

Crest Nicholson

Land North East Of Harpenden Between Lower Luton Road, Bower Heath Lane and Common Lane

Preliminary Land Contamination Report



794-DES-CAS-31270
Land Contamination
Report
06
04 March 2026

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
01	Draft	Peter Atkinson	Matt Flowers	Matt Flowers	05 August 25
02	Draft	Peter Atkinson	Matt Flowers	Matt Flowers	12 August 25
03	Preliminary Issue	Peter Atkinson	Matt Flowers	Matt Flowers	24 Oct 25
04	For Approval	Peter Atkinson	Matt Flowers	Matt Flowers	15 Dec 25
05	For Approval	Peter Atkinson	Matt Flowers	Matt Flowers	27 Feb 26
06	For Approval	Peter Atkinson	Matt Flowers	Matt Flowers	04 March 26

Approval for issue

Matt Flowers

04 March 2026

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Prepared for:

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1 INTRODUCTION

1.1 RPS Appointment

RPS Consulting has been appointed by Crest Nicholson to review an existing Phase 1 Desk Study, undertake ground investigations and prepare a Land Contamination Report for a site located on Land North East of Harpenden between Lower Luton Road, Bower Heath Lane and Common Lane.

1.2 Scope and Objectives

The objectives of the assessment by RPS Group were to:

- Confirm the suitability of the Desk Study and that it meets the requirements of Land Contamination Risk Management (LCRM) guidance issued by the Environment Agency.
- To identify plausible sources of contamination and potential pathways and receptors to develop a suitable Conceptual Site Model.
- To design and undertake investigations on site to assess contamination presence.
- To assess the need for remediation or mitigation measures to be protective of human health and/or controlled waters or the environment more widely, as appropriate.

The present report has been produced to support an outline planning application. The approach of the investigation is intended to be in accordance with National Planning Policy Framework (Specifically paragraphs 196-201: Ground Conditions and Pollution)

It should be noted that further investigations will be required in order to determine the need for and extent of any required remediation or mitigation measures and to support a reserved matters planning application. It is recommended that these further investigations should be designed and undertaken once the site is vacant.

Separately RPS is also undertaking a geotechnical assessment of the site including undertaking geotechnical investigations and testing. It is the intention that recommendations in respect of geotechnical matters including foundations and infrastructure design are therefore ensured compatible with the requirements of the Land Contamination assessment.

1.3 Existing Reports

The following reports have been made available to RPS and have been used and relied upon by RPS in the preparation of the present Geotechnical Report.

- *Phase 1 Desk Study Report*, by Southern Testing, dated 29 October 2024.
- *Soakage Test Report*, by Southern Testing, dated 15 October 2024

Most of the *Phase 1 Desk Study* is reproduced in Appendix B.

2 THE SITE

2.1 Location and Description

The site is located on the northern edge of Harpenden to the north east of the Lower Luton Road (the B653).

The near centre of the site is at National Grid Reference 514500 216080.

The Site is located within the Metropolitan Green Belt.

The Local Planning Authority is St Alban's District Council.

The site covers 32.937 hectares. It comprises an irregularly shaped parcel of land consisting of several fields which at present are mainly used by an Equestrian Centre; a further part in the east is also used for keeping horses.

The buildings associated with the Equestrian Centre are located in the west and include stables, hay storage buildings, yards and training grounds.

Ground levels fall from around 130.5m AOD in the north to 89m AOD in the west and 112.5m AOD in the south east. The eastern half of the site has a shallow valley feature running north west to south east; levels fall relatively steeply across the western half towards the west.

Other features of the site include:

- A communications mast and compound near the site centre.
- A main farm track runs east to west through the middle of the site from the Equestrian Centre to the north east boundary.
- Trees and hedgerows are at the field boundaries.
- There are several shallow depressions at the site surface in the centre and the east – these are discernible on aerial LIDAR images and on the topographic survey.

There are no permanent surface water features on site. The present site layout is shown on the Trial Pit Layout in Appendix A.

2.2 Surrounding Land Uses

The site is surrounded mainly by farmland to the west, north and east with small areas of woodland. Low-rise residential housing exists to the south together with allotments, a primary school and small light industrial units.

The River Lea (or Lee) is present around 30m south of the western-most part of the site (the Equestrian Centre).

3 INVESTIGATION WORKS

3.1 Findings of Desk Study by Southern Testing

3.1.1 Site History

The site has a history of use for farmland. The buildings that form the Equestrian Centre date from the 1950s and later.

A small mineral extraction pit is recorded to the immediate south east to the north of Whittings Close but not apparently impinging on the site.

For full details of the site history and setting reference should be made to the *Phase I Desk Study Report*, by Southern Testing; extracts are presented in Appendix B.

3.1.2 Geology

The majority of the site is indicated to be underlain by bedrock of the Lewes Nodular Chalk Formation and Seaford Chalk Formation (undifferentiated).

The Chalk Rock Member outcrops in the lower western part of the site with the underlying Holywell Nodular Chalk Formation and New Pit Chalk Formation outcropping in the extreme west of the site.

Most of the eastern half of the site (above approximately 123m AOD) is shown to have a superficial cover of Clay With Flints over the chalk bedrock; the Clay With Flints is shown as absent in the valley to the east of the site centre.

3.1.3 Hydrology and Hydro-geology

The Clay With Flints is designated as Unproductive Strata (it is not an aquifer).

The bedrock chalk beneath the entire site is designated as a Principal Aquifer and is therefore of the highest importance and vulnerability.

No surface water or groundwater abstractions are recorded within at least 500m of the site.

The site is within a Source Protection Zone III. This is defined as the area around a supply source within which all the groundwater ends up at the abstraction point (the point from where the water is taken and could extend some distance from the source point).

There are no permanent surface water features on the site. The nearest watercourse is the River Lea to the south west of the site.

3.1.4 Potential Sources of Contamination

Southern Testing identified the following potential on-site sources of contamination:

Potential Contaminant	
Pesticides and Herbicides	From use of land for pasture
Asbestos, heavy metals and Polyaromatic (PAH) compounds	Associated with farm tracks
Asbestos, heavy metals, PAH compounds and petroleum hydrocarbons	Associated with the stables and riding school and including above ground storage tanks.

Table 1 – Potential Sources of Contamination (identified by Southern Testing)

The nearest recorded landfill is some 90m from the site on the other side of the River Lea forming a small area now developed with housing. A former chalk pit to the immediate east of the site does not appear to have been backfilled or used for wastes. Southern Testing's initial assessment is that these features do not pose a risk of hazardous gases likely to migrate to the site.

