

OFFICIAL SENSITIVE

Project Nettlefire, Site MOD015



Preliminary Geo-environmental and Geotechnical Assessment

Home Office

May 2026

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Acronyms/Abbreviations

Acronyms/Abbreviations	Definition
BGS	British Geological Survey
Bld.	Building
CW	Chemical Weapons
DIO	Defence Infrastructure Organisation
DTE	Defence Training Estate
EA	Environment Agency
ESA	Explosive Storage Area
FFO	Furnace Fuel Oil
LCRM	Land Contamination Risk Management
LPG	Liquified Petroleum Gas
mAOD	metres Above Ordnance Datum
MOD	Ministry of Defence
MT	Motor Transport
MU	Maintenance Unit
NAAFI	Navy, Army and Air Force Institutes
OS	Ordnance Survey
RAF	Royal Air Force
SAC	Special Area of Conservation
SPA	Special Protection Area

SSSI	Sites of Special Scientific Interest
UXO	Unexploded Ordnance

1.0 Introduction

1.1 Instruction and Brief

[REDACTED] was commissioned by the Home Office (the Client) to undertake a Geo-Environmental and Geotechnical Desk Study for a proposed development at site MOD015, Bicester (Site A).

The report has been prepared in general accordance and with reference to Environment Agency (EA) Land Contamination Risk Management (LCRM, 2025). The conceptual site model (CSM) and ground contamination risk assessment has been undertaken in accordance with CIRIA 552 (CIRIA, 2001). The geotechnical risk assessment has been undertaken in general accordance with CD622 Managing Geotechnical Risk Version 2.0.0 (National Highways, 2025).

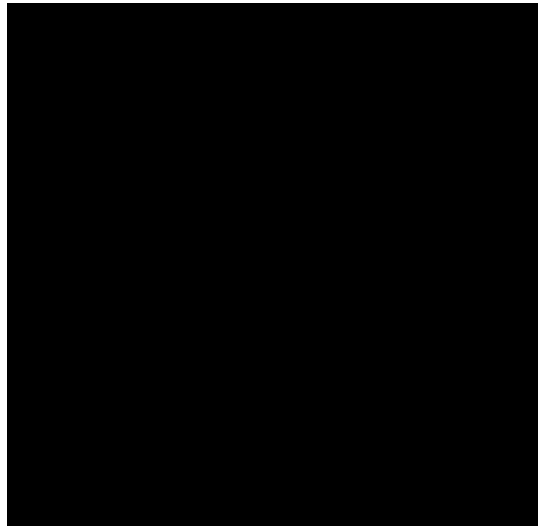
1.2 Proposed Development

The Home Office Asylum Accommodation Programme (AAP) is progressing a priority initiative established to rapidly mobilise and de-risk a pipeline of complex sites through early-stage feasibility, assurance and technical readiness activity. Initial investigation identified multiple Government-owned land sites potentially suitable to operationalise as asylum accommodation, using modern methods of construction/modular accommodation to house asylum seekers. Some sites have existing buildings with the potential to remediate for use as accommodation and others are more suitable for demolition and full use of modular accommodation. Following initial feasibility assessments, 4 sites were deemed as having higher delivery confidence for progression – MOD006, MOD008, MOD015 and MOD016. These sites have been non-operational for a number of years and are currently vacant.

1.3 Site Location

The site is located in Oxfordshire approximately 7km to the southeast of Bicester on the B4001 close to the village of Piddington. The site comprises four areas plus an area which is not under consideration for future use due to health and safety concerns. [REDACTED] understand that Area 1 in the northwest corner of the site is the preferred location for the

identified use. Figure 1 shows the site location and the image below illustrates the sub-divided areas.



The site is part of a former Defence Storage and Distribution Centre and was used for the storage and release of stores surplus to military use. [REDACTED]

[REDACTED]

The National Grid reference of the approximate centre of the site is SP629 177.

1.4 Limitations

The recommendations and opinions expressed in this report are based on information obtained as part of the desk study or provided by others. Information provided from other sources is taken in good faith its accuracy cannot be guaranteed.

The information contained in this report is intended for the use of the Client only and there is no responsibility for the use of this information by any third party or for uses other than that described in this report or detailed within the terms of our engagement.

This report is subject to the report conditions presented in Appendix A.

1.5 Sources of Information Consulted

This Geo-Environmental and Geotechnical Desk Study for the scheme is based on information provided in the following sources of information:

- Groundsure Enviro+Geo Insight Report 02/04/2026 (Groundsure, 2026)
- British Geological Survey – Onshore GeoIndex (BGS, 2026)

- Multi Agency Geographic Information for the Countryside (DEFRA, 2026)
- WYG Defence Estate Optimisation Programme Phase 1 Land Quality Assessment (LQA) Bicester Garrison. (WYG, 2018)

2.0 Site Information

2.1 Site Summary

A site summary has been produced following a review of the Google Earth Imagery and a site walkover conducted in March 2026. A summary of the key site features is presented in **Error! Not a valid bookmark self-reference..** Photo plates of the site walkover are presented in Appendix B.

Table 2-1: Site Walkover Summary

Feature	Description
Site Usage	
Boundaries	Land to the north, east and south comprises largely agricultural land. Widnell Lane is located along the southern boundary of the site, running long the boundary from the southwest corner to a point midway along the southern boundary. HMP Bullingdon is located approximately 300m to the southwest of the site entrance. The B4011 is located to the west of the site with further warehouse buildings and disused railway lines which connect to A site beyond. Land to the northwest is identified as the Launton FC -Bicester Garrison Sports Ground with agricultural land beyond. The site boundary is formed by a concrete post and chain link / barbed wire fence.
Access	

Topography	The site is largely flat with a gentle decrease in elevation from circa 70m Above Ordnance Datum (m AOD) in the south of the site to circa 65m AOD in towards the north of the site.
Ground Cover and Vegetation	Ground cover comprises a mix of access tracks, railway tracks, areas of hardstanding, grassland and dense scrub. [REDACTED] The hardstanding is of variable quality, especially areas of concrete which includes large areas of cracked and broken slabs. Gulleys and Acco type drains are present across the area with broken and degraded concrete around these specific locations.
On-site Structures	[REDACTED]
Tanks	No fuel storage tanks were identified on the site. [REDACTED]
Utilities	Utilities supplying the site have not been confirmed however the site is understood be served by a water main [REDACTED] [REDACTED]

Evidence of ACMs or Contamination	No asbestos register has been provided. No observation of asbestos containing materials (ACM) was noted [REDACTED] however it is considered that ACM could be present within buildings. Cement corrugated sheet roofing was observed on the large warehouse buildings in Areas, which may contain asbestos was observed on a number of buildings [REDACTED]
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2.2 Site History

Table 2-2 below provides a summary of the site's history following a review of available mapping from the Groundsure Enviro+Map Insight Report (historical OS mapping), and National Library of Scotland coverage dating back to 1881, in addition to available historical aerial imagery for the site.

Table 2-2 Summary of Site History

Map Date (Scale)	Key Features Onsite	Key Features Offsite
1877 - 1880 (1:10,560, 1:2,500)	The site comprises agricultural fields. A linear feature (subsequently annotated as a footpath) crosses the site from the western boundary to the northern boundary (crossing Area 1) and subsequently diagonally across the north eastern part of the site (crossing an the area discounted for use).	A road (subsequently annotated as B4011) is shown on the western boundary of the site. Buildings annotated as Widnell Barn are located on the southern boundary of the site. A road (subsequently annotated as Widnell Lane is located along the southern boundary of the site. Rookery Farm is located circa 250m from the eastern site boundary. The village of Piddington is located circa 350m to the southeast of the site.
1898, 1899 - 1905 (1:10,560, 1:2,500)	No significant change	No significant change.

1900 - 1922 (1:10,560, 1:2,500)	No significant change	No significant change.
1919 (1:10,560)	No significant change	No significant change.
1926 (1:10,560)	No significant change	No significant change.
1938 (1:10,560)	No significant change	No significant change.
1958 (1:10,560)	No significant change	Multiple buildings and associated tracks are shown to the west and southwest of the site immediately beyond the road. Multiple buildings of the same shape and associate tracks are shown immediately to the south of the site boundary – extending to a distance of circa 700m form the site boundary
1978, 1979 (1,2500)	Large buildings (existing warehouses), Nissen huts and railway lines are shown which depict the current site layout. Electricity pylons shown on the site in current configuration.	Widnell Barn on the southern site boundary is no longer present. Railway lines extend from the site over a Level Crossing to the buildings located to the west and south west of the site. A football ground is shown 150m from the southern boundary. The area where buildings of the same shape were located is now annotated as Camp Site (disused). Land to the west of the site (northern area) is shown as Sports Ground.
1982 (1:10,000)	The site is shown in its current configuration and is annotated as a Depot	The buildings to the west of the site are annotated as a Depot.

1982 (1:10,000)	No significant change.	H M Prison is shown circa 250m to the southwest of the site.
1991 – 1994 (1:2,500)	No significant change.	No significant change.
2001 (1:10,000)	No significant change.	No significant change.
2010, 2015 (1:10,000)	No significant change.	No significant change with exception of a pond shown to the southwest of the site.
2025 (1:10,000)	No significant change.	No significant change. Camp site to south is now annotated as Cowpastures Farm.

For further site history information, the full OS historical mapping records should be referred to as part of the Groundsure Report which is presented in Appendix D.

3.0 Ground Conditions

3.1 Geology

Table 3-1 summarises the anticipated geology underlying the site following review of available data obtained from the available BGS mapping.

Table 3-1 Anticipated Geology

Geology/ Feature	Description	Aquifer Classification	Aquifer Vulnerability
Made Ground	Artificial or Made Ground is not shown on published mapping. Made Ground associated with previous developments across the site is considered likely to be present.	N/A	N/A
Superficial Deposits	Alluvium -Clay, Sand and Gravel is shown to be present across the northern half of the site. Superficial deposits are shown to be absent across the southern area.	Secondary A aquifer	Medium
Bedrock	Bedrock beneath the site comprises two lithographic units from the Oxford Clay Formation (Jurassic);the Peterborough Member (organic rich mudstones) an the Stewartby Member (calcareous block mudstone) which sits concordantly above the Peterborough Member.	Unproductive	Unproductive

Linear Features	No linear features are shown on BGS 1:50,000 mapping on the site. There are two inferred faults located 250m and 420m to the southwest of the site.		
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3.2 Hydrology, Flooding and Hydrogeology

There are a number of ditches both at surface and below ground on the site mainly within Area 1 which appear to drain to the north.

The nearest named surface water feature to the site is the River Ray located circa 500m to the northwest of the site. The river flows in a general south-westerly direction

The site is within the Oxon Ray waterbody catchment which has an overall rating of Bad (2019).

As detailed above in Table 3-1, the northern part of the site is underlain by Alluvium deposits that are a Secondary A aquifer of Medium vulnerability. The bedrock geology is designated as a Unproductive.

Groundwater beneath the site is not part a groundwater body. Based on the surface water features and anticipated geology, the following controlled waters receptors have been identified:

- River Ray.
- Superficial aquifer.

The site is not within a Source Protection. There are no groundwater or surface water abstractions recorded within 1km of the site boundary.

A small area in the norther portion of the site, within Area 1 is designated as being within Flood zone 3 (covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers).

The highest risk of surface water flooding on the site is 1 in 30 year with the high risk zones located in the area of drainage channels across the site.

The northern area of the site (underlain by superficial deposits) are classified as being at a Low risk of flooding caused by unusually high groundwater levels.

3.3 Historical BGS Borehole Logs

Two borehole records recorded to the south of the site on-site circa 300m to the south of the site. All relevant excavation records are summarised below in

Table 3-2.

Table 3-2 Summary of BGS Records

BGS Borehole ID	Distance from Site	Ground conditions
SP 61 NW/ 3a-e - 1983	300m to south	Fill – soil shale, concrete to 0.6m. Firm dark brown silty Clay with roots to 1.1m. Stiff weathered yellow-brown, mottled grey, silty Clay with some gypsum crystals and occasional roots to 5.3m. Very stiff slightly weathered fissured dark grey slightly silty Clay to end of borehole at 10m. Groundwater was encountered at 5.5m water level rose to 0.2m in 20 minutes.
SP 61 NW/ B - 1983	300m south	Fill (black, sandy, gravelly ash to 1m. Firm to stiff weathered, light brown-grey slightly silty Clay with some gypsum crystals to 5m. Very stiff to hard weathered fissured, friable grey Clay with shell fragments to end of borehole at 13m. Groundwater was encountered at 1.5m very slight seepage, groundwater encountered again 12.5m water level rose to 3m.

3.4 Previous Reports

One previous report is available for review which in turn references other reports. The report covers a number of sites including Depot [REDACTED]

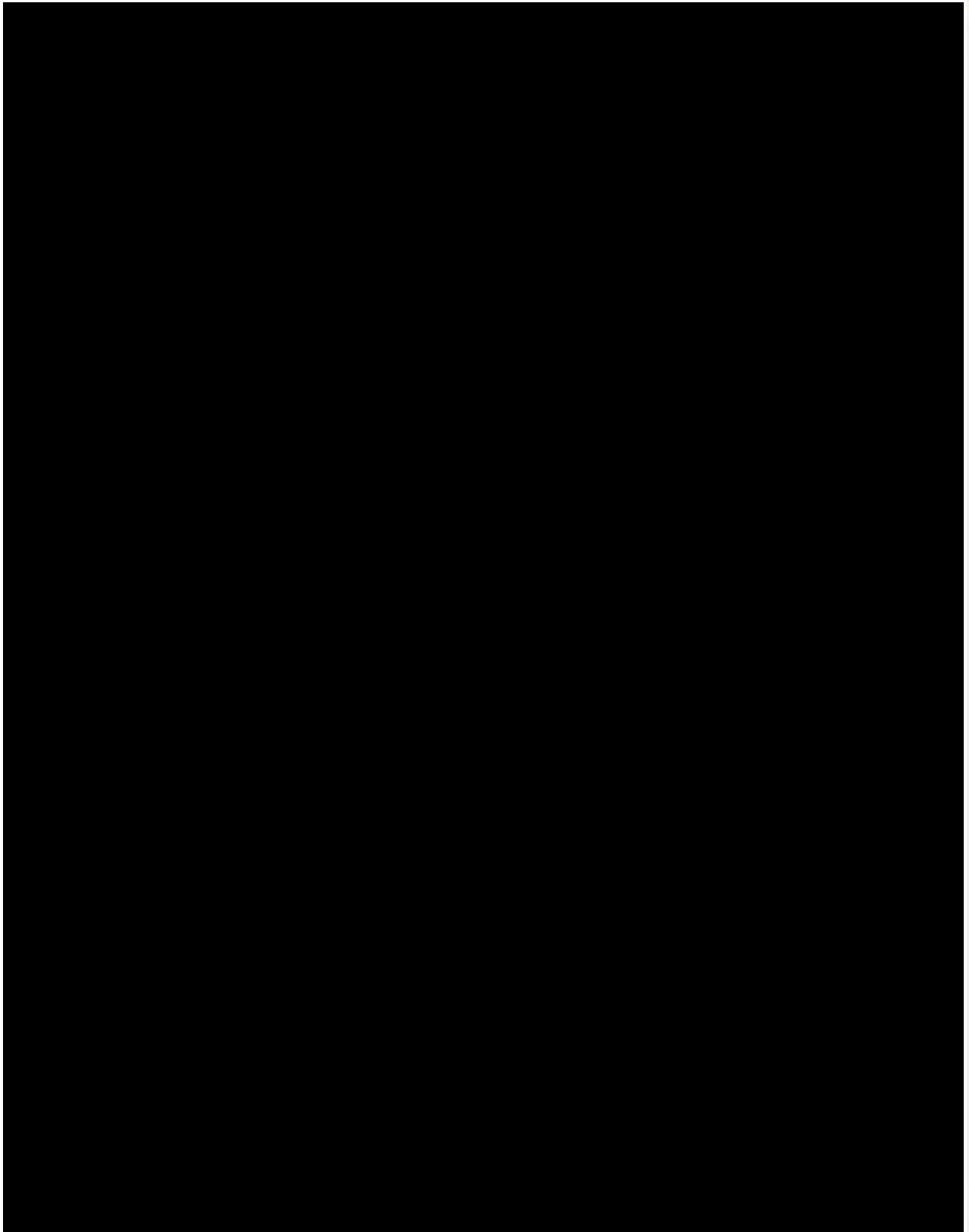
[REDACTED]

Table 3-3 provides a summary of the key points relating to Site A.

Table 3-3 Previous Reports Summary

WYG Defence Estates Optimisation Programme Phase 1 Land Quality Assessment (LQA) Bicester Garrison PSPFW/060/15 Defence Infrastructure Organisation June 2018

[REDACTED]



3.5 Coal Mining Risk

The site is not located within a Coal Mining Reporting Area, coal mining will not be considered further in this report.

3.6 Mineral Mining and Ground Workings

There are no records of mining or ground working on or in the vicinity of the site.

3.7 Geotechnical Hazards

Environmental ground stability data for the site is summarised in Table 3-4.

Table 3-4 Anticipated Geotechnical Hazards

Potential Hazard	Hazard Rating
Compressible Ground	Negligible / Moderate
Running Sand	Negligible
Collapsible Ground	Negligible / Very low
Shrink swell	Moderate
Landslide	Very low
Dissolution / Soluble Rocks	Negligible

3.8 Potentially Contaminative Land Use

There are 5 No. records of historical industrial land use onsite noted in the environmental database. These relate to unspecified depot (2 No.) 1982 to 1992, Railway sidings (2No.) 1982 to 1992, Unspecified Commercial / Industrial (2No.) 1982 to 1992, and unspecified Tank (2No.) 1982 to 1992. All of these features are shown across the site with the exception of the tank [REDACTED]

A historical electricity substation is located onsite 1994 to 1978 [REDACTED]

There are 2 No. further records of Unspecified Depot within 100m of the site boundary (47m to the west).

3.9 Pollution Incidents (EA)

There are no recorded pollution incidents within 500m of the site recorded in the last 25 years.

3.10 Designations

There is one SSSI located within 2000m of the site; Arncott Bridge Meadows, 1825m to the west.

There are no Conserved wetland sites, Special Areas of Conservation, Special Protection Areas, National Nature Reserves, Local Nature Reserves, Biosphere Reserves, Forest Parks, Greenbelt within 2000m of the site.

There are six designated Ancient Woodland sites within 2000m of the site; the nearest is Piddington Wood, 876m to the south of the site.

3.11 Radon

The site is in an area with less than 1% of properties affected by Radon.

3.12 Unexploded Ordnance (UXO)

A Detailed UXO assessment has been procured as part of Nettlefire and should be referred to for further information.

4.0 Constraints and Mitigation

Table 4-1 provides a summary of the key ground related items based on the information detailed above highlighting the constraints/risk/mitigation. This section of the report should be read in conjunction with the geotechnical and contamination constraints plans. The Geotechnical Risk Register is presented in Appendix J. The Conceptual Site Model and Contamination Risk Assessment is presented in Appendix K.

Table 4-1 Risk / Constraints and Mitigation

Description	Constraint / Risk	Mitigation	Risk Rating
Differential settlement due to poor quality of concrete and potentially variable ground conditions	Damage to modular structures placed on existing hardstanding	Undertake targeted investigation to determine ground bearing pressure and where necessary design	Medium

underlying areas of hardstanding		and implement ground improvement measures.	
Contamination	Presence of made ground potentially containing contaminants including ACM.	Undertake targeted investigation to determine presence and extent of contamination and identify mitigation measures if necessary.	Moderate / Low

5.0 Recommendations

5.1 Ground Investigation Recommendations

It is recommended that limited and targeted investigation is undertaken to provide further information to characterise and provide further confidence in the assessment of the constraints identified and stated in the previous section.

The investigation should comprise the assessment of ground bearing pressure in areas of hardstanding that may be used to site modular buildings.

The presence and extent of potential contamination should be assessed by undertaking targeted sampling in the areas of known made ground and the area where munitions were handled and stored. It is also recommended that site wide surface sampling is undertaken to determine if ACMs are present in shallow soil, particularly in areas which have been subject to previous development.

6.0 References

BGS. (2026, March). *GeoIndex (onshore)*. Retrieved from British Geological Survey:

<https://www.bgs.ac.uk/map-viewers/geoindex-onshore/>

DEFRA. (2026). *MAGIC*. Retrieved from Magic Map:

<http://magic.defra.gov.uk/MagicMap.aspx>

Groundsure. (2026). *Enviro+Geo Insight Report*.

WYG. (2018). *Defence Estate Optimisation Programme Phase 1 Land Quality Assessment (LQA) Bicester Garrison. DIO* .

Figures



Site Location Plan

MOD015

Home Office

Legend

Site boundary



Notes:

Drawn by: CD

Checked by: SK

Figure No. 1

Revision No. A

05 May 2026

0 100 200 300 400 500 Meters
Scale 1:10,000 @A3

British National Grid
NGR: 463053E 217814N

Microsoft, Vantor, © OpenStreetMap (and) contributors, CC-BY-SA



[REDACTED]

GEO-ENVIRONMENTAL DESK STUDY REVIEW

This report is produced solely for the benefit the Home Office and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the site.

This report is based on a study of readily accessible referenced historical records. Some of the opinions are based on unconfirmed data and information and are presented in good faith without exhaustive clarification. Where ground conditions are discussed but no physical site test results are available to confirm this, the report must be regarded as initial advice only, and further assessment should be undertaken prior to detailed activities related to the site. Where test results undertaken by others have been made available these can only be regarded as a limited sample.

