

DESK TOP STUDY AND PRELIMINARY RISK ASSESSMENT

Kingsmere, Bicester, for Preferred Homes Ltd



JER10251

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EXECUTIVE SUMMARY

Section	Summary
Background	RPS Consulting Services Ltd (RPS) was commissioned by Preferred Homes Ltd to undertake a Phase 1 Geo-Environmental Desk Study and Preliminary Environmental Risk of a parcel of land (ref: R1) at Kingsmere Bicester. The report has been commissioned to provide further information to address potential data gaps identified in a due diligence review undertaken by RPS in October 2022.
Site Details	<p>Site area: 0.93 hectares</p> <p>National Grid Reference: SP565224</p> <p>Current site use: The Application Site currently comprises part of the larger Kingsmere residential development understood to be under construction.</p> <p>Proposed site use: The proposed development on parcel R1 comprises construction of 60 extra care units with an option under new planning consent for an 80 care unit extra care facility.</p> <p>Surrounding land use: The site is located in an area of land allocated for residential use some of which has been completed with other phases under construction.</p>
Previous Reports	<p>Previous limited site specific ground investigation undertaken by WSP (2013) and RSK (2017) identified no evidence of Made Ground on the Application Site or surrounding area. No soil/groundwater testing or gas monitoring was undertaken on land parcel R1.</p> <p>RPS (2022) noted that gaps within the investigation data was present due to a lack of historical map analysis and limited site investigation works done to determine levels of soil contamination and classify the ground gas risk presented by a historical limestone quarry close to the Application site.</p>
Site History	<p>A review of historical maps indicates no evidence of on-site historical contaminant sources. Off-site historical potential sources of contaminants of concern include unspecified quarries approximately 220 m to the north-west and north-east, present until 1966 and subsequently infilled with unknown material.</p>
Environmental Setting	<p>The site is indicated to be underlain by outcropping bedrock relating to the Cornbrash and Forest Marble Formations (Secondary A Aquifers) The site is not indicated to be located in a groundwater Source Protection Zone (SPZ) and there are no sensitive groundwater abstractions in the vicinity of the site.</p> <p>The nearest surface water feature is an unnamed river 197 m north-east of the Application Site.</p>
Preliminary Risk Assessment	<p>An outline conceptual site model (CSM) has been derived on the basis of the desktop study and previous site reports the potential risks to future site users via the dermal contact and ingestion pathways in areas of the site comprising soft landscaping within the centre of the Application Site</p> <p>There is the potential for ground gas and volatile contaminants of concern in soil and/or groundwater (if present) from off-site sources to impact future site users via the inhalation pathway in indoor areas.</p> <p>Groundwater within granular/fractured horizons of the Cornbrash Formation and the underlying Forest Marble Formation may constitute a potential pathway for the on or off-site migration of contaminants of concern. The pathways of dermal contact, ingestion, and vapour inhalation to off-site human health receptors from potential contaminants of concern originating from the site may therefore also be active. The clay horizons of the Cornbrash and Marble Forest Formations will restrict the downward migration of groundwater and potential contaminants (if present) to the underlying Secondary A Aquifers.</p>
Conclusions and Recommendations	<p>The outline CSM produced upon completion of the desk study assessment has identified only low risk potential pollutant linkages that may be active upon the redevelopment of the site. Based on the Preliminary Risk Assessment, RPS considers that no further assessment is necessary to determine whether mitigation measures are required to manage the risk associated with ground contamination, however additional geotechnical ground investigation would be beneficial in determining design parameters for construction and could also include chemical testing if there is evidence of the presence of Made Ground or unrecorded contamination.</p>

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1 INTRODUCTION

1.1 Preamble

- 1.1.1 RPS Consulting Services Ltd (RPS) was commissioned by Rapley's LLP on behalf of Preferred Homes Ltd to undertake a Desk Top Study (DTS) and Phase 1 Preliminary Environmental Risk Assessment (PRA) of Land North of Bishops Road, Bicester, Cherwell, Oxfordshire. A representative postcode for the address has been provided as OX26 1GG. This area of land, identified as Land Parcel R1, is understood to be allocated for road and service connections, and comprises part of a wider residential scheme within the surrounding area. This report has been commissioned prior to the proposed redevelopment of the site and should be reviewed in conjunction with a previous RPS due diligence report (ref. JER9501 dated 3rd May 2022) commissioned for the site.
- 1.1.2 The site, herein referred to as the 'Application Site' covers approximately 0.93 hectares and is defined by a Site Location Plan, presented as Drawing 1.
- 1.1.3 This Desk Study assessment is based upon a review of published information available from local, regional, and national agencies. The desk study information is derived from Groundsure Enviro and Geosight Report, Ref. GS-7ZQ-21G-LMZ-U8Z which is presented as Appendix A. Please note the terms and conditions attached to the supply of data from Groundsure.

1.2 Objectives

- 1.2.1 The principal objectives of this assessment were as follows:
- To assess potential sources of contamination at the site, associated with historical and current land uses both on site and in the surrounding area; To review the environmental setting to assess the sensitivity of the surrounding area to contamination/pollution;
 - To produce an outline Conceptual Site Model (CSM) detailing how any contamination may impact the identified receptors via pollutant linkages; and
 - To conclude on the likely requirement for further assessment and investigation.

1.3 Legislation and Guidance

- 1.3.1 The assessment has been undertaken in general accordance with British Standard BS EN ISO 21365:2020 and is considered suitable to meet the initial requirements of planning as outlined within the National Planning Policy Framework (NPPF). The assessment also reflects the recommendations of Environment Agency guidance, Land Contamination: Risk Management, (LCRM 2020).
- 1.3.2 This report has been produced in general accordance with:
- Contaminated Land (England) Regulations 2006 (as amended);
 - DEFRA Environmental Protection Act 1990: Part 2A - *Contaminated Land Statutory Guidance* (2012);
 - Environment Agency (2020) Land Contamination: Risk Management (LCRM 2020);
 - National Planning Policy Framework (2021);
 - CIRIA Document C665: *Assessing Risks Posed by Hazardous Ground Gases to Buildings*;
 - British Standard requirements for the '*Investigation of potentially contaminated sites - Code of practice*' (ref. BS10175:2011+A1:2017);
- 1.3.3 Details of the limitations of this type of assessment are described in Appendix D.

2 SITE DESCRIPTION AND DESK STUDY

2.1.1 This section of the report is based upon the previous Due Diligence Report by RPS and 2023 Apple Maps satellite imagery. A Site Location Plan, as provided by the Client, is provided as Drawing 1.

2.2 The Site

2.2.1 The Application Site is shown on satellite imagery as comprising a construction compound, including various storage containers in the south and west. A small car park is indicated to be presented in the south-east representing an area of hardstanding. The northern boundary is indicated to be soft landscaping, currently comprised of soft standing. Site access is currently indicated to be present from the south-east from Ludlow Road, leading to the car park. Unfinished roads are indicated to be present along the northern Application Site boundary.

2.3 The Surrounding Area

2.3.1 The Application Site is located in a mixed area of existing residential development, agricultural land and current construction land. An inspection of 2023 'Apple Maps Imagery' indicates neighbouring land to consist of the following:

Table 2-1 – Neighbouring Land Uses

Direction	Description
North:	Residential housing estate and the B4030 with areas of ongoing construction to the north-west
East:	Undeveloped grass field and residential land with roads.
South:	Residential housing estate, undeveloped land and construction sites
West:	Undeveloped grassland leading into woodland, Agricultural Land intersected by the B4030 and A4095 and mature woodland present within the agricultural land.

2.4 Proposed Development

2.4.1 The proposed development for Land Parcel R1 is to comprise 60 extra care units and a possible 80 unit extra care facility. No detailed design layout plans have been provided to inform this assessment further.

2.5 Site History

Historical Map Review

2.5.1 The following review is based on past editions of readily available Ordnance Survey (OS) maps provided by Groundsure as included in Appendix C. These include scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560 dated 1875 to 2023. A relevant historical map extract is provided as Figure 1 highlighting the location of the historical quarries approximately 220 m north-west and north-east of the Application Site

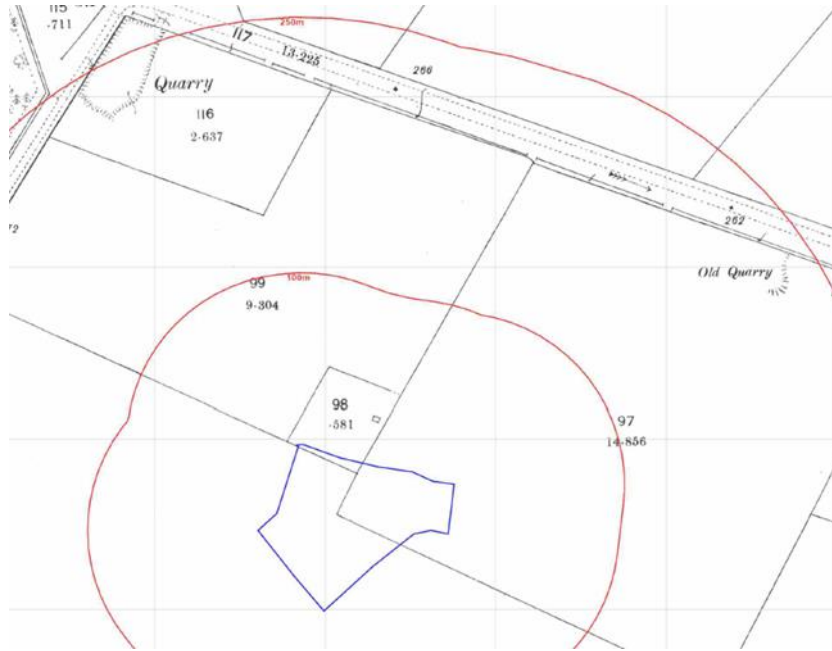


Figure 1: Quarries (circa 1899)

Table 2-2 – Historical Site Uses

On Site Land Uses	Dates
Undeveloped agricultural land	1875 - 2018
Construction site compound	2020-Present

2.5.2 The Application Site, from 1875 until 2018, is indicated to have comprised agricultural fields crossed by dividing field boundaries. Development within the Application Site is indicated to have started between 2018 and 2020, comprising a construction site compound associated with development of the wider area.

Table 2-3 – Historical Neighbouring Site Uses

Surrounding Land Uses (250 m radius)	Orientation	Distance	Dates	
			From	To
Old Windmill	north	40 m	1877	1881
Old Quarry	north-west	194 to 220 m	1898	1966
Old Quarry	north-east	220 m	1877	1899

2.5.3 The immediate vicinity of the Application Site has remained largely unchanged as agricultural land from earliest mapping with limited industrial presence in the area. A parcel of land approximately 220m north-west of the Application Site was utilised for quarrying from 1898 to 1966, while another old quarry was present to the north-east prior to being backfilled by 1922. The quarry to the north-west was infilled between 1966 and 1970. The nature and composition of the infill material is unknown.

Site Planning History

- 2.5.4 Relevant and readily available planning records for the site, as obtained from Cherwell District Council planning website are summarised as follows:
- Planning Application 12/00005/SCOP for Phase 2 SW Bicester Land Adjacent Whitelands Farm Adjoining Middleton Stoney Road Bicester Oxfordshire - - A scoping opinion report was undertaken for this site, mentioning a small landfill / infilled pit encountered within the Phase II area. It was concluded that an Environmental Impact Assessment (EIA) should clarify this. This data was unavailable at the time of writing.
 - Application 18/00647/REM -for Parcel H And Phase I Phase 2 SW Bicester Parcel 7849 North Of Whitelands Farm Adjoining Middleton Stoney Road Bicester - was submitted in 2018 relating to the erection of approximately 247 dwellings and associated infrastructure on and surrounding the Application Site. Approval was granted in 2019.
- 2.2 None of the above planning permissions included planning conditions pertaining to the investigation of potentially contaminated land at the site.

2.6 Previous Reports

- 2.6.1 RPS has been provided with the following geo-environmental reports detailed below for review.
- WSP Environmental, Kingsmere Phase 2, Bicester. Combined Phase I and Phase II Geo-Environmental Assessment Report for Countryside Properties (Bicester) Ltd, 14/02/2013 (herein termed WSP 2013); and
 - RSK, Land South of Middleton Stoney Road, Bicester – Kingsmere, South West Bicester, Geo-environmental site assessment (29286 R01 (00), November 2017 (herein termed RSK 2017).
- 2.6.2 RPS cannot vouch for the accuracy or validity of the information provided within the third party reports and the following opinion is based solely upon the reports. Legal reliance should be sought from the original authors of these reports where their content is considered material to the characterisation of the site.

Report Summary:

- 2.6.3 The key findings of the reports mentioned above were assessed in detail in the 2022 RPS Due Diligence Assessment and this should be read in conjunction with this report.
- 2.6.4 WSP (2013) were instructed by Countryside Properties (Bicester) Ltd to complete a Phase II Geo-Environmental and Geotechnical Assessment on Phase 2 of the Kingsmere, Bicester Development.
- This report was commissioned with scoping including the identification of ground related risks, advice on preliminary design and solutions to ground engineering relating to the proposed scheme. Potential contamination risks were assessed including monitoring of prevalent ground, ground gas and groundwater conditions on site. Site investigation works were completed in October 2012. A single trial pit (TP704) was excavated on the Application Site with other locations close to the boundary.
 - Site Investigation concluded ground conditions to comprise limited topsoil indicated to overlie strata of the Cornbrash Formation with Forest Marble Formation indicated to be present at depth. Water seepages were noted in several exploratory holes at shallow depth with groundwater encountered at depths of between 5.00 m bgl and 8.00 m below ground level (bgl) with artesian water noted in the Forest Marble Formation recorded in boreholes to the south of the Application Site.

- No soil sampling and testing was undertaken from the trial pit within the Application Site. Arsenic concentrations in near-surface soil at one location within the area of investigation exceeded residential generic assessment criteria (GAC) but all other determinants were found to be below relevant GAC. The report concluded that this concentration of arsenic was deemed naturally occurring due to lack of clear anthropogenic source. In line with legislation, if the end use of the land was to be a residential garden, recommendations for 500 mm of clean topsoil, used as a capping layer was recommended should this area be developed for residential gardens.
- Groundwater samples were collected from six of the monitoring installations with petroleum hydrocarbon identified in groundwater from boreholes mainly north of the Application Site. Petroleum hydrocarbon concentrations decreased from west to east across the investigation area. The report recommended further targeted groundwater sampling to confirm and supplement existing data.
- Ground gas monitoring was undertaken from installations in the wider area around the Application Site. This monitoring concluded ground gas risk to range from low to very low. No special gas protection precautions were indicated to be required. Borehole flooding was indicated to have occurred, with local authority comments indicating further monitoring as a possibility.