3.2 Investigations by RPS

3.2.1 Walkover and Discussions With Equestrian Centre

RPS undertook a walkover inspection of the site including the Equestrian Centre and discussed the site with the Equestrian Centre manager Mr Attwood. The main points of note from our walkover were:

- The Equestrian Centre is generally well managed from the view of potential for release of contaminants.
- There is no significant storage or use of agri-chemicals.
- There is no significant storage of liquid fuels.
- Vehicles are generally stored and used appropriately. There is no significant servicing or dismantling of vehicles.
- There is no significant on-site disposal of wastes other than of horse manure which is spread on fields or removed from site.
- Above ground fuel storage tanks are not currently in use.
- Several building locations have asbestos containing materials (confirmed by separate asbestos survey).
- There was no knowledge of buried carcasses or animals.
- There appeared no materials or likely contaminants associated with the communications mast on site.

3.2.2 Exploratory Holes

RPS undertook 25 trial pits across the site but no intrusive investigations were undertaken in the area occupied by the Equestrian Centre or on the hardstanding areas or farm tracks as these were all in use at the time of investigation.

The investigations to date have primarily been for geotechnical purposes and to establish the general geology and ground conditions across the site.

The trial pits were formed by backhoe excavator to depths of around 3m below existing ground level. The pits were logged by an experienced geo-environmental and geotechnical engineer; pits were backfilled immediately after logging with arisings.

Trial Pit logs are presented in Appendix C.

4 GROUND CONDITIONS

4.1 Geology/Ground Conditions

The investigations to date have generally confirmed the anticipated geology beneath the site. The following table summarises the soil types encountered and their characteristics.

Soil type	Extent	Properties
Made Ground	Encountered in shallow surface depressions evidently where the ground has been made up to provide a more level farming surface – extending to 0.75m depth (TP18)	Mainly reworked chalk
Topsoil	Across the entire undeveloped area of the site of 250-300mm thickness	Sandy gravelly clay
Clay-with-Flints	Over the central and eastern parts of the site and extending in parts to in excess of 3m thickness depending on topography and the surface profile of the underlying chalk	Firm to very stiff sandy gravelly clay – the gravel of sub-rounded to angular flint.
Lewes Nodular Chalk Formation and Seaford Chalk Formation	Underlying the majority of the site to undetermined depth	Structureless chalk – grade Dm to Dc. Excavating as gravelly clay or very clayey gravel.
Holywell Nodular Chalk Formation and New Pit Chalk Formation	Underlying the Lewes and Seaford Formations and indicated outcropping in the west of the site	Soft to firm marl clay (trial pit TP1)
Colluvium / cover deposits	Within the valley features near the site centre running north west to south east to in excess of 3m thickness. Forming infill to presumed solution features to undetermined depth.	Firm to stiff sandy gravelly clay (reworked Clay-with-Flints)

Table 2 – Summary of Soil Types

4.2 Groundwater

At the time of investigation in February 2025 several of the shallow depression features had water present at the surface and in shallow soils – this followed a period of moderate rainfall in previous days.

Only a single trial pit encountered any groundwater – TP13 located over a shallow part waste-filled depression in the site surface.

Reference to the local hydrogeological mapping indicates that groundwater in the chalk bedrock in this part of Hertfordshire may be anticipated to be at around 85-90m AOD and therefore within around 5m of the ground surface in the extreme west of the site at the lowest point but otherwise at least 5m below the site surface and for most of the site over 10-30m below the surface.

4.3 Contamination Observations

No visual or olfactory evidence was noted of chemical contaminants in soils during excavation and logging of the trial pits.

5 DEVELOPMENT PROPOSALS

Outline application for demolition of existing buildings and structures and construction of a mixed-use development comprising residential dwellings (including affordable housing), children's home, elderly extra care facility, local centre (flexible retail/ health/ community use), sports pitches and associated building, green infrastructure and landscaping works (to include public open space and community growing space); primary school with early years provision, vehicular and active travel infrastructure (including pedestrian and cycle access) and diversion of Bower Heath Lane; drainage works; and related infrastructure. All matters reserved save for access from Lower Luton Road.

Detailed proposals for development of the site were not available at the time of writing this report but from an Illustrative Concept Masterplan (see Appendix A) provided by the client it is understood that development will include the following:

- Clearance of the existing Equestrian Centre buildings.
- Regrading of ground levels to suit the proposed development.
- Development of the southern part of the site predominantly with low-rise residential housing including detached, semi-detached and terraced houses and blocks of flats with private gardens and new access roads.
- Homes of a mix of sizes to meet local needs. Exact mix is to be confirmed but likely to include one to five beds.
- Extra Care facility for elderly residents.
- A children's home.
- Primary School (inc a Nursery).
- A Local Centre that provides a flexible range of uses including retail, café, healthcare and community uses.
- Open space, including formal sports pitches and play areas.
- Existing tree belts and hedgerows will be retained, and additional trees, hedges, and grasslands will be planted.
- Sustainable on-site drainage to incorporate soakaways and storage ponds.
- Entry to the site will be from the Lower Luton Road at the western end of the site.

6 GEO-ENVIRONMENTAL ASSESSMENT

6.1 LEGISLATION AND GUIDANCE

Prior to any development the Local Planning Authority is required to satisfy itself that the potential for contamination has been properly assessed and that any necessary remedial works will be appropriately incorporated within the development. For any future development it is the responsibility of the landowner and/or developer to carry out the necessary investigation, assessment and remediation.

Current legislation and guidance recommends the use of a source-pathway-receptor conceptual site model to assess the risk of contamination within a site. These three elements are described as:

Source – a contaminant or hazard which is in, on or under the land and has the potential to cause harm or pollution of controlled waters.

Pathway – means by which a receptor can be exposed to, or affected by, a contaminant or hazard.

Receptor – something that could be adversely affected by a contaminant or hazard eg end-users or controlled waters.

A risk can only exist if all three elements are present. For example, even if a contaminant and a receptor are present they can only create a risk when there is a pathway link between them. The table below represents a Conceptual Site Model with respect to possible contamination presence; it considers plausible pollutant linkages given the site's history, its environmental setting and the initial visual and physical findings of the exploratory hole investigation. This is then used to determine the appropriate chemical testing and risk assessment.

6.2 CONCEPTUAL SITE MODEL

The following table represents a Conceptual Site Model for the site based on the findings of the Desk Study by Southern Testing and by our own walkover and exploratory trial pits.

The main proposed site uses are considered and a qualitative initial risk assessment only is provided.

We have not included any assessment of risks to construction workers during development as the risks to such workers would not appear to be especially high and would be covered by the adoption of appropriate practices when undertaking works on previously developed land.

