Historical Land Use 9

This section contains a map, which shows historical land use features. The following pages detail these features and identify the Reference Number and direction. A table listing all the maps used to source this information is included.

Sensitivity 12

This section contains a map, which shows pathway and receptor features. The following pages detail these features and identify the Reference Number and direction. This section also contains a separate Flood Map and flood details.

Other Factors 16

This section contains information on other factors which may affect the site and its vicinity.

Useful Information 17

This section contains information which may be of use when interpreting the report.

Useful Contacts 18

All textual information is linked by the 'Contact Ref' to this quick reference list of contacts. These contacts may be able to supply additional information or answer any subsequent query relating to that record.



Sensitivity Pathways	Page No.	Reference Number (Map ID)
Groundwater Vulnerability		
Geological Classification: Minor Aquifer (Variably permeable) - These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers, Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants, Map Scale: 1:100,000, Map Name: Sheet 40 Thames Estuary, Contact Ref: 1	14	
Geological Classification: Non Aquifer (Negligibly permeable) - Formations which are generally regarded as containing insignificant quantities of groundwater. However, groundwater flow through such rocks, although imperceptible, does take place and needs to be considered in assessing the risk associated with persistent pollutants, Soil Classification: Not classified, Map Scale: 1:100,000, Map Name: Sheet 40 Thames Estuary, Contact Ref: 1	14	-
Extreme Flooding from Rivers or Sea without Defences		
Type: Extent of Extreme Flooding from Rivers or Sea without Defences, Flood Plain Type: Fluvial Models, Contact Ref: 1	14	-
Flooding from Rivers or Sea without Defences		
Type: Extent of Flooding from Rivers or Sea without Defences, Flood Plain Type: Fluvial Models, Contact Ref: 1	14	-

Sensitivity Environmentally Sensitive Receptors	Page No.	Reference Number (Map ID)
Source Protection Zones		
Sawbridgeworth, Reference: Th222, Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater., Contact Ref: 1	14	-
Various, Reference: Not Supplied, Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source., Contact Ref: 1	15	-
Nearest Surface Water Feature		
Distance: 0m	14	1

Other Factors Geological	Page No.	Reference Number (Map ID)
Radon Potential - Radon Affected Areas		
Affected Areas: The property is in a lower probability radon area, as less than 1% of homes are above the action level, Source: British Geological Survey, National Geoscience Information Service, Contact Ref: 2	16	-

Brought to you by Landmark



Other Factors Geological	Page No.	Reference Number (Map ID)
Radon Potential - Radon Protection Measures		
Radon Protection Measures: None, Source: British Geological Survey, National Geoscience Information Service, Contact Ref: 2	16	<u>-</u>
Potential for Landslide Ground Stability Hazards		
Hazard Potential: Very Low, Contact Ref: 2	16	-
Potential for Running Sand Ground Stability Hazards		
Hazard Potential: Very Low, Contact Ref: 2	16	•
Potential for Shrinking or Swelling Clay Ground Stability Hazards		
Hazard Potential: Very Low, Contact Ref: 2	16	-
Potential for Collapsible Ground Stability Hazards		
Hazard Potential: Very Low, Contact Ref: 2	16	-