2.6.5 RSK were instructed by Countryside Properties (Bicester) Limited to carry out a geo-environmental site assessment in 2017.

- The scope of the investigation involved the review of the WSP (2013) report, an additional intrusive site investigation of 2 no rotary cored boreholes, 2 no drive-in sampler boreholes and 4 machine assisted trial pits, none of which were on the Application Site, with laboratory analysis and subsequent groundwater and gas monitoring. A refined conceptual site model with a generic quantitative risk assessment, interpretation of ground conditions and geotechnical data for foundation and infrastructure recommendations were included within the scope of this report. An assessment of potential waste classification implications on soil arisings was also undertaken.
- The ground conditions encountered matched those identified in the earlier report with a cover of topsoil underlain by weathered Cornbrash Formation grading into the Cornbrash Formation with the Forest Marble Formation present at depth. Groundwater was noted within the weathered Cornbrash Formation and at depth within the Forest Marble Formation between 0.97 m and 1.90 m bgl.
- No visual or olfactory evidence of contamination was noted on site. Shallow soils across the site were not found to contain significant contamination, with respect to the proposed development. It was concluded that no significant environmental issues were identified and no gas protection measures considered necessary.
- None of the samples tested were classified as being hazardous waste however a WAC test was recommended to confirm inert or non-hazardous status.

2.6.6 RPS were instructed by Rapley's LLP to undertake a Due Diligence Report (2022) in support of a land bid concerning the Application Site. The scope of the report was to review the ground conditions in relation to the historical geo-environmental assessments conducted on the Application Site. The review of the WSP (2013) and RSK (2017) reports concluded that there were data gaps within the previous investigations with regard to the Application Site which included the following:

1. Absence of historical plans and maps for identifying the historical quarry and former mill,
2. Limited ground investigation data within the Application Site resulting in limited confidence regarding the physical ground conditions on site,

3. The lack of full characterisation of the ground gas risk from the nearby historical quarry

2.6.7 The RPS Due Diligence report recommended further site investigation to address the gaps in the data identified within the report.

2.7 Environmental Setting

Geology

2.7.1 Based on British Geological Survey (BGS) mapping (1:50,000-scale), the Environment Agency (EA) Groundwater Vulnerability mapping (1:100,000-scale) and historical geo-environmental reports (RSK, 2017, WSP, 2013) the stratigraphic sequence and aquifer classifications beneath the Application Site are indicated to be as follows:

Table 2-4 – Descriptions of Geological Strata

Strata	Description & approximate thickness	Aquifer Classification
Cornbrash Formation	Medium to fine grained, bluish grey when fresh becoming olive to yellowish brown when weathered, limestone up to 10.5 m in thickness	Secondary A Aquifer
Forest Marble Formation	Silicate mudstone greenish grey variably calcareous approximately 5 m thick	Secondary A Aquifer

BGS borehole logs have not been reviewed due to availability of previous site investigation reports.

2.7.2 No superficial deposits are indicated to be within the Application Site boundary.

2.7.3 Made Ground is likely to be present locally across the site as a result of the construction compound as seen on 2023 Google Satellite imagery. No site investigation reports have been reviewed to verify this.

Hydrogeology

2.7.4 The site is located above Secondary A Aquifers relating to the Cornbrash and Forest Marble Formation. These formations are comprised of permeable strata capable of supporting water supplies at a local scale, in some cases forming an important source of base flow to rivers.

2.7.5 According to EA data, the site is not located in a groundwater Source Protection Zone (SPZ).

2.7.6 Information provided by the EA indicates that there are two recorded active licensed non-potable groundwater abstractions within 2 km of the Application Site. These are detailed in the table below:

Table 2-5 – Licensed Groundwater Abstraction

Licence Holder	Approx. Distance and Direction from Site	Source	Use
Faccenda Chicken Ltd	1835 m south-east	Thames Groundwater	General Farming & Domestic
W V Malins & Son	1950 m north-east	Thames Groundwater	General Farming & Domestic

Surface Water

- 2.7.7 There are no watercourses within 1 km of the site which are classified within a River Basin Management Plan published by the EA under the European Water Framework Directive (2000). An unclassified river is indicated to be present within 250 m of the Application Site, as detailed in the table below:

Table 2-6 – Nearby Watercourses and Water Bodies

Watercourse / Body	Approx. Distance and Direction from Site
Inland River – unnamed stream narrower than 5 m	197 m north-east

- 2.7.8 Information provided by the EA indicates that there are no records of active licensed surface water abstractions within 2 km of the Application Site.

Ecologically Sensitive Sites

- 2.7.9 Natural England data indicates that there are no ecologically sensitive sites, which constitute environmental receptors as defined within Table 1 of the DEFRA Environmental Protection Act 1990: Part 2A - Contaminated Land Statutory Guidance (2012), located within a 1 km radius of the Application Site. EA data indicates the Application Site to be within a SSSI Impact Risk Zone.
- 2.7.10 The Application Site is also located within a Surface Water Nitrate Vulnerable Zone (Cherwell (Ray to Thames) and Woodeaton Brook).

Radon

- 2.7.11 According to the Indicative Atlas of Radon in England and Wales published by the Health Protection Agency (part of Public Health England) and the British Geological Survey, the Application Site is not located in an area at risk from radon gas. The Application Site is located to be within an area where radon levels are estimated to be at or above the Action level in between 1 % to 3 % of properties. No Radon Protection Measures are expected to be required.

Coal Authority

- 2.7.12 The Interactive Map Viewer on the Coal Authority website indicates that the Application Site is not located in a coal mining reporting area.

Non-Coal Mining

- 2.7.13 The site is located within an historical mining/extraction area with unspecified historical quarries noted to be within 250 m to the north-west and north-east of the Application Site.

BGS Ground Stability Hazard Ratings

2.7.14 British Geological Survey Ground Stability Hazard ratings for the Application Site are summarised as follows:

Table 2-7 – BGS Ground Stability Hazard Ratings

Ground Stability Hazard	BGS Risk rating
Collapsible ground	Negligible
Compressible ground	Very Low
Ground dissolution	Very Low
Landslide	Very Low
Running sand	Negligible
Shrinking or swelling clay	Negligible

2.8 Authorised Processes and Pollution Incidents

Landfills and Waste Sites

2.8.1 Data provided by the EA, Local Authority and BGS indicates that there are no recorded licensed or known historical landfill sites located within 250 m of the Application Site.

Environmental Permits

2.8.2 EA and Local Authority data indicates that there are no processes regulated by an Environmental Permit (under the Environmental Permitting Regulations 2010) within 500 m of the Application Site.

COMAH Sites

2.8.3 There are no records of any operations under the Control of Major Accident Hazards (COMAH) Regulations 1999, located within 500 m of the Application Site.

Pollution Incidents

2.8.4 Environment Agency data indicates that there are no records of 'major' or 'significant' pollution incidents within 500 m of the Application Site.

2.9 Unexploded Ordnance

2.9.1 Reference to the Zetica Unexploded Bomb Risk mapping indicates that the Application Site is in an area of low potential risk from Unexploded Bombs. As the Application Site is not within an area of known military history, in general accordance with CIRIA Report C681 (Stone et al) no further consideration of Unexploded Ordnance is considered necessary.

3 OUTLINE CONCEPTUAL SITE MODEL

3.1 Background

3.1.1 An outline conceptual site model (CSM) consists of an appraisal of the *source-pathway-receptor* 'contaminant linkages' which is central to the approach used to determine the existence of 'contaminated land' according to the definition set out under Part 2A of the Environmental Protection Act 1990. For a risk to exist (under Part 2A), all three of the following components must be present to facilitate a potential 'pollutant linkage'.

- **Source** referring to the source of contamination (Hazard).
- **Pathway** for the contaminant to move/migrate to receptor(s).
- **Receptor** (Target) that could be affected by the contaminant(s).

3.1.2 Receptors include human beings and buildings / structures. The National Planning Policy Framework, used to address contaminated land through the planning process, follows the same principles as those set out under Part 2A.

3.1.3 As part of the assessment the potential risks to receptors for potential source is given one of the following classifications:

- **Low risk** - it is considered unlikely that issues within the category will give rise to significant harm to identified receptors;
- **Moderate risk** - it is possible, but not certain that issues within the category will give rise to significant harm to receptors;
- **High risk** - there is a high potential that issues within the category will give rise to significant harm to identified receptors.

3.2 Potential Pollutant Linkages

3.2.1 Each stage of the potential pollutant linkage sequence has been assessed individually on the basis of information obtained during the review of previous Phase I and Phase II reports if applicable and desk study exercise and are discussed in the following section.

Potential Contaminant Sources

On Site – Current

3.2.2 Current on-site potential sources of contaminants of concern include current construction and demolition activities noted from satellite imagery. This may include storage of fuels or chemicals.

On Site – Historical

3.2.3 No historical on site potentially contaminative land uses have been identified.

Off-site – Current

3.2.4 No current off-site potentially contaminative land uses have been identified.

Off-Site – Historical

- 3.2.5 Historical maps indicate former quarries to the north-west and north-east within 250 m with no records of infill material. These could present a potential source for contamination by leachable heavy metals, and ground gases. It is noted that gas monitoring of boreholes to the north of the Application Site by WSP did not identify any evidence of elevated gas concentrations, albeit only over one phase of monitoring and in which the response zone was flooded due to a high groundwater table. Given the age of the infilling of these features (> 40 years), the mainly cohesive nature of the shallow Cornbrash, high groundwater table in the area and the distance from the Application Site the quarries are considered low risk sources.
- 3.2.6 A windmill was present approximately 50 m north of the Application Site, from 1881 to approximately 1891. There may be residual Made Ground of unknown composition associated with the construction/demolition of the structure.

Potential Pathways

- 3.2.7 In areas covered by buildings or hardstanding the risks to future on site human health receptors via the pathways of dermal contact and ingestion will be mitigated. However, in areas of soft landscaping, the pathways of dermal contact and ingestion could still be active.
- 3.2.8 There is the potential for ground gas and volatile contaminants of concern in soil and/or groundwater (if present) beneath the Application Site to impact on future site users via the inhalation pathway in indoor areas.
- 3.2.9 There is the potential for liquid or gaseous contaminants of concern (if present) beneath the site or from off site sources to migrate on or off-site via granular horizons of the Cornbrash Formation or for leachable contaminants via shallow groundwater which has been identified in the Cornbrash in the site are in previous ground investigations. These may impact on controlled waters receptors or on/off-site human health receptors via the dermal contact, ingestion, and vapour inhalation pathways.

Potential Receptors

- 3.2.10 Potential post development human health receptors include future site users (both residents and workers) and off-site human health receptors.
- 3.2.11 The Secondary A Aquifers beneath the Application Site represent sensitive receptors, vulnerable to lateral and vertical contaminant migration.
- 3.2.12 The nearest surface water feature is an unnamed inland river, which is located approximately 197 m north-east of the Application Site.
- 3.2.13 This assessment does not consider the risk to construction/demolition workers during redevelopment. These risks will be managed through appropriate Health and Safety legislation including Health and Safety at Work Act (1974) and Construction Design and Management Regulations (2015).

3.3 Outline Conceptual Site Model

- 3.3.1 An outline CSM has been developed on the basis of the historical reports and desk study. The CSM is used to identify potential sources, pathways, and receptors (i.e. potential pollutant linkages) on site post development and is summarised in the table below.

Table 3-1 – Outline Conceptual Site Model

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
On site – current: Construction activities incl fuel, plant/vehicle storage	hydrocarbons and solvents	Soil	Direct contact/ingestion	✓	Future site users	Low	Current construction activities are related to ongoing development in the immediate area. It is assumed that the construction works are being undertaken utilising best practice methods to minimise pollution risk and in accordance with a Construction Environmental Management Plan (CEMP) therefore the risk presented from current site activities is considered to be Low .
			Inhalation of volatiles	✓			
			Leaching of mobile contaminants	✓	Secondary A Aquifer		
		Groundwater	Direct contact/ingestion	✓ ✓	Future site users Off-site users		
			Inhalation of volatiles	✓ ✓	Future site users Off-site users		
Off-site – historical: Quarries and Windmill (Made Ground)	Liquids e.g. hydrocarbons, leachate and leachable metals	Groundwater	Direct contact/ingestion	✓	Future site users	Low	Demolition of the historical windmill might have resulted in a localised source of Made Ground, as with the backfilled quarries. Topographically the Application Site slopes from north-west to south-east and it is anticipated that shallow groundwater flow is likely to follow a similar pattern as confirmed in the RSK report. This would indicate that the potential of impact via shallow groundwater from the quarries is low and the risk of on-site migration from the windmill area would be limited to the north-east. From the age of demolition of the structure it is unlikely that there will be a residual risk presented by volatiles or hydrocarbons from this source accordingly a risk rating of Low has been applied.
			Inhalation of volatiles	✓	Future site users	Low	
On and off-site – Made Ground / infilled quarries. biodegradation of contamination	Carbon dioxide and methane	Ground Gas	Inhalation of ground gas	✓ ✓	Future site users Off-site users	Low	Undetermined backfill within the former quarries could provide a source of toxic or flammable ground gases. Neither feature has been identified as a recorded landfill site and are of sufficient age where they can be considered to be of low risk gas generation potential. Gas monitoring within the two ground investigations , including limited monitoring of boreholes to the north and east of the Application Site indicated a low ground gas risk in the surrounding development area. It is noted that some of the boreholes became unsuitable for gas monitoring for multiple phases due to saturation of the response zones by shallow groundwater. Based on the data reviewed and clarification of quarry locations the risk posed by ground gas is considered to be Low .
			Explosive risks	✓ ✓	Future site users Future and off-site Structures	Low	

Note * The Qualitative Risk Rating does not consider the potential for the pathway to be active. In the event that a Moderate or High Qualitative Risk Rating is identified further assessment is recommended.