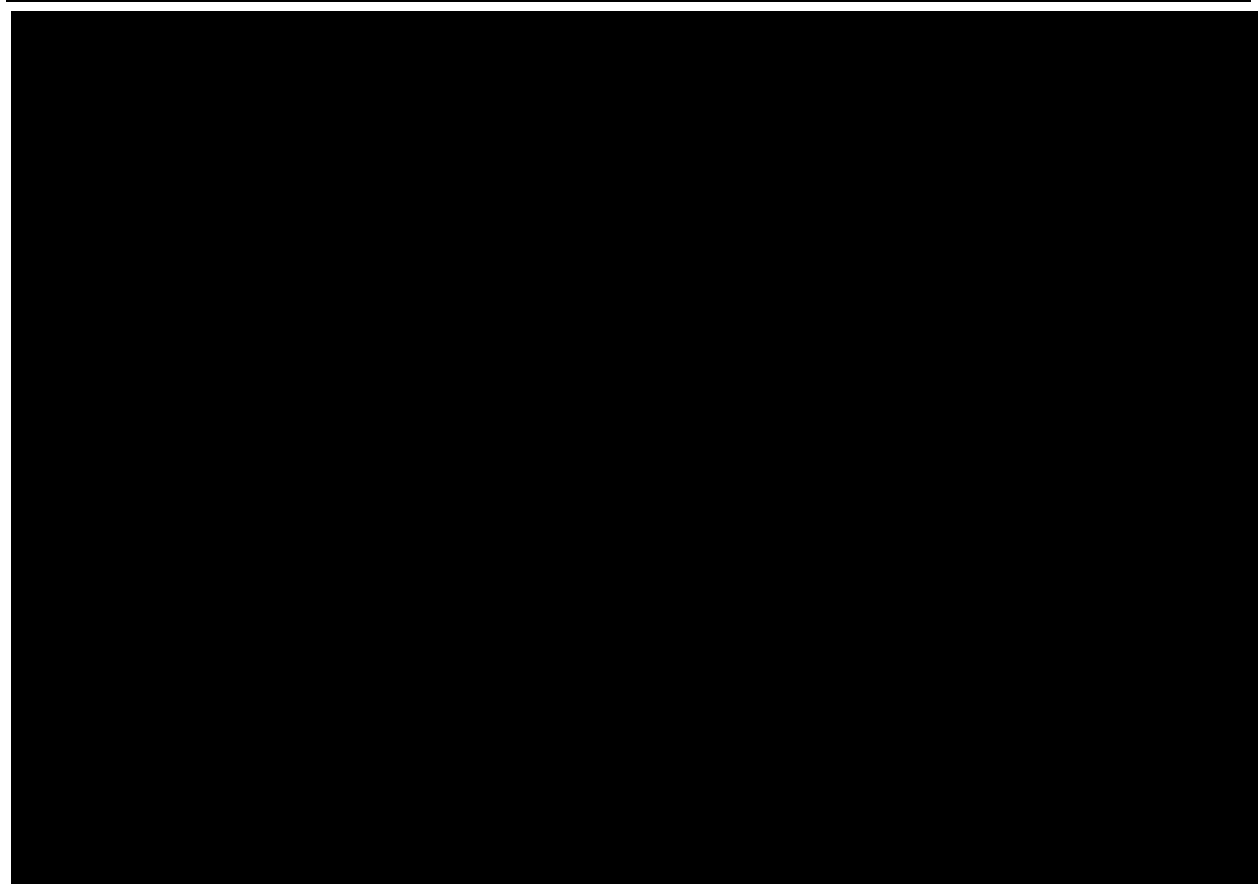
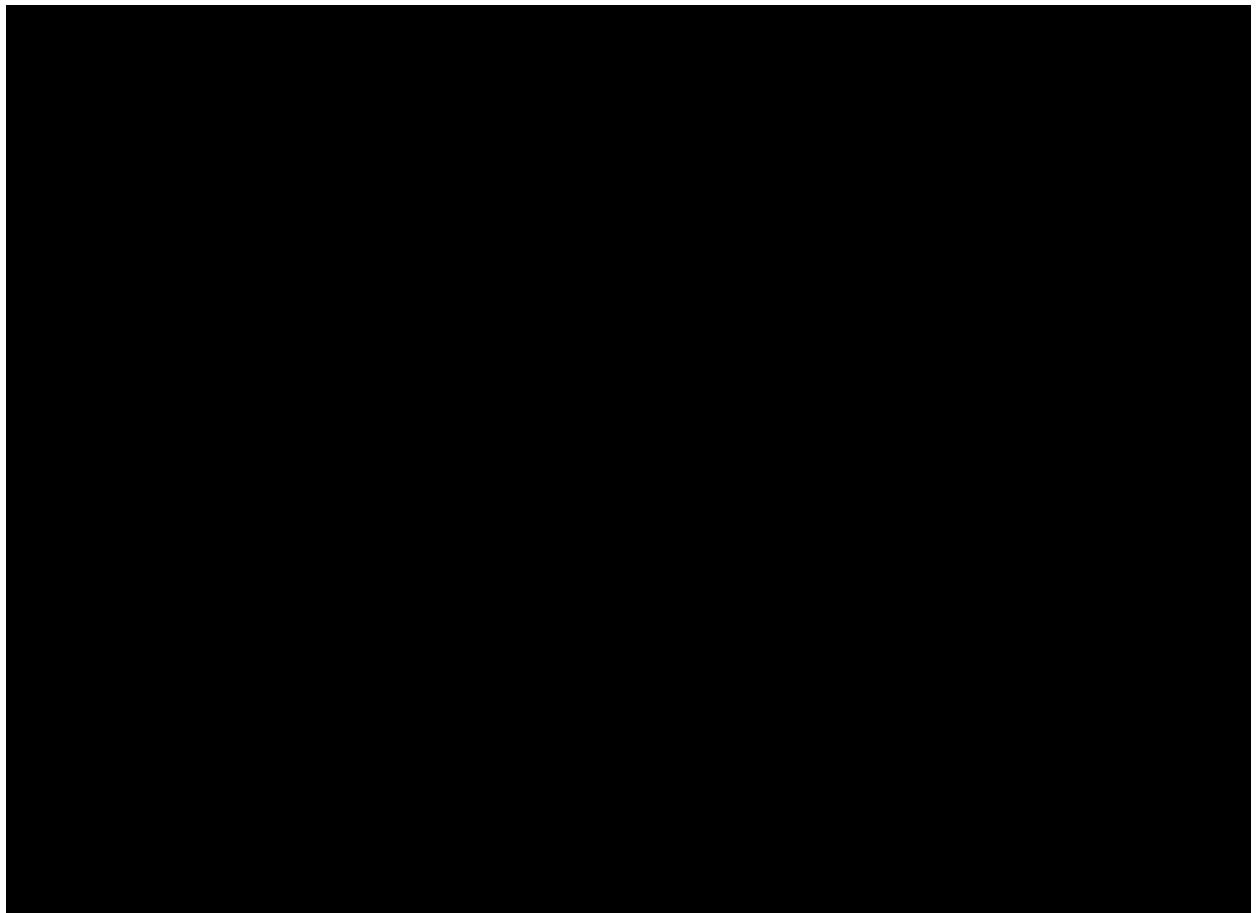
Whilst confident in the findings detailed within this report because there are no exact UK definitions of these matters, we are unable to give categorical assurances that they will be accepted by Authorities or Funds etc. without question, as such bodies may have unpublished, often more stringent objectives. This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference. In time improved practices or amended guidance may necessitate a re-assessment. The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief and the possibility of unrecorded previous use and abuse of the site and adjacent sites. The report concentrates on the site as defined in the report and provides an opinion on surrounding sites.



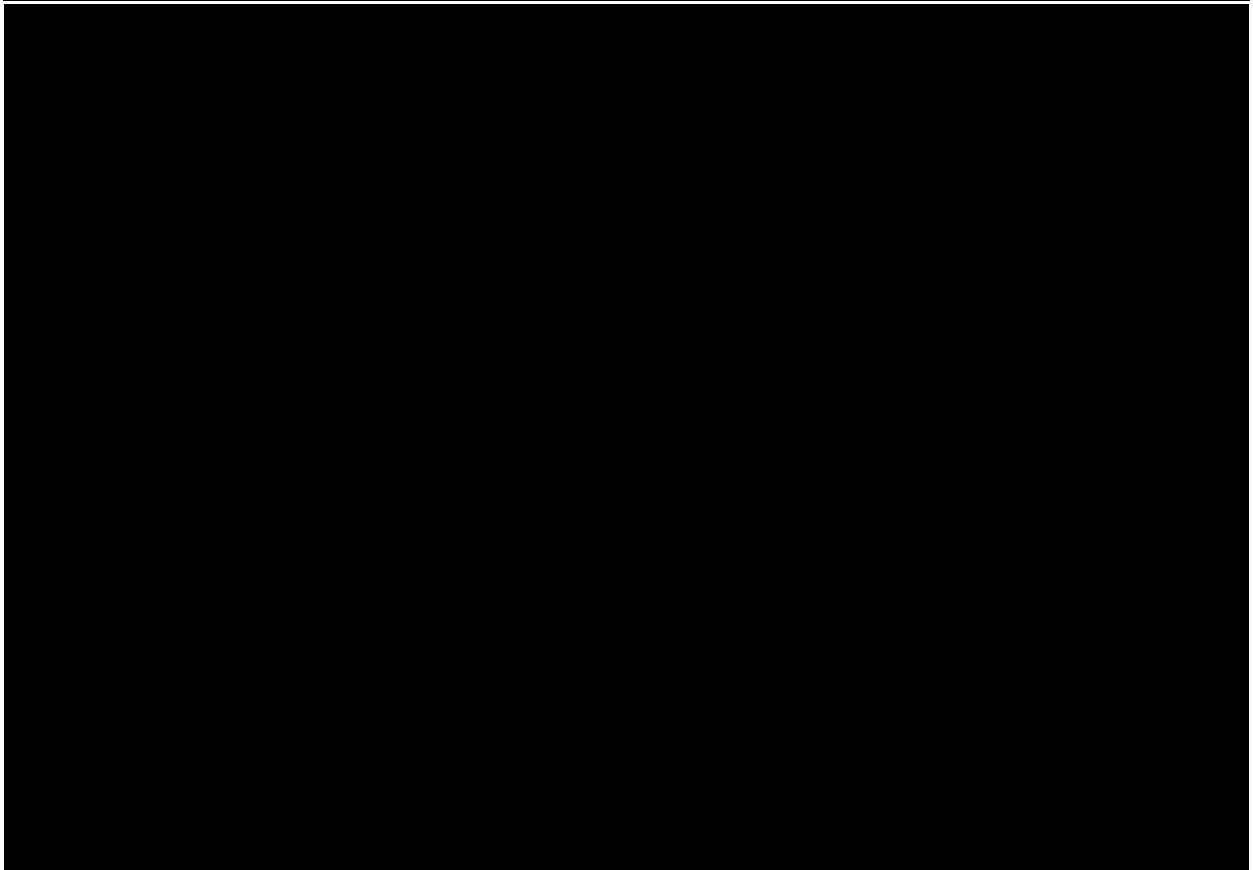
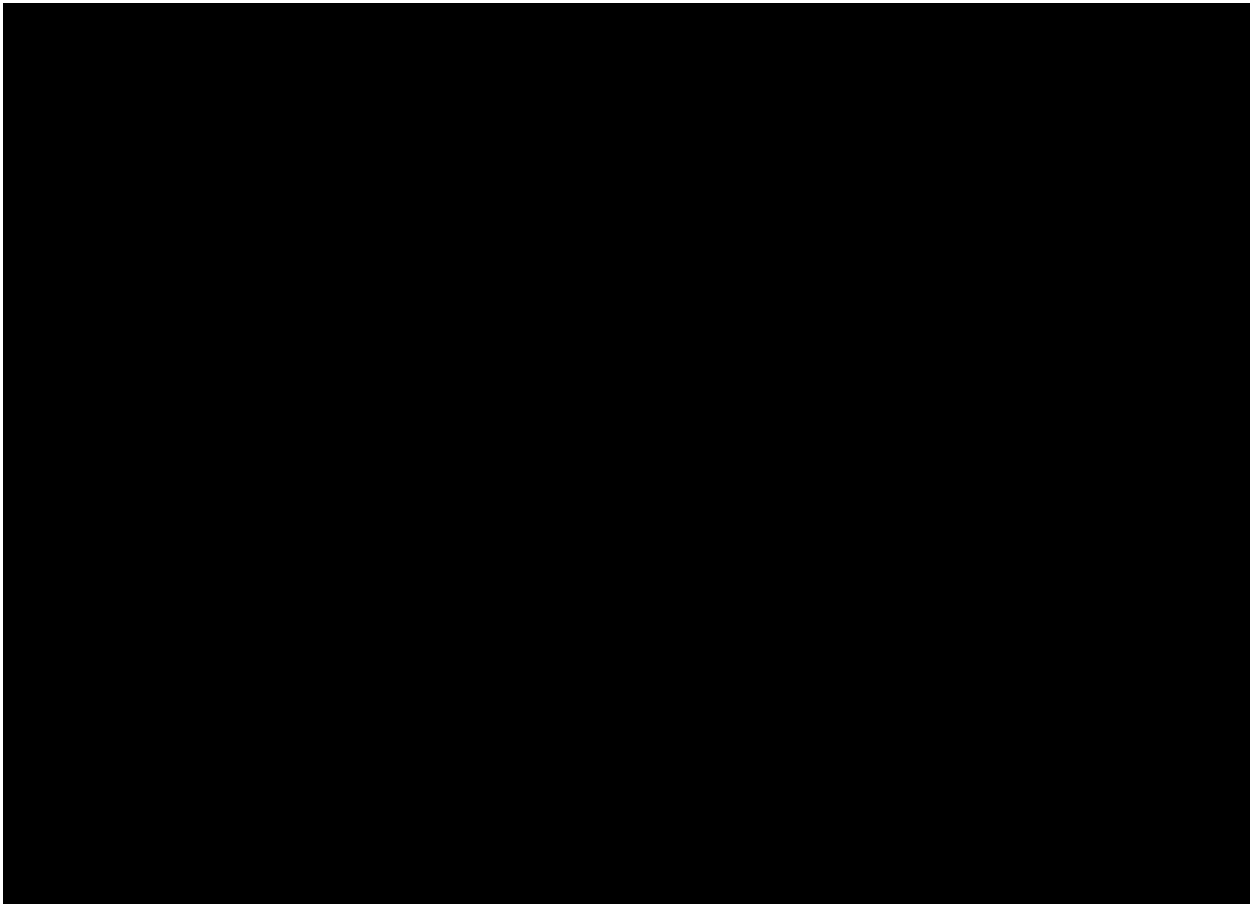
Appendix B: Photo Plates



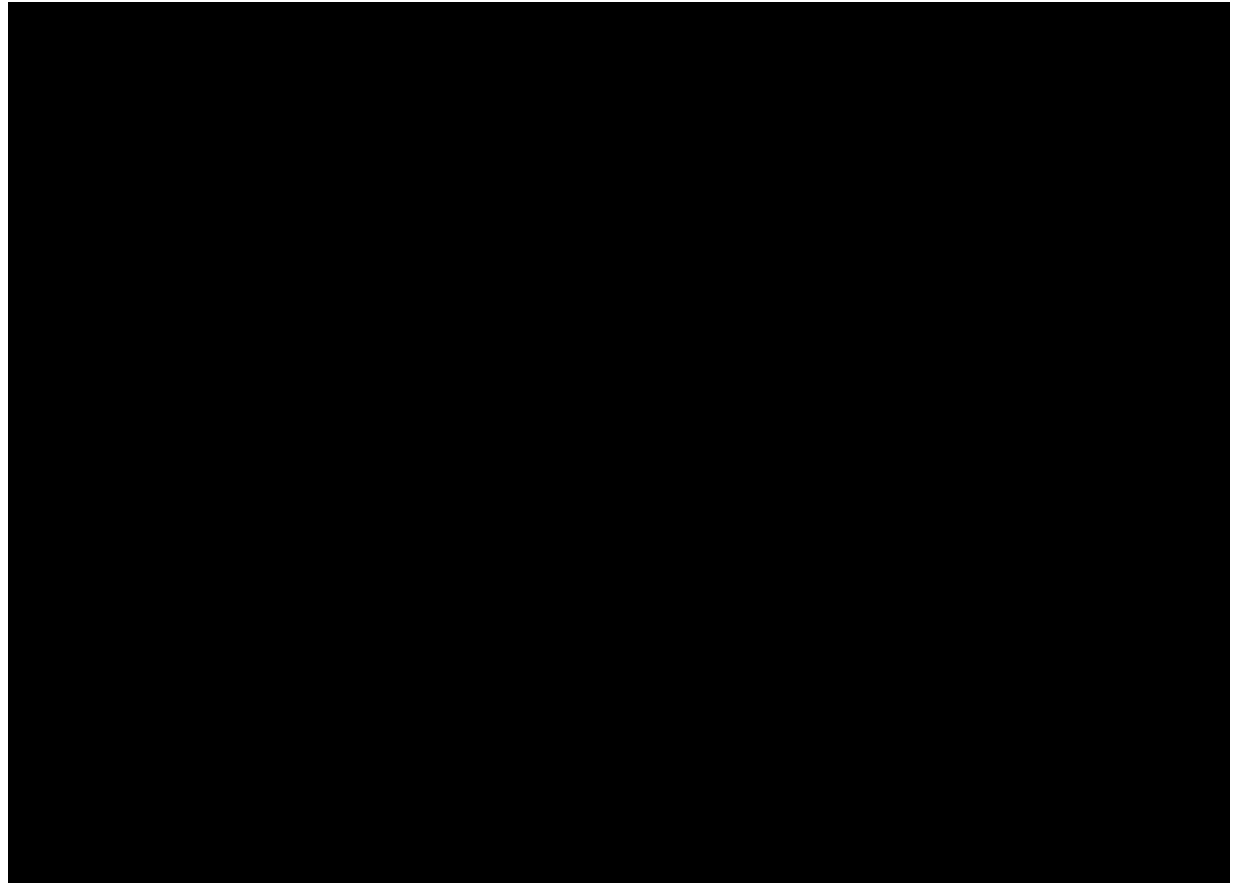
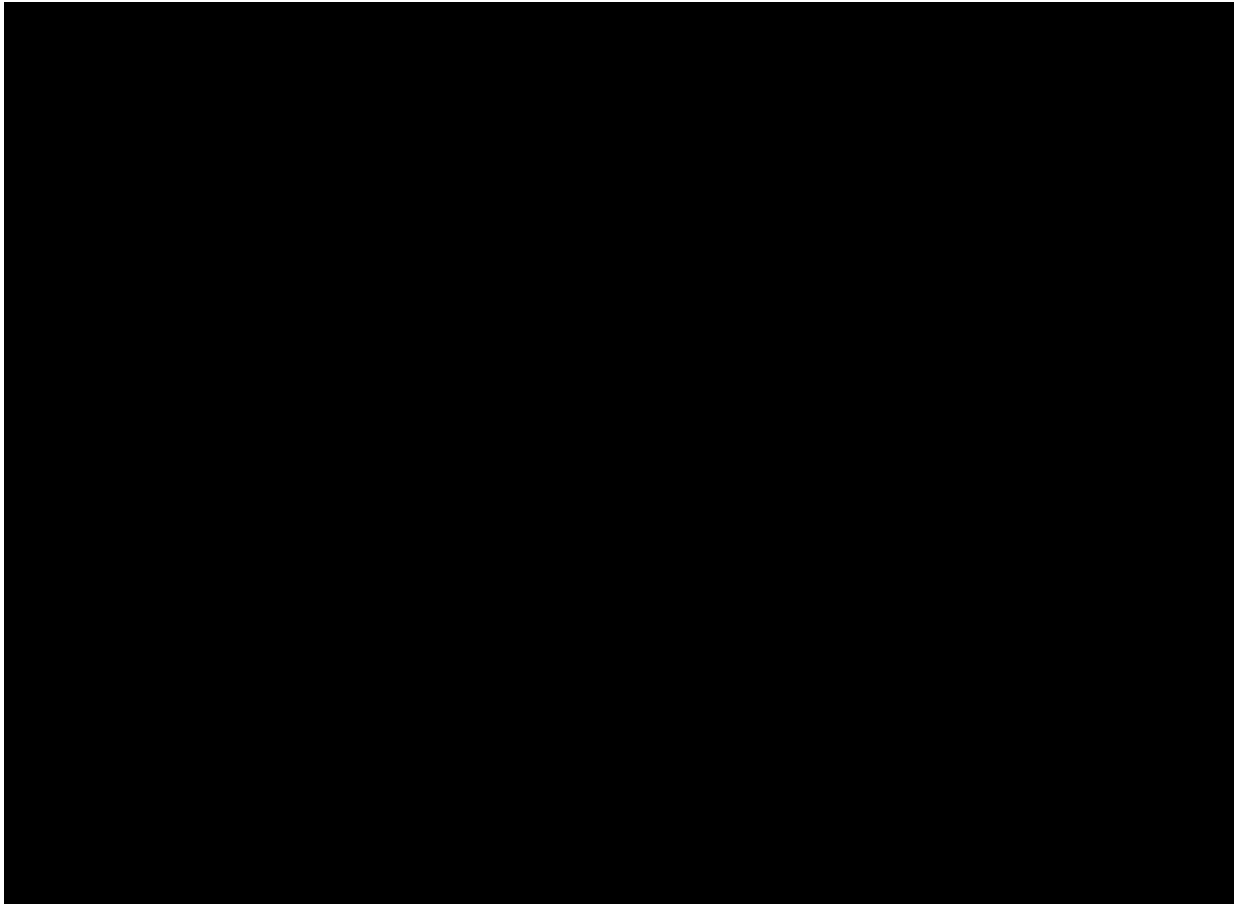
Project Nettlefire, Site MOD015