Site

West Road, SAWBRIDGEWORTH, Hertfordshire, CM21 0BL

Grid Reference

547890, 215500

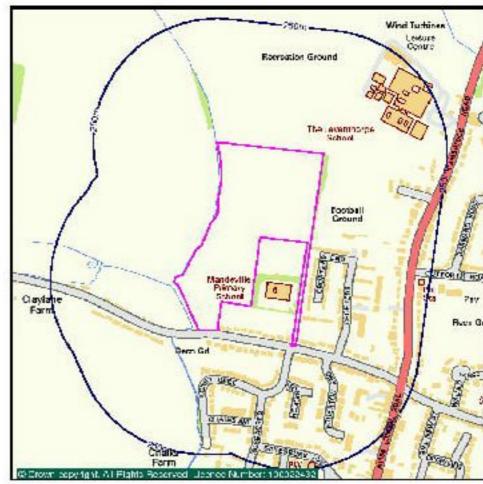
Report Reference SCD_55551944_1_1

Customer Reference

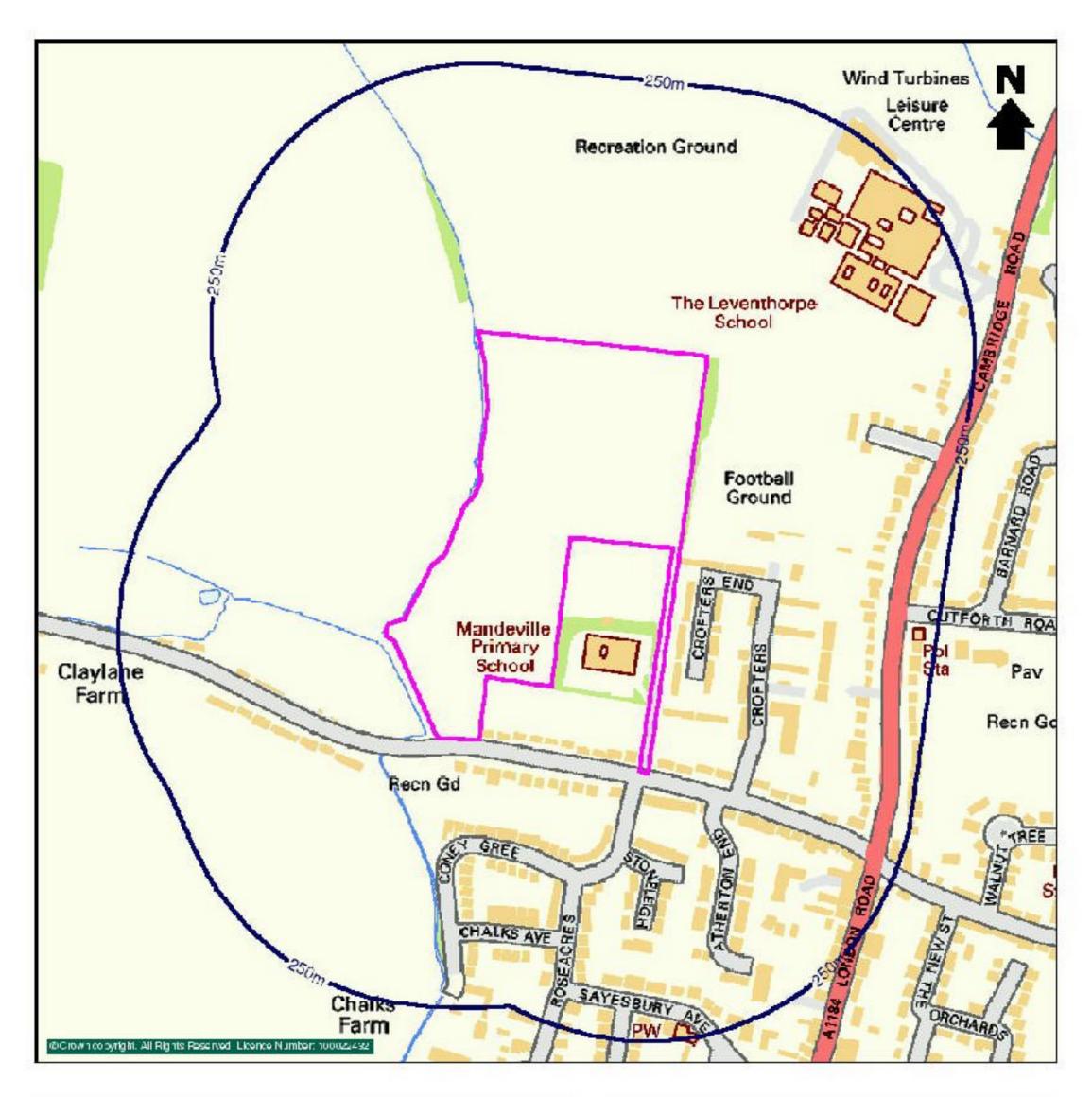
14-0276.01

Size of Site

60445 m²







Site

West Road, SAWBRIDGEWORTH, Hertfordshire, CM21 0BL

Grid Reference

547890, 215500

Report Reference

SCD_55551944_1_1

Customer Reference

14-0276.01

Size of Site

60445 m²





Current Land Use	On Site	0-250r
Contaminants	0	3
Waste / Landfill Sites		
BGS Recorded Landfill Sites	0	0
Licensed Waste Management Facilities (Landfill Boundaries)	0	0
Licensed Waste Management Facilities (Locations)	0	0
Local Authority Recorded Landfill Sites	0	0
Registered Landfill Sites	0	0
Registered Waste Transfer Sites	0	0
Registered Waste Treatment or Disposal Sites	0	0
Statutory Authorisations		
Local Authority Pollution Prevention and Controls	0	0
Contaminated Land Register Entries and Notices	0	0
Registered Radioactive Substances	0	0
Discharge Consents		
Discharge Consents	0	0
Water Industry Act Referrals	0	0
Industrial Processes		
Integrated Pollution Controls	0	0
Integrated Pollution Control Registered Waste Sites	0	0
Integrated Pollution Prevention And Control	0	0
Local Authority Integrated Pollution Prevention And Control	0	0
Storage of Hazardous Substances		
Control of Major Accident Hazards Sites (COMAH)	0	0
Explosive Sites	0	0
Notification of Installations Handling Hazardous Substances (NIHHS)	0	0
Planning Hazardous Substance Consents	0	0
Contraventions		
Local Authority Pollution Prevention and Control Enforcements	0	0
Enforcement and Prohibition Notices	0	0