3.3.2 Based on the identified potential sources and the site setting there is not considered to be a significant risk to ecological receptors, crops/vegetation, or archaeological receptors.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

- 4.1.1 The outline CSM produced upon completion of the DTS and PRA has identified no significant potential pollutant linkages that may be active upon development of the site. Those that have been identified are considered to represent a low risk (See Table 3-1).
- 4.1.2 The former quarries indicated to have been present within 250 m to the north-west and north-east of the Application Site may represent sources of ground gas, however given the age of infilling, the predominantly cohesive nature of the shallow weathered Cornbrash strata in the local area, and previous ground gas monitoring results obtained for the surrounding area there is considered to be a low gas risk to the Application Site.

4.2 Recommendations

- 4.2.1 It is recommended that the contents of the previous RPS Due Diligence Assessment report are taken into account prior to site development and ground investigation is undertaken to provide additional site specific data for geotechnical design purposes. If there is evidence of Made Ground or residual shallow soil contamination then chemical testing should also be undertaken.
- 4.2.2 If evidence of any unsuspected contamination is identified during ground works that could impact on the identified receptors, then works should cease and specialist advice should be sought.

REFERENCES

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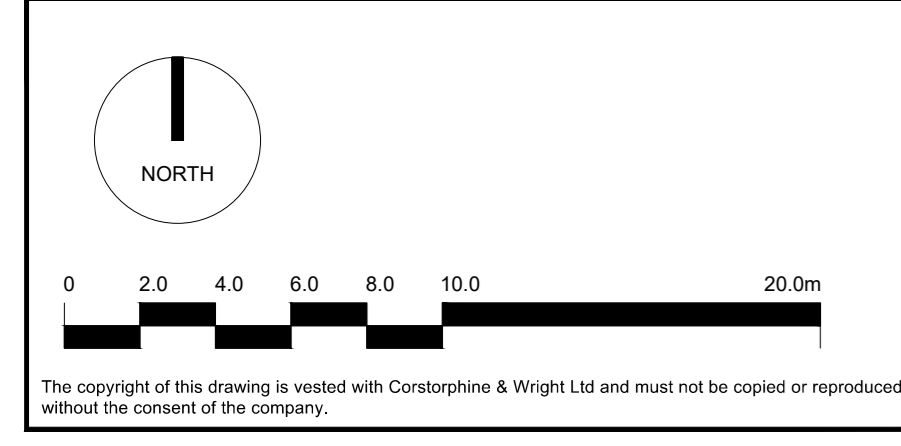
RPS (2022): JER9501 Due Diligence Assessment letter report dated 3rd May 2022.

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WSP Environmental, Kingsmere Phase 2, Bicester. Combined Phase I and Phase II Geo-Environmental Assessment Report for Countryside Properties (Bicester) Ltd, 14/02/2013 (herein termed WSP 2013).

DRAWINGS

Drawing 1 Site Plan



REV	DATE	COMMENTS	BY	CHK
P11	17/02/23	Boundary line updated	ME	YL
P12	10/02/23	Boundary line updated	ME	YL
P13	07/02/23	Boundary line updated	ME	YL
P14	12/02/23	Issue for planning	JAS	JAS
P15	14/02/23	Substation added & boundary line adjusted	JAS	JAS
P16	16/02/23	Entrance road further re-arranged	JAS	JAS
P17	16/02/23	Clear signage arrangements following planning response	JAS	JAS
P18	01/02/23	Entrance road re-align	JAS	JAS
P19	02/02/23	500kg heavy load amended to provide trailer to store parking & return Northern Care assembly to previous alignment	JAS	JAS
P20	28/07/22	Heavy load amended in line with N2 Statutory	BAC	JAS
P21	02/07/22	Heavy load amended	BAC	JAS
P22	28/02/22	Site area added for revised plot boundaries	JAS	JAS
P23	16/02/22	Site scheme prepared in response to I.C. comments	JAS	JAS
REV	DATE	COMMENTS	BY	CHK
01	05		ME	YL

- Application red line boundary
- Detailed area-Plot R (i) PHE 6,166 sqm
- Outline area-Plot R (ii) Countryside 3,154 sqm

Client Preferred Homes Ltd		Corstorphine & Wright	
Project Extra-care Development Kingsmere, Bicester		Leeds Studio The Studio, Candle House, 1 Wharf Approach, Leeds, LS1 4QH 0113 233 5000 corstorphine-wright.com	
Drawing Title Hybrid Application Plan Outline / Full Split		Drawing No. 21413-CWA-BC-XX-DR-A-0211	Revision P13
Drawn YL	Checked ME	Paper Size A0	Scale 1:200
Drawing Status PLANNING		Date 12/07/23	

Appendix A
GROUNDSURE GEOINSIGHT REPORT



1, STOCKTON ROAD, BICESTER, OX26 1GG

Order Details

Date: 20/07/2023
Your ref: JER9501
Our Ref: GS-7ZQ-21G-LMZ-U8Z

Site Details

Location: 456498 222452
Area: 0.61 ha
Authority: [Cherwell District Council](#) ↗



[Summary of findings](#)

[p. 2 >](#)

[Aerial image](#)

[p. 9 >](#)

[OS MasterMap site plan](#)

[p.14 >](#)

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Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	1	4	0	-
16 >	1.2 >	Historical tanks >	0	0	0	1	-
16 >	1.3 >	Historical energy features >	0	0	2	1	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
18 >	2.1 >	Historical industrial land uses >	0	2	4	0	-
19 >	2.2 >	Historical tanks >	0	0	0	4	-
19 >	2.3 >	Historical energy features >	0	0	2	3	-
20	2.4	Historical petrol stations	0	0	0	0	-
20	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	Active or recent landfill	0	0	0	0	-
21	3.2	Historical landfill (BGS records)	0	0	0	0	-
22	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
22	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
22	3.5	Historical waste sites	0	0	0	0	-
22	3.6	Licensed waste sites	0	0	0	0	-
22 >	3.7 >	Waste exemptions >	0	0	45	17	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
28 >	4.1 >	Recent industrial land uses >	0	0	1	-	-
29	4.2	Current or recent petrol stations	0	0	0	0	-
29	4.3	Electricity cables	0	0	0	0	-
29	4.4	Gas pipelines	0	0	0	0	-
29	4.5	Sites determined as Contaminated Land	0	0	0	0	-



29	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
30	4.7	Regulated explosive sites	0	0	0	0	-
30	4.8	Hazardous substance storage/usage	0	0	0	0	-
30	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
30	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
30	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
31	4.12	Radioactive Substance Authorisations	0	0	0	0	-
31	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
31	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
31	4.15	Pollutant release to public sewer	0	0	0	0	-
31	4.16	List 1 Dangerous Substances	0	0	0	0	-
32	4.17	List 2 Dangerous Substances	0	0	0	0	-
32	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
32	4.19	Pollution inventory substances	0	0	0	0	-
32	4.20	Pollution inventory waste transfers	0	0	0	0	-
32	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
33	5.1	Superficial aquifer	None (within 500m)				
34 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
35 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
36 >	5.4 >	Groundwater vulnerability- soluble rock risk >	Identified (within 0m)				
36	5.5	Groundwater vulnerability- local information	None (within 0m)				
37 >	5.6 >	Groundwater abstractions >	0	0	0	1	7
39	5.7	Surface water abstractions	0	0	0	0	0
40 >	5.8 >	Potable abstractions >	0	0	0	0	1
40	5.9	Source Protection Zones	0	0	0	0	-
40	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
41 >	6.1 >	Water Network (OS MasterMap) >	0	0	6	-	-



42 >	6.2 >	Surface water features >	0	0	3	-	-
42 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
43 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
43 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-

Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
44	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
44	7.2	Historical Flood Events	0	0	0	-	-
44	7.3	Flood Defences	0	0	0	-	-
45	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
45	7.5	Flood Storage Areas	0	0	0	-	-
46	7.6	Flood Zone 2	None (within 50m)				
46	7.7	Flood Zone 3	None (within 50m)				

Page	Section	Surface water flooding					
47	8.1	Surface water flooding	Negligible (within 50m)				

Page	Section	Groundwater flooding >					
48 >	9.1 >	Groundwater flooding >	Negligible (within 50m)				

Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
49	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
50	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
50	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
50	10.4	Special Protection Areas (SPA)	0	0	0	0	0
50	10.5	National Nature Reserves (NNR)	0	0	0	0	0
51 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	1
51	10.7	Designated Ancient Woodland	0	0	0	0	0
51	10.8	Biosphere Reserves	0	0	0	0	0
51	10.9	Forest Parks	0	0	0	0	0
52	10.10	Marine Conservation Zones	0	0	0	0	0
52	10.11	Green Belt	0	0	0	0	0
52	10.12	Proposed Ramsar sites	0	0	0	0	0



52	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
52	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
53	10.15	Nitrate Sensitive Areas	0	0	0	0	0
53 >	10.16 >	<u>Nitrate Vulnerable Zones ></u>	1	0	0	1	0
54 >	10.17 >	<u>SSSI Impact Risk Zones ></u>	1	-	-	-	-
55	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
56	11.1	World Heritage Sites	0	0	0	-	-
56	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
56	11.3	National Parks	0	0	0	-	-
56	11.4	Listed Buildings	0	0	0	-	-
57	11.5	Conservation Areas	0	0	0	-	-
57	11.6	Scheduled Ancient Monuments	0	0	0	-	-
57	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	<u>Agricultural designations ></u>	On site	0-50m	50-250m	250-500m	500-2000m
58 >	12.1 >	<u>Agricultural Land Classification ></u>	Grade 3 (within 250m)				
59	12.2	Open Access Land	0	0	0	-	-
59	12.3	Tree Felling Licences	0	0	0	-	-
59	12.4	Environmental Stewardship Schemes	0	0	0	-	-
59	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	<u>Habitat designations ></u>	On site	0-50m	50-250m	250-500m	500-2000m
60 >	13.1 >	<u>Priority Habitat Inventory ></u>	0	0	2	-	-
61	13.2	Habitat Networks	0	0	0	-	-
61	13.3	Open Mosaic Habitat	0	0	0	-	-
61	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<u>Geology 1:10,000 scale ></u>	On site	0-50m	50-250m	250-500m	500-2000m
62 >	14.1 >	<u>10k Availability ></u>	Identified (within 500m)				
63 >	14.2 >	<u>Artificial and made ground (10k) ></u>	0	0	1	1	-
64	14.3	Superficial geology (10k)	0	0	0	0	-



64	14.4	Landslip (10k)	0	0	0	0	-
65 >	14.5 >	Bedrock geology (10k) >	1	0	0	1	-
66	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
67 >	15.1 >	50k Availability >	Identified (within 500m)				
68 >	15.2 >	Artificial and made ground (50k) >	0	0	0	1	-
69	15.3	Artificial ground permeability (50k)	0	0	-	-	-
70	15.4	Superficial geology (50k)	0	0	0	0	-
70	15.5	Superficial permeability (50k)	None (within 50m)				
70	15.6	Landslip (50k)	0	0	0	0	-
70	15.7	Landslip permeability (50k)	None (within 50m)				
71 >	15.8 >	Bedrock geology (50k) >	1	0	0	1	-
72 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
72	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
73	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
74 >	17.1 >	Shrink swell clays >	Negligible (within 50m)				
75 >	17.2 >	Running sands >	Negligible (within 50m)				
76 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
77 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
78 >	17.5 >	Landslides >	Very low (within 50m)				
79 >	17.6 >	Ground dissolution of soluble rocks >	Very low (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
81 >	18.1 >	BritPits >	0	0	1	0	-
82 >	18.2 >	Surface ground workings >	0	2	4	-	-
82	18.3	Underground workings	0	0	0	0	0
83	18.4	Underground mining extents	0	0	0	0	-
83	18.5	Historical Mineral Planning Areas	0	0	0	0	-