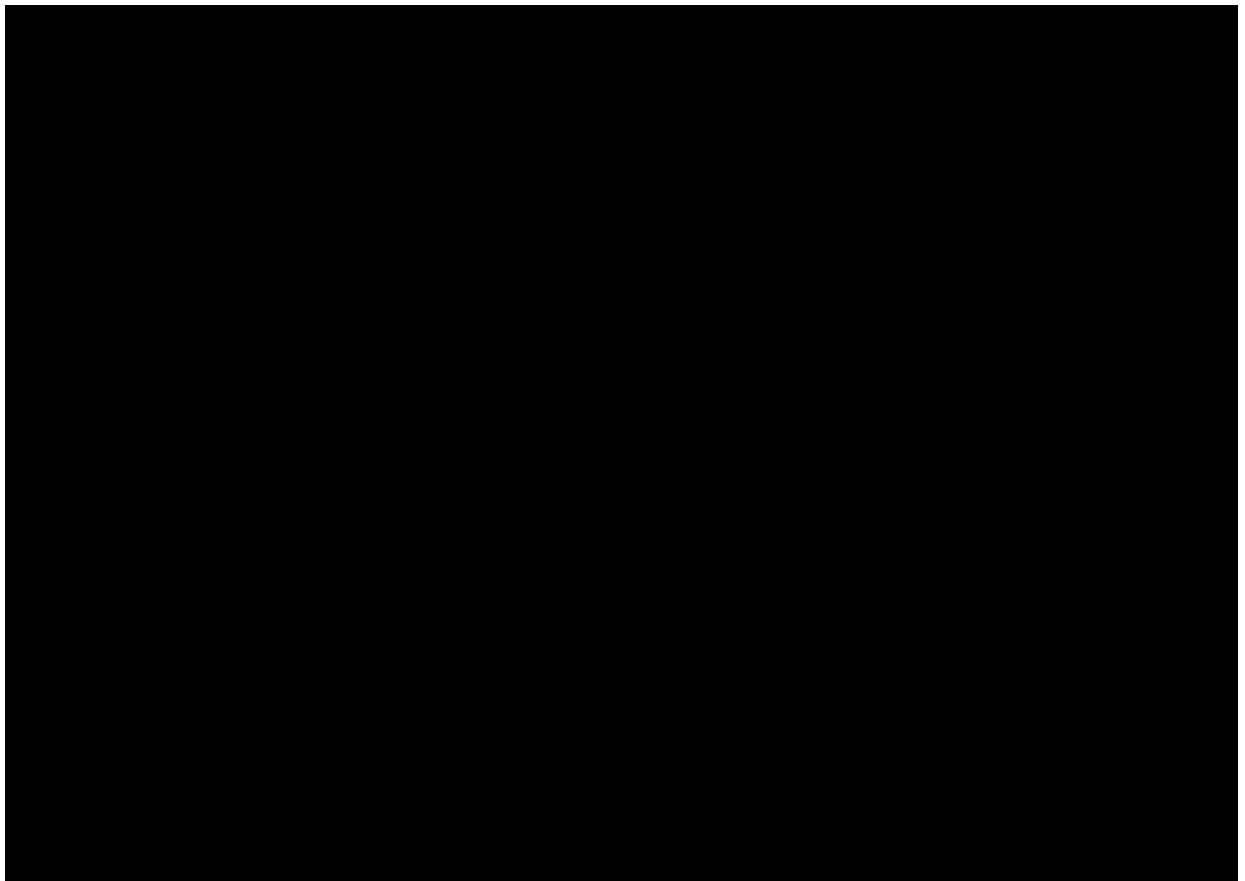
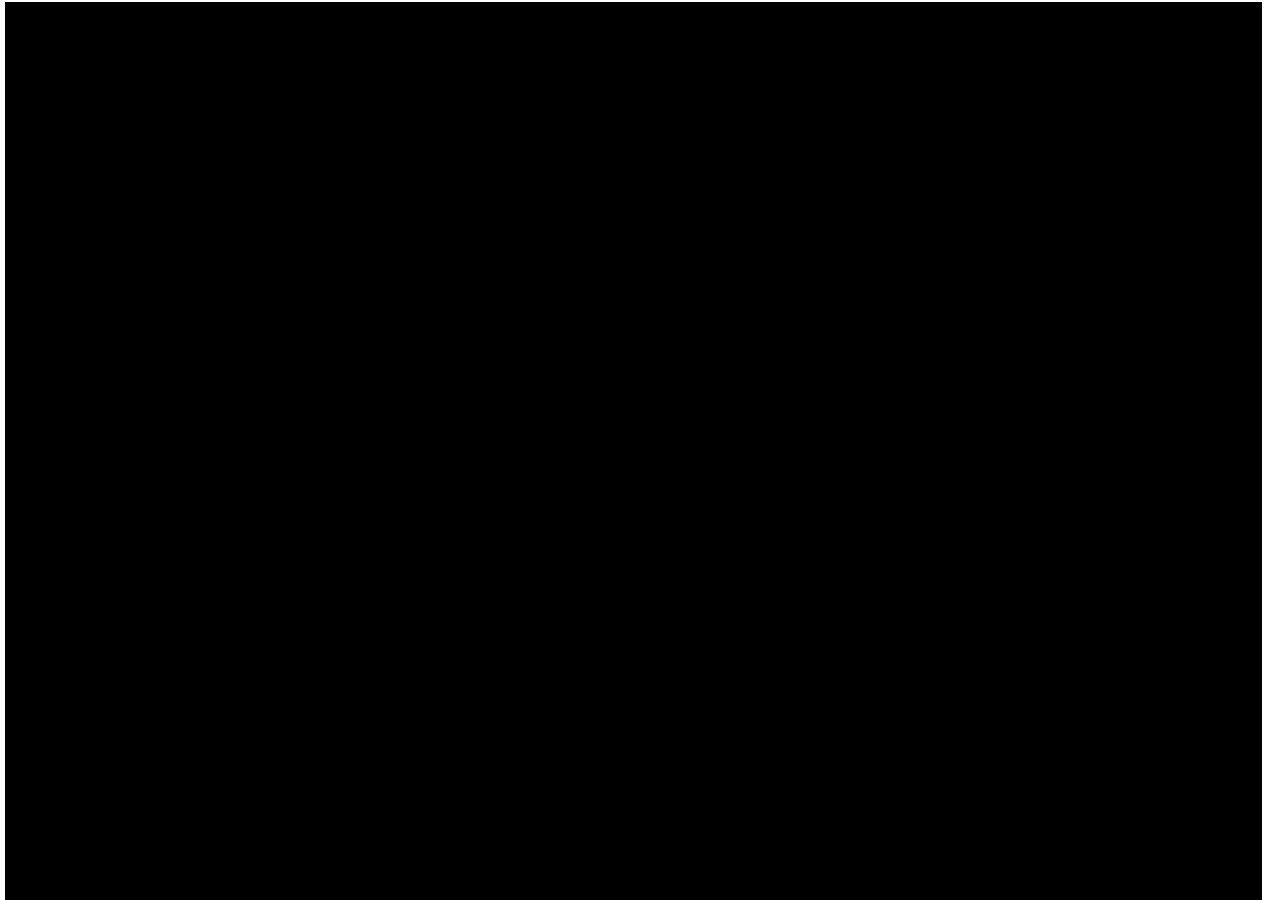
Project Nettlefire, Site MOD015



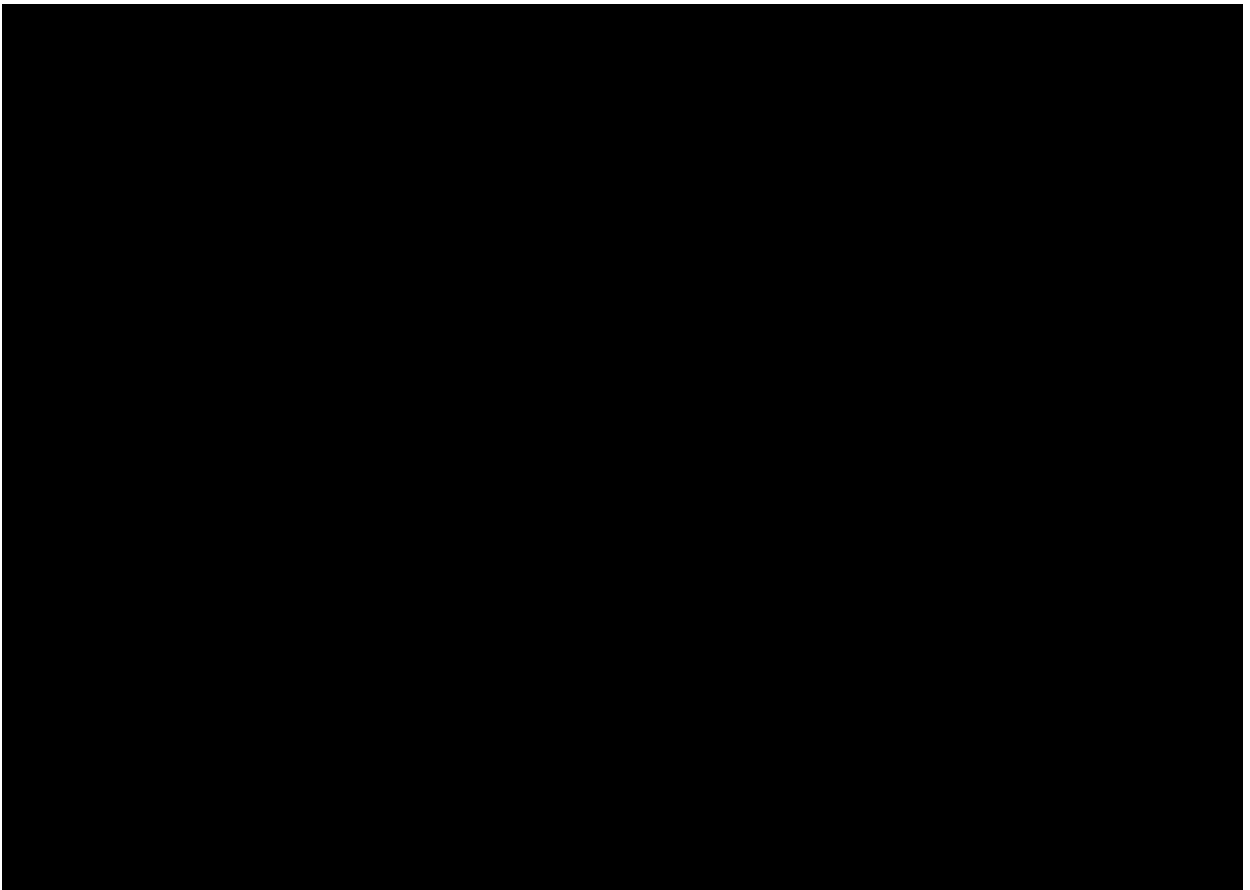
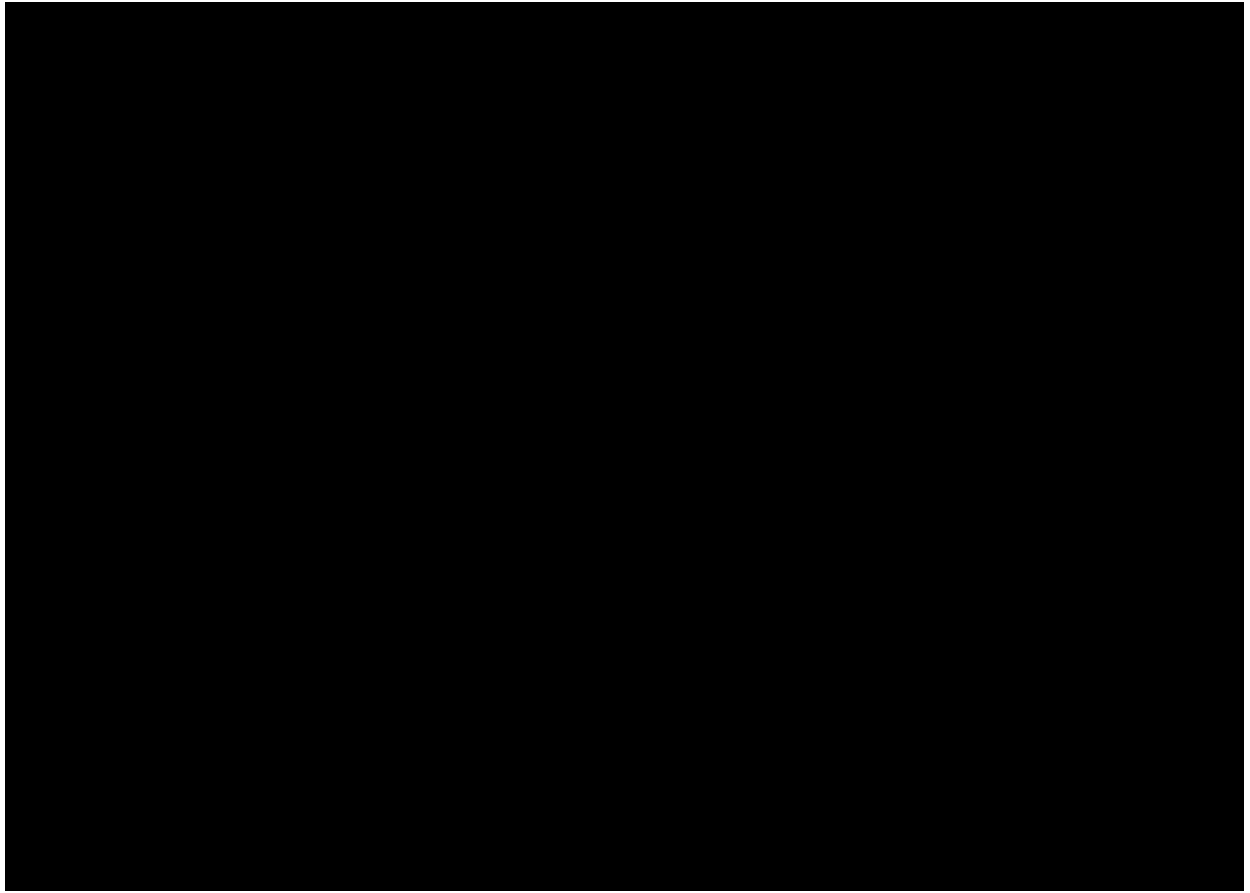
Project Nettlefire, Site MOD015



Project Nettlefire, Site MOD015



Project Nettlefire, Site MOD015



Appendix C: Groundsure Report



MOD0015

Order Details

Date: 02/04/2026

Site Details

Location: 463255 217767

Area: 50.62 ha

Authority: [Cherwell District Council](#) ↗

Site plan



Quick Links

[Summary of findings](#)[p. 2 >](#)[OS MasterMap site plan](#)

N/A: >10ha

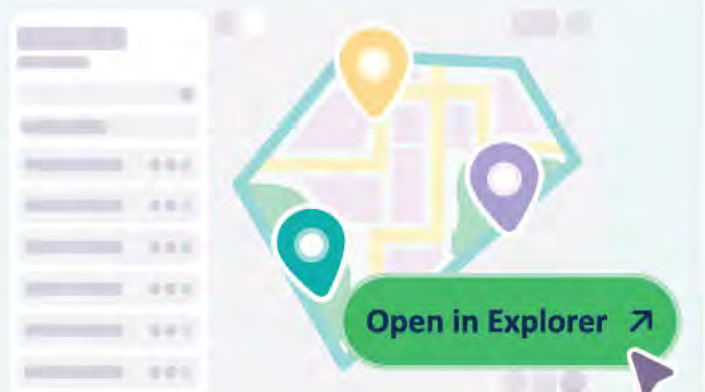
[Aerial image](#)[p. 9 >](#)[Insight User Guide](#) ↗

Open this site in Explorer!

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- Generate insights and visuals quickly
- Revisit and collaborate with your team

Access to Groundsure Explorer requires an Insights account.
12 months access begins at purchase.



Summary of findings

Page	Section	<u>Past land use</u> >	On site	0-50m	50-250m	250-500m	500-2000m
14 >	1.1 >	Historical industrial land uses >	4	1	2	1	-
15 >	1.2 >	Historical tanks >	1	0	1	1	-
15 >	1.3 >	Historical energy features >	1	0	0	0	-
16	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	Historical garages	0	0	0	0	-
16	1.6	Historical military land	0	0	0	0	-
Page	Section	<u>Past land use - un-grouped</u> >	On site	0-50m	50-250m	250-500m	500-2000m
17 >	2.1 >	Historical industrial land uses >	8	2	4	1	-
18 >	2.2 >	Historical tanks >	2	0	2	2	-
19 >	2.3 >	Historical energy features >	2	0	0	0	-
19	2.4	Historical petrol stations	0	0	0	0	-
19	2.5	Historical garages	0	0	0	0	-
Page	Section	<u>Waste and landfill</u> >	On site	0-50m	50-250m	250-500m	500-2000m
20	3.1	Active or recent landfill	0	0	0	0	-
20	3.2	Historical landfill (BGS records)	0	0	0	0	-
21	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
21	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
21	3.5	Historical waste sites	0	0	0	0	-
21	3.6	Licensed waste sites	0	0	0	0	-
21 >	3.7 >	Waste exemptions >	0	0	17	7	-
Page	Section	<u>Current industrial land use</u> >	On site	0-50m	50-250m	250-500m	500-2000m
24 >	4.1 >	Recent industrial land uses >	3	1	4	-	-
25	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
25	4.3	Current or recent petrol stations	0	0	0	0	-
25	4.4	Electricity cables	0	0	0	0	-
25	4.5	Gas pipelines	0	0	0	0	-



26	4.6	Sites determined as Contaminated Land	0	0	0	0	-
26	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
26	4.8	Regulated explosive sites	0	0	0	0	-
26	4.9	Hazardous substance storage/usage	0	0	0	0	-
26	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
27	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
27	4.12	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
27	4.13	Radioactive Substance Authorisations	0	0	0	0	-
27 >	4.14 >	<u>Licensed Discharges to controlled waters ></u>	4	1	1	3	-
29	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
29	4.16	Pollutant release to public sewer	0	0	0	0	-
29	4.17	List 1 Dangerous Substances	0	0	0	0	-
29	4.18	List 2 Dangerous Substances	0	0	0	0	-
29	4.19	Pollution Incidents (EA/NRW)	0	0	0	0	-
30	4.20	Pollution inventory substances	0	0	0	0	-
30	4.21	Pollution inventory waste transfers	0	0	0	0	-
30	4.22	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
31 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
33 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
34 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
36	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
36	5.5	Groundwater vulnerability- local information	None (within 0m)				
37 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	1
38	5.7	Surface water abstractions	0	0	0	0	0
38	5.8	Potable abstractions	0	0	0	0	0
38	5.9	Source Protection Zones	0	0	0	0	-
39	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m

40 >	6.1 >	Water Network (OS MasterMap) >	27	3	2	-	-
43 >	6.2 >	Surface water features >	1	1	2	-	-
43 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
44 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
44	6.5	WFD Groundwater bodies	0	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
45	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
45	7.2	Historical Flood Events	0	0	0	-	-
45	7.3	Flood Defences	0	0	0	-	-
46	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
46	7.5	Flood Storage Areas	0	0	0	-	-
47 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
48 >	7.7 >	Flood Zone 3 >	Identified (within 50m)				
Page	Section	Surface water flooding >					
49 >	8.1 >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
51 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
52 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	1
53	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
53	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
53	10.4	Special Protection Areas (SPA)	0	0	0	0	0
53	10.5	National Nature Reserves (NNR)	0	0	0	0	0
54	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
54 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	6
54	10.8	Biosphere Reserves	0	0	0	0	0
55	10.9	Forest Parks	0	0	0	0	0
55	10.10	Marine Conservation Zones	0	0	0	0	0
55	10.11	Green Belt	0	0	0	0	0



55	10.12	Proposed Ramsar sites	0	0	0	0	0
55	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
56	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
56	10.15	Nitrate Sensitive Areas	0	0	0	0	0
56 >	10.16 >	Nitrate Vulnerable Zones >	1	0	1	0	3
57 >	10.17 >	SSSI Impact Risk Zones >	2	-	-	-	-
58 >	10.18 >	SSSI Units >	0	0	0	0	2
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
59	11.1	World Heritage Sites	0	0	0	-	-
60	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
60	11.3	National Parks	0	0	0	-	-
60 >	11.4 >	Listed Buildings >	0	0	1	-	-
61	11.5	Conservation Areas	0	0	0	-	-
61	11.6	Scheduled Ancient Monuments	0	0	0	-	-
61	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
62 >	12.1 >	Agricultural Land Classification >	Grade 3 (within 250m)				
63 >	12.2 >	Open Access Land >	0	0	1	-	-
63 >	12.3 >	Tree Felling Licences >	2	0	1	-	-
64 >	12.4 >	Environmental Stewardship Schemes >	4	0	2	-	-
64 >	12.5 >	Countryside Stewardship Schemes >	0	1	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
65 >	13.1 >	Priority Habitat Inventory >	9	2	9	-	-
66 >	13.2 >	Habitat Networks >	3	0	1	-	-
67	13.3	Open Mosaic Habitat	0	0	0	-	-
67	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
68 >	14.1 >	10k Availability >	Identified (within 500m)				
69 >	14.2 >	Artificial and made ground (10k) >	0	0	0	1	-