Contamination Source	Pathway	Receptor	Initial Risk Assessment
Spillage of fuels (and/or oils)	Direct contact, ingestion or inhalation	Residential area – residents and including any POS areas or allotments	There has been limited fuel use on site and no recent storage of large volumes of fuel. Spillages are most likely to have been in the Equestrian Centre area.
		School area - children	Residents would be most at risk in private gardens.
		Community facilities, Local Centre, Commercial area	The initial risk to residents is assessed as low . The initial risk to the school and other site users is assessed as very low .
	Permeating to depth	Controlled waters	Most of the site has a cover of low permeability clay (Clay-with-Flints) or the weathered chalk surface.

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			The most significant risk would be local to the Equestrian Centre where the clay cover is limited or absent and the depth to the groundwater of the chalk aquifer is least. The initial risk is assessed as low
	Direct contact	Buried services	Potable water mains would be most at risk. The initial risk is assessed as low
Spillage of agri-chemicals (including herbicides, pesticides, treatments, preservatives etc)	Direct contact, ingestion or inhalation	Residential area – residents and including any POS areas or allotments	There has been limited use of agri-chemicals on site and no recent storage in large volumes. Residents would be most at risk in private gardens. The initial risk to residents is assessed as very low. The initial risk to the school and other site users is assessed as negligible
		School area - children	
		Community facilities, Local Centre, Commercial area	
	Permeating to depth	Controlled waters	Most of the site has a cover of low permeability clay (Clay-with-Flints) or the weathered chalk surface. The most significant risk would be local to the Equestrian Centre where the clay cover is limited or absent and the depth to the groundwater of the chalk aquifer is least. The initial risk is assessed as low
Deposition of wastes	Direct contact, ingestion or inhalation	Residential area – residents and including any POS areas or allotments	The most likely locations for wastes to be present are local to the Equestrian Centre and along tracks and hardstanding areas. Residents would be most at risk in private gardens. The initial risk to residents is assessed as low. The initial risk to the school and other site users is assessed as very low.
		School area - children	
		Community facilities, Local Centre, Commercial area	
	Leaching and permeating to depth	Controlled waters	Most of the site has a cover of low permeability clay (Clay-with-Flints) or the weathered chalk surface. The most significant risk would be local to the Equestrian Centre where the clay cover is limited or absent and the depth to the groundwater of the chalk aquifer is least. The initial risk is assessed as very low
Asbestos from building materials	Direct contact, ingestion or inhalation	Residential area – residents and including any POS areas or allotments	The most likely locations for wastes to be present are local to the Equestrian Centre and along tracks and hardstanding areas. Residents would be most at risk in private gardens.
		School area - children	

		Community facilities, Local Centre, Commercial area	The initial risk to residents is assessed as low . The initial risk to the school and other site users is assessed as very low .
Landfill gas from buried wastes off-site	Migration and entry to buildings with risk of explosion or asphyxiation	Residential area – residents and including any POS areas or allotments	The most plausible source would appear to be the former chalk pit to the east although there is no indication of the disposal of degradable wastes here.
		School area - children	The site surface has a cover of low permeability clays in this area.
		Community facilities, Local Centre, Commercial area	The initial risk to residents is assessed as very low . The initial risk to the school and other site users is assessed as negligible
Leachate from buried wastes off-site	Direct contact, ingestion or inhalation	Residential area – residents and including any POS areas or allotments	The most plausible source would appear to be the former chalk pit to the east although there is no indication of the disposal of degradable wastes here.
		School area - children	The site surface has a cover of low permeability clays in this area. The site is also at a higher level.
		Community facilities, Local Centre, Commercial area	The initial risk to residents is assessed as very low . The initial risk to the school and other site users is assessed as negligible
	Leaching and permeating to depth	Controlled waters	It would appear unlikely that leachate would enter the site then permeate to the aquifer at depth. Risk to the aquifer would appear from direct permeating of leachate. The initial risk is assessed as very low

Table 3 – Conceptual Site Model

6.3 CONCLUSIONS AND RECOMMENDATIONS WITH RESPECT TO CONTAMINATION PRESENCE

From the Conceptual Site Model there are clearly a number of potential source-pathway-receptor linkages that could result from the proposed development.

- The most significant risks to users of the site, primarily residents but also vulnerable groups such as young school children, would appear to be from fuels or wastes having been released or deposited on the site either by accident or by use of contaminated materials. The most likely wastes would appear to include materials such as demolition wastes
- The risks from agri-chemicals and chemicals associated with farming and animal care would appear to be very low.
- Given that asbestos has been identified in buildings on site the likelihood of asbestos wastes on site in the ground or at the surface would appear to be significant. Past experience is that waste asbestos from buildings was often deposited under floors and hardstandings or even

used as hardcore or shuttering in the ground. The main risk from such contamination would appear to be to residents with a lower risk to school children.

- The risks to controlled waters would appear mainly to be associated with possible fuels or oils and to a lesser degree agri-chemicals.
- The risks from hazardous ground gases would appear to be very low and the risks of other contaminants migrating to the site from off-site sources would appear to be very low.
- The risks to buried services and building materials would appear to be low.

From the available information and Conceptual Site Model it appears likely that it will be appropriate to assess contamination presence using generic criteria as follows:

- Soil Guideline Values (SGVs), published by the Environment Agency
- Suitable For Use Levels (S4ULs), published by LQM / Chartered Institute of Environmental Health
- Category 4 screening Levels (C4SLs)

If significant contamination is identified then specific site criteria may need to be derived for remediation purposes using CLEA software and other industry guidance approved by the Environment Agency.

7 FURTHER INVESTIGATIONS

The works and assessment reported in the present document are of a preliminary nature and it is recommended that further investigations are undertaken – these should be determined once a layout has been finalised and most importantly when proposed ground levels have been designed.

Investigations in the area of the Equestrian Centre will be most effective once the Centre is closed or not operating. It is recommended that investigations be undertaken before the Centre is cleared and the findings used to inform how the Centre is demolished and cleared. Then it would be recommended that the area is subject to post-clearance sampling and testing.

The recommended objectives of further investigations in respect of land contamination and recommended techniques are summarised in the following table with contaminants of concern identified.

Investigations and testing in respect of geotechnical matters are discussed separately in the *Geotechnical Report* by RPS.