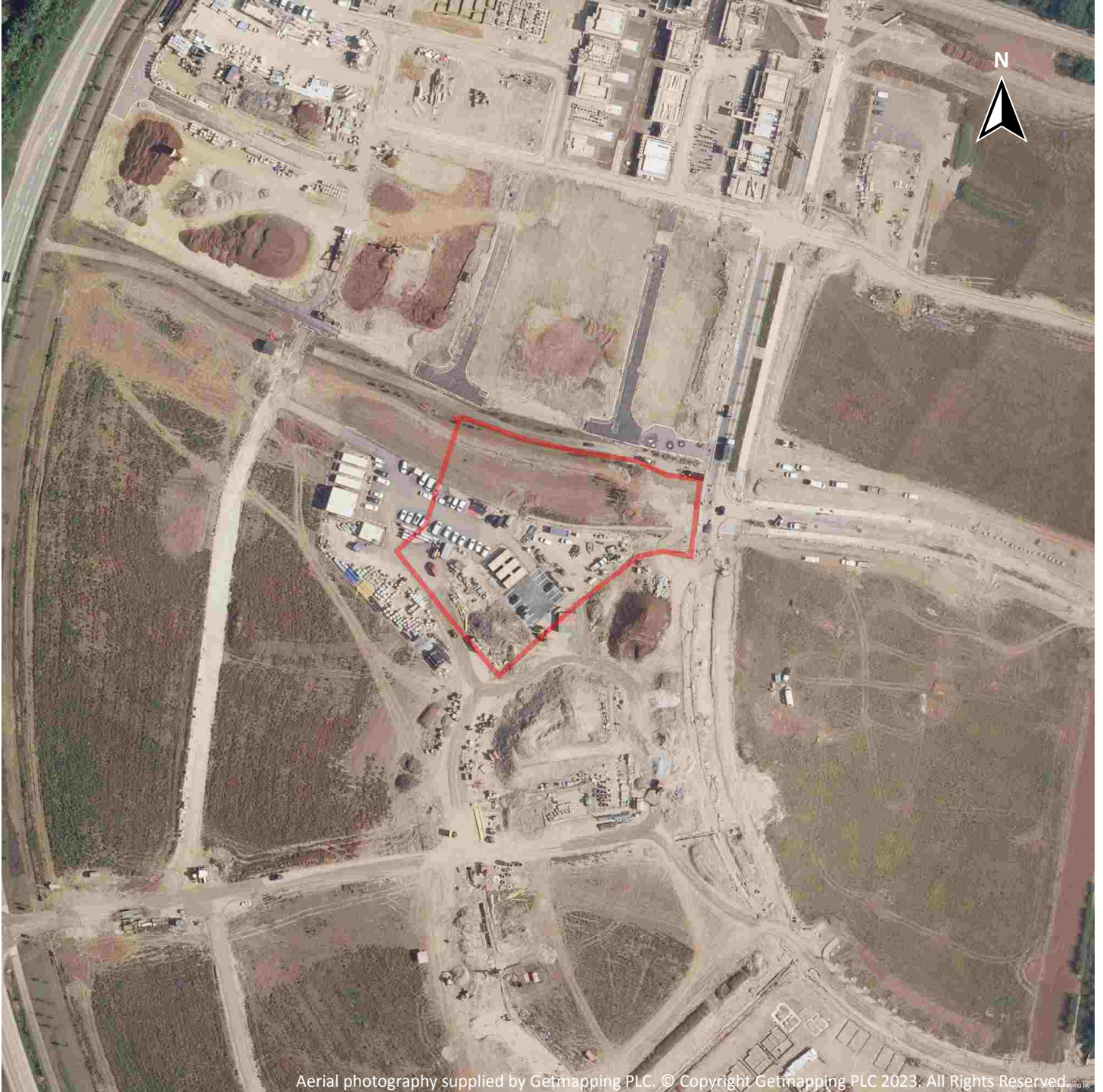


83	18.6	Non-coal mining	0	0	0	0	0
83	18.7	JPB mining areas	None (within 0m)				
83	18.8	The Coal Authority non-coal mining	0	0	0	0	-
84 >	18.9 >	Researched mining >	0	0	0	1	-
84	18.10	Mining record office plans	0	0	0	0	-
84	18.11	BGS mine plans	0	0	0	0	-
84	18.12	Coal mining	None (within 0m)				
85	18.13	Brine areas	None (within 0m)				
85	18.14	Gypsum areas	None (within 0m)				
85	18.15	Tin mining	None (within 0m)				
85	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
86	19.1	Natural cavities	0	0	0	0	-
86	19.2	Mining cavities	0	0	0	0	0
86	19.3	Reported recent incidents	0	0	0	0	-
86	19.4	Historical incidents	0	0	0	0	-
87	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
88 >	20.1 >	Radon >	Between 1% and 3% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
90 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	2	-	-	-
90	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
91	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
92	22.1	Underground railways (London)	0	0	0	-	-
92	22.2	Underground railways (Non-London)	0	0	0	-	-
92	22.3	Railway tunnels	0	0	0	-	-
92	22.4	Historical railway and tunnel features	0	0	0	-	-
92	22.5	Royal Mail tunnels	0	0	0	-	-



93	22.6	Historical railways	0	0	0	-	-
93	22.7	Railways	0	0	0	-	-
93	22.8	Crossrail 1	0	0	0	0	-
93	22.9	Crossrail 2	0	0	0	0	-
93	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved.

Capture Date: 05/07/2019

Site Area: 0.61ha



Recent site history - 2015 aerial photograph

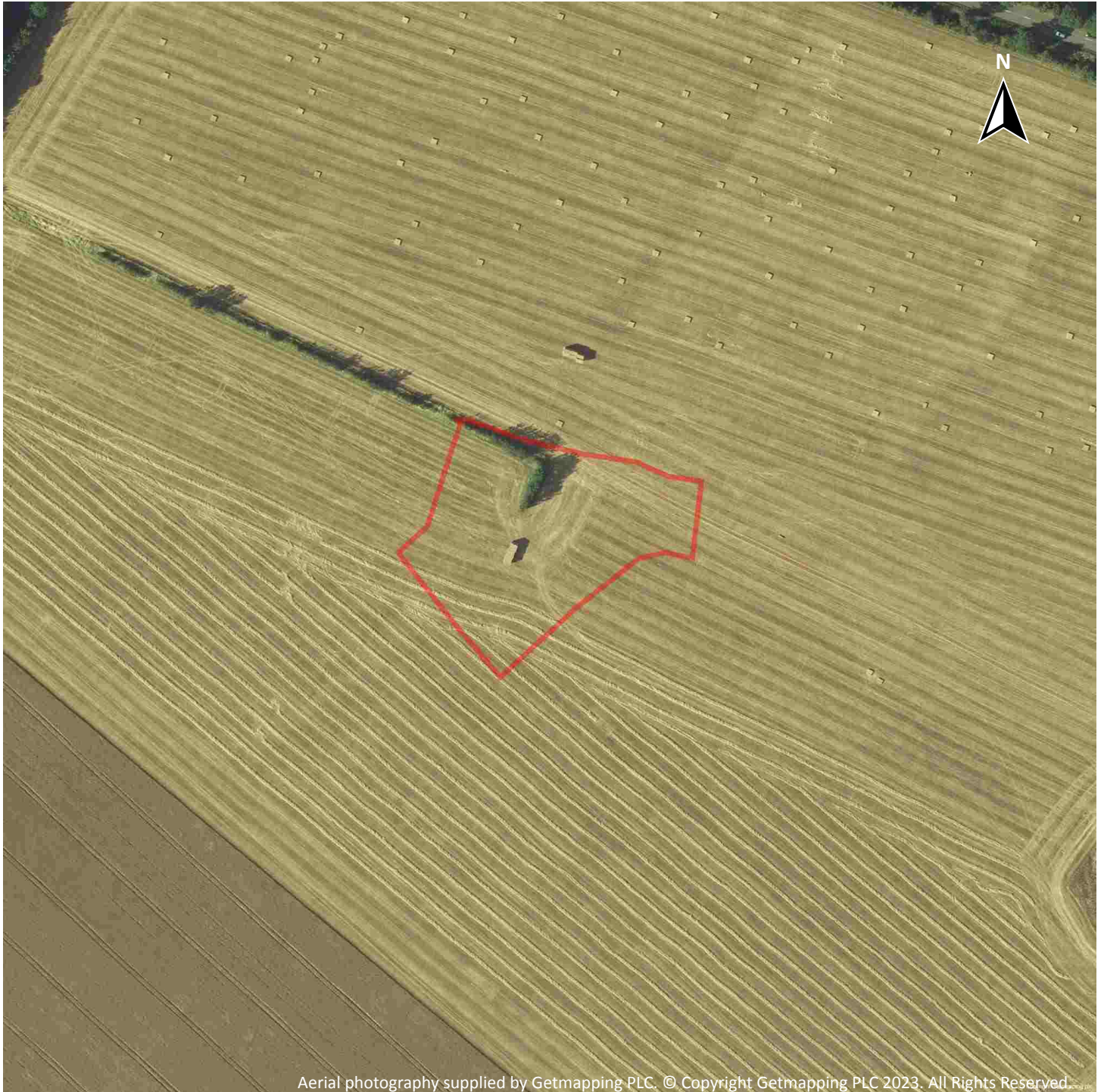


Capture Date: 28/08/2015

Site Area: 0.61ha



Recent site history - 2009 aerial photograph



Capture Date: 19/08/2009

Site Area: 0.61ha



Recent site history - 2006 aerial photograph



Capture Date: 29/10/2006

Site Area: 0.61ha



Recent site history - 1999 aerial photograph



Capture Date: 05/10/1999

Site Area: 0.61ha



OS MasterMap site plan

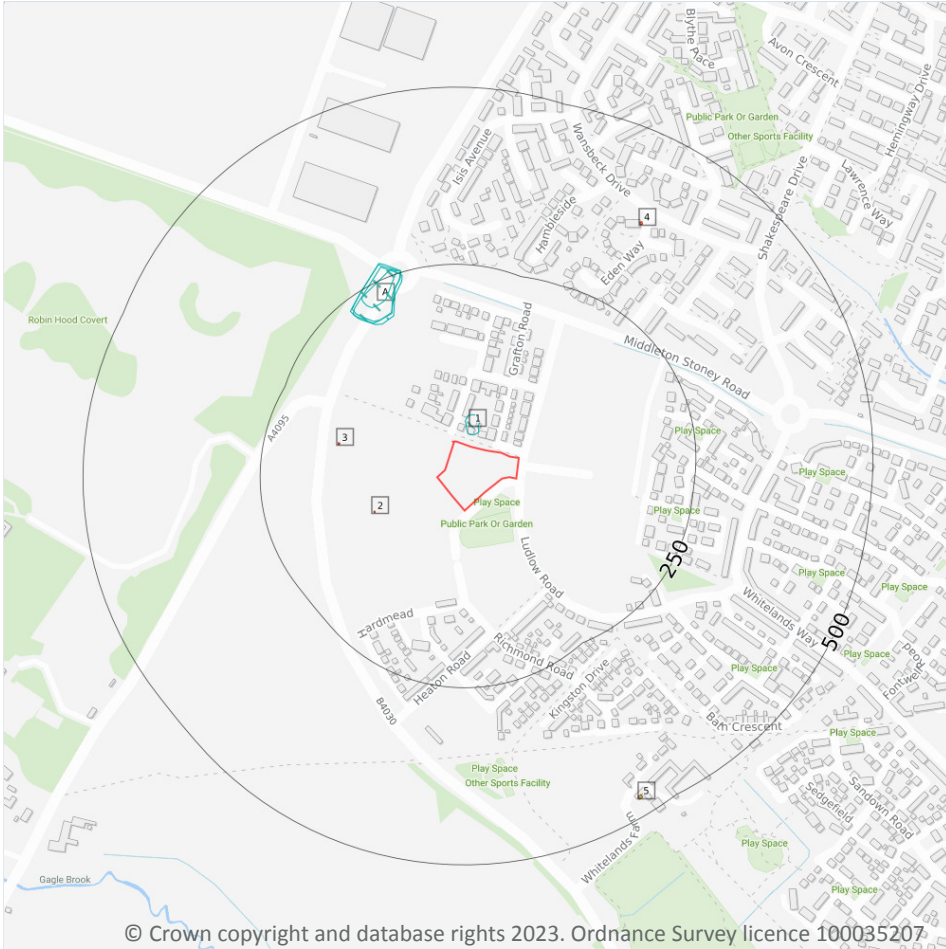


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Site Area: 0.61ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features

1.1 Historical industrial land uses

Records within 500m **5**

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
1	16m N	Unspecified Heap	1880 - 1882	1846781



ID	Location	Land use	Dates present	Group ID
A	194m NW	Unspecified Old Quarry	1966	1848288
A	200m NW	Unspecified Old Quarry	1950	1808998
A	200m NW	Unspecified Old Quarry	1938	1801850
A	220m NW	Unspecified Quarry	1898	1762809

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

1

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
5	472m SE	Unspecified Tank	1966 - 1996	292602

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

3

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
2	100m W	Electricity Substation	1985	170643
3	146m W	Electricity Substation	1985	170642
4	371m NE	Electricity Substation	1988 - 1994	180450



This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

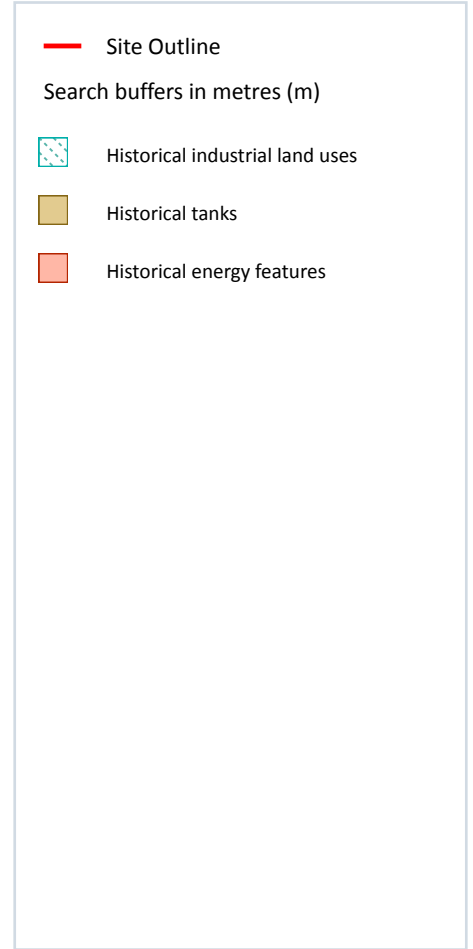
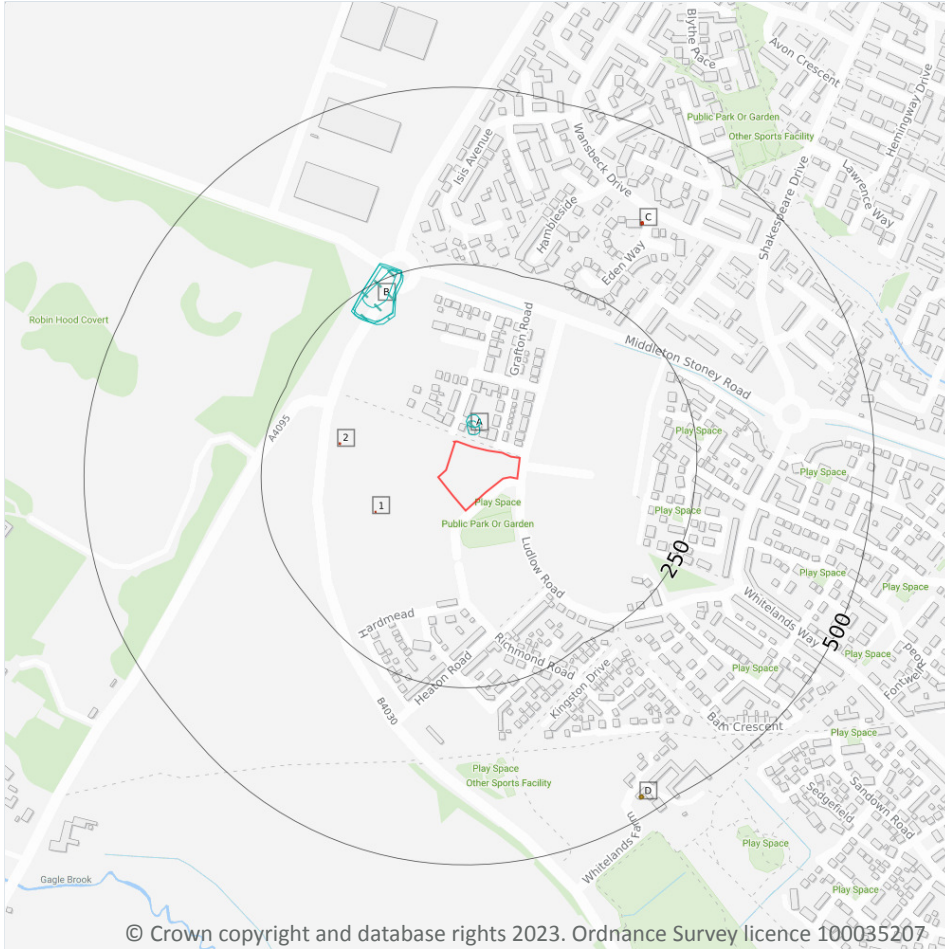
Records within 500m