Planning Hazardous Substance Enforcements	0	0
Prosecutions Relating to Authorised Processes	0	0
Prosecutions Relating to Controlled Waters	0	0
Substantiated Pollution Incident Register	0	0



Current Land Use	On Site	0-250m
Contaminants	0	3
Potentially Contaminative Uses		
Contemporary Trade Directory Entries	0	3
Fuel Station Entries	0	0
Miscellaneous		
BGS Recorded Mineral Sites	0	0

Historical Land Use	On Site	0-250m
Contaminants	0	6
Potentially Contaminative Uses		
Historical Tanks And Energy Facilities	0	6
Potentially Contaminative Industrial Uses (Past Land Use)	0	0
Potentially Infilled Land		
Former Marshes	0	0
Potentially Infilled Land (Non-Water)	0	0
Potentially Infilled Land (Water)	0	0

Sensitivity	On Site	0-250m
Pathways and Receptors	7	0
Pathways		
Groundwater Vulnerability	2	n/a
Drift Deposits	0	n/a
Historical Flood Liabilities	0	0
Extreme Flooding from Rivers or Sea without Defences	1	0
Flooding from Rivers or Sea without Defences	1	0
Areas Benefiting from Flood Defences	0	0
Flood Water Storage Areas	0	0
Flood Defences	0	0



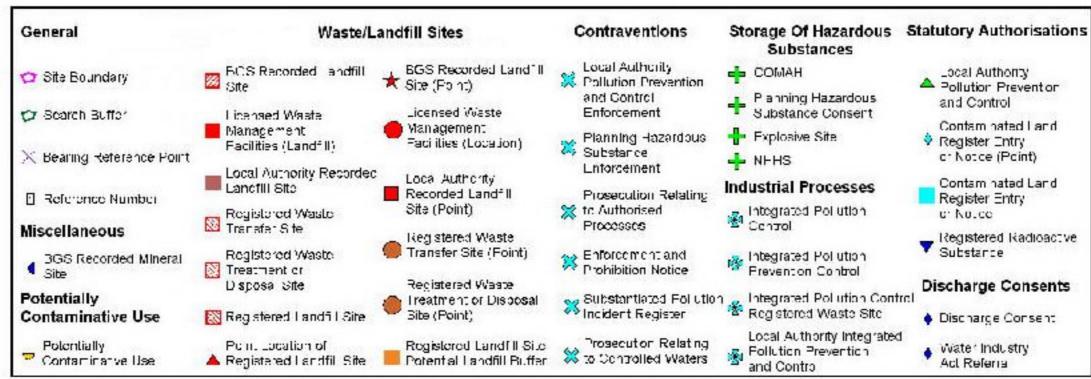
Sensitivity	On Site	0-250m
Pathways and Receptors	7	0
Environmentally Sensitive Receptors		
Areas of Outstanding Natural Beauty	0	0
Environmentally Sensitive Areas	0	0
Local Nature Reserves	0	0
Marine Nature Reserves	0	0
National Nature Reserves	0	0
Nearest Surface Water Feature	1	0
Ramsar Sites	0	0
Sites of Special Scientific Interest	0	0
Source Protection Zones	2	0
Special Areas of Conservation	0	0
Special Protection Areas	0	0
Water Abstractions	0	0
Protected Countryside Areas		
Forest Parks	0	0
National Parks	0	0
National Scenic Areas	0	0