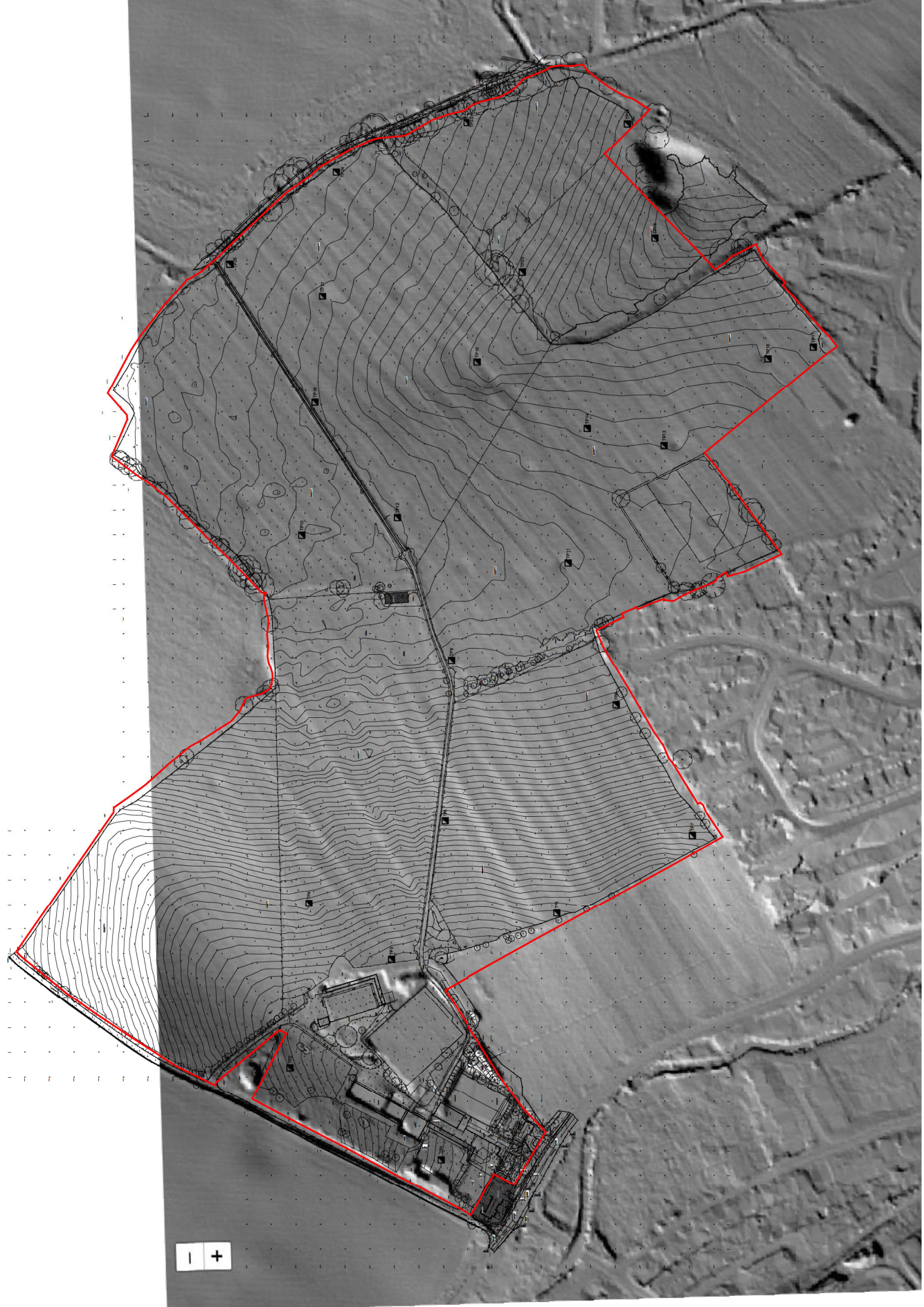
Contamination	Location	Technique
<u>Fuels and/or oils</u> Total Petroleum Hydrocarbons (TPH) Polyaromatic Hydrocarbons (PAH) BTEX compounds & MTBE	Most likely the Equestrian Centre	Near surface sampling by trial pits and/or boreholes (including potentially by window sampler). Deep boreholes with standpipes to enable groundwater monitoring.
<u>Agri-chemicals</u> Pesticides / herbicides suites Metals Chlorides	Equestrian Centre and also site-wide	Near surface sampling by trial pits and/or boreholes (including potentially by window sampler). Deep boreholes with standpipes to enable groundwater monitoring.
<u>Deposited wastes</u> TPH PAH Metals (heavy metals and phytotoxic metals) Cyanide Arsenic, Boron Sulphates, pH	Equestrian Centre and also site-wide particularly tracks and hardstandings	Near surface sampling by trial pits and/or boreholes (including potentially by window sampler).
<u>Asbestos</u>	Equestrian Centre and tracks and hardstandings	Near surface sampling by trial pits and/or boreholes (including potentially by window sampler).
<u>Hazardous Ground Gases</u>	In proximity to the former chalk pit to the east	Boreholes with gas monitoring standpipes (potentially by window sampler).

Table 4 - Recommended Further Investigations

Appendices

Appendix A Drawings

1. This drawing has been prepared in accordance with the scope of RPS's appointment. RPS accepts no liability for any use of this document, other than for the purposes for which it was prepared, without the written consent of RPS.
2. This drawing is for information only and should not be used for any other purpose without the written consent of RPS.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.



Rev	Description	By	Date
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Title	Trail Pit Layout
RPS Project Number	Scale @ A1 31270
Task Team Manager	Information Author RS
Status	Date Created Aug 2025
Document Number	Task Information Manager PA
Revision	PA
Document Number	31270-RPS-SI-06-DR-S-0063
Revision	P01

Appendix B Extracts from Southern Testing Desk Study

**Phase I Desk Study
Report**

Project Name: Lower Luton Road, Harpenden

Location: Harpenden, Hertfordshire

Client: Crest Nicholson Partnerships & Strategic Land

Project ID: JN1933-DS

Report Date: 29 October 2024

Report Issue: 2

SUMMARY

The site in Harpenden, Hertfordshire, which extends around 32.5ha, comprises a riding school complex in the south, which occupies around 3ha, with the remaining land used as pasture. It is proposed to redevelop the site with 520 residential units (houses and apartments), a 60 bed extra care facility, a new neighbourhood centre and Primary School (including early year's provision). Vehicular access into the site will be provided from the B653, Lower Luton Road.

Geological records indicate the site to be underlain by Clay with Flints (Unproductive Strata) in the central and eastern side of the site, over Lewis Nodular and Seaford Chalk Formations (Principal Aquifer). No superficial soils are mapped in the western half. The Chalk Rock band is mapped as outcropping in the far south-western corner, below which is the Holywell Nodular and New Pit Chalk Formations. The site lies within an Outer Source Protection Zone (SPZ III) for public drinking water.

A desk study was carried out and indicates that the site has a history of agricultural use, set within a broadly rural area on the outskirts of Harpenden.

An Unexploded Ordnance (UXO) risk assessment was undertaken by a specialist subcontractor as part of these works. The assessment was made with specific regard to the proposed investigation works and its conclusions may not be appropriate to other activities. This reported a low risk.