0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



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2.1 Historical industrial land uses

Records within 500m

6

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 18](#) >

ID	Location	Land Use	Date	Group ID
A	16m N	Unspecified Heap	1880	1846781
A	26m N	Unspecified Heap	1882	1846781
B	194m NW	Unspecified Old Quarry	1966	1848288

ID	Location	Land Use	Date	Group ID
B	200m NW	Unspecified Old Quarry	1950	1808998
B	200m NW	Unspecified Old Quarry	1938	1801850
B	220m NW	Unspecified Quarry	1898	1762809

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

4

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 18 >](#)

ID	Location	Land Use	Date	Group ID
D	472m SE	Unspecified Tank	1983	292602
D	472m SE	Unspecified Tank	1996	292602
D	472m SE	Unspecified Tank	1966	292602
D	472m SE	Unspecified Tank	1977	292602

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

5

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 18 >](#)

ID	Location	Land Use	Date	Group ID
1	100m W	Electricity Substation	1985	170643
2	146m W	Electricity Substation	1985	170642
C	371m NE	Electricity Substation	1988	180450
C	371m NE	Electricity Substation	1988	180450



ID	Location	Land Use	Date	Group ID
C	372m NE	Electricity Substation	1994	180450

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

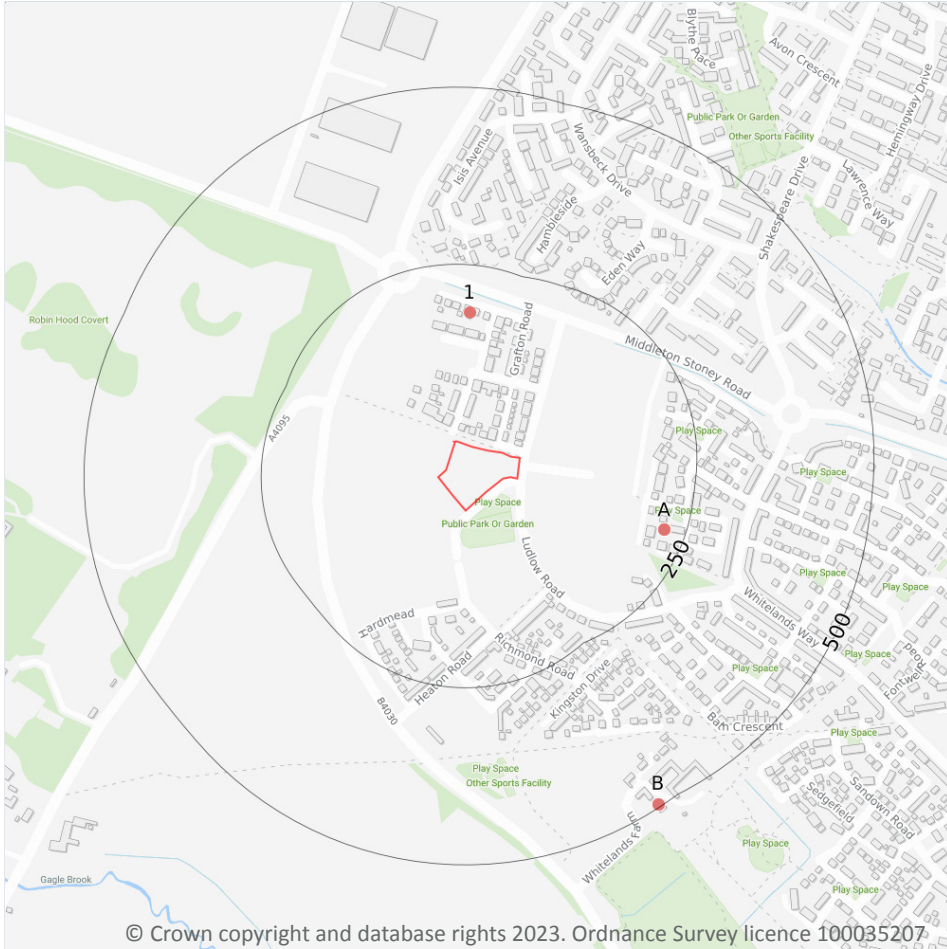
0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m

0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m

0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m

62

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on [page 21 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
1	182m N	-	WEX290670	Using waste exemption	Not on a farm	Use of waste in construction



ID	Location	Site	Reference	Category	Sub-Category	Description
A	220m E	-	WEX118066	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
A	220m E	-	WEX118066	Using waste exemption	On a farm	Use of waste in construction
A	220m E	-	WEX118066	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	220m E	-	WEX118066	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	220m E	-	WEX118066	Disposing of waste exemption	On a farm	Burning waste in the open
A	220m E	-	WEX118066	Treating waste exemption	On a farm	Cleaning, washing, spraying or coating relevant waste
A	220m E	-	WEX118066	Treating waste exemption	On a farm	Screening and blending of waste
A	220m E	-	WEX118066	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
A	220m E	-	WEX118066	Using waste exemption	On a farm	Use of waste for a specified purpose
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/GF0902V G/A001	Treating waste exemption	Agricultural Waste Only	Screening and blending of waste
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/GF0902V G/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/GF0902V G/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/GF0902V G/A001	Treating waste exemption	Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/GF0902V G/A001	Using waste exemption	Agricultural Waste Only	Use of waste in construction
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/GF0902V G/A001	Using waste exemption	Agricultural Waste Only	Spreading waste on agricultural land to confer benefit



ID	Location	Site	Reference	Category	Sub-Category	Description
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/GF0902V G/A001	Using waste exemption	Agricultural Waste Only	Spreading of plant matter to confer benefit
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/GF0902V G/A001	Using waste exemption	Agricultural Waste Only	Burning of waste as a fuel in a small appliance
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/GF0902V G/A001	Using waste exemption	Agricultural Waste Only	Use of waste for a specified purpose
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/CH0318D N/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/CH0318D N/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/CH0318D N/A001	Treating waste exemption	Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/CH0318D N/A001	Treating waste exemption	Agricultural Waste Only	Screening and blending of waste
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/CH0318D N/A001	Using waste exemption	Agricultural Waste Only	Use of waste in construction
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/CH0318D N/A001	Using waste exemption	Agricultural Waste Only	Spreading waste on agricultural land to confer benefit
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/CH0318D N/A001	Using waste exemption	Agricultural Waste Only	Spreading of plant matter to confer benefit
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/CH0318D N/A001	Using waste exemption	Agricultural Waste Only	Burning of waste as a fuel in a small appliance
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/CH0318D N/A001	Using waste exemption	Agricultural Waste Only	Use of waste for a specified purpose
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/HF0105M Z/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters



ID	Location	Site	Reference	Category	Sub-Category	Description
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/HF0105M Z/A001	Treating waste exemption	Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/HF0105M Z/A001	Treating waste exemption	Agricultural Waste Only	Screening and blending of waste
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/HF0105M Z/A001	Using waste exemption	Agricultural Waste Only	Use of waste in construction
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/HF0105M Z/A001	Using waste exemption	Agricultural Waste Only	Spreading waste on agricultural land to confer benefit
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/HF0105M Z/A001	Using waste exemption	Agricultural Waste Only	Spreading of plant matter to confer benefit
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/HF0105M Z/A001	Using waste exemption	Agricultural Waste Only	Burning of waste as a fuel in a small appliance
A	220m E	Police Station Howes Lane BICESTER Oxfordshire OX26 2ZA	EPR/HF0105M Z/A001	Using waste exemption	Agricultural Waste Only	Use of waste for a specified purpose
A	220m E	-	WEX259455	Disposing of waste exemption	On a farm	Burning waste in the open
A	220m E	-	WEX259455	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	220m E	-	WEX259455	Treating waste exemption	On a farm	Screening and blending of waste
A	220m E	-	WEX259455	Treating waste exemption	On a farm	Cleaning, washing, spraying or coating relevant waste
A	220m E	-	WEX259455	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
A	220m E	-	WEX259455	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	220m E	-	WEX259455	Using waste exemption	On a farm	Use of waste for a specified purpose
A	220m E	-	WEX259455	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance



ID	Location	Site	Reference	Category	Sub-Category	Description
A	220m E	-	WEX259455	Using waste exemption	On a farm	Use of waste in construction
B	495m SE	Whitelands Farm BICESTER Oxfordshire OX26 1RS	EPR/WF0609T U/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste in construction
B	496m SE	Whitelands Farm BICESTER Oxfordshire OX26 1RS	EPR/BE5082CP /A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
B	496m SE	Whitelands Farm, Chesterton, Bicester, OX26 1RS	WEX058297	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
B	496m SE	Whitelands Farm, Chesterton, Bicester, OX26 1RS	WEX058297	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
B	496m SE	Whitelands Farm, Chesterton, Bicester, OX26 1RS	WEX058297	Disposing of waste exemption	On a farm	Burning waste in the open
B	496m SE	Whitelands Farm, Chesterton, Bicester, OX26 1RS	WEX058297	Storing waste exemption	On a farm	Storage of waste in secure containers
B	496m SE	Whitelands Farm, Chesterton, Bicester, OX26 1RS	WEX058297	Storing waste exemption	On a farm	Storage of waste in a secure place
B	496m SE	Whitelands Farm, Chesterton, Bicester, OX26 1RS	WEX058297	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	496m SE	Whitelands Farm, Chesterton, Bicester, OX26 1RS	WEX058297	Using waste exemption	On a farm	Use of waste in construction
B	496m SE	Whitelands Farm, Chesterton, Bicester, OX26 1RS	WEX058297	Using waste exemption	On a farm	Use of waste for a specified purpose
B	496m SE	Whitelands Farm BICESTER Oxfordshire OX26 1RS	EPR/BE5082CP /A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
B	496m SE	Whitelands Farm BICESTER Oxfordshire OX26 1RS	EPR/BE5082CP /A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice



ID	Location	Site	Reference	Category	Sub-Category	Description
B	496m SE	Whitelands Farm BICESTER Oxfordshire OX26 1RS	EPR/BE5082CP /A001	Storing waste exemption	Agricultural Waste Only	Storage of waste in secure containers
B	496m SE	Whitelands Farm BICESTER Oxfordshire OX26 1RS	EPR/BE5082CP /A001	Storing waste exemption	Agricultural Waste Only	Storage of waste in a secure place
B	496m SE	Whitelands Farm BICESTER Oxfordshire OX26 1RS	EPR/BE5082CP /A001	Treating waste exemption	Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	496m SE	Whitelands Farm BICESTER Oxfordshire OX26 1RS	EPR/BE5082CP /A001	Using waste exemption	Agricultural Waste Only	Use of waste in construction
B	496m SE	Whitelands Farm BICESTER Oxfordshire OX26 1RS	EPR/BE5082CP /A001	Using waste exemption	Agricultural Waste Only	Use of waste for a specified purpose

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



— Site Outline

Search buffers in metres (m)

● Recent industrial land uses

4.1 Recent industrial land uses

Records within 250m

1

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 28](#) >

ID	Location	Company	Address	Activity	Category
1	84m NW	Electricity Sub Station	Oxfordshire, OX26	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m	0
---------------------	---

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0
---------------------	---

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0
---------------------	---

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0
---------------------	---

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0
---------------------	---

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.



4.12 Radioactive Substance Authorisations

Records within 500m 0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m 0

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m 0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m 0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m 0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

0

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m

0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m

0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m

0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



5 Hydrogeology - Superficial aquifer

5.1 Superficial aquifer

Records within 500m

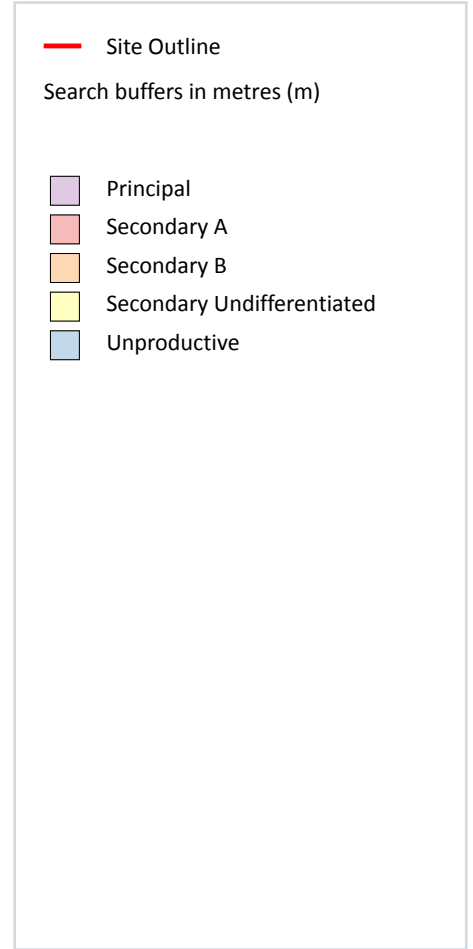
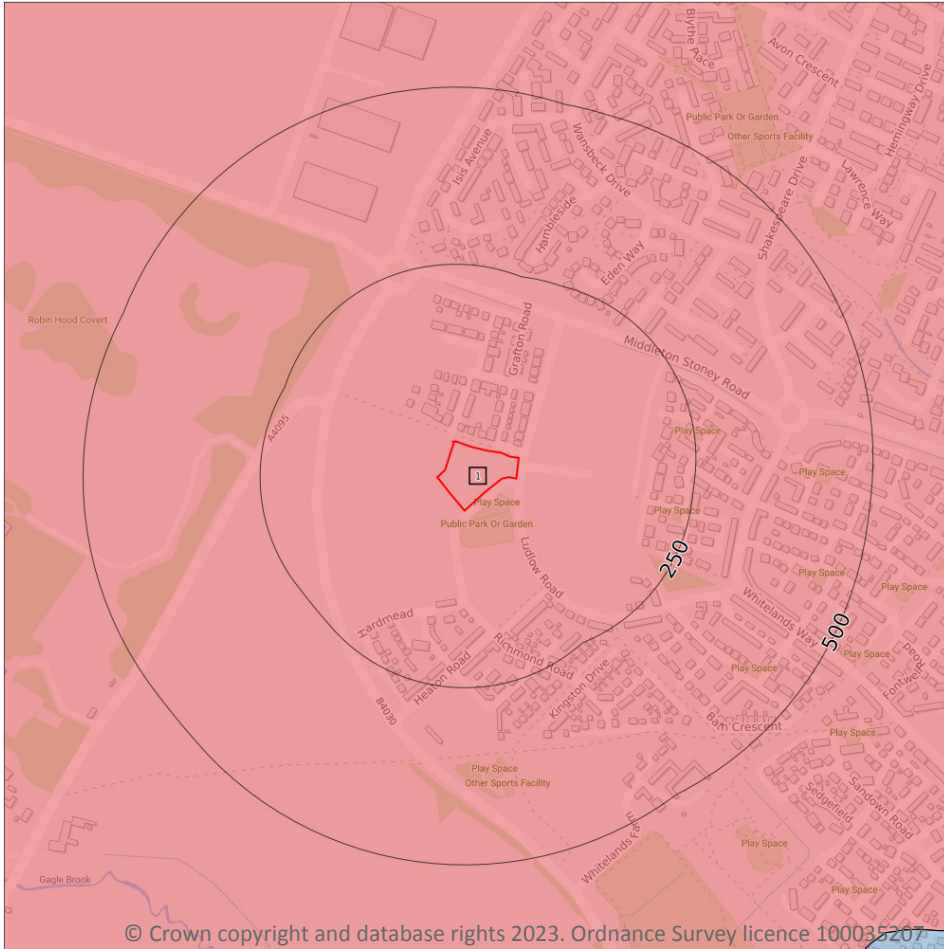
0

Aquifer status of groundwater held within superficial geology.