Other Factors	On Site	0-250m
Geological	7	2
Brine Compensation Area	0	n/a
Coal Mining Affected Areas	0	n/a
Mining Instability	0	0
Man-Made Mining Cavities	0	0
Natural Cavities	0	0
Potential for Collapsible Ground Stability Hazards	1	0
Radon Potential - Radon Affected Areas	1	n/a
Radon Potential - Radon Protection Measures	1	n/a
Potential for Compressible Ground Stability Hazards	1	1
Potential for Ground Dissolution Stability Hazards	0	0
Potential for Landslide Ground Stability Hazards	1	0
Potential for Running Sand Ground Stability Hazards	1	0
Potential for Shrinking or Swelling Clay Ground Stability Hazards	1	1
Non Coal Mining Areas of Great Britain	0	0







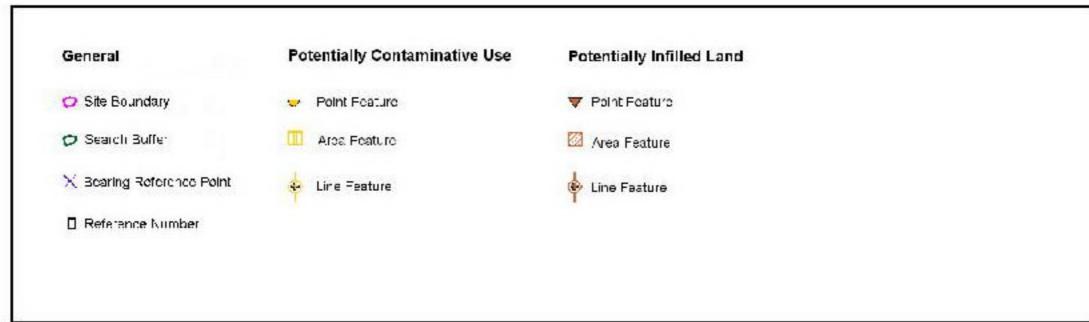


Contaminants	Ref No.	Coarab	Direction
Waste / Landfill Sites	Rei No.	Buffer	Direction
Local Authority Landfill Coverage			
Name: Hertfordshire County Council, - Has supplied landfill data, Contact Ref: 3	-	On Site	W
Name: East Hertfordshire District Council, - Has supplied landfill data, Contact Ref: 4	-	On Site	W

Potentially Contaminative Uses	Ref No.	Search Buffer	Direction
Contemporary Trade Directory Entries			
Calmer Living, 53, Cambridge Road, Sawbridgeworth, Hertfordshire, CM21 9JP, Cleaning Services - Domestic, Status: Inactive, Positional Accuracy: Automatically positioned to the address	2	0-250m	E
The Fireplace Gallery Ltd, 1, Cambridge Road, Sawbridgeworth, Hertfordshire, CM21 9JP, Fireplaces & Mantelpieces, Status: Inactive, Positional Accuracy: Automatically positioned to the address	3	0-250m	SE
T S Controls Ltd, 69, Cambridge Road, Sawbridgeworth, Hertfordshire, CM21 9JP, Control Panels, Status: Active, Positional Accuracy: Automatically positioned to the address	4	0-250m	E









Contaminants			
Potentially Contaminative Uses	Ref No.	Search Buffer	Direction
Historical Tanks And Energy Facilities			
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1975	5	0-250m	SW
Electrical Sub Station Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1977	5	0-250m	SW
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1975	6	0-250m	SE
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1975	7	0-250m	SE
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1975	8	0-250m	SE
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1975	9	0-250m	S



Map Details

The following maps have been analysed for Historical Tanks and Energy Facilities

1:1,250	Mapsheet	Published
Ordnance Survey Plan	TL4715SE	1975
Ordnance Survey Plan	TL4815NW	1975
Ordnance Survey Plan	TL4815SW	1975
1:2,500	Mapsheet	Published
Ordnance Survey Plan	TL4715	1977