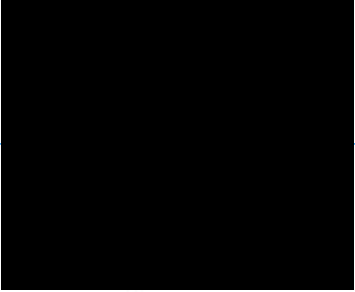
A site specific cavity occurrence assessment for the site was procured for the site. With regard to natural cavities, the report concluded, a solution feature hazard rating of Moderately High to High in the central and eastern portion of the site, Moderately Low to Moderate in the western portion of the site. With regard to the mining cavities the potential for historical, subterranean chalk mining at the site is considered to Moderately High to High for the central and eastern portion of the site, where the Clay-with-Flints deposits is recorded, and Low for the western sections where the water table lies above or near the chalk interface. Based on these risks, a phased ground investigation, likely comprising specialist geophysical surveys followed by targeted intrusive investigations, was recommended.

The overall contamination risk is considered to be low, although localised areas of contamination remain a possibility, certainly within the riding school complex. Basic radon protection is required on this site, although a site-specific BGS report is recommended to confirm if this is a site-wide requirement. A Phase II investigation and risk assessment is necessary to assess both the basic conceptual model and the suitability of soils for reuse within the proposed development.

The desk study was conducted and this report has been prepared for the sole internal use and reliance of Crest Nicholson Partnerships & Strategic Land and their appointed Engineers. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Southern Testing Laboratories Ltd. If an unauthorised third party comes into possession of this report they rely on it at their peril and the authors owe them no duty of care and skill.

The findings and opinions conveyed via this desk study are based on information obtained from a variety of sources as detailed within this report, and which Southern Testing Laboratories Ltd. believes are reliable. Nevertheless, Southern Testing Laboratories Ltd. cannot and does not guarantee the authenticity or reliability of the information it has obtained from others.

The recommendations contained in this report are made in respect of the particular context of the investigation as described in the report and may not be appropriate to alternative development schemes. This report should be considered in its entirety and Southern Testing Laboratories Ltd accepts no responsibility for and excludes liability in respect of any omission or alteration made by others, and any use of the report for any purpose other than that for which it was produced.

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For and on behalf of Southern Testing Laboratories Limited

DOCUMENT HISTORY AND STATUS

Issue No.	Date	Purpose or Status	Author	Check / Review
1	24/09/2024	Phase I Desk Study – COA pending.	AM	JK
2	29/10/2024	Phase I Desk Study with COA.	AM	JK

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Phase 1 Desk Study – Environmental Database Search Results and Mapping

APPENDIX E

Preliminary UXO Assessment

APPENDIX F

Cavity Occurrence Assessment

APPENDIX G

Previous Planning Applications for the site

A INTRODUCTION

1 Authority

Our authority for carrying out this work is contained in an email from Simran Bains, of Crest Nicholson Partnerships & Strategic Land, dated 22nd May 2024 (PO M/16036/000008).

2 Location

The site is located on the northern outskirts of Harpenden in Hertfordshire, on land between the B653 and B652. The approximate National Grid Reference for the centre of the site is TL 14465 16060. The site location is indicated on Figure 1 within Appendix A.

3 Proposed Construction

It is proposed to develop a 33 ha site with 520 residential units (houses and apartments), a 60 bed extra care facility, a new neighbourhood centre and Primary School (including early year's provision). Vehicular access into the site will be provided from the B653, Lower Luton Road.

Ground loadings have not been given.

For the purposes of the contamination risk assessment, the proposed development land use is classified as Residential with Homegrown Produce Consumption - CLEA Model Ref [1] / C4SL Report Ref [2], although we understand that parts of the site will be different use.

The gas sensitivity of the proposed development is therefore rated as High CIRIA C665 Ref [3].

4 Object

This is a Phase 1 Desk Study and Walkover Survey. No intrusive works have been carried out by ourselves to date.

The object of this desk study was to review the historic and cotemporary use of the site and surrounding area, and assess the likely nature and extent of any soil, groundwater and soil gas contamination, based on desk study information only.

5 Scope

This report presents our desk study findings and our interpretation of these data.

A UXO risk assessment was included within our brief for the investigation. The assessment was made with specific regard to the proposed investigation works and its conclusions may not be appropriate to other activities. This was undertaken by a specialist consultant and is appended for reference.

This report is not an engineering design and the figures and calculations contained in the report should be used by the Engineer, taking note that variations will apply, according to variations in design loading, in techniques used, and in site conditions. Our figures therefore should not supersede the Engineer's design.

The findings and opinions conveyed via this desk study are based on information obtained from a variety of sources as detailed within this report, and which Southern Testing Laboratories Ltd. believes are reliable. Nevertheless, Southern Testing Laboratories Ltd. cannot and does not guarantee the authenticity or reliability of the information it has obtained from others.

The desk study was conducted, and this report has been prepared for, the sole internal use and reliance of Crest Nicholson Partnerships & Strategic Land and their appointed Engineers. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Southern Testing Laboratories Ltd. If an unauthorised third party comes into possession of this report they rely on it at their peril and the authors owe them no duty of care and skill.

The recommendations contained in this desk study are made in respect of the particular context of the investigation as described in the report and may not be appropriate to alternative development schemes. This report should be considered in its entirety and Southern Testing Laboratories Ltd accepts no responsibility for and excludes liability in respect of any omission or alteration made by others, and any use of the report for any purpose other than that for which it was produced.

B DESK STUDY AND WALKOVER SURVEY

6 Desk Study

A desk study has been carried out. Reference has been made to the following information sources.

- Online Geological Maps Ref [4] & Ref [5]
- Online Hydrogeological Maps Ref [6]
- Aerial Photographs
- Historical Ordnance Survey Maps
- Environmental Databases
- BGS Online Historical Borehole Records Ref [7]
- Search on Local Authority Planning Portal for planning history
- Environment Agency / Gov.UK Website Flood Risk Ref [8]
- UK Radon Ref [9] and BRE Radon Ref [10]
- Google Earth (for old aerial photographs)

The environmental databases search report compiled for this desk study contains site-specific environmental data drawn from data sets that comprise publicly available information together with data from third parties, some of which is under review. Accordingly, Southern Testing Laboratories Limited does not warrant its accuracy, reliability or completeness.

The full report is included in Appendix C and D, a summary of the salient features is included in the following sections of this report.

7 Geology

The British Geological Survey Map No 239 (Hertford) indicates that the site geology consists of Clay with Flints in the central and eastern side of the site over Lewis Nodular and Seaford Chalk Formations. No superficial soils are mapped in the western half. The Chalk Rock band is mapped as outcropping in the far south-western corner, below which is the Holywell Nodular and New Pit Chalk Formations.

7.1 Clay with Flints

The Clay-with-Flints Formation is a superficial deposit of clay containing flints, found in plateau areas on the dip slope of the Upper Chalk. The clay and flint content is variable. This deposit has a very variable interface with the underlying chalk, which is often weathered.