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m

1

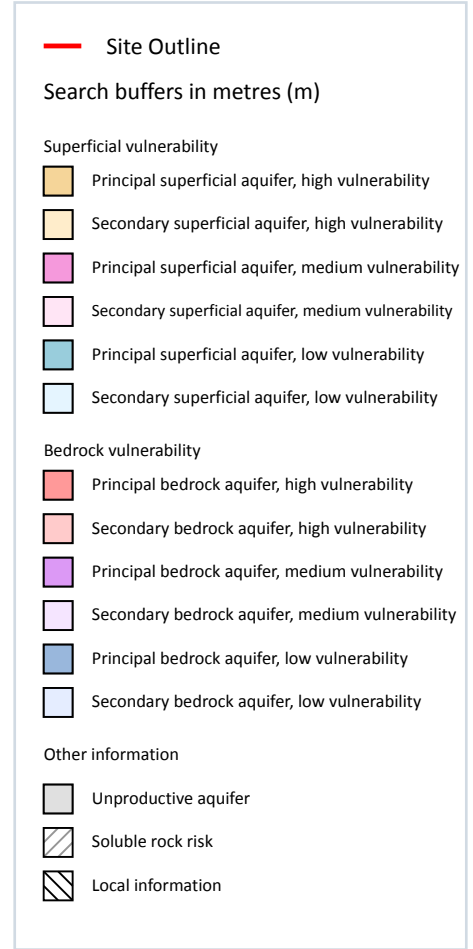
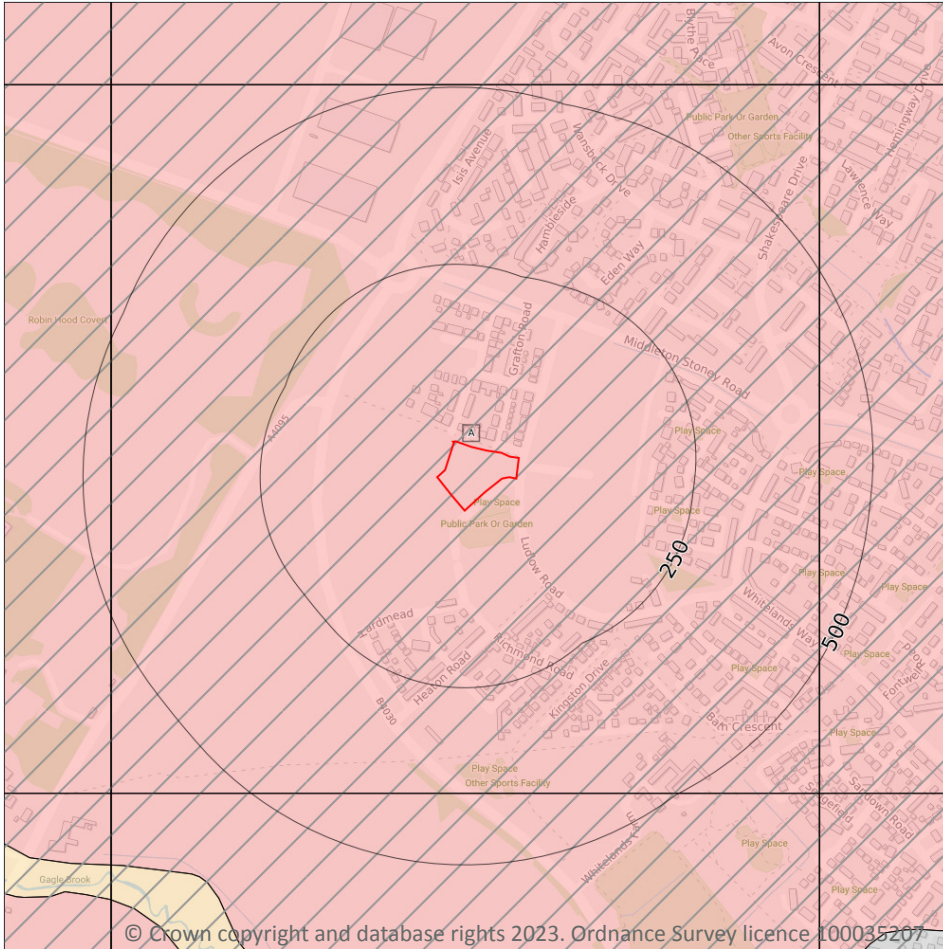
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 34](#) >

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on [page 35](#) >

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
A	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	1
------------------------	----------

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
A	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	97.0%

This data is sourced from the British Geological Survey and the Environment Agency.

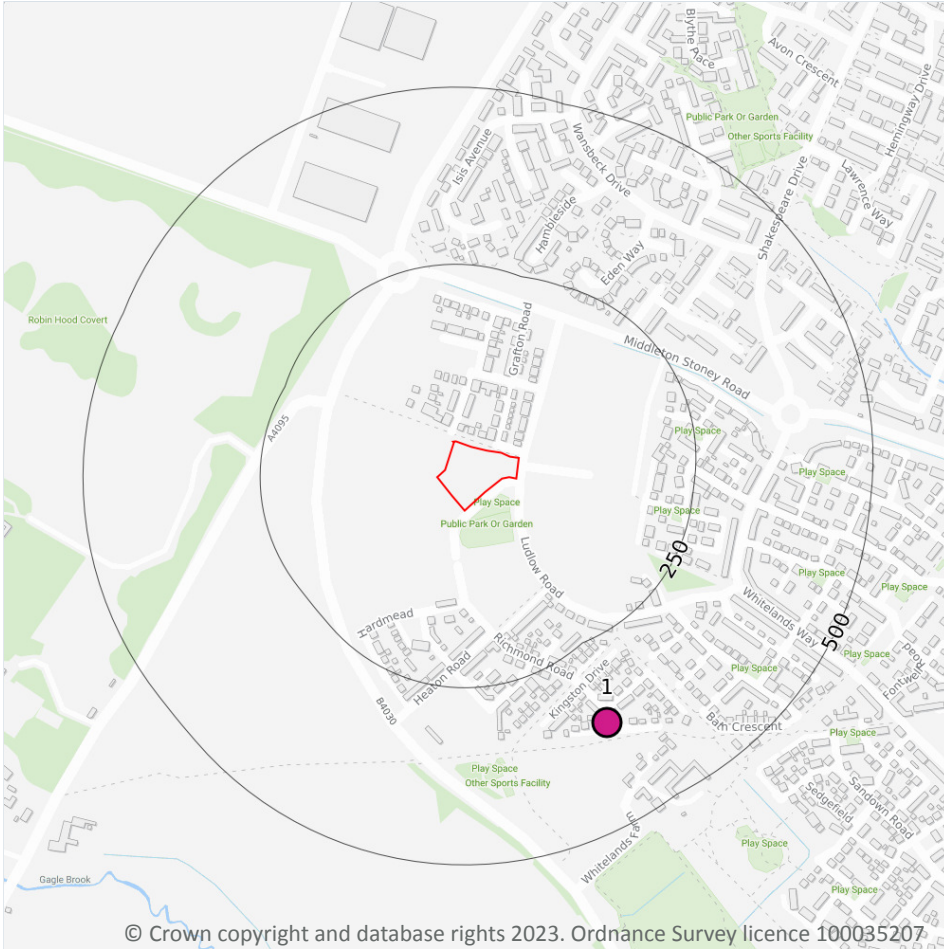
5.5 Groundwater vulnerability- local information

Records on site	0
------------------------	----------

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



5.6 Groundwater abstractions

Records within 2000m

8

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 37 >](#)

ID	Location	Details	
1	360m SE	Status: Historical Licence No: 28/39/14/0123 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: WHITELANDS, BICESTER (A) Data Type: Point Name: A D WOODLEY LTD Easting: 456700 Northing: 222100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -
-	1485m E	Status: Historical Licence No: 28/39/14/0349 Details: Pollution Remediation Direct Source: THAMES GROUNDWATER Point: PRINGLE DRIVE FILLING STATION BICESTER OXON Data Type: Point Name: ARCADIS GERAGHTY & MILLER INT INC. Easting: 457990 Northing: 222000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/09/2004 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 28/09/2004 Version End Date: -
-	1708m S	Status: Historical Licence No: 28/39/14/0300 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BICESTER TRAILER PARK, OXFORD ROAD, WENDLEBURY Data Type: Point Name: M & L ROSSITER Easting: 457100 Northing: 220800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 19/03/1987 Expiry Date: - Issue No: 100 Version Start Date: 19/03/1987 Version End Date: -
-	1835m SE	Status: Active Licence No: 28/39/14/0295 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: WENDLEBURY LANE, BICESTER (A) Data Type: Point Name: FACCENDA CHICKEN LTD Easting: 457400 Northing: 220800	Annual Volume (m ³): 16593 Max Daily Volume (m ³): 68.2 Original Application No: WRA/5248 Original Start Date: 08/07/1983 Expiry Date: - Issue No: 100 Version Start Date: 08/07/1983 Version End Date: -
-	1913m NE	Status: Historical Licence No: 28/39/14/0348 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: LORDS FARM - BOREHOLE Data Type: Point Name: W V MALINS & SON Easting: 457400 Northing: 224200	Annual Volume (m ³): 17520 Max Daily Volume (m ³): 48 Original Application No: - Original Start Date: 22/03/2004 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 01/04/2008 Version End Date: -



ID	Location	Details	
-	1930m S	Status: Historical Licence No: 28/39/14/0329 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: PROMISED LAND FARM, BICESTER (A) Data Type: Point Name: PROMISED LAND FARM Easting: 457200 Northing: 220600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/11/1994 Expiry Date: - Issue No: 100 Version Start Date: 16/11/1994 Version End Date: -
-	1950m NE	Status: Historical Licence No: 28/39/14/0348 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: LORDS FARM - BOREHOLE Data Type: Point Name: W V MALINS & SON Easting: 457441 Northing: 224221	Annual Volume (m ³): 17520 Max Daily Volume (m ³): 48 Original Application No: - Original Start Date: 22/03/2004 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 01/04/2008 Version End Date: -
-	1950m NE	Status: Active Licence No: 28/39/14/0348/R01 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: LORDS FARM - BOREHOLE Data Type: Point Name: W V MALINS & SON Easting: 457441 Northing: 224221	Annual Volume (m ³): 17520 Max Daily Volume (m ³): 48 Original Application No: NPS WR/024301 Original Start Date: 01/04/2018 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/04/2018 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m

0

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.



5.8 Potable abstractions

Records within 2000m

1

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 37 >](#)

ID	Location	Details	
-	1708m S	Status: Historical Licence No: 28/39/14/0300 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BICESTER TRAILER PARK, OXFORD ROAD, WENDLEBURY Data Type: Point Name: M & L ROSSITER Easting: 457100 Northing: 220800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 19/03/1987 Expiry Date: - Issue No: 100 Version Start Date: 19/03/1987 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m