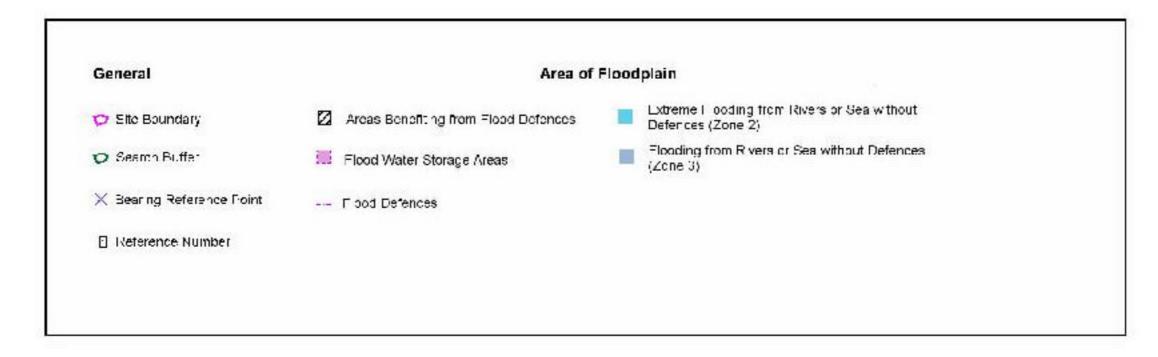
The following maps have been analysed for Potentially Contaminative Uses and Potentially Infilled Land information

1:10,000	Mapsheet	Published
Ordnance Survey Plan	TL41NE	1992
1:10,560	Mapsheet	Published
Essex	031_00	1884
Hertfordshire	031_00	1884
Essex	031_SE	1898
Hertfordshire	031_NW	1899
Essex	042_NW	1923
Essex	042_NW	1938
Hertfordshire	031_NW	1951
Ordnance Survey Plan	TL41NE	1960