7.2 Seaford & Newhaven and Lewis Nodular Chalk Formations (Upper Chalk)

The Seaford and New Haven Chalk are firm white chalk with conspicuous semi-continuous nodular and tabular flint seams. Hardgrounds and thin marls are known from the lowest beds. Some flint nodules are large to very large.

The Lewes Chalk is characteristically hard, nodular, locally iron stained and flinty. Marl seams, up to 0.1m thick, occur throughout, but are especially conspicuous in the lower beds. Layers of nodular flints are regularly spaced throughout in succession, becoming distinctly carious in the higher part. At some horizons these flints almost interlock to produce laterally continuous bands.

7.3 Chalk Rock Member

The Chalk Rock Member comprises very hard chalk and chalkstone, with some nodular mineralised hardground surfaces and marl seams. The upper boundary is taken at the flint nodule horizon that marks the base of the overlying nodular chalk. The base is taken as the lower limit of cementation of the lowest bed of chalkstone.

7.4 New Pit and Holywell Nodular Chalk Formation (Middle Chalk)

New Pit Chalk is part of the Middle Chalk Formation. In contrast to the Holywell Chalk, the New Pit Chalk is softer, smooth textured and more massively bedded. The basal beds contain thin-shelled fragments that usually comprise poorly preserved chalky moulds. Small flints occur near the base and top of the succession, but the greater part is flint free.

Marl seams and marly chalk horizons, up to 0.1m thick, are common throughout.

While Upper Chalk frequently has excellent soakage properties, this is not the case in the Middle Chalk, where soakage may be poor.

The Holywell Nodular Chalk Member is part of the Middle Chalk Formation. Chalk is a well-known soft white friable limestone consisting of over 95% of calcium carbonate. It is of organic origin and is composed of shell debris embedded in a fine matrix of microscopic calcareous bodies produced by planktonic algae (coccoliths).

Although Middle Chalk is largely absent of flints, in the Biggleswade region, the higher part of the Holywell Nodular Chalk Formation is very flinty. The base of the Holywell Nodular Chalk Formation is marked by the Melbourn Rock, a very hard chalk approximately 2-3m thick.

While Upper Chalk frequently has excellent soakage properties, this is not the case in the Middle Chalk, where soakage may be poor.

7.5 Historical Borehole Records

A search of previous exploratory hole records both from the online British Geological Survey database [7] and Southern Testing in-house records, do not reveal any boreholes in close proximity to the site.

8 Geological Hazards and Mining Activities

Data from various sources relating to potential geological hazards at the site are summarized below. The Hazard Potentials listed for the BGS data are as presented in the Envirocheck report, derived from various generic BGS sources, **which are not considered as site-specific**. It is important that this information is considered in context of the actual site topography, ground conditions encountered during future investigation, and development proposals.

Data Source	Hazard	Hazard Potential to Site	Remarks
BGS	Potential for Collapsible Ground Stability Hazard	Yes	Very low risk recorded on site.
	Potential for Compressible Ground Stability Hazard	No	Moderate risk recorded 14m to the south-west.
	Potential for Ground Dissolution Stability Hazard	Yes	Very Low to Moderate Risk recorded on site and close to site. See Cavity Occurrence Assessment below in Section 16. Increased risk where clay with flints overlies the chalk.

Data Source	Hazard	Hazard Potential to Site	Remarks
	Potential for Landslide Ground Stability Hazard	Yes	Very low risk on site.
	Potential for Running Sand Ground Stability Hazard	No	Low risk recorded 14m to the south-west.
	Potential for Swelling or Shrinkage Clay Ground Stability Hazard	Yes	Low risk on site.
	BGS recorded mineral sites	Yes	30m East: Batford Chalk Pit – opencast chalk pit (ceased). 44m North: Bower Heath Lane Pit – opencast chalk pit (ceased). 121m East: Sauncy Wood Chalk Pit – opencast chalk pit (ceased).
ARUP [Ref [11]]	Mining Instability	Yes	Conclusive Rock Mining.
CSS [Ref [12]] KURG [Ref [13]]	Underground Openings	None	None recorded.
PBA	Natural & Mining Cavities	Yes	None recorded within 800m of the site. However, a moderate dissolution risk is assigned to the site at this stage, based on the mapped geology.
	Man Made Mining Cavities	Yes	178m to the south-east: Chalkwell.

9 Radon Risk

With reference to the Envirocheck report, UK Radon Ref [9] and BRE Radon Ref [10] guidance: basic radon protection is required on this site. It should be noted that where applicable, basements are at increased risk of elevated levels of radon, regardless of geographic location.

The site may benefit from a site specific BGS radon assessment to see if the protection requirements can be zoned across the site, and potentially downgraded in areas.

10 Hydrology and Hydrogeology

Data from the Environment Agency and other information relating to controlled waters is summarised below.

Data		Remarks	Possible Hazard to/from Site (Y/ N)
Aquifer Designation	Superficial Deposits	Unproductive Strata – Clay with Flints.	No
	Bedrock	Principal Aquifer – Chalk.	Yes
Groundwater Vulnerability		Principal Bedrock Aquifer – High Vulnerability.	Yes
Abstractions	Surface Water	None recorded within 900m of the site.	No
	Groundwater	577m to the north-east: Mr B R Dulieu: General farming & domestic.	Yes
		734m to the north-west: Affinity Water Ltd: public drinking water supply (Point C).	Yes

Data		Remarks	Possible Hazard to/from Site (Y/ N)
		822m to the north-west: Affinity Water Ltd: public drinking water supply (Point B).	Yes
		832m to the north-west: Affinity Water Ltd: public drinking water supply (Point A).	Yes
Source Protection Zones		Total Catchment (Zone III).	Yes
Surface Watercourses		The River Lea, 30m to the south.	Yes
Groundwater Flood Risk		The majority of the site lies within an area mapped as having limited potential for groundwater flooding to occur. The far south-western corner of the site lies within an area mapped as having potential for flooding of property to occur below ground level and at surface on the lowest lying areas.	Yes but limited to the south-west of the site.
Surface Water Flood Risk*		Two thin bands of the site, one in the west (running north/south) and one in the east (running south/east) are shown within an area mapped as being at risk.	Yes locally on site.
Fluvial Flood Risk*		With the exception of the extreme south-western limit, the site is not shown within an area mapped as being at risk.	Yes locally on site.
Discharge Consents		12m to the south-west: Thames Water Utilities: Sewage discharges into the River Lea – Revoked.	No.
		61m to the north-east: Hincks & Sons: Sewage discharges into the River Lea – revoked.	No
		101m south: D.C. James Ltd: Discharge of other matter-surface water in to the River Lea – revoked.	No
		134m north: Mr Ball (2 permits): Holiday accommodation/camp site/ caravan site. Sewage discharges (final/treated effluent) onto land. Revoked 1993/6.	No

* These sections are provided for information only, this report does not constitute a formal flood risk assessment and specialist advice should be sought in relation to potential flooding issues.