70 >	14.3 >	Superficial geology (10k) >	1	0	0	1	-
71	14.4	Landslip (10k)	0	0	0	0	-
72 >	14.5 >	Bedrock geology (10k) >	2	1	0	3	-
73 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	0	2	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
74 >	15.1 >	50k Availability >	Identified (within 500m)				
75 >	15.2 >	Artificial and made ground (50k) >	0	0	0	1	-
76	15.3	Artificial ground permeability (50k)	0	0	-	-	-
77 >	15.4 >	Superficial geology (50k) >	1	0	0	1	-
78 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
78	15.6	Landslip (50k)	0	0	0	0	-
78	15.7	Landslip permeability (50k)	None (within 50m)				
79 >	15.8 >	Bedrock geology (50k) >	2	0	0	1	-
80 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
80 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	0	2	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
81 >	16.1 >	BGS Boreholes >	0	0	5	-	-
Page	Section	Natural ground subsidence >					
83 >	17.1 >	Shrink swell clays >	Moderate (within 50m)				
84 >	17.2 >	Running sands >	Low (within 50m)				
86 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
88 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
89 >	17.5 >	Landslides >	Very low (within 50m)				
90 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
92	18.1	BritPits	0	0	0	0	-
93 >	18.2 >	Surface ground workings >	0	0	2	-	-
93	18.3	Underground workings	0	0	0	0	0
93	18.4	Underground mining extents	0	0	0	0	-



93	18.5	Historical Mineral Planning Areas	0	0	0	0	-
94	18.6	Non-coal mining	0	0	0	0	0
94	18.7	JPB mining areas	None (within 0m)				
94	18.8	The Coal Authority non-coal mining	0	0	0	0	-
94	18.9	Researched mining	0	0	0	0	-
95	18.10	Mining record office plans	0	0	0	0	-
95	18.11	BGS mine plans	0	0	0	0	-
95	18.12	Coal mining	None (within 0m)				
95	18.13	Brine areas	None (within 0m)				
95	18.14	Gypsum areas	None (within 0m)				
96	18.15	Tin mining	None (within 0m)				
96	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
97	19.1	Natural cavities	0	0	0	0	-
97	19.2	Mining cavities	0	0	0	0	0
97	19.3	Reported recent incidents	0	0	0	0	-
97	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
99 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
101 >	21.1 >	BGS Estimated Background Soil Chemistry >	14	3	-	-	-
102	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
102	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
103	22.1	Underground railways (London)	0	0	0	-	-
103	22.2	Underground railways (Non-London)	0	0	0	-	-
104	22.3	Railway tunnels	0	0	0	-	-
104 >	22.4 >	Historical railway and tunnel features >	5	2	2	-	-
104	22.5	Royal Mail tunnels	0	0	0	-	-

105 >	22.6 >	Historical railways >	21	1	9	-	-
106	22.7	Railways	0	0	0	-	-
106	22.8	Crossrail 2	0	0	0	0	-
106	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 25/06/2023

Site Area: 50.62ha



Recent site history - 2020 aerial photograph



Capture Date: 05/04/2020

Site Area: 50.62ha



Recent site history - 2009 aerial photograph



Capture Date: 19/08/2009

Site Area: 50.62ha



Recent site history - 2000 aerial photograph



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Capture Date: 12/08/2000

Site Area: 50.62ha



Recent site history - 1999 aerial photograph



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Capture Date: 05/10/1999

Site Area: 50.62ha



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

8

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 14 >](#)

ID	Location	Land use	Dates present	Group ID
1	On site	Unspecified Depot	1982 - 1992	1816842



ID	Location	Land use	Dates present	Group ID
2	On site	Unspecified Commercial/Industrial	1982 - 1992	1822844
3	On site	Railway Sidings	1982 - 1992	1867959
A	On site	Unspecified Tank	1982 - 1992	1821737
5	47m W	Unspecified Depot	1982 - 1992	1859956
7	116m E	Pump House	1982 - 1992	1873953
B	246m NW	Sewage Works	1982 - 1992	1837790
8	297m SE	Unspecified Tank	1879	1802454

This data is sourced from Ordnance Survey® / Groundsure.

1.2 Historical tanks

Records within 500m

3

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 14](#) >

ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Tank	1978 - 1991	311450
6	116m W	Tanks	1978 - 1991	308545
B	278m NW	Unspecified Tank	1979 - 1994	314056

This data is sourced from Ordnance Survey® / Groundsure.

1.3 Historical energy features

Records within 500m

1

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 14](#) >



ID	Location	Land use	Dates present	Group ID
4	On site	Electricity Substation	1978 - 1994	195425

This data is sourced from Ordnance Survey® / Groundsure.

1.4 Historical petrol stations

Records within 500m	0
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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



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

2.1 Historical industrial land uses

Records within 500m

15

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 17](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Depot	1982	1816842
A	On site	Unspecified Depot	1992	1816842
B	On site	Railway Sidings	1982	1867959



ID	Location	Land Use	Date	Group ID
B	On site	Railway Sidings	1992	1867959
C	On site	Unspecified Commercial/Industrial	1982	1822844
C	On site	Unspecified Commercial/Industrial	1992	1822844
D	On site	Unspecified Tank	1982	1821737
D	On site	Unspecified Tank	1992	1821737
F	47m W	Unspecified Depot	1982	1859956
F	47m W	Unspecified Depot	1992	1859956
H	116m E	Pump House	1982	1873953
H	116m E	Pump House	1992	1873953
I	246m NW	Sewage Works	1982	1837790
I	246m NW	Sewage Works	1992	1837790
1	297m SE	Unspecified Tank	1879	1802454

This data is sourced from Ordnance Survey® / Groundsure.

2.2 Historical tanks

Records within 500m

6

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 17](#) >

ID	Location	Land Use	Date	Group ID
D	On site	Unspecified Tank	1991	311450
D	On site	Unspecified Tank	1978	311450
G	116m W	Tanks	1991	308545
G	118m W	Tanks	1978	308545
I	278m NW	Unspecified Tank	1994	314056
I	279m NW	Unspecified Tank	1979	314056

This data is sourced from Ordnance Survey® / Groundsure.



2.3 Historical energy features

Records within 500m

2

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 17](#) >

ID	Location	Land Use	Date	Group ID
E	On site	Electricity Substation	1994	195425
E	On site	Electricity Substation	1978	195425

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



— Site Outline
Search buffers in metres (m)
● Waste exemptions

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

24

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 20](#) >

ID	Location	Site	Reference	Category	Sub-Category	Description
A	156m NE	-	WEX192794	Using waste exemption	On a farm	Use of waste for a specified purpose



ID	Location	Site	Reference	Category	Sub-Category	Description
A	156m NE	-	WEX192794	Disposing of waste exemption	On a farm	Burning waste in the open
A	156m NE	-	WEX192794	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	156m NE	-	WEX320639	Using waste exemption	On a farm	Use of waste for a specified purpose
A	156m NE	-	WEX320639	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
A	156m NE	-	WEX320639	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	156m NE	-	WEX320639	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	156m NE	-	WEX320639	Disposing of waste exemption	On a farm	Burning waste in the open
A	156m NE	-	WEX192794	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
A	156m NE	-	WEX192794	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
B	161m SE	70 Lower End Bicester Oxfordshire Ox25 1qd	EPR/XH0373K N/A001	Disposing of waste exemption	Agricultural waste only	Deposit of waste from dredging of inland waters
B	161m SE	70 Lower End Bicester Oxfordshire Ox25 1qd	EPR/XH0373K N/A001	Treating waste exemption	Agricultural waste only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	161m SE	70 Lower End Bicester Oxfordshire Ox25 1qd	EPR/XH0373K N/A001	Using waste exemption	Agricultural waste only	Use of waste for a specified purpose
B	161m SE	70 Lower End Bicester Oxfordshire Ox25 1qd	EPR/XH0373K N/A001	Disposing of waste exemption	Agricultural waste only	Burning waste in the open
B	172m E	Upper Cow Leys Farm Bicester Oxfordshire Ox25 1qe	EPR/KH0476ZP /A001	Disposing of waste exemption	Agricultural waste only	Deposit of waste from dredging of inland waters



ID	Location	Site	Reference	Category	Sub-Category	Description
B	172m E	Upper Cow Leys Farm Bicester Oxfordshire Ox25 1qe	EPR/KH0476ZP /A001	Using waste exemption	Agricultural waste only	Use of waste for a specified purpose
B	172m E	Upper Cow Leys Farm Bicester Oxfordshire Ox25 1qe	EPR/KH0476ZP /A001	Disposing of waste exemption	Agricultural waste only	Burning waste in the open
C	264m SE	70, Lower End, Piddington, Bicester, Ox25 1qd	WEX027250	Disposing of waste exemption	On a farm	Burning waste in the open
C	264m SE	70, Lower End, Piddington, Bicester, Ox25 1qd	WEX027250	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
C	264m SE	70, Lower End, Piddington, Bicester, Ox25 1qd	WEX027250	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	264m SE	70, Lower End, Piddington, Bicester, Ox25 1qd	WEX027250	Using waste exemption	On a farm	Use of waste for a specified purpose
1	287m W	Bullington Patrick Haugh Road Bicester Oxfordshire Ox25 1pz	EPR/AF0807XF /A001	Treating waste exemption	Non-agricultural waste only	Sorting and de-naturing of controlled drugs for disposal
D	496m SW	-	WEX253632	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
D	496m SW	-	WEX253632	Storing waste exemption	Not on a farm	Storage of waste in a secure place

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
- Licensed Discharges to controlled waters

4.1 Recent industrial land uses

Records within 250m

8

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 24](#) >

ID	Location	Company	Address	Activity	Category
1	On site	Pylon	Oxfordshire, OX25	Electrical Features	Infrastructure and Facilities
2	On site	Pylon	Oxfordshire, OX25	Electrical Features	Infrastructure and Facilities
3	On site	Pumping Station	Oxfordshire, OX25	Water Pumping Stations	Industrial Features



ID	Location	Company	Address	Activity	Category
5	22m NE	Pylon	Oxfordshire, OX25	Electrical Features	Infrastructure and Facilities
6	102m S	Pylon	Oxfordshire, OX25	Electrical Features	Infrastructure and Facilities
7	117m E	Pump House	Oxfordshire, OX25	Water Pumping Stations	Industrial Features
C	152m W	Chimney	Oxfordshire, OX25	Chimneys	Industrial Features
C	163m W	Chimney	Oxfordshire, OX25	Chimneys	Industrial Features

This data is sourced from Ordnance Survey®.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m

0

Current or recent tanks identified from the Ordnance Survey® NGD.

This data is sourced from Ordnance Survey®.

4.3 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.



4.6 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.

4.7 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.

4.8 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.

4.9 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.

4.10 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.

4.11 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.

4.12 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.

4.13 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.

4.14 Licensed Discharges to controlled waters

Records within 500m

9

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991. Features are displayed on the Current industrial land use map on [page 24](#) >

ID	Location	Address	Details	
A	On site	M.O.D. Site 2A, M.O.D. Site 2A	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1426 Permit Version: 1 Receiving Water: RIVER RAY	Status: TEMPORARY CONSENTS (WATER ACT 1989, SECTION 113) Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 02/09/2010
A	On site	M.O.D. Site 2A, M.O.D. Site 2A	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1426 Permit Version: 2 Receiving Water: River Ray	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 13/10/2015



ID	Location	Address	Details	
B	On site	M.O.D. Site 1A, M.O.D. Site 1A	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1425 Permit Version: 1 Receiving Water: RIVER RAY	Status: TEMPORARY CONSENTS (WATER ACT 1989, SECTION 113) Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 02/09/2010
B	On site	M.O.D. Site 1A, M.O.D. Site 1A	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1425 Permit Version: 2 Receiving Water: River Ray	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 13/10/2015
4	21m S	WIDNELL LANE, PIDDINGTON, BICESTER, OXFORDSHIRE, OX25 1AE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: EPRHP3529PT Permit Version: 1 Receiving Water: DITCH TRIB OF RIVER RAY	Status: NEW ISSUED UNDER EPR 2010 Issue date: 23/02/2023 Effective Date: 22/02/2023 Revocation Date: -
8	165m W	BICESTER GARRISON, HQ STATION, BICESTER GARRISON, HQ STATION, ARNCOTT, BICESTER, OXON	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CATM.2740 Permit Version: 1 Receiving Water: RIVER RAY	Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 21/03/1997 Effective Date: 21/03/1997 Revocation Date: 10/08/2006
9	326m SW	HMP BULLINGDON, PATRICK HAUGH ROAD, BICESTER, OXFORDSHIRE, OX25 1PZ	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: EPRBP3729PG Permit Version: 1 Receiving Water: DITCH TRIBUTARY OF RIVER RAY	Status: NEW ISSUED UNDER EPR 2010 Issue date: 26/01/2024 Effective Date: 26/01/2024 Revocation Date: -
D	383m W	M.O.D. Site 14G, M.O.D. Site 14G	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1424 Permit Version: 1 Receiving Water: RIVER RAY	Status: TEMPORARY CONSENTS (WATER ACT 1989, SECTION 113) Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 02/09/2010
D	383m W	M.O.D. Site 14G, M.O.D. Site 14G	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1424 Permit Version: 2 Receiving Water: River Ray	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 19/08/2014

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



4.15 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.

4.16 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.

4.17 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.

4.18 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.

4.19 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.

4.20 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.

4.21 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.

4.22 Pollution inventory radioactive waste

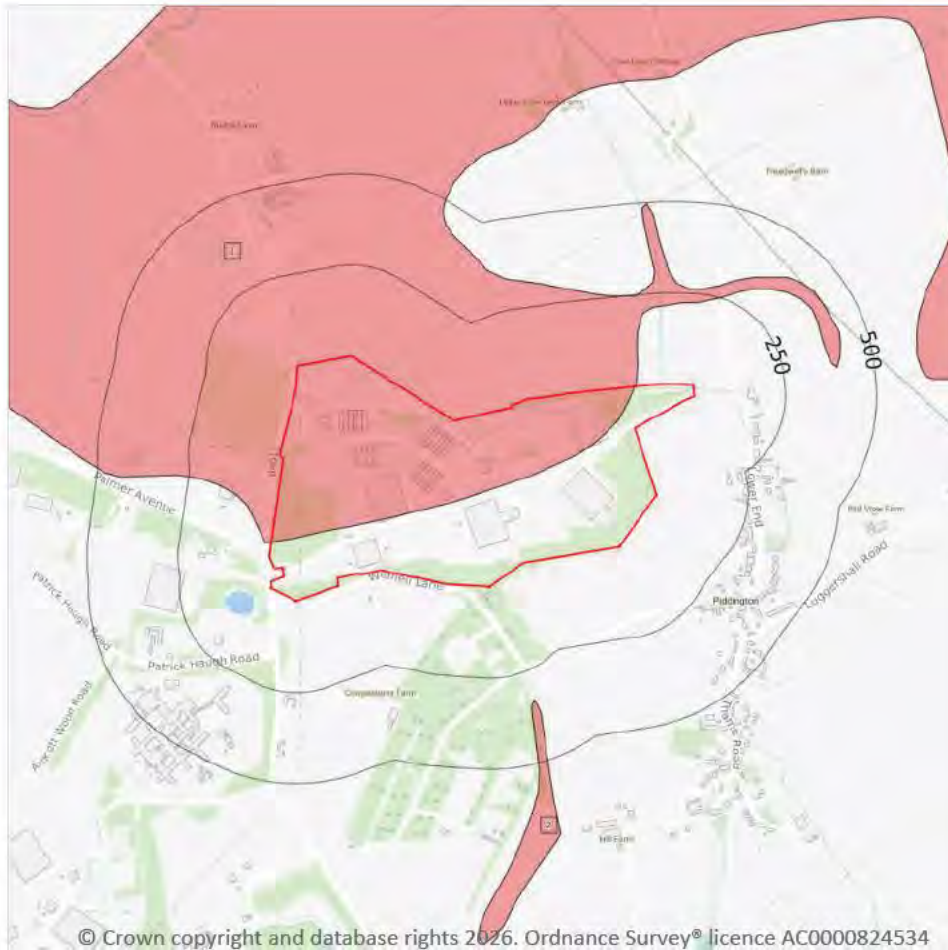
Records within 500m

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



- Site Outline**
- Search buffers in metres (m)**
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

2

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 31](#) >

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
2	333m S	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.



Bedrock aquifer



- Site Outline**
- Search buffers in metres (m)**
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

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 33](#) >

ID	Location	Designation	Description
1	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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

7

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 34](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
4	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
5	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
6	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
7	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive 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

0

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

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



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

1

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	
-	1276m S	Status: Historical Licence No: 28/39/14/0059 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: PIDDINGTON GATE, BRILL(A) Data Type: Point Name: J & S STOCKIL & SONS Easting: 463300 Northing: 216200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/10/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/12/1986 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0
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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	0
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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.

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

5.9 Source Protection Zones

Records within 500m	0
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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



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

32

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 40 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
1	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
A	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	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
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Piddington Brook
H	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Piddington Brook
H	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Piddington Brook
I	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
J	On site	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
H	3m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Piddington Brook
K	6m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Piddington Brook
3	7m NE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	239m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Piddington Brook
L	243m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Piddington Brook

This data is sourced from the Ordnance Survey®.

6.2 Surface water features

Records within 250m

4

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 40](#) >

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 40](#) >



ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	On site	River	Oxon Ray (upstream A41 to Cherwell) including Otmoor	GB106039030090	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 40](#) >

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	938m NW	River	Oxon Ray (upstream A41 to Cherwell) including Otmoor	GB106039030090 ↗	Bad	Fail	Bad	2019

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

6.5 WFD Groundwater bodies

Records on site	0
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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.

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



- Site Outline
- Search buffers in metres (m)
- Flood zone 2
- Flood zone 3

7.6 Flood Zone 2

Records within 50m

1

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.

Features are displayed on the River and coastal flooding map on [page 45 >](#)

Location	Type
On site	Zone 2 - (Fluvial /Tidal Models)

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



7.7 Flood Zone 3

Records within 50m

1

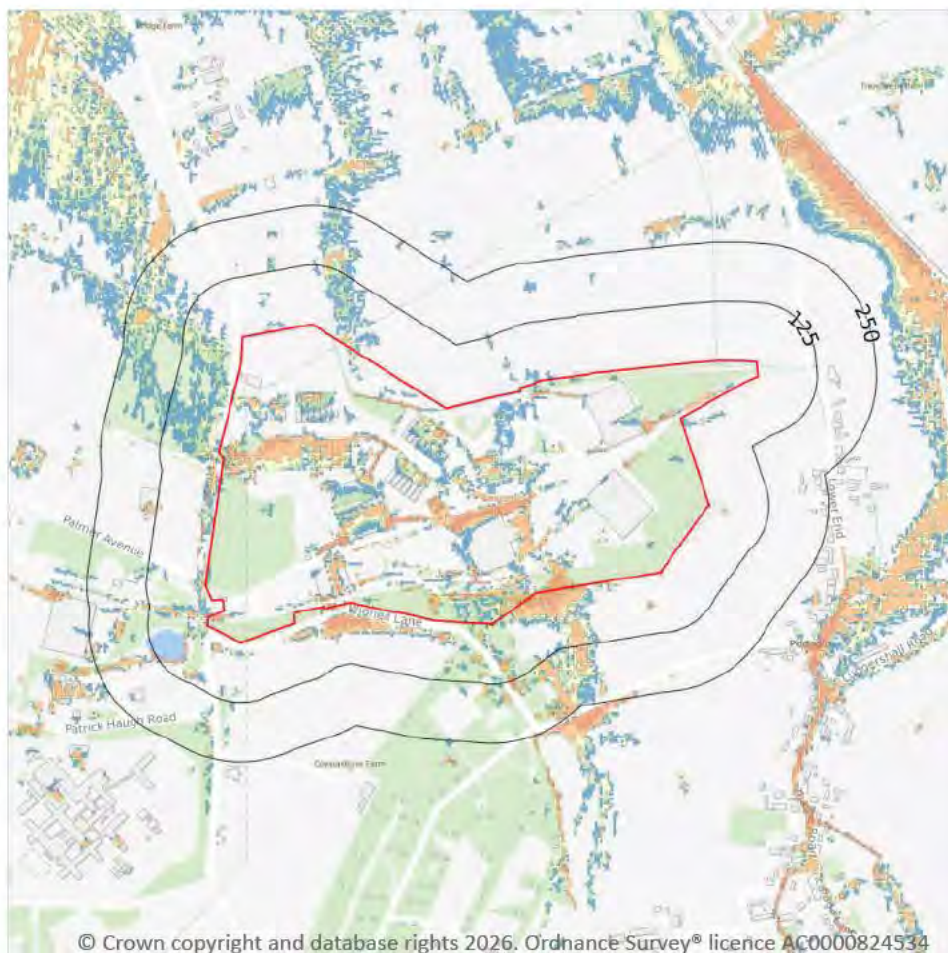
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on [page 45 >](#)

Location	Type
On site	Zone 3 - (Fluvial /Tidal Models)

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

8 Surface water flooding



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

1 in 30 year, Greater than 1.0m

Highest risk within 50m

1 in 30 year, Greater than 1.0m

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.

Features are displayed on the Surface water flooding map on [page 49](#) >

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.