0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

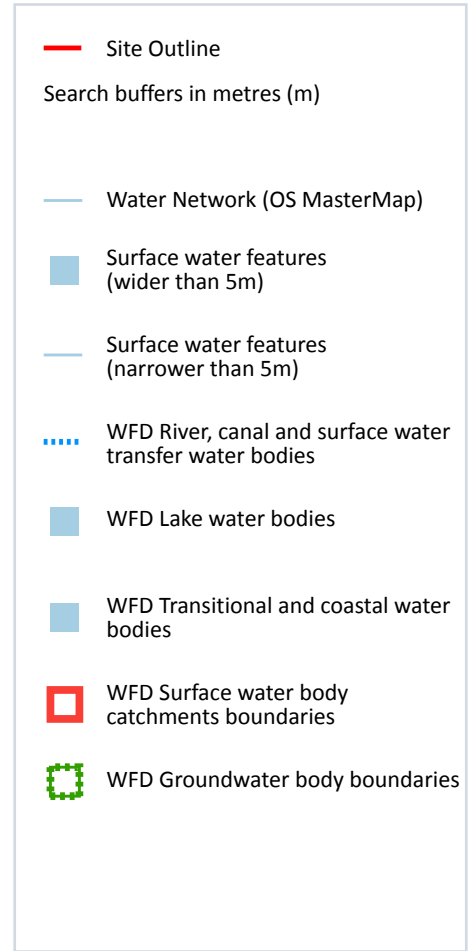
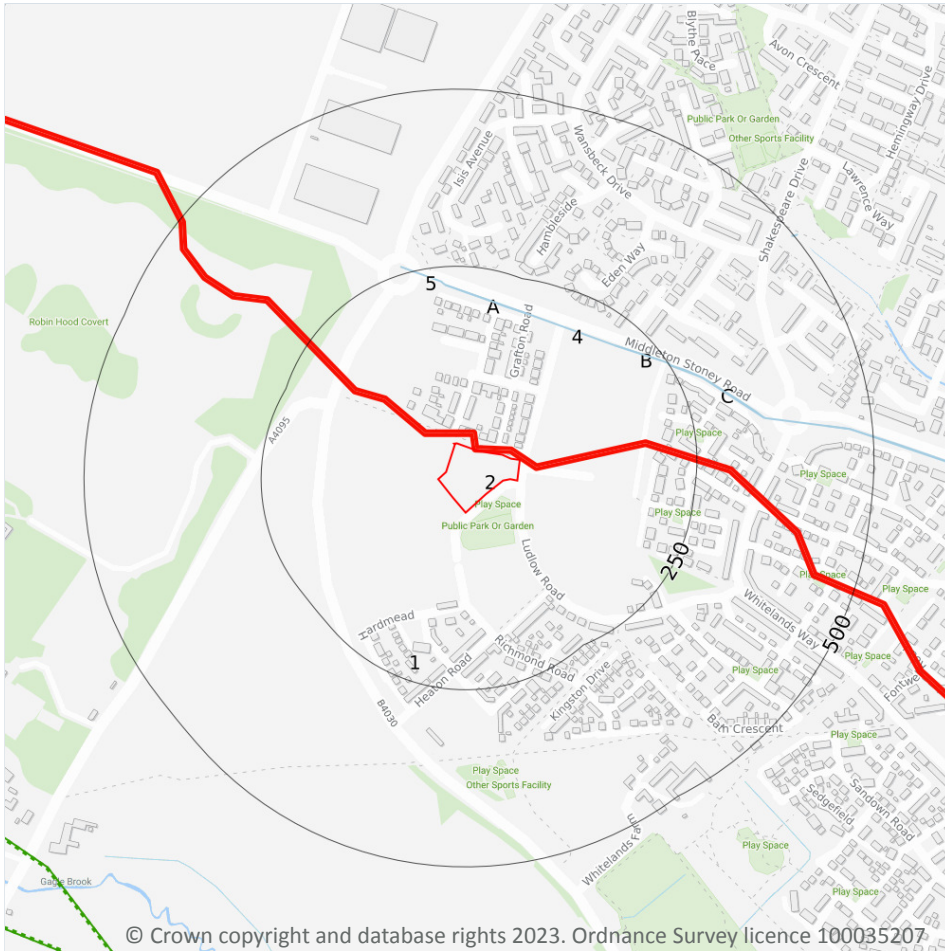
Records within 500m

0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m

6

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on [page 41](#) >

ID	Location	Type of water feature	Ground level	Permanence	Name
4	197m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
A	202m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	210m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	224m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	243m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	249m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

3

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on [page 41 >](#)

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on [page 41 >](#)



ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Langford Brook (Bicester to Ray inc Gagle Brook)	GB106039030140	Oxon Ray	Cherwell and Ray

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1
---------------------------	----------

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on [page 41 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1767m SE	River	Langford Brook (Bicester to Ray inc Gagle Brook)	GB106039030140 ↗	Poor	Fail	Poor	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1
------------------------	----------

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on [page 41 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Bicester-Otmoor Cornbrash	GB40602G600800 ↗	Poor	Poor	Good	2019

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m

0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m

0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Negligible

Highest risk within 50m

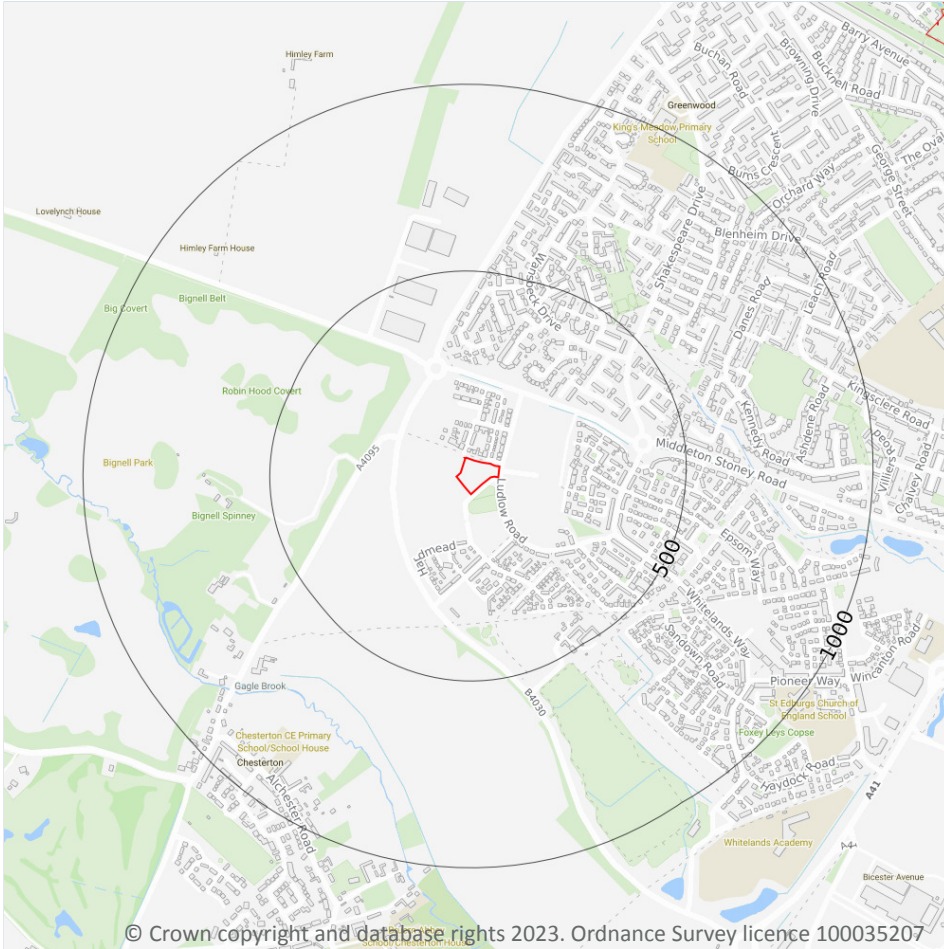
Negligible

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on [page 48](#) >

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m

0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m

0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.6 Local Nature Reserves (LNR)

Records within 2000m

1

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

Features are displayed on the Environmental designations map on [page 49 >](#)

ID	Location	Name	Data source
1	1581m NE	Bure Park	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.



10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.



10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

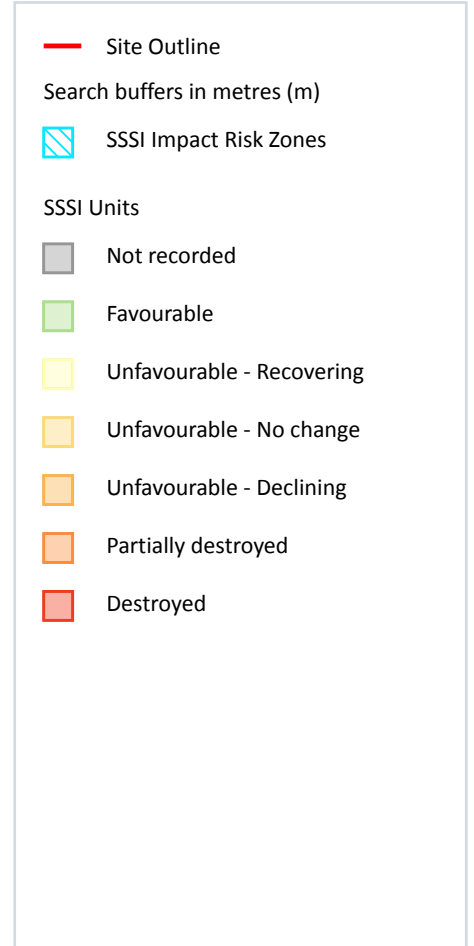
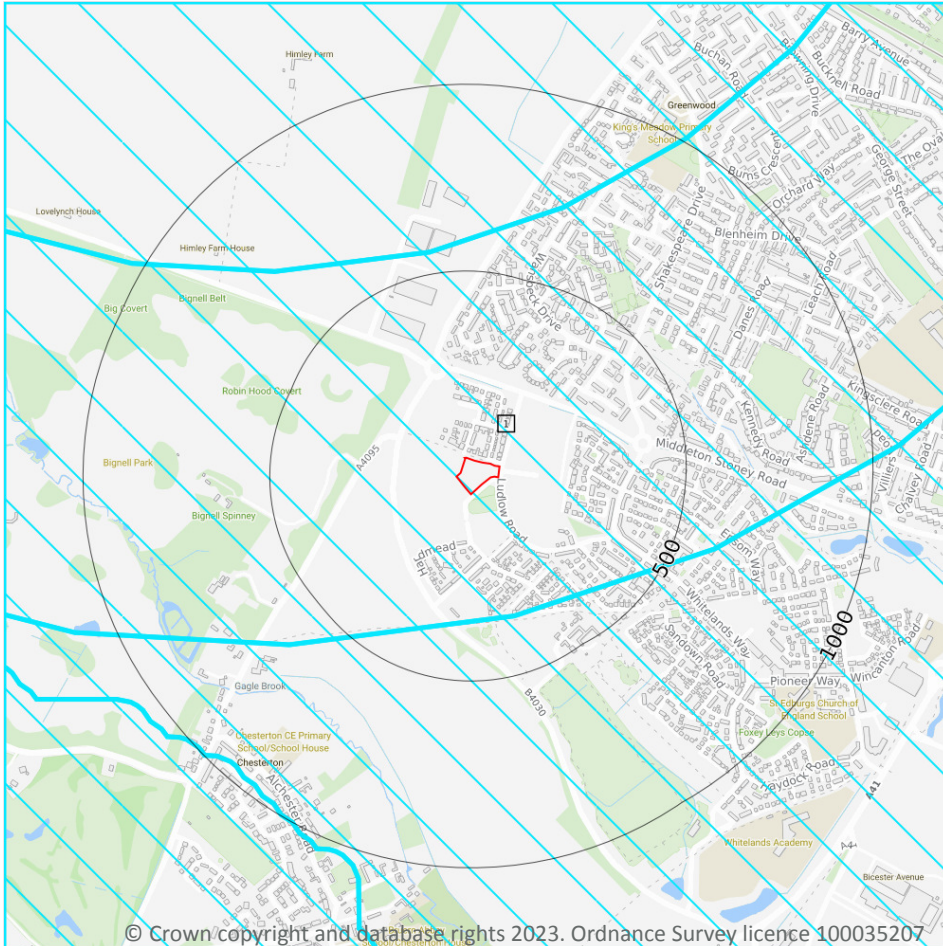
2

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	Cherwell (Ray to Thames) and Woodeaton Brook NVZ	Surface Water	472	Existing
300m N	Bicester North	Groundwater	162	Existing

This data is sourced from Natural England and Natural Resources Wales.

SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on [page 54](#) >

ID	Location	Type of developments requiring consultation
1	On site	<p>Infrastructure - Airports, helipads and other aviation proposals.</p> <p>Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.</p> <p>Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t.</p>

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.



11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.



This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

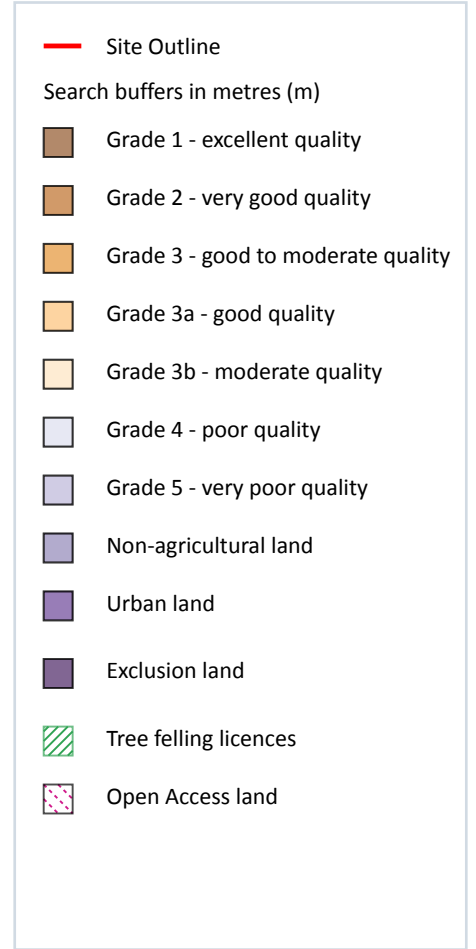
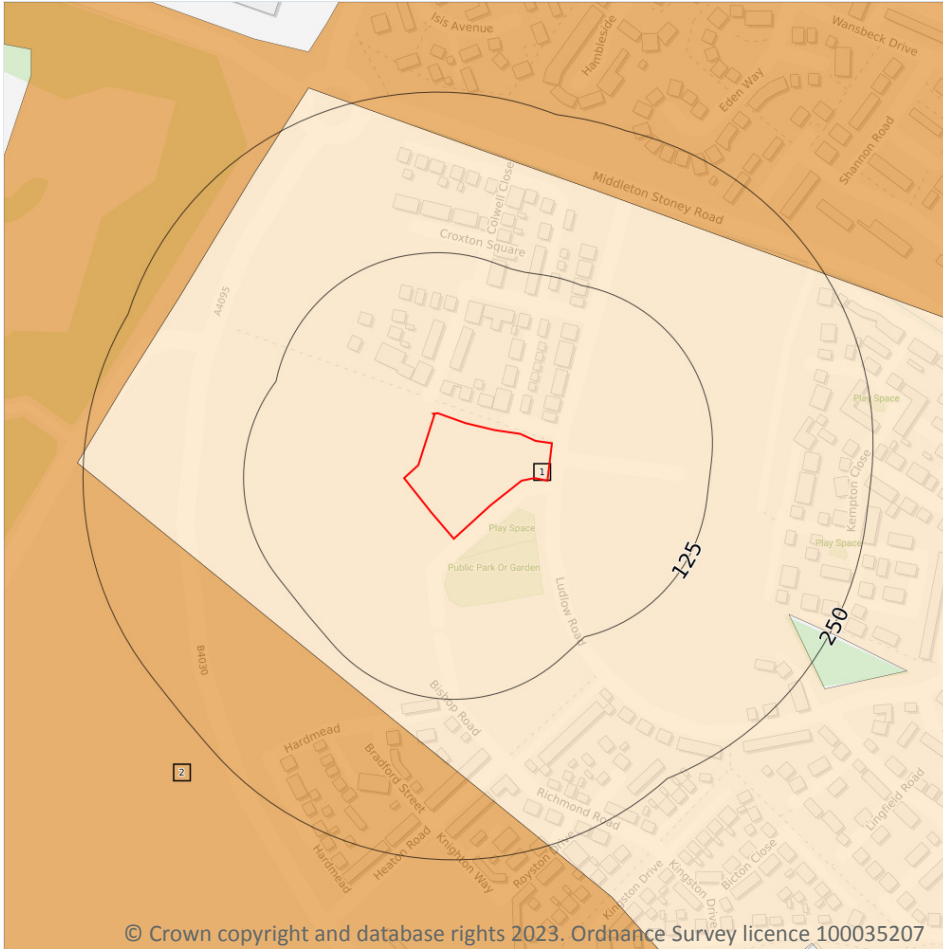
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.