11 Historical Ordnance Survey Maps

Copy extracts of historical Ordnance Survey plans dating from 1879 to 2024 were obtained and are presented in Appendix C. A summary of the salient features is presented below using both the small scale mapping, with details taken from the large scale mapping where possible. Differing issue dates between map series occasionally makes exact timings of changes difficult to confirm.

The first available maps shows the site to cover around six (or part thereof) variably sized field enclosures. Two footpaths are shown to cross the site, one running centrally from north to south roughly splitting the site into two halves, the other towards the west of the site. A road / track was present running along the north-eastern boundary between the site and Sauncy Wood (Common Lane), with another on the western boundary (Bower Heath Lane), which joins a further road in the south-west corner (Lower Luton Road), at a place annotated as 'Cold Harbour'. Just off the south-western corner is a meandering river (River Lea) flowing in a southerly direction, just beyond which is the Great Northern Railway (Hatfield, Luton & Dunstable Branch). Pickford Mill was present around 300m to the south.

By 1898 the southern central area of the site is annotated as Pickford Common, sub-divided into numerous long enclosures. A limekiln is noted in the field to the south of the site, with tracked access off Lower Luton Road. Around the properties to the south of the site, numerous wells are noted, together with a watercress bed. Batford Common was also shown around 200m to the south-east.

By 1925 there was no significant change to site or the immediate surrounding area. Some residential properties had been constructed to the north-west, and a 'pump' was now shown just off-site. By 1938, a property is shown just off the south-western corner, with a possible structure in the far south of the site. This is confirmed by later mapping (1966) when a residential property, 'Greenacres', is annotated in this area, fronting Lower Luton Road. The small scale 1950 maps, appear to show, two rectangular structures in the south of the site, but again this is not confirmed by the later larger scales maps.

The 1947 aerial photograph shows the start of residential development to the south of the site, and probable military use around 300m to the south (confirmed by the Preliminary UXO RA – see section 15 below: No.95 Prisoner of War Camp). It does not appear, however, to confirm the presence of the structure shown on the 1938 map.

By the mid 1960's residential development is shown to have encroached up to the eastern site boundary, more or less as seen today.

By 1973/4 the Riding School is shown on site for the first time, with two rectangular structures present in the south of the site around what appears to be a yard and stables, accessed off Bower Heath Road, and a single square structure a little further to the north of this main yard area. With the exception of the further residential housing in the area, little else changed. In 1993, shown by the large scale mapping, is an outline of probable earthworks (Batford Chalk Pits, from the database), just off the south-east boundary.

By 1999, the aerial images show further development of the riding school, which had expanded again by the 2006 mapping. Also shown at this time, is track running diagonally from the riding school in the south across the site to the corner of common lane in the north. The last map dated 2024 shows the site as today, with numerous additional structures shown around the riding school, in addition to a mast (communications) centrally within the site – as seen during the site walkover survey – see section 17 below.

12 Environmental Databases

Data Source	Distance (m)	Direction	Details	Possible Hazard to Site (Y/N)
Contemporary Trade Directory Entries (within 200m)	63	S	Carrubba Cleaning: Domestic cleaning services – active.	N
	86	SW	Pinewood Building & Landscaping Centre: Builders merchant – inactive.	N
	102	S	Hockley Cleaning Services: Domestic cleaning services – inactive.	N
	104	S	Allegro blinds: Blinds, awning & canopies – active.	N
	114	S	EMC Shielding Solutions Ltd: Electronic engineers – inactive.	N
Current, Historical & Registered Landfills	90	SW	Local authority recorded landfill site: adjacent to 175 Westfield Rd, Harpenden. No further information	N
BGS Recorded Landfill	--	--	None recorded within 0.5km of the site.	N
Licensed Waste Management Facilities	88 (232)	SW	Red Cow Yard, Westfield Road. DV Baulk Ltd Household, commercial & industrial Transfer Station – licenced expired. Authorised waste – construction, demolition, inert, non-hazardous and non-toxic	N
Potentially Infilled Land (non-water)	--	--	None Recorded within 250m of the site.	N
Potentially Infilled Land (water)	--	--	None Recorded within 250m of the site.	N

Data Source	Distance (m)	Direction	Details	Possible Hazard to Site (Y/N)
Points of Interest – Commercial Services	--	--	None Recorded within 250m of the site.	N
Points of Interest – Education & Health	--	--	None Recorded within 250m of the site.	N
Points of Interest – Manufacturing & Production	26	SE	Chris Grey General Maintenance & Repairs Ltd (extractive industries – stone quarrying & preparation). Recorded at residential address.	N
Points of Interest – Public Infrastructure	225	W	Sewage Pumping Station – water storage, processing & disposal.	N
Points of Interest – Recreational & Environmental	60	SE	Play Area – Playgrounds.	N
Contaminated Land Register Entries and Notices	--	--	None Recorded within 250m of the site.	N
Fuel Sites	--	--	None Recorded within 250m of the site.	N
Pollution Incidents	90	SW	Batford: pollution incident involving oils (1989) – category 3 minor incident.	N
	128	S	Batford: pollution incident involving oils (1995) – category 3 minor incident.	N
LAPPC Authorisations	--	--	None Recorded within 250m of the site.	N
Hazardous Substances Consents	--	--	None Recorded within 250m of the site.	N
Sensitive Land Uses	185	E	Ancient Woodland – Sauncy Wood.	--
	0	--	Area of adopted greenbelt.	--
	0	--	Nitrate vulnerable zone (River Lea)	--

The site has been farmland since the first mapping, with the development of an equestrian facility in the south of the site since the 1970's. The site is set within a rural area, with residential housing present to the south. No significant potential sources of contamination have been identified from the environmental database.

13 Ground Gas Risk

The off-site potential sources of ground gas identified in environmental database searches are discussed below.

A local authority landfill is recorded around 90m south-west of the site, although no further details are supplied. This entry is also recorded as a registered waste transfer site (Red Cow Yard) with confirmation as a transfer site for construction, demolition, inert, non-hazardous as authorised waste. There is also no evidence from the historical maps of any landfilling associated with this. As such, on balance of the information available, this site is most likely to have been a transfer site, and not used for landfilling. Moreover, this site has since been developed for housing.

Other potential off-site sources include several off-site chalk pits, which have the potential to have been backfilled. In general, the off-site chalk pits recorded were small historical features. The closest of these, just off-site to the east, remains as a depression in the landscape with no evidence of backfilling. The other two recorded in close proximity to the site are also small, remote and, again, there is no suggestion or evidence of any backfilling. As such, these features can also be disregarded as likely off-site sources and are excluded from the preliminary conceptual model.