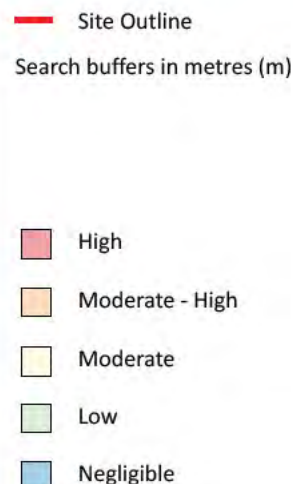
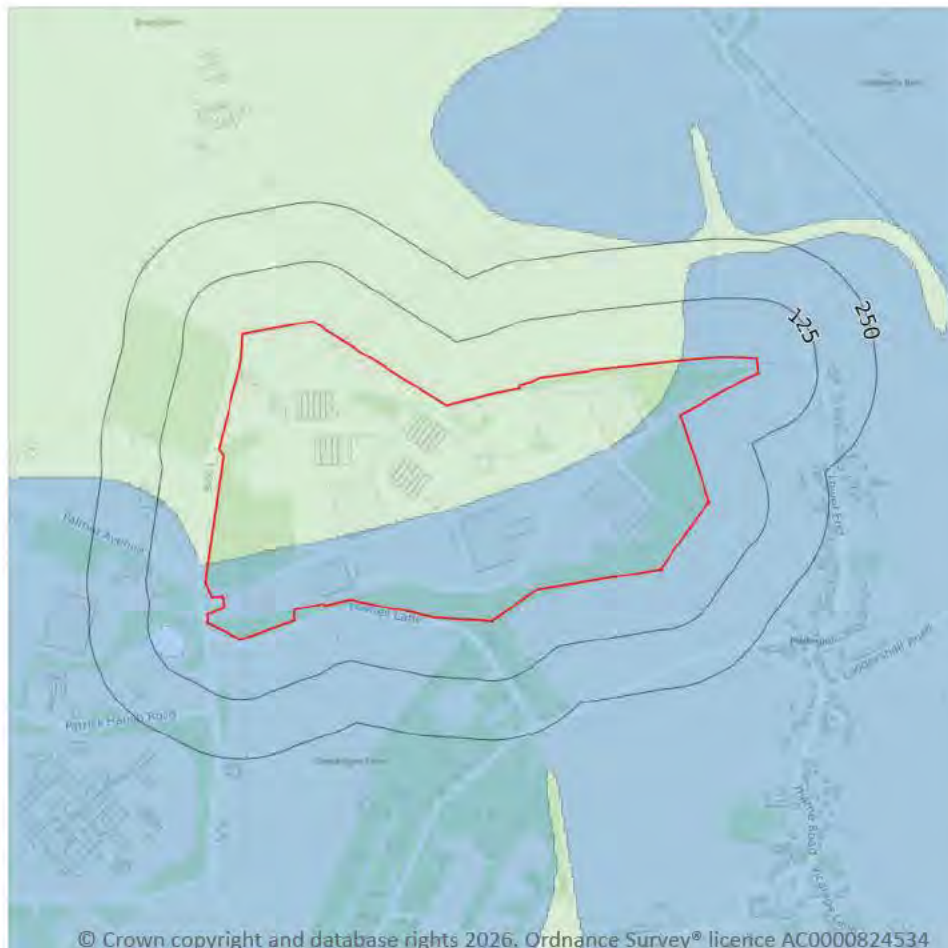


The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

Low

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 51](#) >

This data is sourced from Ambient Risk Analytics.



10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

1

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.

Features are displayed on the Environmental designations map on [page 52](#) >

ID	Location	Name	Data source
-	1825m W	Arncott Bridge Meadows SSSI	Natural England



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

0

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.

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

10.7 Designated Ancient Woodland

Records within 2000m

6

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.

Features are displayed on the Environmental designations map on [page 52 >](#)

ID	Location	Name	Woodland Type
1	876m S	Piddington Wood	Ancient & Semi-Natural Woodland
2	912m S	Piddington Wood	Ancient & Semi-Natural Woodland
3	1111m SW	Arncott Wood	Ancient & Semi-Natural Woodland
4	1143m SW	Arncott Wood	Ancient & Semi-Natural Woodland
5	1368m SW	Little Wood	Ancient & Semi-Natural Woodland
6	1445m SW	Arncott Wood	Ancient & Semi-Natural Woodland

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

5

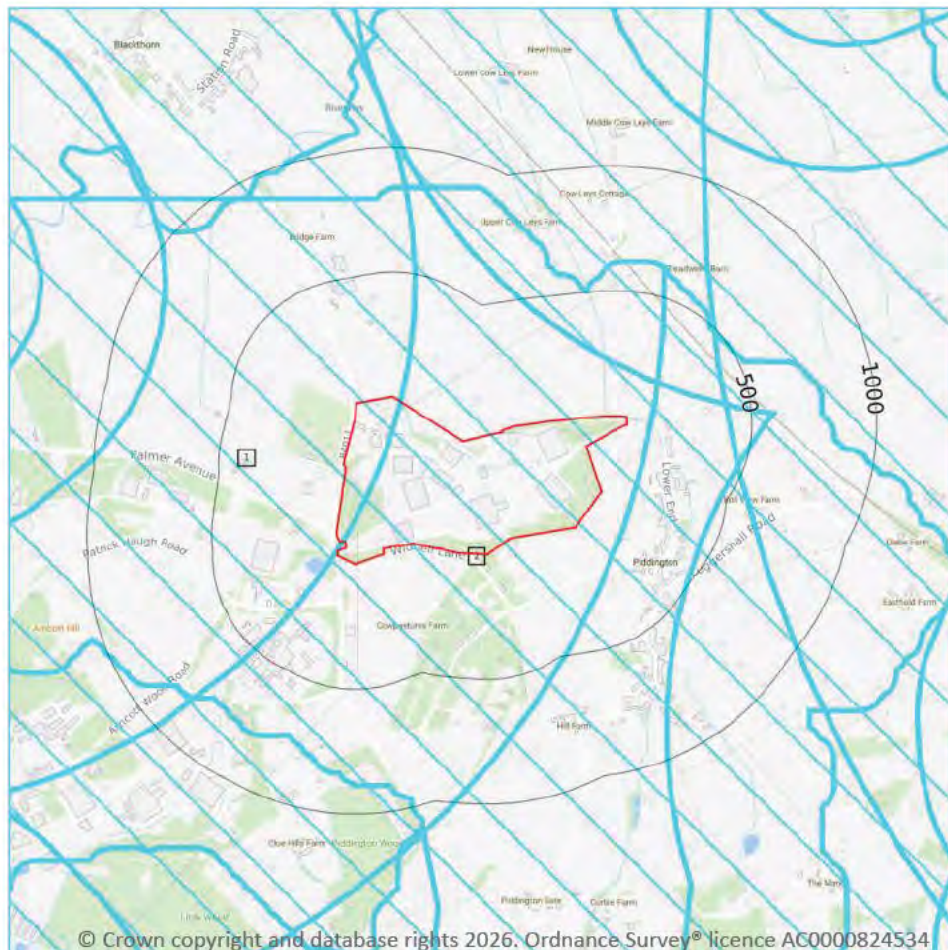
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	Cherwell (Ray to Thames) and Woodeaton Brook NVZ	Surface Water	472	Existing
173m E	Cherwell (Ray to Thames) and Woodeaton Brook NVZ	Surface Water	472	Existing
1454m S	Cherwell (Ray to Thames) and Woodeaton Brook NVZ	Surface Water	472	Existing
1645m S	Cherwell (Ray to Thames) and Woodeaton Brook NVZ	Surface Water	472	Existing
1687m S	Thame (Scotsgrove Brook to Thames) NVZ	Surface Water	479	Existing

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



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

2

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 57](#) >

ID	Location	Type of developments requiring consultation
1	On site	https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0101355322342&notes=&location=462010,217595%20(IRZ%20polygon%20centre)
2	On site	https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0301355500040&notes=&location=463113,217655%20(IRZ%20polygon%20centre)



This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

2

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.

Features are displayed on the SSSI Impact Zones and Units map on [page 57](#) >

ID: -
Location: 1825m W
SSSI name: Arncott Bridge Meadows
Unit name: Eastern Most Field Strip
Broad habitat: Neutral Grassland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland neutral grassland (MG5)	Favourable	06/07/2020

ID: -
Location: 1891m W
SSSI name: Arncott Bridge Meadows
Unit name: Middle And Western Field Strips
Broad habitat: Neutral Grassland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland neutral grassland (MG4)	Favourable	06/07/2020

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



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

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

1

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.

Features are displayed on the Visual and cultural designations map on [page 59 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
1	230m SE	Fir Tree House	II	1233003	26/11/1951

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



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

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 62](#) >

ID	Location	Classification	Description
1	On site	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.



ID	Location	Classification	Description
4	68m S	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

1

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.

Features are displayed on the Agricultural designations map on [page 62](#) >

ID	Location	Name	Classification	Other relevant legislation
6	249m E	The Pound	Section 4 Conclusive Registered Common Land	—

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

12.3 Tree Felling Licences

Records within 250m

3

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.

Features are displayed on the Agricultural designations map on [page 62](#) >

ID	Location	Description	Reference	Application date
2	On site	Selective Fell/Thin (Unconditional)	019/521/11-12	29/05/2012
3	On site	Selective Fell/Thin (Unconditional)	019/521/11-12	29/05/2012
5	223m W	Selective Fell/Thin (Unconditional)	019/447/16-17	04/01/2017

This data is sourced from the Forestry Commission.



12.4 Environmental Stewardship Schemes

Records within 250m

6

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.

Location	Reference	Scheme	Start Date	End date
On site	AG00582152	Entry Level plus Higher Level Stewardship	01/09/2014	31/08/2024
On site	AG00831453	Entry Level plus Higher Level Stewardship	01/11/2012	31/10/2022
On site	AG00489735	Entry Level Stewardship	01/09/2013	31/08/2018
On site	AG00424428	Entry Level plus Higher Level Stewardship	01/11/2012	31/10/2022
117m NE	AG00582152	Entry Level plus Higher Level Stewardship	01/09/2014	31/08/2024
203m S	AG00489735	Entry Level Stewardship	01/09/2013	31/08/2018

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

1

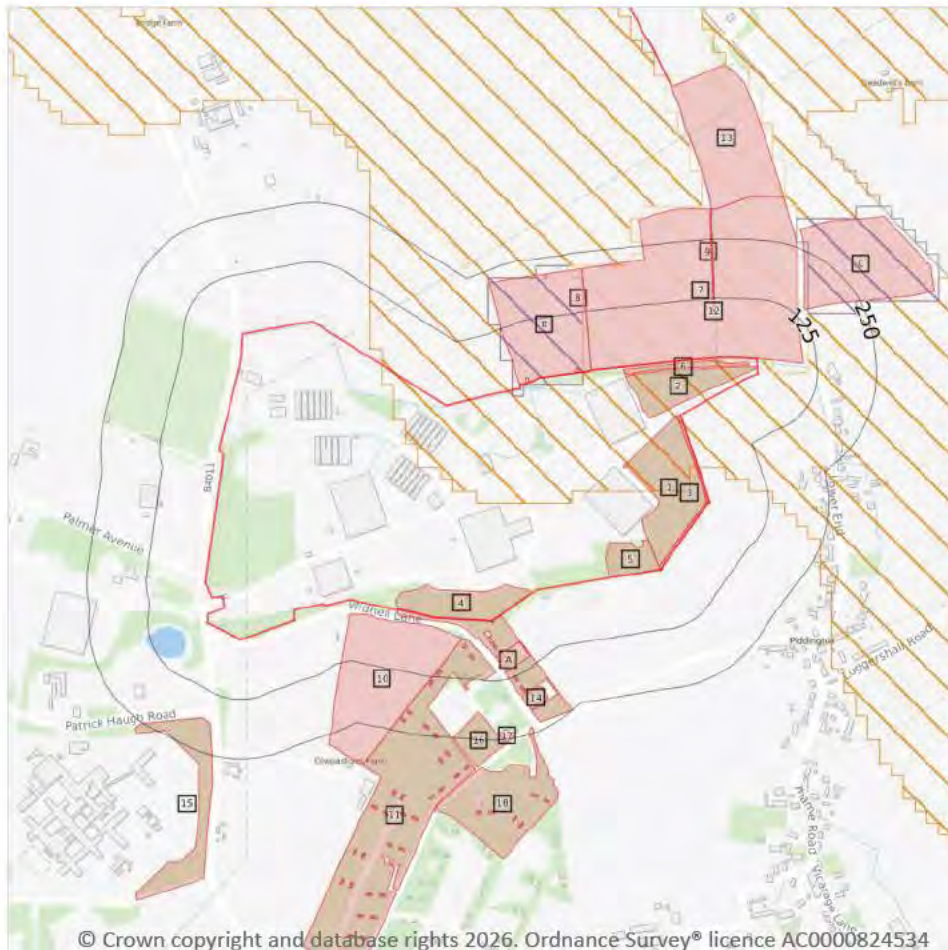
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
19m S	1635899	Countryside Stewardship (Middle Tier)	01/01/2024	31/12/2028

This data is sourced from Natural England.



13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

20

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 65](#) >

ID	Location	Main Habitat	Other habitats
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
5	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	On site	Good quality semi-improved grassland	Main habitat: LMEAD (FEP + HLS)
A	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
B	On site	No main habitat but additional habitats present	Additional: LMEAD (FEP 50%)
10	19m S	Lowland meadows	-
11	40m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	66m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
12	94m N	Good quality semi-improved grassland	Main habitat: LMEAD (FEP + HLS)
13	123m N	Good quality semi-improved grassland	Main habitat: LMEAD (FEP + HLS)
C	145m NE	Good quality semi-improved grassland	Main habitat: GQSIG (FEP + HLS)
14	167m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
15	181m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
16	193m S	No main habitat but additional habitats present	Additional: DWOOD (INV 50%)
17	229m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
18	238m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

4

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.

Features are displayed on the Habitat designations map on [page 65](#) >

ID	Location	Type	Habitat
8	On site	Network Enhancement Zone 1	Not specified
9	On site	Habitat Restoration-Creation	Not specified
B	On site	Restorable Habitat	Not specified
C	146m NE	Restorable Habitat	Not specified



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 68](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SP61NW

This data is sourced from the British Geological Survey.



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



- Site Outline**
- Search buffers in metres (m)**
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

1

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.

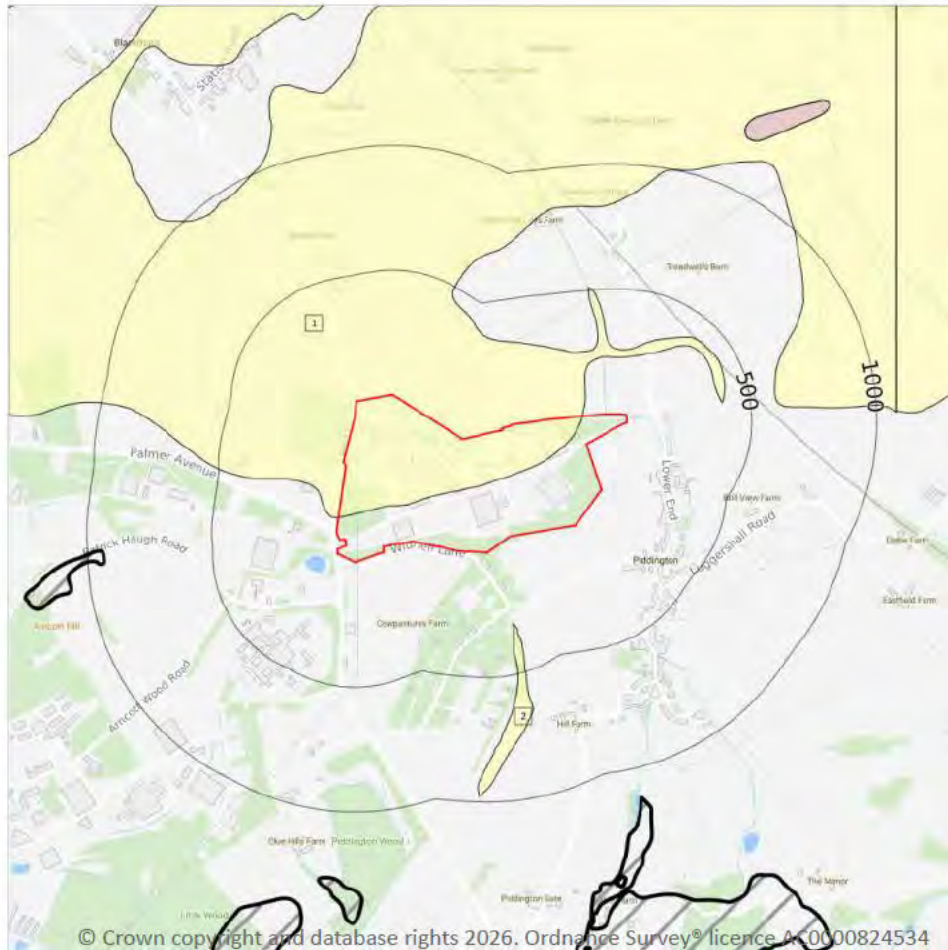
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 69](#) >

ID	Location	LEX Code	Description	Rock description
1	386m W	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

2

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.

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 70](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	ALV-XCSV	Alluvium-Clay, Sand And Gravel	Clay, sand and gravel
2	301m S	ALV-XCSV	Alluvium-Clay, Sand And Gravel	Clay, sand and gravel

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

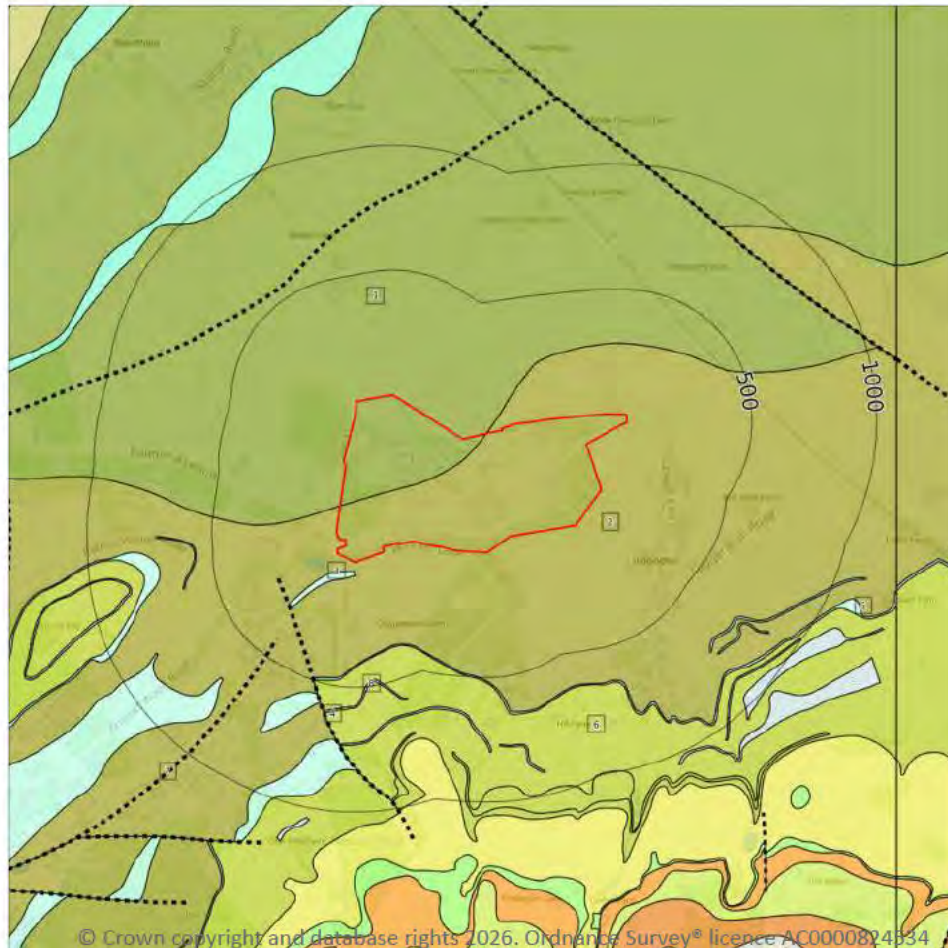
0

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

6

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 72 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	PET-MDST	Peterborough Member-Mudstone	Callovian
2	On site	SBY-MDST	Stewartby Member-Mudstone	Callovian
3	34m S	SBY-LMST	Stewartby Member-Limestone	Callovian
5	366m SE	SBY-LMST	Stewartby Member-Limestone	Callovian



ID	Location	LEX Code	Description	Rock age
6	372m S	WEY-MDST	Weymouth Member-Mudstone	Oxfordian
8	476m S	WEY-LMST	Weymouth Member-Limestone	Oxfordian

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

2

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.

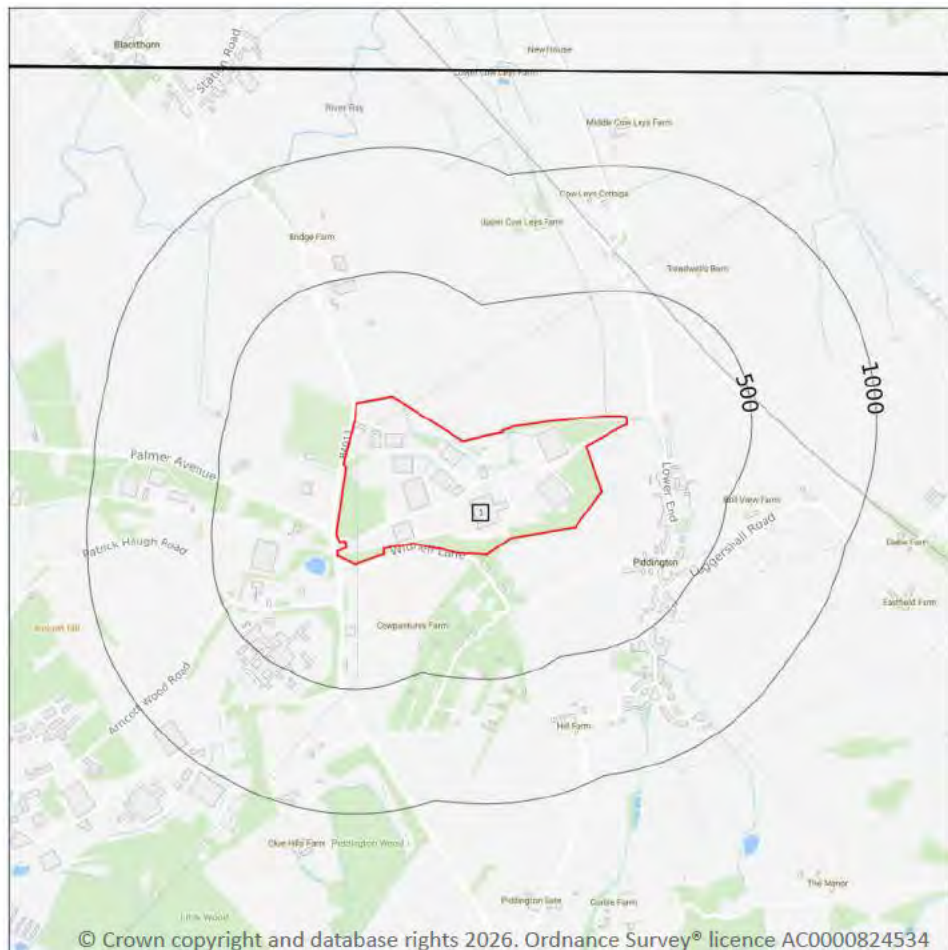
Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 72 >](#)

ID	Location	Category	Description
4	258m SW	FAULT	Fault, inferred, displacement unknown
7	422m SW	FAULT	Fault, inferred, displacement unknown

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



- Site Outline
- Search buffers in metres (m)
- ☐ 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 74](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW237_thame_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground



- Site Outline**
- Search buffers in metres (m)**
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

1

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 75 >](#)

ID	Location	LEX Code	Description	Rock description
1	393m W	MGR-ARTDP	Made Ground	Artificial deposit

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m

0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

2

Superficial geological deposits at 1:50,000 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.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 77 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	ALV-XCZSV	Alluvium	Clay, silt, sand and gravel
2	333m S	ALV-XCZSV	Alluvium	Clay, silt, sand and gravel

This data is sourced from the British Geological Survey.