12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m

2

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on [page 58 >](#)

ID	Location	Classification	Description
1	On site	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

ID	Location	Classification	Description
2	139m SW	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

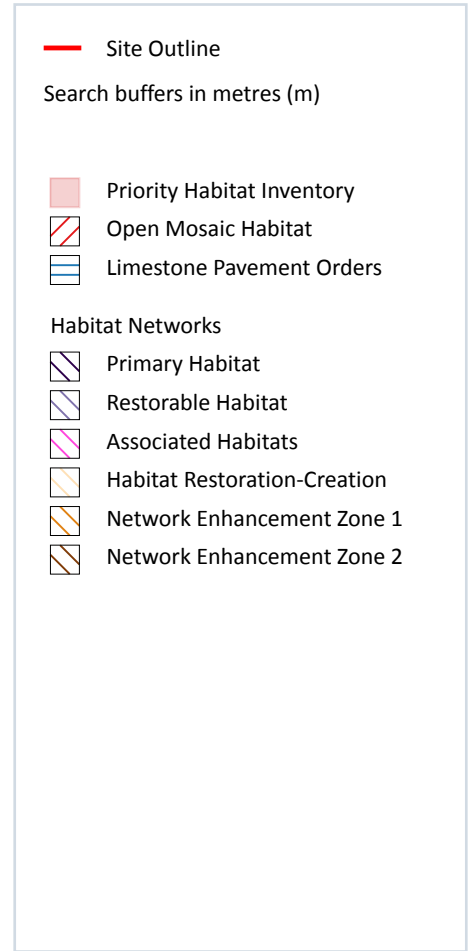
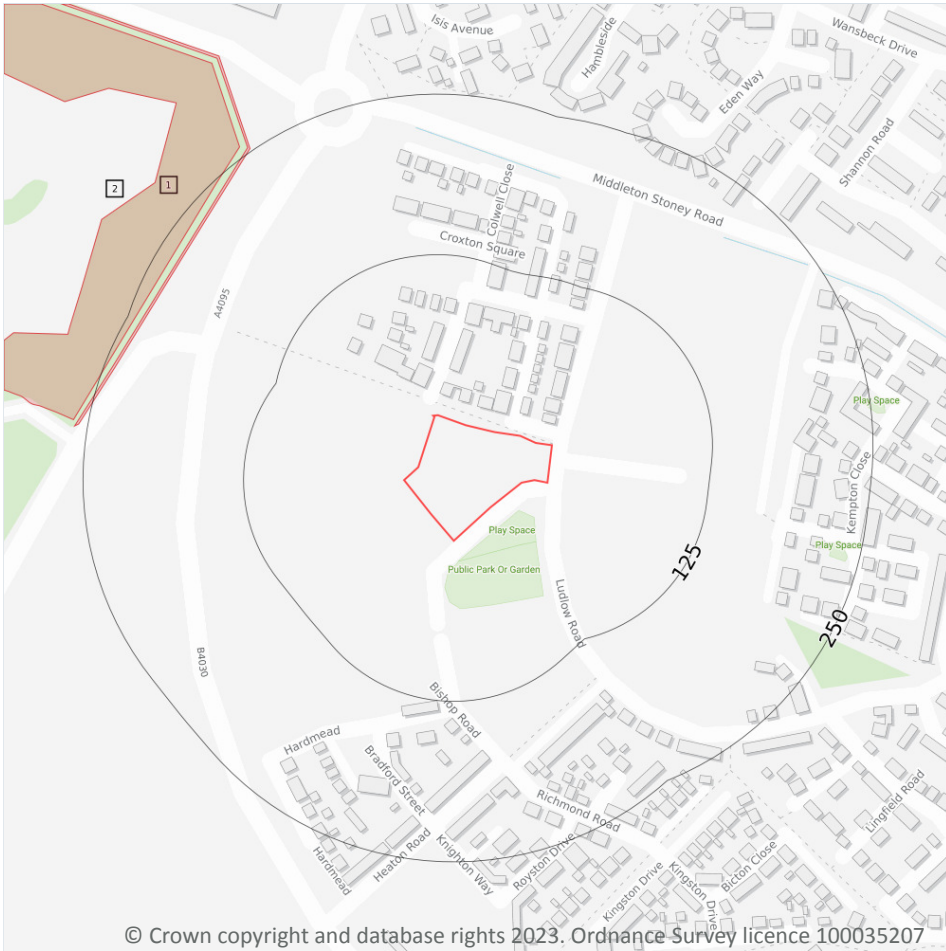
0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.



13 Habitat designations



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13.1 Priority Habitat Inventory

Records within 250m

2

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on [page 60 >](#)

ID	Location	Main Habitat	Other habitats
1	231m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	238m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

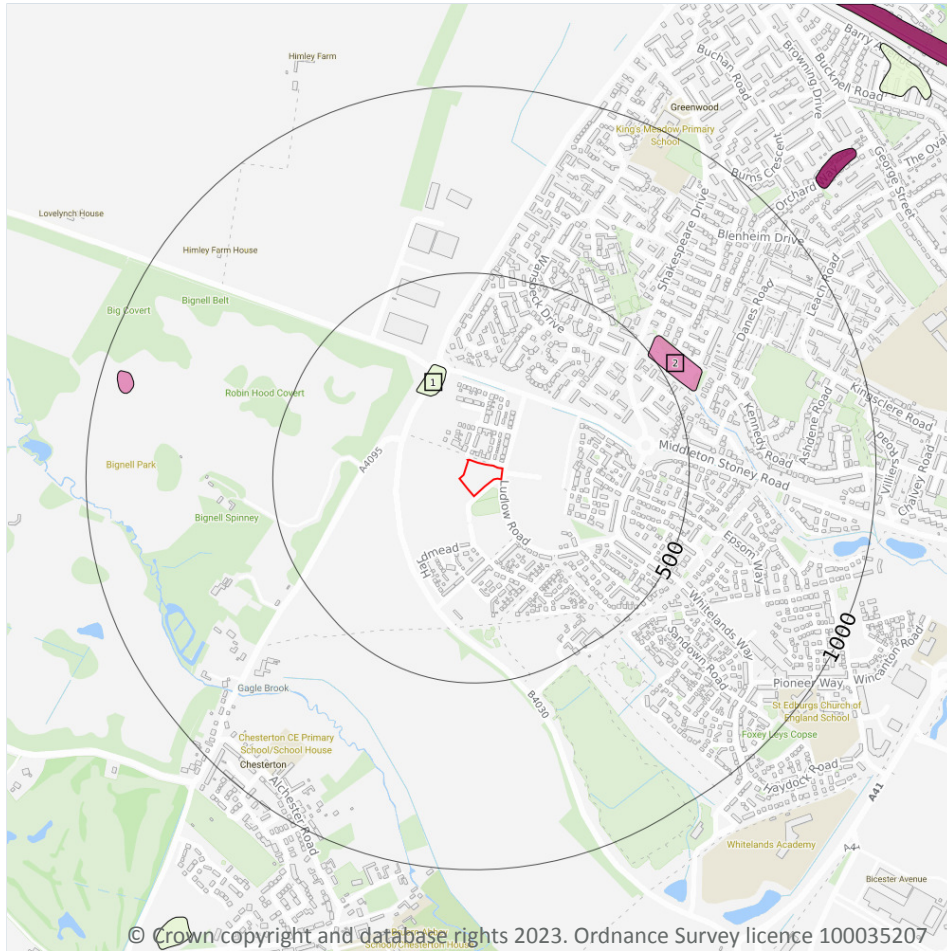
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 62](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SP52SE

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



14.2 Artificial and made ground (10k)

Records within 500m

2

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 63](#) >

ID	Location	LEX Code	Description	Rock description
1	195m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
2	493m NE	WGR-VOID	Worked Ground (Undivided)	Void

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

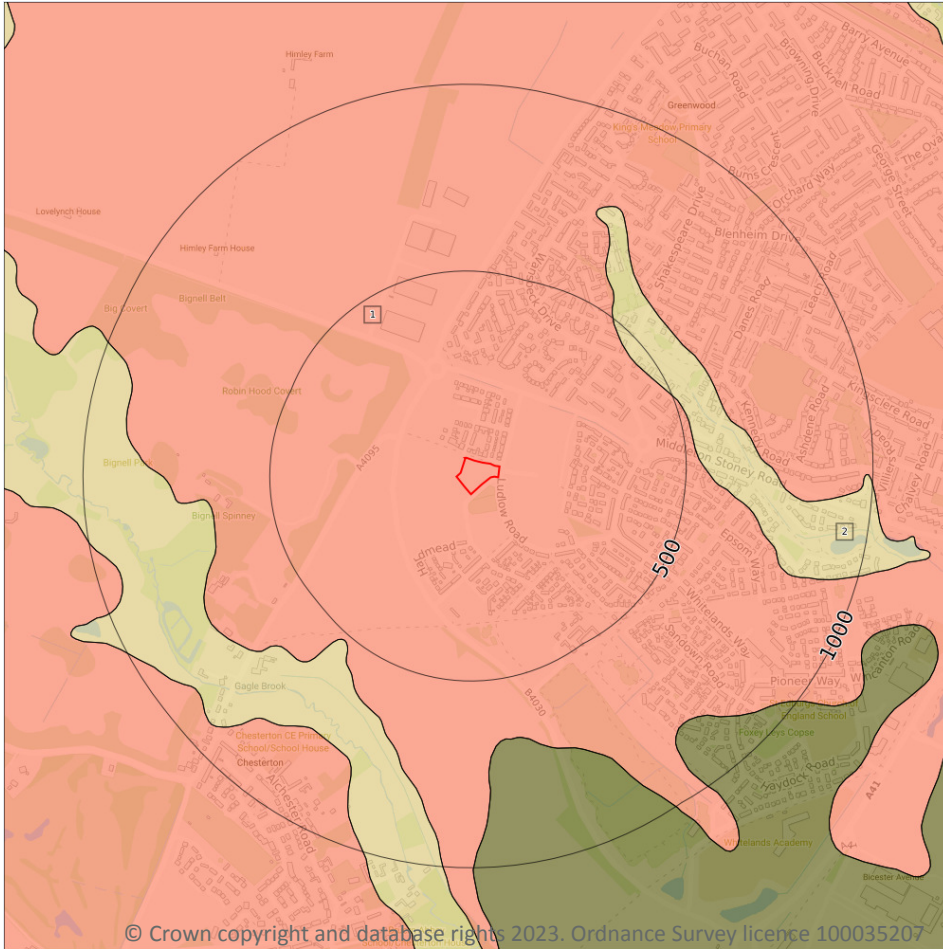
0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (10k)
- Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

2

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 65](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	CB-LMST	Cornbrash Formation - Limestone	Callovian Age - Bathonian Age
2	456m NE	FMB-LSMD	Forest Marble Formation - Interbedded Limestone And Mudstone	Bathonian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

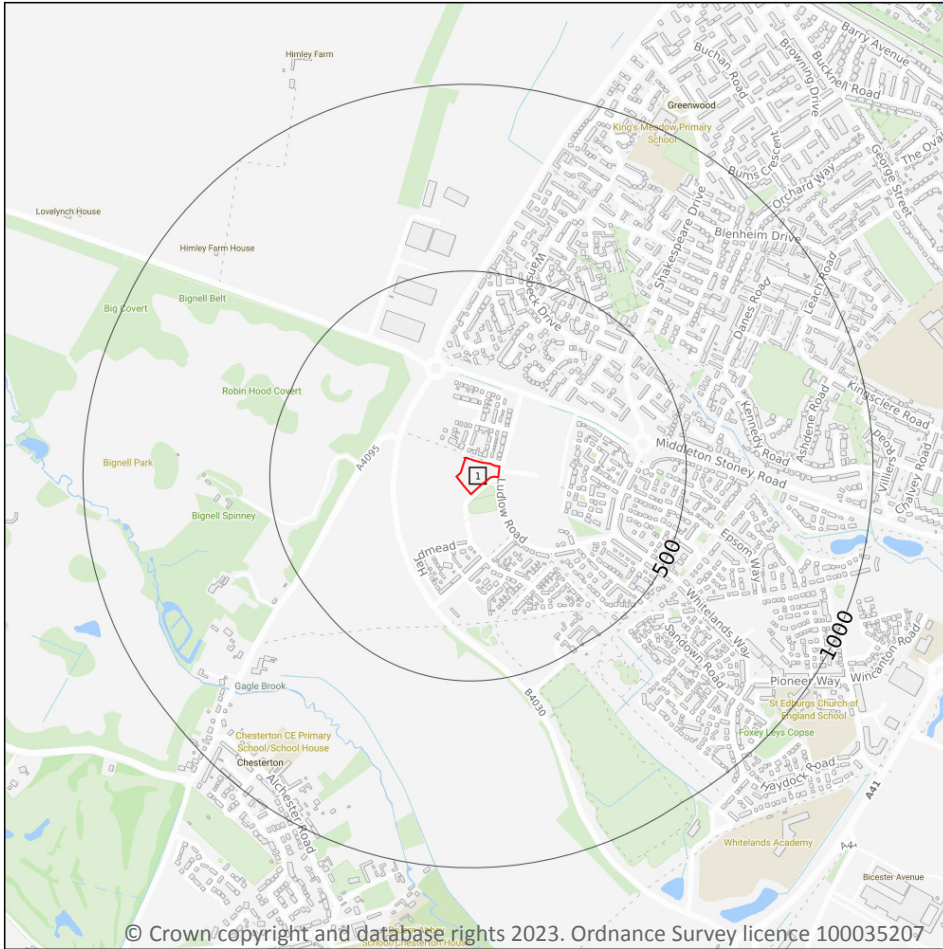
0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

○ 500

○ 1000

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on [page 67 >](#)

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW219_buckingham_v4

This data is sourced from the British Geological Survey.