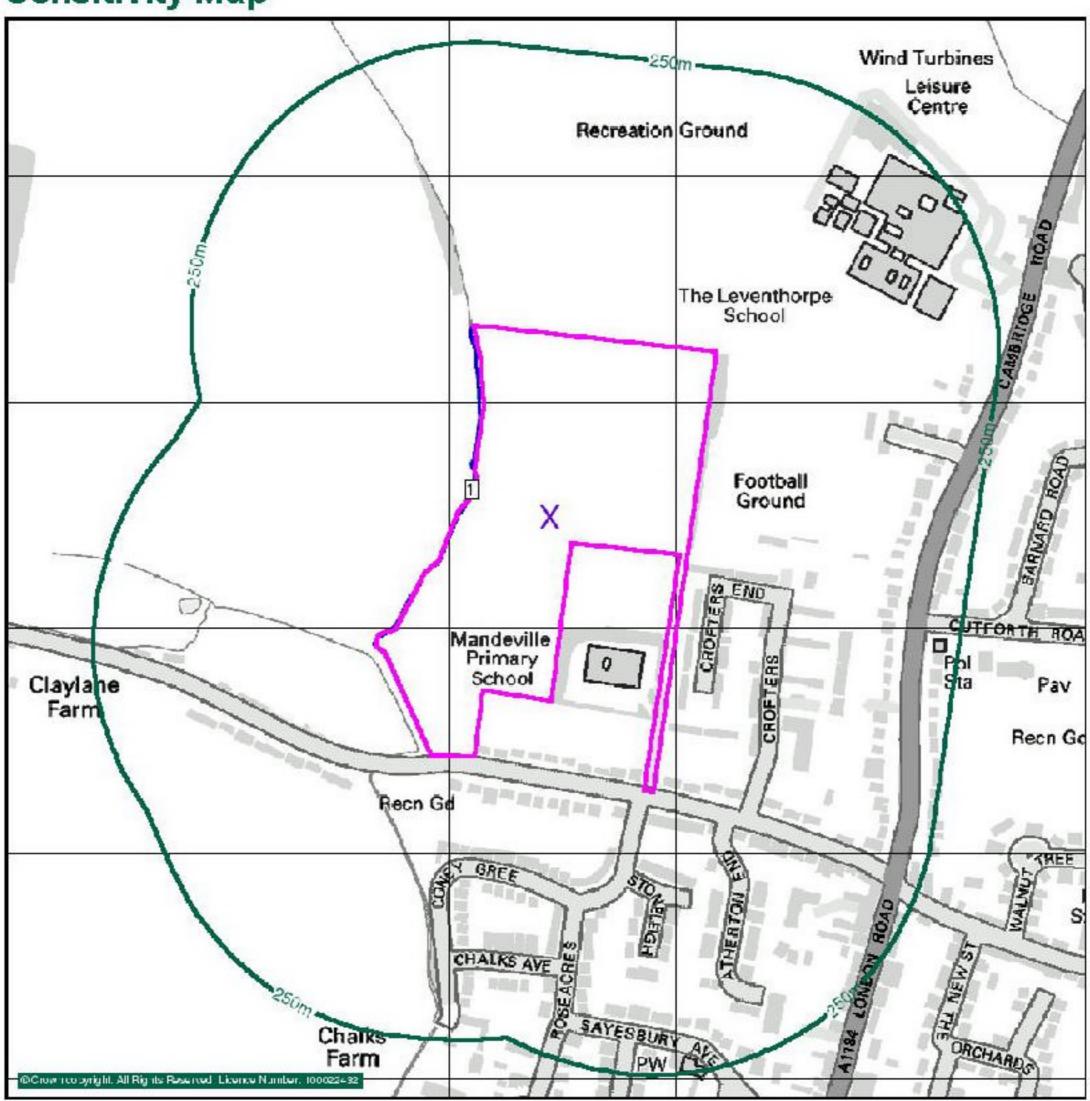
Flood Map

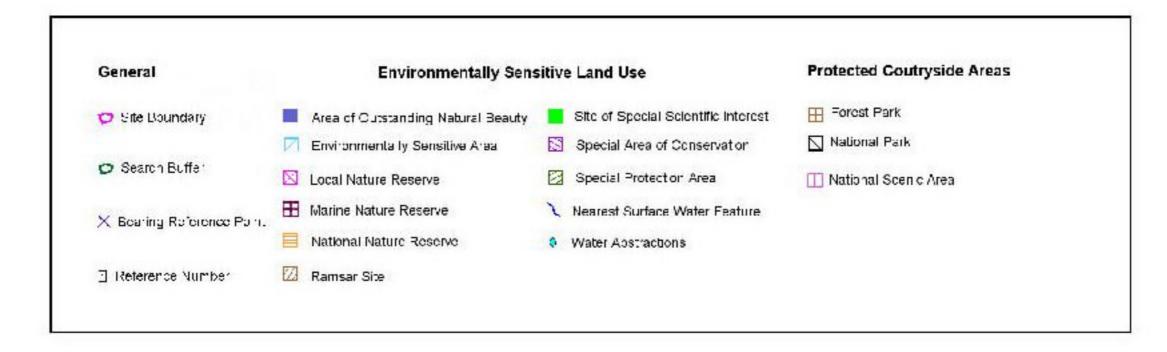






Sensitivity Map







Pathways and Receptors			
Pathways	Ref No.	Search Buffer	Direction
Groundwater Vulnerability			
Geological Classification: Minor Aquifer (Variably permeable) - These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers, Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants, Map Scale: 1:100,000, Map Name: Sheet 40 Thames Estuary, Contact Ref: 1	-	On Site	W
Geological Classification: Non Aquifer (Negligibly permeable) - Formations which are generally regarded as containing insignificant quantities of groundwater. However, groundwater flow through such rocks, although imperceptible, does take place and needs to be considered in assessing the risk associated with persistent pollutants, Soil Classification: Not classified, Map Scale: 1:100,000, Map Name: Sheet 40 Thames Estuary, Contact Ref: 1	-	On Site	W
Drift Deposits			
None	-		-
Extreme Flooding from Rivers or Sea without Defences			
Type: Extent of Extreme Flooding from Rivers or Sea without Defences, Flood Plain Type: Fluvial Models, Contact Ref: 1	-	On Site	SW
Flooding from Rivers or Sea without Defences			
Type: Extent of Flooding from Rivers or Sea without Defences, Flood Plain Type: Fluvial Models, Contact Ref: 1	-	On Site	SW
Areas Benefiting from Flood Defences			
None	-		-
Flood Water Storage Areas			
None	-		-
Flood Defences			
None	-		-