15.5 Superficial permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	High	Very Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 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.

15.7 Landslip permeability (50k)

Records within 50m

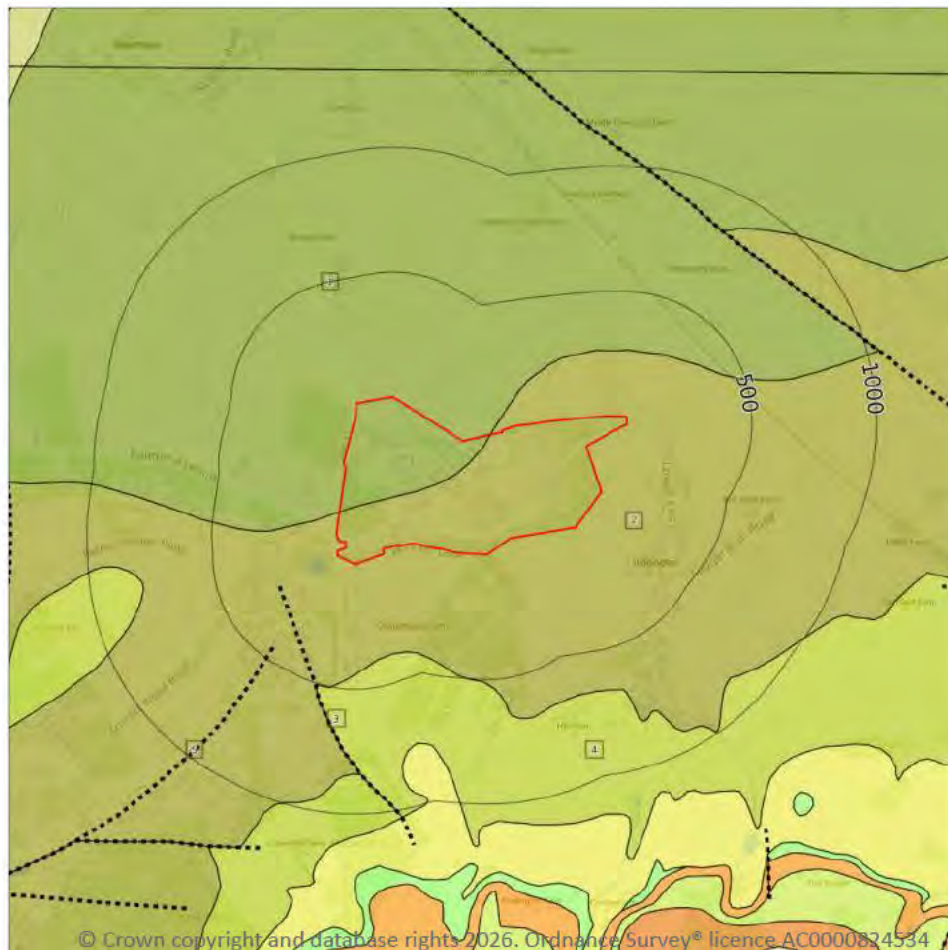
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

3

Bedrock geology at 1:50,000 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 1:50,000 scale - Bedrock map on [page 79](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PET-MDST	Peterborough Member-Mudstone	Callovian
2	On site	SBY-MDST	Stewartby Member-Mudstone	Callovian
4	389m S	WEY-MDST	Weymouth Member-Mudstone	Oxfordian

This data is sourced from the British Geological Survey.



15.9 Bedrock permeability (50k)

Records within 50m

2

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Low	Very Low
On site	Fracture	Low	Very Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

2

Linear features at the ground or bedrock surface at 1:50,000 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.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 79](#) >

ID	Location	Category	Description
3	263m SW	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres
5	438m SW	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres

This data is sourced from the British Geological Survey.



16 Boreholes



Site Outline
Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m

5

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on [page 81](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	158m W	462600 217600	BICESTER COD-BOILER HOUSES B14 & G14	13.0	N	340344 ↗
2	228m S	463196 217259	RSME BICESTER WS402	-	Y	N/A
A	237m S	463403 217242	RSME BICESTER TP403A	-	Y	N/A



ID	Location	Grid reference	Name	Length	Confidential	Web link
A	237m S	463420 217245	RSME BICESTER WS403	–	Y	N/A
A	242m S	463405 217237	RSME BICESTER TP403	–	Y	N/A

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.1 Shrink swell clays

Records within 50m

1

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

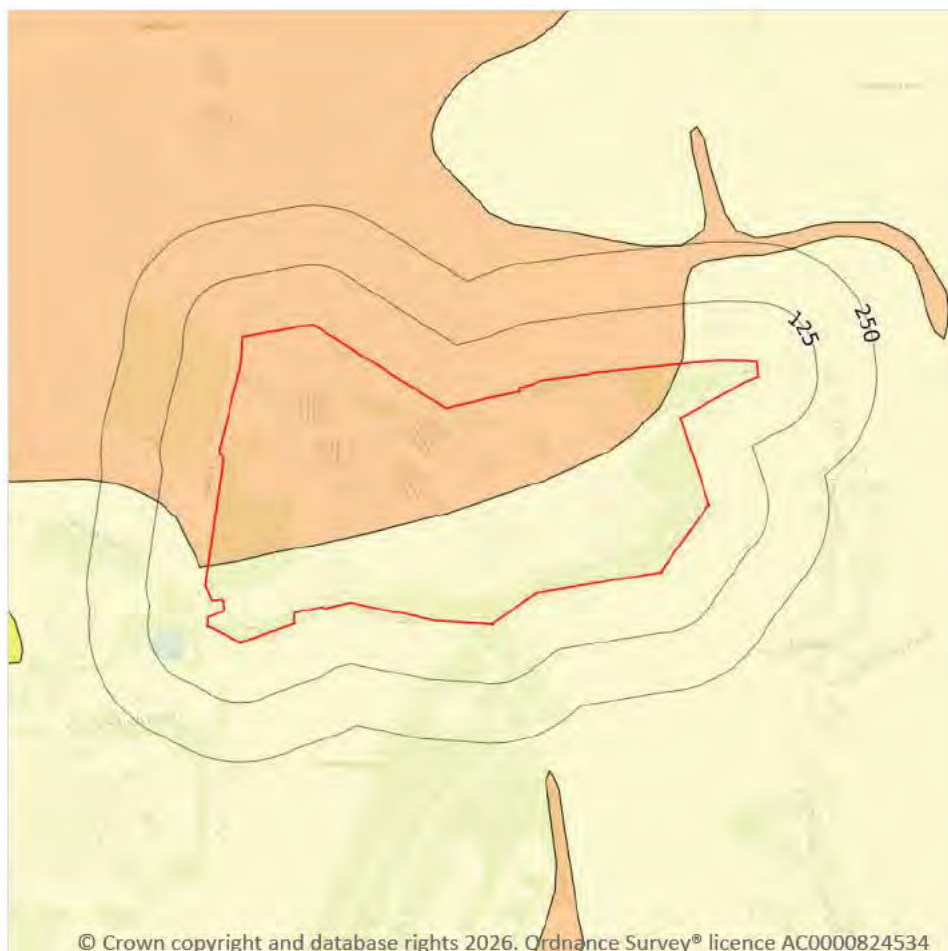
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 83](#) >

Location	Hazard rating	Details
On site	Moderate	Ground conditions predominantly high plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



- Site Outline**
- Search buffers in metres (m)**
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.2 Running sands

Records within 50m

2

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on [page 84](#) >

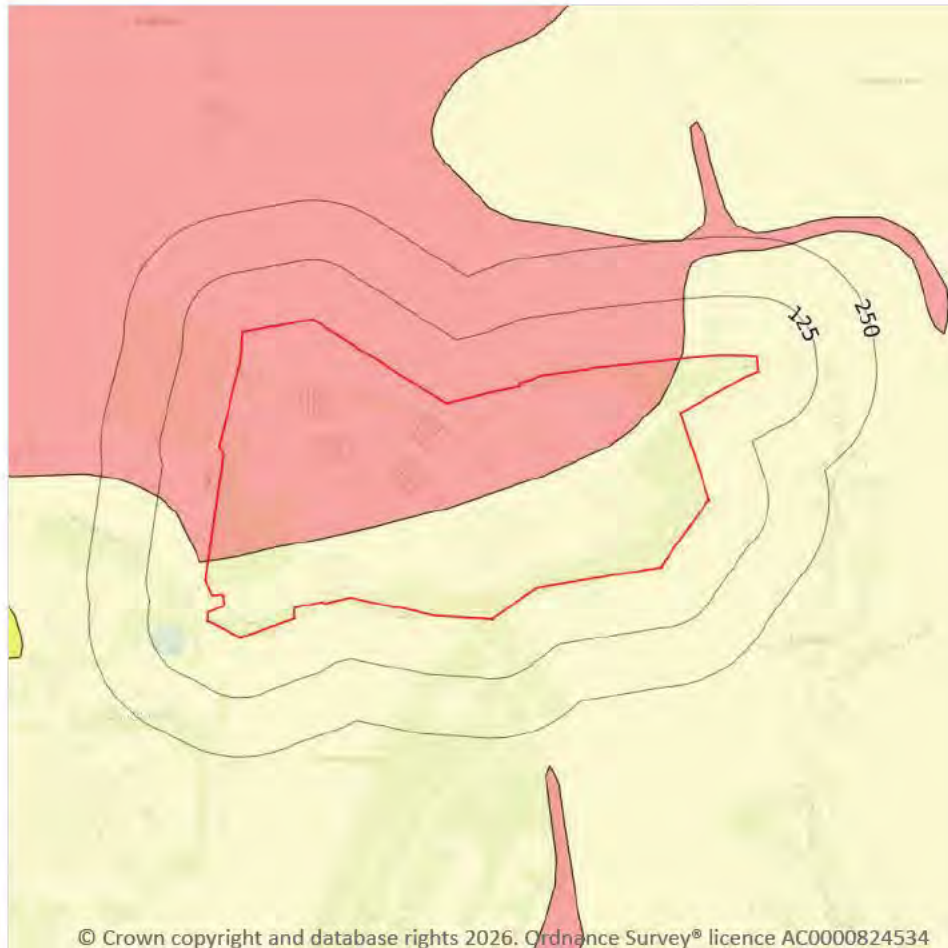
Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.



Location	Hazard rating	Details
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



- Site Outline**
- Search buffers in metres (m)**
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.3 Compressible deposits

Records within 50m

2

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 86 >](#)

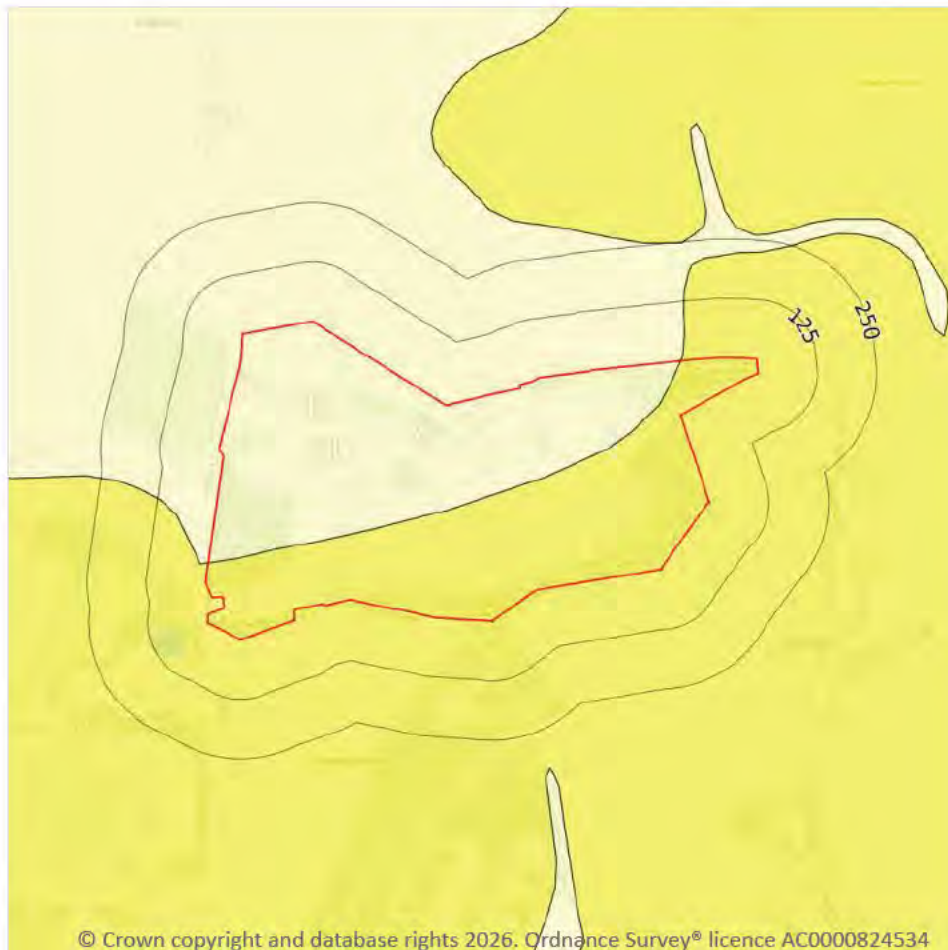
Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
On site	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.



This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



- Site Outline**
- Search buffers in metres (m)**
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.4 Collapsible deposits

Records within 50m

2

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

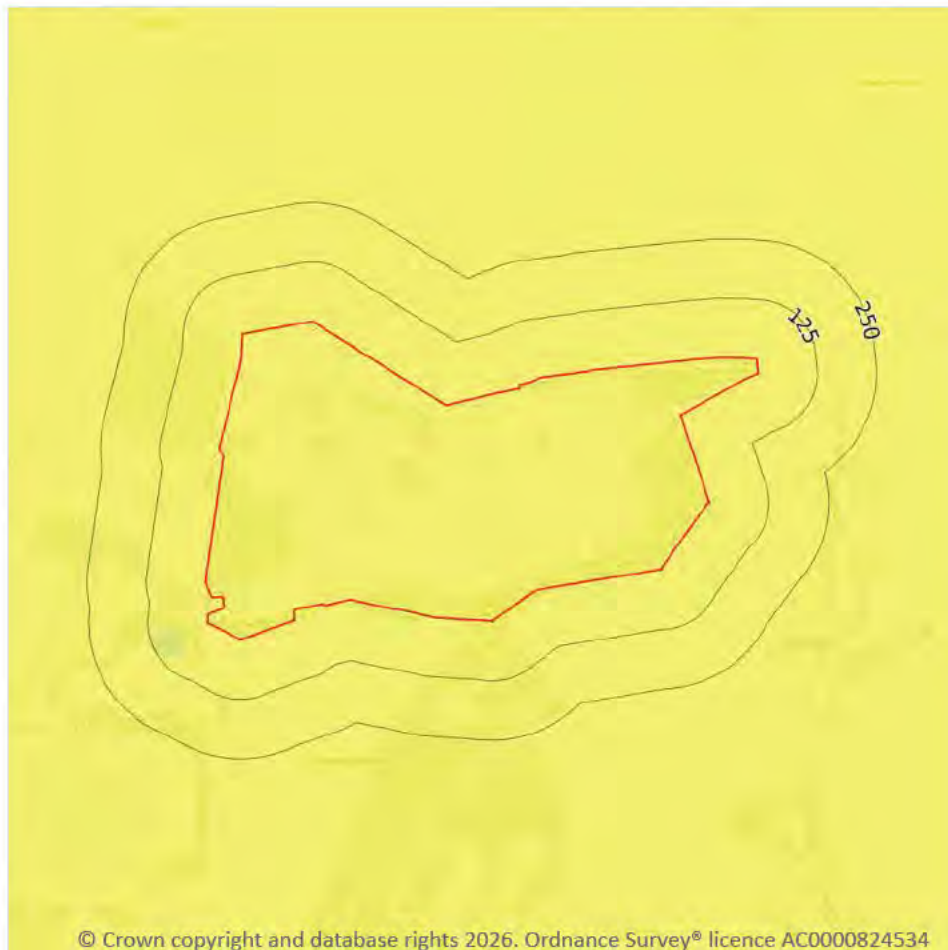
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 88](#) >

Location	Hazard rating	Details
On site	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



- Site Outline**
- Search buffers in metres (m)**
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.5 Landslides

Records within 50m

1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on [page 89](#) >

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



- Site Outline**
- Search buffers in metres (m)**
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 90](#)

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m

0

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m**2**

Historical land uses identified from Ordnance Survey® mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 92](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	246m NW	Sewage Works	1982	1:10000
A	246m NW	Sewage Works	1992	1:10000

This data is sourced from Ordnance Survey®/Groundsure.

18.3 Underground workings

Records within 1000m**0**

Historical land uses identified from Ordnance Survey® mapping that indicate the presence of underground workings e.g. mine shafts.

This data is sourced from Ordnance Survey®/Groundsure.

18.4 Underground mining extents

Records within 500m**0**

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m**0**

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.



18.6 Non-coal mining

Records within 1000m

0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.



18.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site

0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site

0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site
0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site
0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey® maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey® mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.



20 Radon



20.1 Radon

Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 99](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None



This data is sourced from the British Geological Survey and UK Health Security Agency.



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

17

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg



Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
5m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
39m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
49m S	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

22.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.



This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey® mapping.

This data is sourced from the Ordnance Survey®.

22.4 Historical railway and tunnel features

Records within 250m

9

Railways and tunnels digitised from historical Ordnance Survey® mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on [page 103](#) >

Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1991	2500
On site	Railway Sidings	1994	2500
On site	Railway Sidings	1978	2500
On site	Railway Sidings	1982	10000
On site	Railway Sidings	1992	10000
42m SW	Railway Sidings	1991	2500
45m SW	Railway Sidings	1978	2500
81m W	Railway Sidings	1991	2500
203m W	Railway Sidings	1991	2500

This data is sourced from Ordnance Survey®/Groundsure.

22.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.



22.6 Historical railways

Records within 250m

31

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

Features are displayed on the Railway infrastructure and projects map on [page 103](#) >

Location	Description
On site	Disused
On site	Abandoned
On site	Disused
On site	Disused
On site	Abandoned
On site	Disused
On site	Abandoned
On site	Disused
On site	Disused
On site	Disused
On site	Disused
On site	Disused
On site	Disused
On site	Disused
On site	Abandoned
On site	Disused
On site	Disused
On site	Abandoned
On site	Abandoned
On site	Disused
On site	Disused
25m W	Abandoned
53m W	Abandoned



Location	Description
97m W	Abandoned
102m W	Disused
155m W	Disused
177m W	Abandoned
179m W	Disused
195m W	Disused
227m W	Abandoned
242m W	Abandoned

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey® and OpenStreetMap.

22.8 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference> ↗.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-conditions-april-2026/ ↗.

Site details: MOD0015

Grid ref: 463255.75, 217767.29

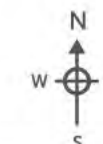
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Map name: County Series

Map date: 1879-1880

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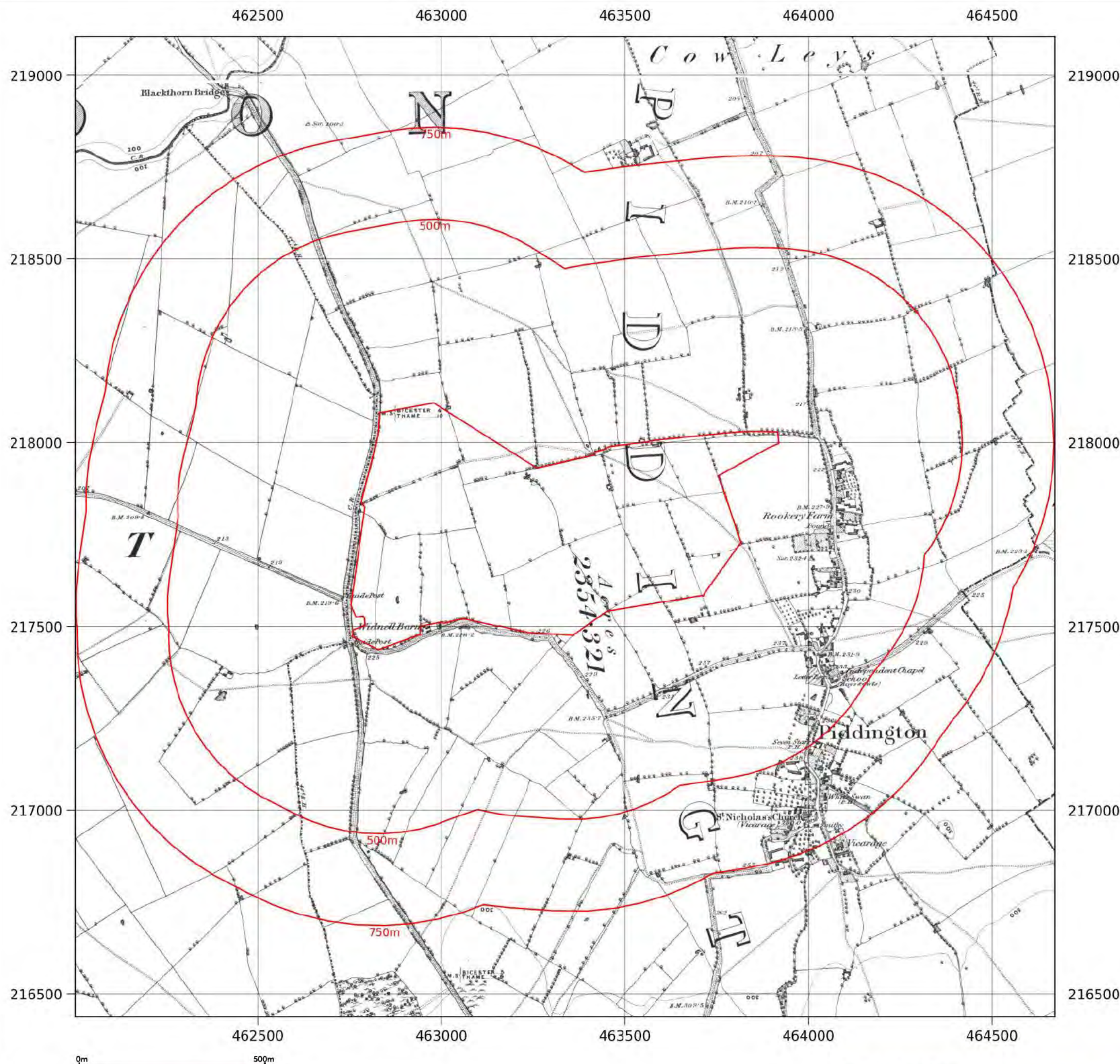
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Date: 1880
Surveyed: 1880
Revised: 1880

Date: 1879
Surveyed: 1879
Revised: 1879

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Site details: MOD0015

Grid ref: 463255.75, 217767.29

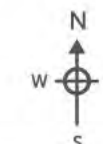
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Map name: County Series

Map date: 1898

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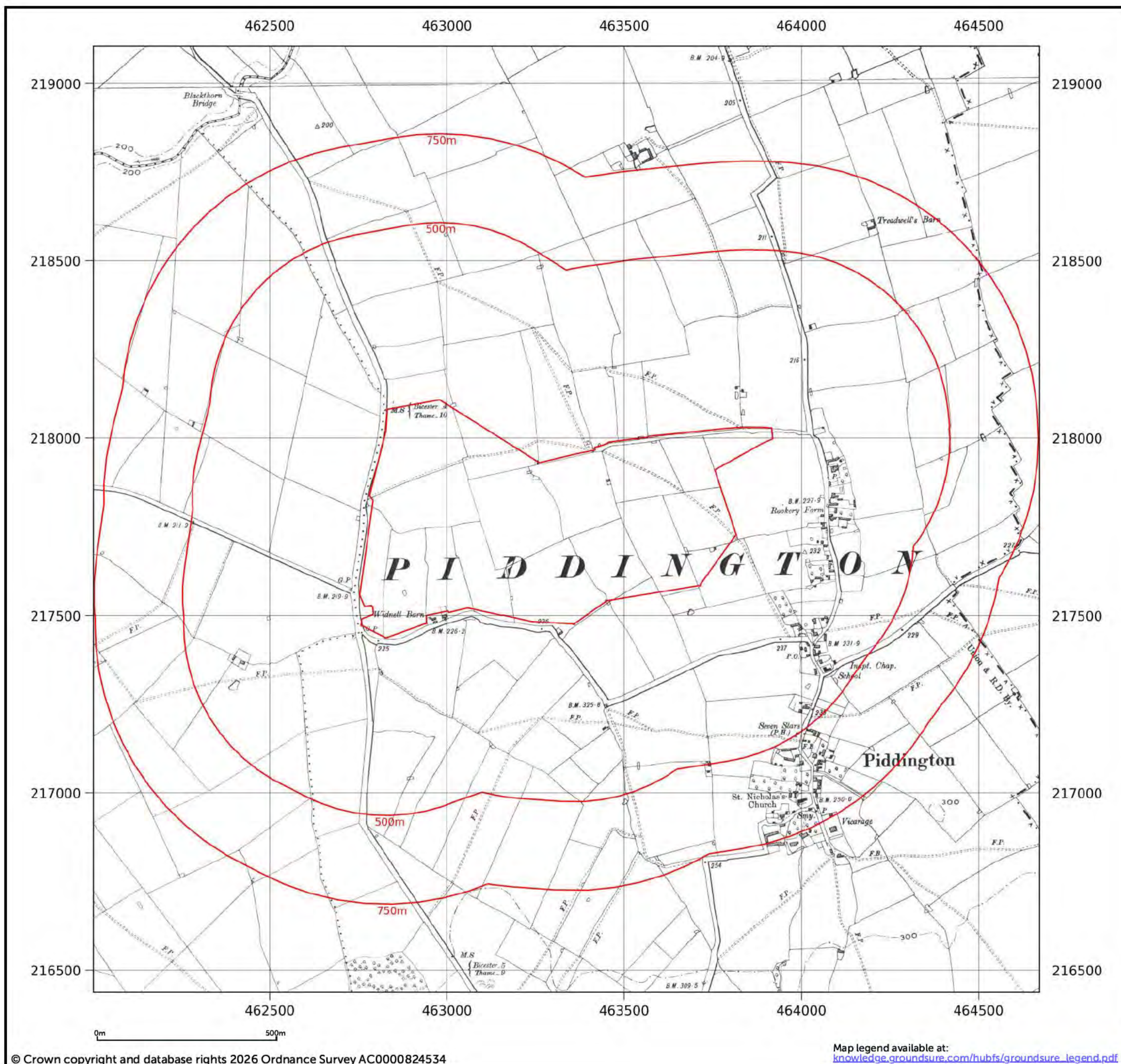
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Revised: 1898

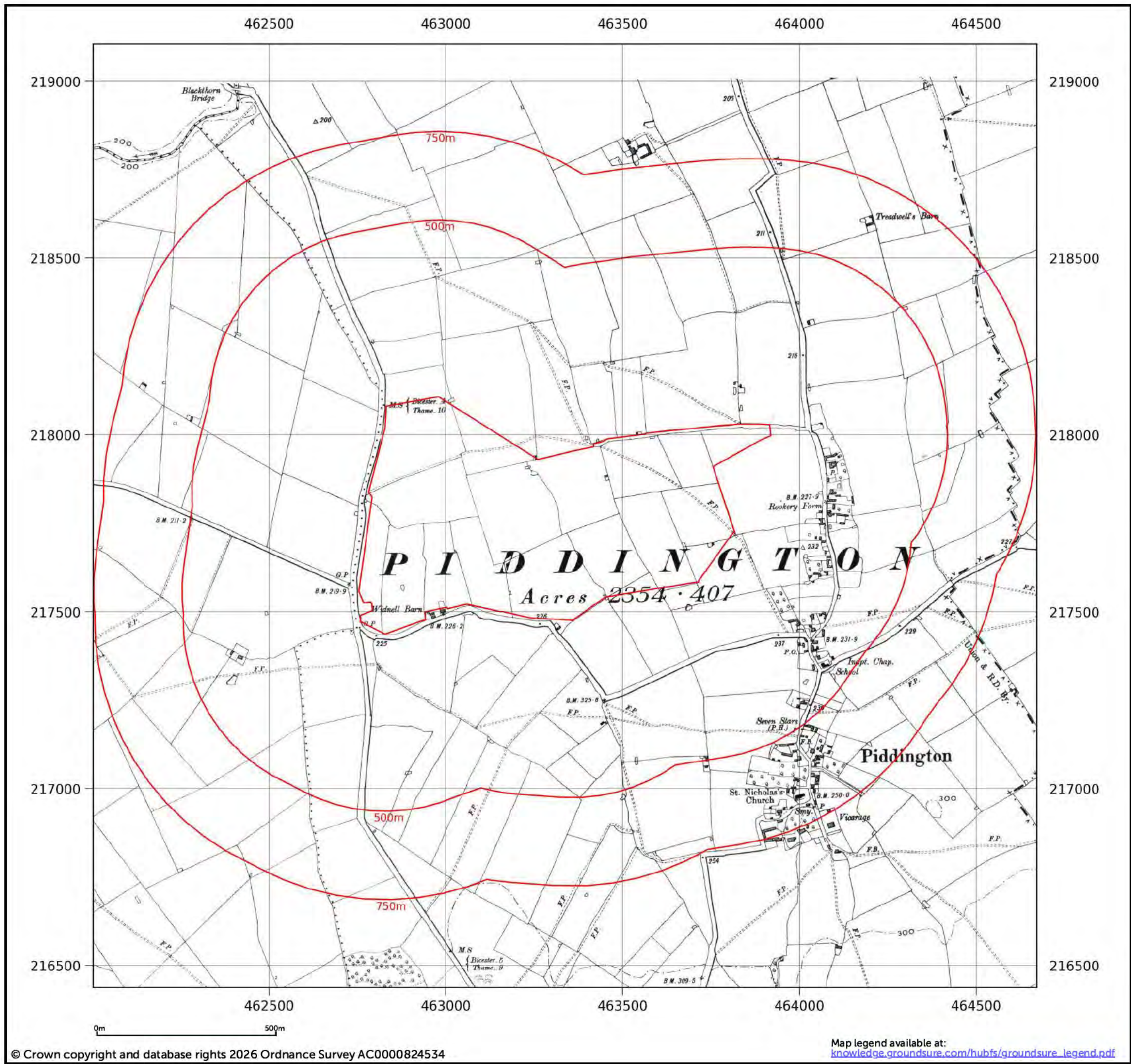
Date: 1898
Surveyed: 1879
Revised: 1898

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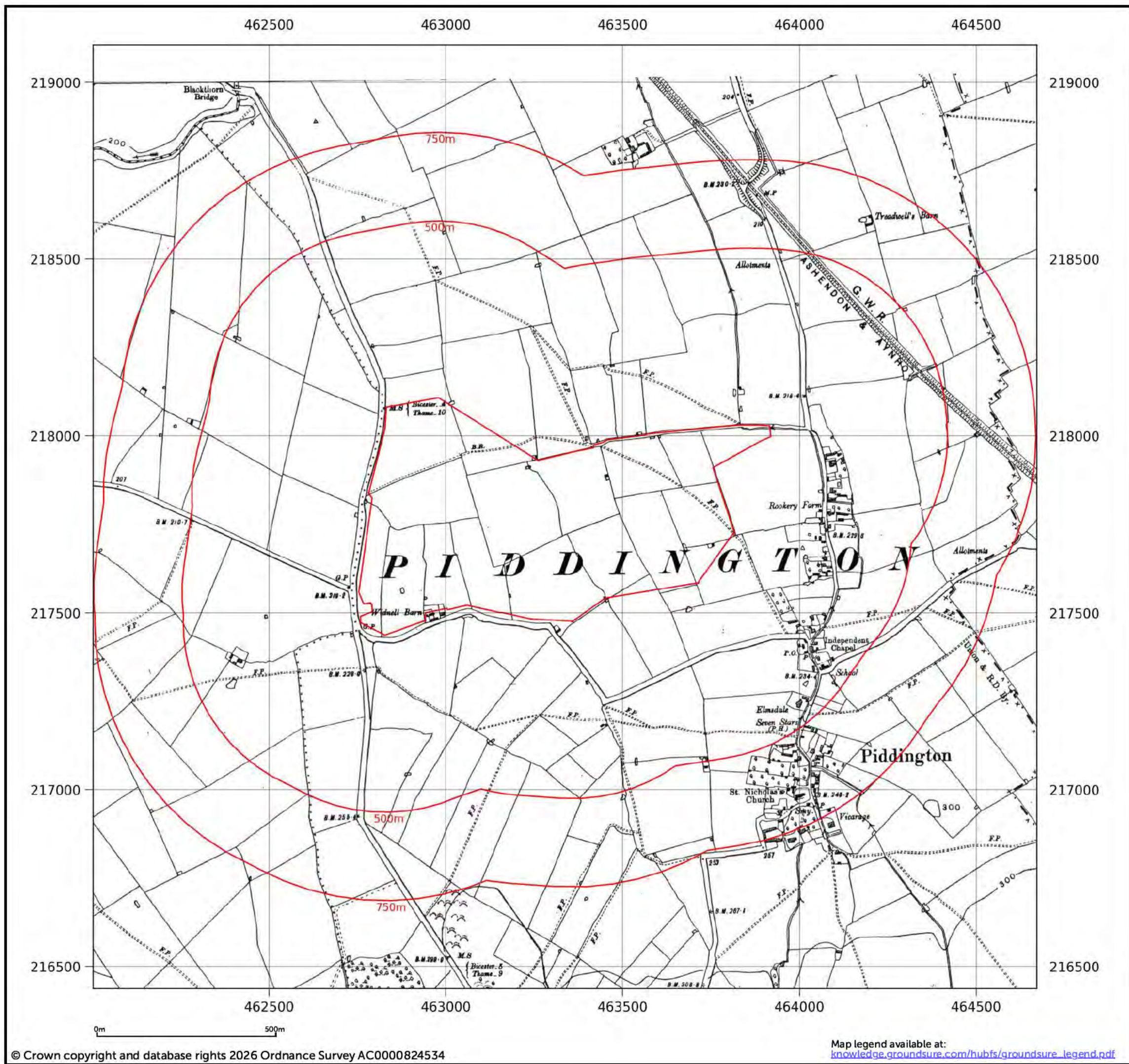
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Grid ref:	463255.75, 217767.29
Production date:	2 April 2026

Map name:	County Series
Map date:	1900
Scale:	1:10,560
Printed at:	1:10,560



Date: 1900

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Site details:	MOD0015
Grid ref:	463255.75, 217767.29
Production date:	2 April 2026
Map name:	County Series
Map date:	1919
Scale:	1:10,560
Printed at:	1:10,560

Date: 1919

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MOD0015

Grid ref: 463255.75, 217767.29

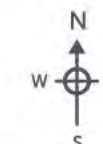
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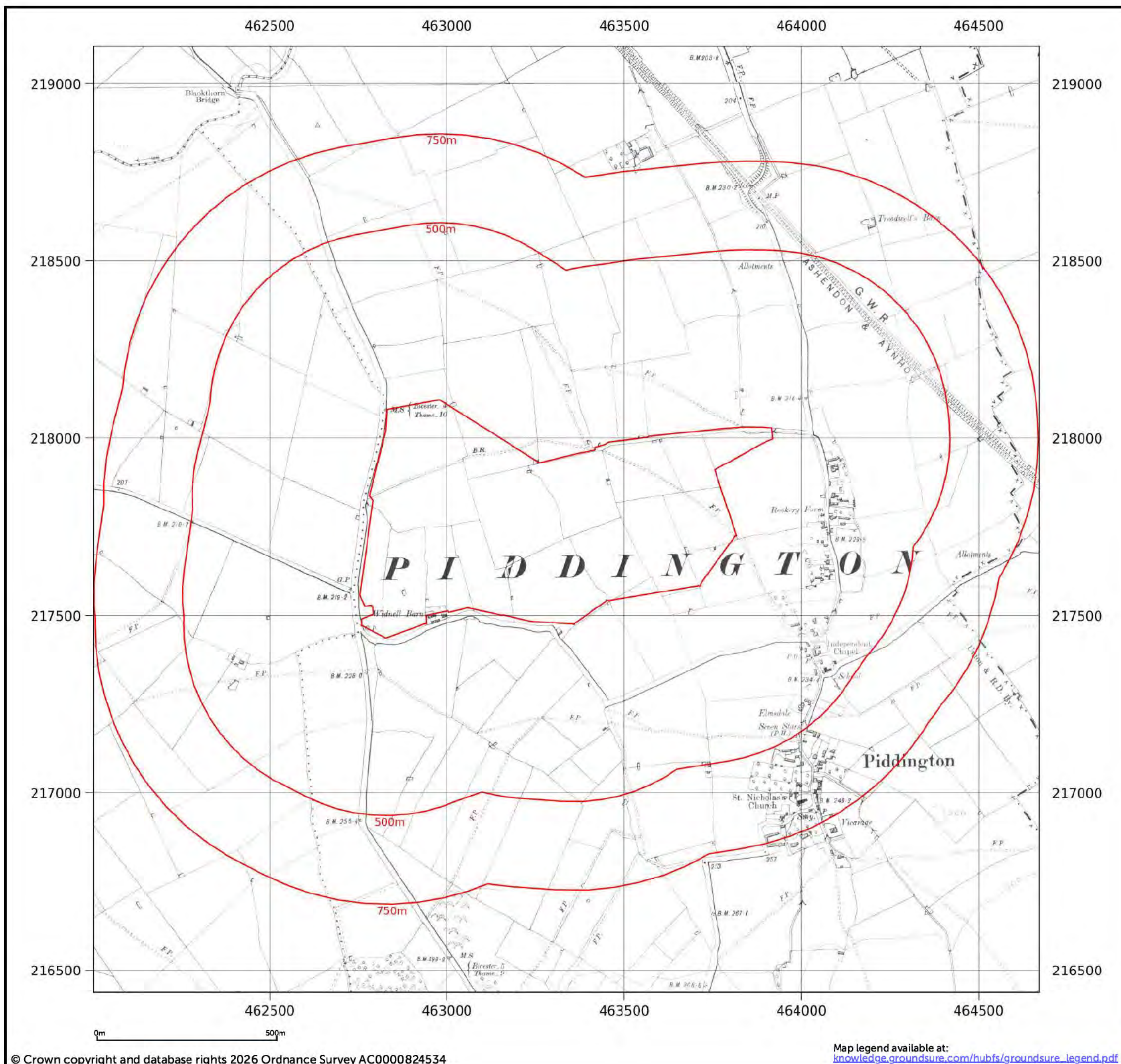
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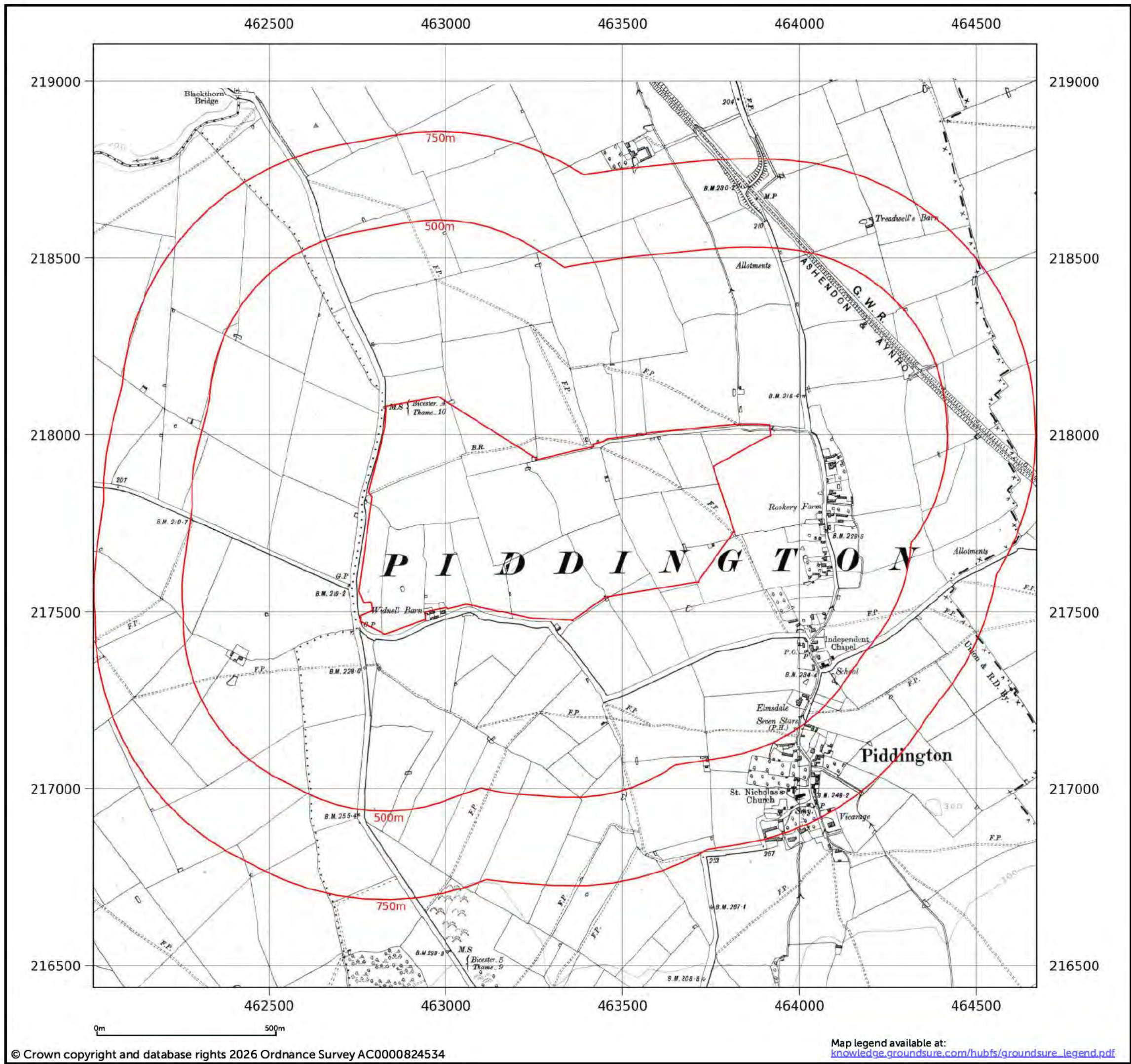
Date: 1919
Surveyed: 1879
Revised: 1919