Environmentally Sensitive Receptors	Ref No.	Search Buffer	Direction
Nearest Surface Water Feature			
Distance: 0m	1	On Site	W
Source Protection Zones			
Sawbridgeworth, Reference: Th222, Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater., Contact Ref: 1	-	On Site	W

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Pathways and Receptors	Ref No.	Search	Direction
Environmentally Sensitive Receptors		Buffer	
Source Protection Zones			
Various, Reference: Not Supplied, Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source., Contact Ref: 1	-	On Site	W



Other Factors		
Geological	Search Buffer	Direction
Brine Compensation Area		
No		-
Coal Mining Affected Areas		
In an area which may not be affected by Coal Mining		-
Non Coal Mining Areas of Great Britain		
No Hazard		-
Radon Potential - Radon Affected Areas		
Affected Areas: The property is in a lower probability radon area, as less than 1% of homes are above the action level, Source: British Geological Survey, National Geoscience Information Service, Contact Ref: 2	On Site	W
Radon Potential - Radon Protection Measures		
Radon Protection Measures: None, Source: British Geological Survey, National Geoscience Information Service, Contact Ref: 2	On Site	W
Potential for Collapsible Ground Stability Hazards		
Hazard Potential: Very Low Contact Ref: 2	On Site	W
Potential for Compressible Ground Stability Hazards		
Hazard Potential: No Hazard, Contact Ref: 2	On Site	W
Hazard Potential: Very Low, Contact Ref: 2	0-250m	NE
Potential for Ground Dissolution Stability Hazards		
No Hazard		-
Potential for Landslide Ground Stability Hazards		
Hazard Potential: Very Low, Contact Ref: 2	On Site	W
Potential for Running Sand Ground Stability Hazards		
Hazard Potential: Very Low Contact Ref: 2	On Site	W
Potential for Shrinking or Swelling Clay Ground Stability Hazards		
Hazard Potential: Very Low Contact Ref: 2	On Site	W
Hazard Potential: No Hazard Contact Ref: 2	0-250m	S



Registered Landfill Sites

At present no complete national data set exists for landfill site boundaries, therefore a point grid reference, provided by the data supplier, is used for some landfill sites. In certain cases the point grid references supplied provide only an approximate position and can vary from the site entrance to the centre of the site. Where the exact position of the site is unclear, Landmark construct either a 100 metre or 250 metre "buffer" around the point to warn of the possible presence of landfill. The size of this "buffer" relates to the positional accuracy that can be attributed to the site. The "buffer" is shown on the map as an orange cross-hatched circle and is referred to in the map legend as Potential Landfill Buffer. Where actual boundaries are available, the landfill site area is shown on the map as a red diagonal hatched polygon and referred to in the map legend as Registered Landfill Site.

Local Authority Recorded Landfill Sites

Local Authority landfill data are sourced from individual local authorities that were able to provide information on sites operating prior to the introduction of the Control of Pollution Act (COPA) in 1974. Appropriate authorities are listed under Local Authority Landfill Coverage with an indication of whether or not they were able to make landfill data available. Details of any records identified are disclosed. You should be aware that if the local authority 'Had landfill data but passed it to the relevant environment agency' it does not necessarily mean that local authority landfill data is included in our other Landfill datasets. In addition if no data has been made available, for all or part of the search area, you should be aware that a negative response under 'Local Authority Recorded Landfill Sites' does not necessarily confirm that no local authority landfills exist.

Flooding

The Sitecheck report flood map plots all flood related features revealed within the search area as supplied by the relevant agency. However, to avoid confusion, the text entry in the body of the report only reveals the detail of the nearest feature in each flood data set. This is also reflected in the summary table where only a single entry is included to indicate the search buffer of the nearest occurrence.

Mining Instability Data

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The Sitecheck Data User guide is available free of charge from our website www.sitecheck.co.uk

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Contact Names and Addresses

1 Environment Agency National Customer Contact Centre (NCCC)

PO Box 544 Templeborough Rotherham S60 1BY Telephone 08708 506 506

enquiries@environment-agency.gov.uk

Please note that the Environment Agency/SEPA have a charging policy in place for enquiries.

2 British Geological Survey Enquiry Service

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham Nottinghamshire NG12 5GG Telephone 0115 936 3143 Fax 0115 936 3276

enquiries@bgs.ac.uk www.bgs.ac.uk

3 Hertfordshire County Council County Development Unit

County Hall Hertford Hertfordshire SG13 8DN Telephone 01992 556266 Fax 01992 556202

www.hertsdirect.org

4 East Hertfordshire District Council Environmental Health Department

Wallfields Pegs Lane Hertford Hertfordshire SG13 8EQ

Telephone 01992 531491

www.eastherts.gov.uk

Other Contacts

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Search Code



IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Landmark Information Group Ltd, Imperium, Imperial Way, Reading, Berkshire, RG2 0TD. Telephone: 0844 844 9966, Fax No: 0844 844 9980, email: helpdesk@landmark.co.uk which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered firms maintain compliance with the Code.

The Search Code:

- Provides protection for homebuyers, sellers, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom.
- Sets out minimum standards which firms compiling and selling search reports have to meet.
- Promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals.
- Enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Code will:

- Display the Code logo prominently on their search reports.
- Act with integrity and carry out work with due skill, care and diligence.
- At all times maintain adequate and appropriate insurance to protect consumers.
- Conduct business in an honest, fair and professional manner.
- Handle complaints speedily and fairly.
- Ensure that all search services comply with the law, registration rules and standards.
- Monitor their compliance with the Code.

COMPLAINTS

If you have a query or complaint about your search, you should raise it directly with the firm, and if appropriate ask for your complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if it finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details:

The Property Ombudsman Scheme Milford House 43-55 Milford Street Salisbury Wiltshire SP1 2BP Tel: 01722 333306

Fax: 01722 332296 Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk.

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE

Search Code Search Co

COMPLAINTS PROCEDURE

If you want to make a complaint, we will:

- Acknowledge it within 5 working days of its receipt.
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt.
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time.
- Provide a final response, in writing, at the latest within 40 working days of receipt.
- Liaise, at your request, with anyone acting formally on your behalf.

Complaints should be sent to:

Head of Customer Relations Landmark Information Group Ltd Landmark UK Property Imperium Imperial Way Reading RG2 0TD

Telephone: 0844 844 9966

E-mail: helpdesk@landmark.co.uk

Fax: 0844 844 9980

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman Scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk.

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.

LANDMARK STANDARD TERMS & CONDITIONS

Full Terms and Conditions can be found on the following link:

http://www.landmarkinfo.co.uk/Terms/Show/515

Appendix III







Consequence to Receptor Definition Matrix

	Human Health	Controlled Waters	Buildings/Services
Severe Consequence	Acute or chronic permanent impact on human health.	Sensitive controlled water pollution ongoing, or just about to occur.	Catastrophic collapse
Moderate Consequence	Chronic permanent impact on human health	Gradual pollution of sensitive controlled water	Degradation of materials
Mild Consequence	Chronic temporary impact on human health	Gradual pollution of non- sensitive controlled water	Noticeable change, non-structural

Standard Risk Matrix

	Severe Consequence	Moderate Consequence	Mild Consequence
Higher Probability	Very High Risk	High Risk	Medium Risk
Median Probability	High Risk	Medium Risk	Low Risk
Lower Probability	Medium Risk	Low Risk	Very Low Risk

Probability Definitions

Probability	Definition in Context	
Higher	Positive evidence of hazard, pathway and receptor	
Median	Suspect hazard, pathway, and receptor	
Lower	No evidence of hazard, pathway, and receptor	

Risk Rank Definitions

Rank	Definition in Context		
Very High Risk	Demonstrable contaminated land situation, highest threat & liability level, urgent action recommended.		
High Risk	Likely contaminated land situation, risk assessment and action recommended.		
Medium Risk	Plausible contaminated land situation, risk assessment and possible action recommended.		
Low Risk	Unlikely contaminated land situation, possible risk assessment and possible action.		
Very Low Risk	Negligible risk, no action recommended except vigilance for changes in conditions.		