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MOD0015	
Grid ref:	463255.75, 217767.29
Production date:	2 April 2026
Map name:	County Series
Map date:	1926
Scale:	1:10,560
Printed at:	1:10,560



Date: 1926

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Grid ref: 463255.75, 217767.29

Production date: 2 April 2026

Map name: County Series

Map date: 1950

Scale: 1:10,560

Printed at: 1:10,560



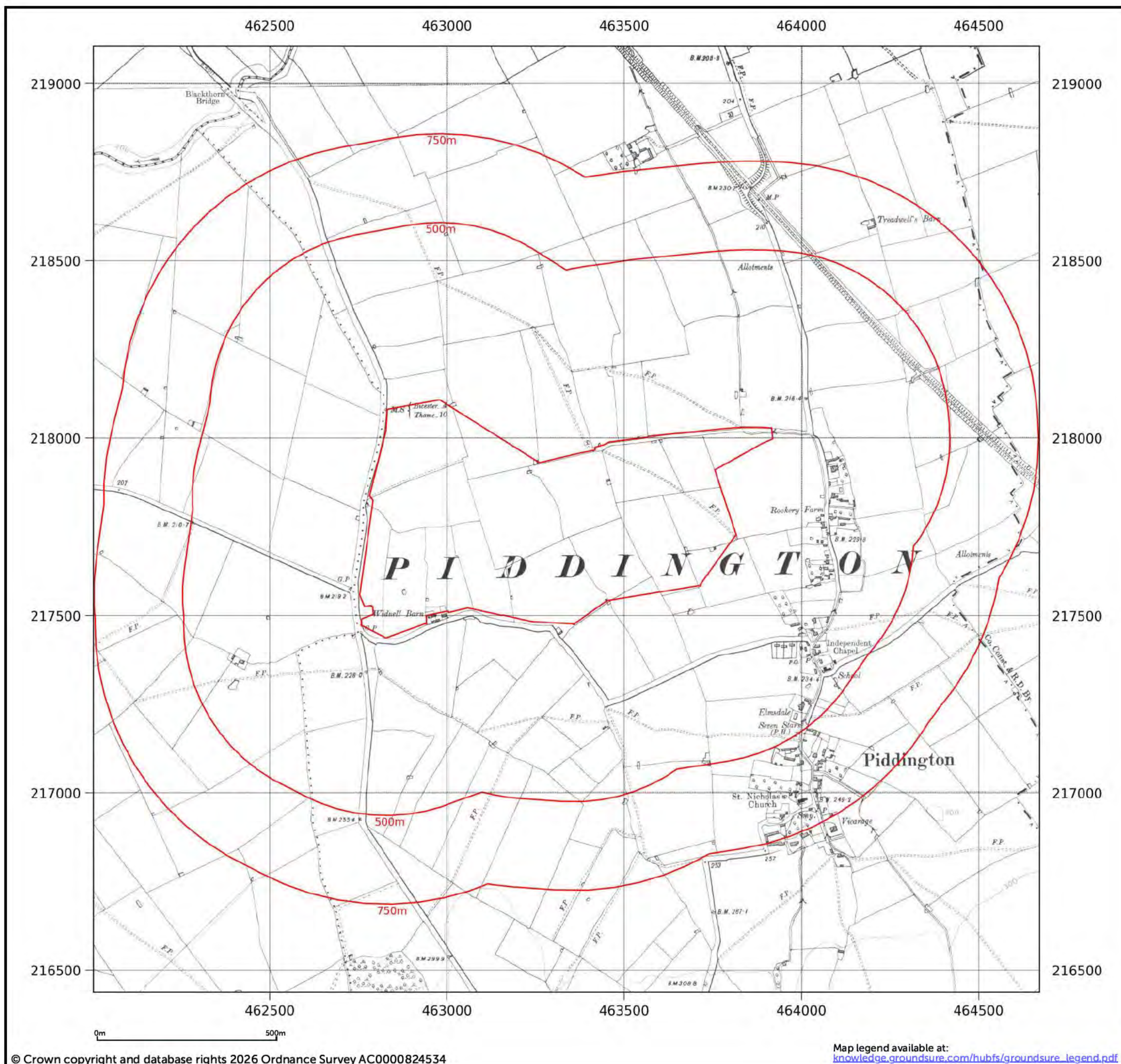
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Surveyed: 1879
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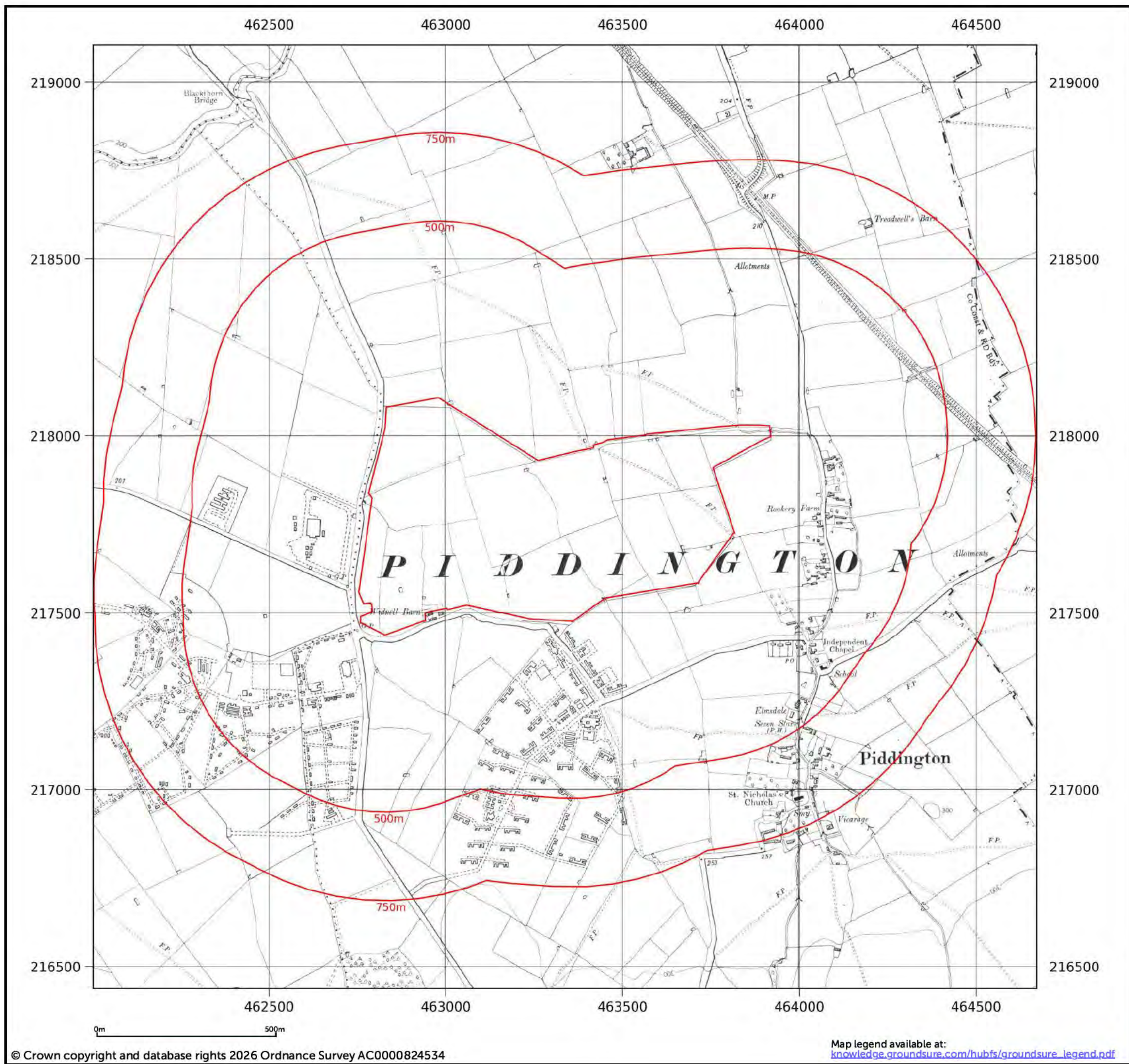
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Grid ref:	463255.75, 217767.29
Production date:	2 April 2026
Map name:	Provisional
Map date:	1958
Scale:	1:10,560
Printed at:	1:10,560

Date: 1958
Revised: 1957
Edition: 1958
Copyright: 1958



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MOD0015

Grid ref: 463255.75, 217767.29

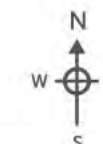
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Map name: National Grid

Map date: 1982

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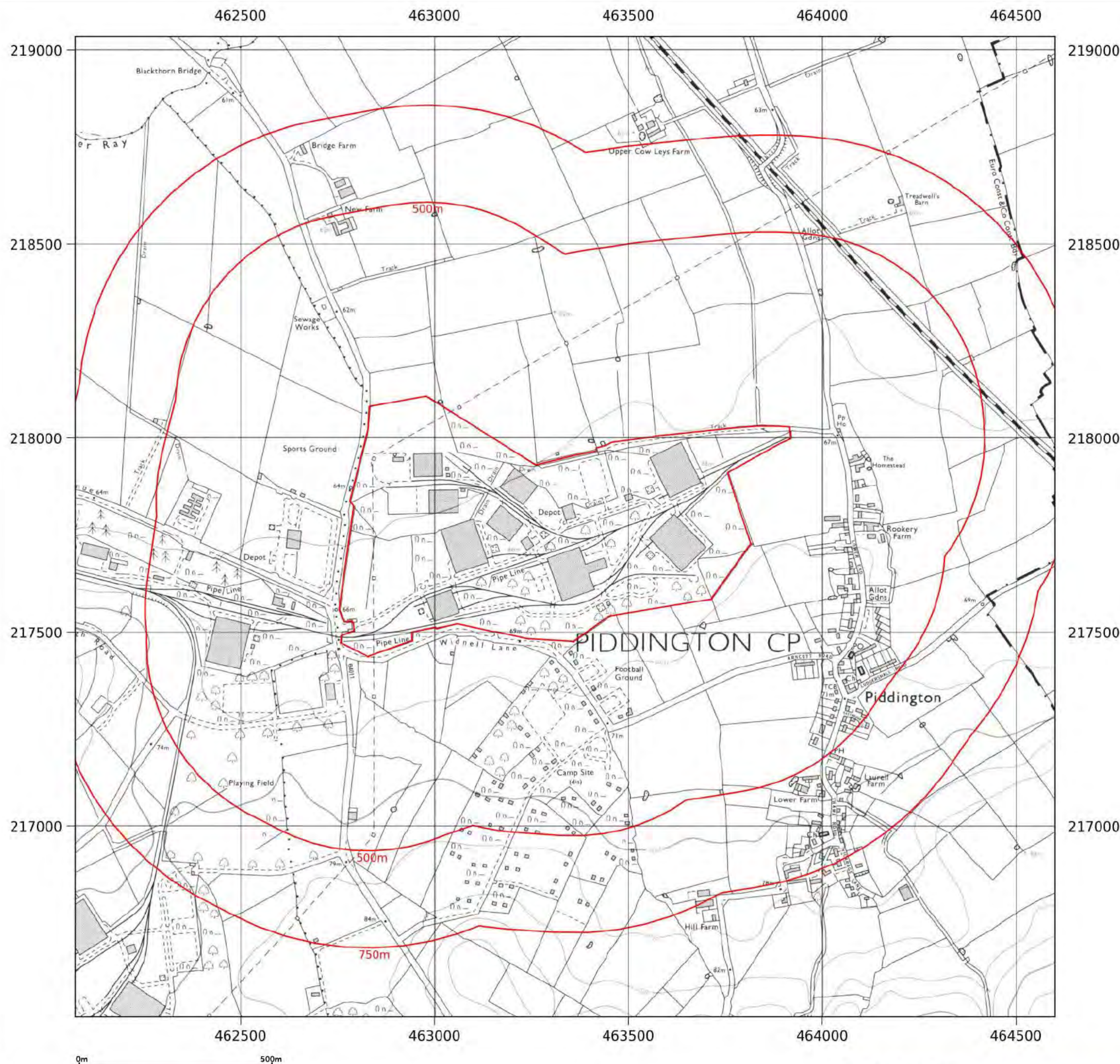


Date: 1982
Surveyed: 1979
Revised: 1982

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Site details: MOD0015

Grid ref: 463255.75, 217767.29

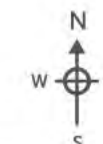
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Map name: National Grid

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Scale: 1:10,000

Printed at: 1:10,000



Date: 1992
Surveyed: 1979
Revised: 1992

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Site details: MOD0015

Grid ref: 463255.75, 217767.29

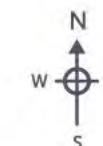
Production date: 2 April 2026

Map name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



Date: 2001

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Site details: MOD0015

Grid ref: 463255.75, 217767.29

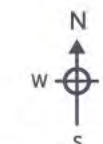
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Map name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



Date: 2010

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Grid ref: 463255.75, 217767.29

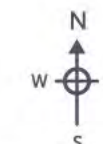
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Map name: National Grid

Map date: 2015

Scale: 1:10,000

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Date: 2015

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Site details: MOD0015

Grid ref: 463255.75, 217767.29

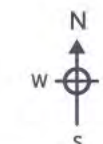
Production date: 2 April 2026

Map name: National Grid

Map date: 2025

Scale: 1:10,000

Printed at: 1:10,000



Date: 2025

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Appendix D: Geotechnical Risk Register

This section presents a Geotechnical Risk Register (GRR) for the site and is presented in Table 1 below. The risks have been evaluated using the risk evaluation matrix suggested in CD622 'Managing Geotechnical Risk' and are presented in Table 2.

For the purposes of this report, risk has been assessed with reference to 'likelihood', 'severity' and 'risk'

The GRR is based on the assumption that existing buildings will be utilised on the site with potential development restricted to the establishment of modular buildings on existing areas of hardstanding; the area of the central car park.

Table 1: Risk Evaluation Matrix

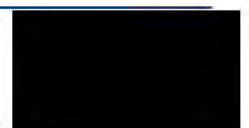
Risk Matrix						
Likelihood		Severity				
		1	2	3	4	5
		Minor	Moderate	Serious	Major	Catastrophic
1	Extremely unlikely	1	2	3	4	5
2	Unlikely	2	4	6	8	10
3	Likely	3	6	9	12	15
4	Extremely likely	4	8	12	16	20
5	Almost certain	5	10	15	20	25
Potential severity of harm occurring						
1	Minor	Minor damage or loss - (no human injury)				
2	Moderate	Moderate damage or loss - (slight injury or illness)				
3	Serious	Substantial damage or loss - (serious injury or illness)				
4	Major	Major damage or loss - (fatal injury)				
5	Catastrophic	Catastrophic damage or loss - (multiple fatalities)				
Risk Classification						
Low (1-8)	Ensure assumed control measures are maintained and reviewed as necessary.					

Medium (9-19)	Additional control measures needed to reduce risk rating to a level that is equivalent to a test of "reasonably required" for.
High (20-25)	Activity not permitted. Hazard to be avoided or risk to be reduced to tolerable level.

Table 2: Geotechnical Risk Register

(1) Hazard Reference	(2) Activity/Process/ Material/Element	(3) Hazard (also indicate who is at risk and how)	(4) Stage of Work	(5) Initial Risk Level			(6) Risk Control Measures: Design action taken, record of decision process including option considered, design constraints and justification for options/actions not having been taken	(7) Residual Risk Level			(8) Is there a 'significant' residual risk to be passed on? (Y/N)	(9) Status (Active / Closed)
				Likelihood	Severity	Risk Level		Likelihood	Severity	Risk Level		
1	Differential settlement due to variable ground conditions underlying areas of hardstanding	Differential settlement. Damage to structures.	During Operation	3	3	9	Undertake targeted investigation to determine ground bearing pressure and where necessary design and implement ground improvement measures.	1	3	3	N, risk to be removed following GI.	Active

Appendix E: Conceptual Site Model and Ground Contamination Risk Assessment



The information presented in the previous sections of this report have been collated and evaluated to establish an initial qualitative risk assessment for the site. A conceptual model of the site has been generated based on information derived from this Geo-Environmental and Geotechnical Desk Study, supplemented by information attained during the Tetra Tech site walkover and third-party data.

The proposed future use of the site has been considered as part of the basis of the ground contamination risk assessment.

It is understood that the existing buildings will be used on the site for accommodation purposes with no construction taking place other than potentially improving surface slabs to accommodate modular buildings.

The conceptual site model and subsequent risk assessment only considers the risk to future site users

The site has been considered with regard to current UK legislation and guidance, namely Part 2A of the Environmental Protection Act 1990 and the Contaminated Land (England) Regulations 2006, as amended, and in accordance with current UK good practice guidelines (for example BS10175:2011).

In general, ground contamination can occur through several causes, particularly from historical operations and activities. Contamination can result from either on-site sources or from on-site migration from off-site sources, leading to long term liabilities under recent legislation for any site owner.

For a risk of pollution or environmental harm to occur as a result of ground contamination, all of the following elements must be present:

- Source, i.e. a substance that is capable of causing pollution or harm;
- Pathway, i.e. a route by which the contaminant can reach a target; and
- Receptor (target), i.e. something which could be adversely affected by the contaminant.

If one of these elements is absent there can be no significant risk. If all are present then the magnitude of the risk is a function of the magnitude and mobility of the source, the sensitivity of the receptor and the nature of the migration pathway.

The conceptual site models with respect to ground contamination and the proposed development is presented in the following sections. A separate ground gas conceptual site model has been produced as the source-pathway-receptor linkage as the generation, and migration of gases is fundamentally different to that of solids and liquids.

GROUND GAS CONCEPTUAL SITE MODEL

A site can potentially be significantly affected by ground gas, principally methane and carbon dioxide, if it:

- Is located within 250m of a historical landfill.
- Is underlain by Made Ground containing a significant proportion of potentially degradable material.
- Is underlain by deep Made Ground (e.g. from backfilling of former ground workings).
- Is underlain by historical shallow coal workings.

No potential sources of ground gas have been identified either on-site or in the vicinity of the site, therefore there is no risk presented to future site users.

CONCEPTUAL SITE MODEL

The key source, pathway and receptor model is outlined below within the context of the proposed development end use.

Potential Sources of Contamination

The following onsite and offsite sources of contamination have been identified through the information derived from this Geo-Environmental and Geotechnical Desk Study.



Onsite Sources

- Site wide areas of Made Ground (unspecified)– potential for asbestos containing material (ACM).
- [REDACTED] Metals, inorganic and organic compounds, explosive residues.
- [REDACTED] Metals, inorganic and organic compounds.

Potential Contaminant Pathways

The following contaminant pathways are considered to be potentially active based on the current site conditions, proposed site end use, hydrology, underlying geology and hydrogeology.

Human Exposure Pathways

- Direct dermal contact or ingestion of soils, or inhalation of dust and/or vapours (i.e. human interaction with surface and sub-surface materials).

Potential Receptors at Risk

The following potential receptors have been identified based on the proposed development, site surroundings and underlying hydrogeology.

Human Health

- Future site users (residential);

The key source, pathway(s) and receptor model is outlined, and a qualitative risk assessment shown in Table 1 below. The risk assessment considers the site within an area context and assesses potential risks to identified receptors in relation to the existing site setting and the proposed development in line with CIRIA C552.

Reference tables, derived from CIRIA C552, that define terms associated with classification of consequence and probability have been used to define the risk rating presented in the Qualitative Risk Assessment matrix. The reference tables are presented at the back of this appendix.

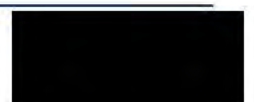


Table 1: CIRIA C552 Qualitative Risk Assessment

This matrix is based on CIRIA C552 risk evaluation methodology						
Source (Contaminant)	Pathway	Receptor	Consequence of risk being realised	Probability of risk being realised	Risk Classification	Comment
Made ground of unknown composition (Asbestos Containing Material)	Dermal contact, ingestion and/or inhalation of or dusts	Human Health – Future site users	Medium	Low	Moderate / Low	As a result of the historical development of the site since the 1930s there is the potential that made ground could be present across the site. The presence of ACMs within made ground cannot be discounted.
	Dermal contact, ingestion and/or inhalation of or dusts	Human Health – Future site users	Medium	Unlikely	Low	There are no records indicating that CVV were burnt within the site boundary however in 1962 Explosive Ordnance Tasks (EOC) were undertaken. EOC correspondence at the time indicated that an area of land opposite the Officers Mess was used for the destruction of explosives before becoming part of grass surrounds. Ordnance together with ordnance related components were recovered. Approximately 6 tons of unidentified fuzes, pistols and metallic scrap and clinker were removed.
	Dermal contact, ingestion and/or inhalation of or dusts	Human Health – Future site users	Medium	Unlikely	Low	The presence of residual contaminants associated with the maintenance and storage of vehicles cannot be discounted. It is considered unlikely that future site users would be exposed to any residual contamination within the sub-surface.