No further potential features have been identified to date.

14 Planning Application History

A brief review of the St Albans City & District Council planning pages revealed a several planning applications for the site. Selected applications are summarised below.

Application Number	Application Date	Proposal Details / Comments	Decision
5/2010/2354	23/09/2010	Part single, part two storey extension to Greenacres Cottage.	Granted under appeal.
5/2006/1255	11/06/2006	Two barns, stables manege & car parking at Greenacres Equestrian centre. A copy of the application is included within Appendix G.	Approved
5/2000/0687	03/04/2000	Prior approval – replacement equipment cabin	Approved
5/2001/1290	03/07/2001	Replacement of existing telecommunications equipment with 22.5m tower, panel antenna, dishes and equipment cabin.	Approved
5/2002/0136	22/01/2002	Installation of six antenna & four dishes on existing mast * additional equipment cabins.	Approved

15 UXO Risk Management

The possibility of unexploded ordnance (UXO) being encountered on a site falls within the category of a potentially significant risk and should be addressed as a legal duty under the Construction (Design and Management) Regulations by the Client as early as possible in a project.

The CIRIA publication C681 Ref [14] has been developed to provide a consistent framework for the management of potential risks posed by UXO during site investigation and groundwork phases of construction. The process adopts a tiered approach, divided into four distinct stages; Preliminary risk assessment, Detailed risk assessment, Risk mitigation and Implementation.

A preliminary UXO risk assessment has been prepared by MACC International Ltd, report ref 9052, 06/09/24. The full report is included in Appendix E and the reader is referred to that for full details.

WWI

Although Harpenden did suffer at least one enemy bombing raid during this period, no records were found to confirm a bomb strike within the site footprint or immediately adjacent land. Consequently, this source of UXO contamination was considered to be unlikely.

WWII

Although Harpenden suffered a moderate level of enemy bombing during WWII, no records were found to confirm a bomb strike with the site footprint. The nearest recorded incidents occurred approximately 0.6km south of the site at Batford Methodist Church on Lower Luton Rd on the 12th of May 1941 and at Westfield Road approximately 0.4km west. Consequently, UXO contamination, on balance, was also considered to be unlikely.

Anti-Aircraft Defences

Local fixed and mobile heavy anti-aircraft batteries were positioned in the general area to defend against air attack, the nearest of which were located approximately 7.6km to the south-east of the site. Combat engagements with the enemy aircraft did take place during WWII. Consequently this source of UXO contamination was considered to be credible, albeit unlikely due to the distances involved.

Military Use

No.95 Prisoner of War Camp was located approximately 400m to the south-east of the site at Batford from 1943 to 1948. However, no records were found to confirm any significant military use of the site footprint or directly adjacent land. Consequently, this source of UXO contamination was also considered to be unlikely.

The preliminary UXO risk rating within the site footprint was considered to be **low**, for hand excavations, limited mechanical excavations or trenching and drilling, sampling or bulk excavations.

Despite the risk rating, the report provides recommendations for basic mitigation measures to be followed (see the appended report for full details).

16 Cavity Occurrence Assessment

A Stantec Cavities Occurrence Assessment for the site, was undertaken to provide further details and site-specific risk ratings, relating to both natural cavities and mining cavities. A summary of results is presented below, with the report included within Appendix G, to which the reader is referred for full details.

16.1 Cavities Occurrence Assessment – Natural Cavities

In areas underlain by Chalk, the interface with cover deposits often forms a karstic horizon where solution features (swallow holes, sinkholes and solution pipes) are found. The most prominent karstic horizon is the Chalk Palaeogene interface, although this interface on site has been periglacially eroded with the residual deposit, Clay-with-Flints, instead covering the chalk. This forms a younger cover deposit over the chalk surface and commonly infills any hollows and dissolution pipes. The suggestion is that, for sites underlain by Clay-with-Flints, natural cavities are frequent and pose a risk of differential settlement, although the occurrence of ground collapse is rare as these features are often infilled in most circumstances.

The report also refers to publicly available LiDAR, which notes a significant number of closed geomorphological depressions on site, particularly in the central and eastern areas of the site. It also notes crop marks on the eastern area of the site, which may also indicate the presence of solution features on site, which they state correlates with the feathering margin of the Clay with Flints deposit. They also state that due to the large size of the depressions are they cannot be conclusively attributed to solution features, and may be associated with historical mining activities.

The report concluded, on the basis of the geological, geomorphology and hydrogeological setting of the site, a solution feature hazard rating of **MODERATELY HIGH TO HIGH** in the central and eastern portion of the site, where the feathering margin with the superficial Clay-with-Flints is present to **MODERATELY LOW TO MODERATE** in the western portion of the site. The report also concluded that this would be best presented as a hazard map, although that was not included in the scope.

16.2 Cavities Occurrence Assessment – Chalk Mining Cavities

Some historical chalk mining has taken place in Hertfordshire for a range of purposes. Chalk mining was common for agricultural purposes to obtain lime to spread over the clay soils.

It should be noted that whenever chalk mining took place in the past, it was always carried out in dry chalk above the water table. No instances are known where dewatering was employed to mine chalk below the water table. The natural chalk interface is expected to be relatively shallow (even where overlain by Clay with-Flints), and the thickness of dry chalk rockhead below portions of the site created potentially favourable conditions for past chalk mining to have occurred.

There is no evidence of historical mining or surface mineral extractions recorded within the site boundary, but this is not commonly shown on old maps etc. Close to the south of the site there are recorded chalkwells and two historical ground collapses. Historical maps also show a limekiln just to the south of the site near Northfield Road. The depressions seen on the LiDAR data are noteworthy and cannot be ruled out as shaft entries to chalkwells or a larger chalk min complex.

On the basis of the site history geological, hydrogeological and geomorphological setting, the potential for historical, subterranean chalk mining at the site is considered to **MODERATELY HIGH TO HIGH** for the central and eastern portion of the site, where the Clay-with-Flints deposits is recorded and **LOW** for the western sections where the water table lies above or near the chalk interface.

16.3 Recommendations

Given the assess hazard rating for the presence of both natural cavities and mining cavities on site, Stantec recommend undertaking a detailed geomorphological survey, followed by phased ground investigation, likely comprising specialist geophysical surveys followed by targeted intrusive investigations.

17 Site Walkover Survey

17.1 General Site Description and Boundaries

A series of photographs showing the site at the time of the walkover survey are included in Appendix B, together with a plan showing the approximately location and direction of view. For ease of explanation, the fields are numbered on the same plan and are referred to within the text below.

The site, which extends approximately 32.5 hectares, comprises an equestrian facility of around 3 hectares located in the south-west of the site, with the remaining site area comprising grassed pasture and tracks. A telecommunications mast is present on the high ground on the boundary between fields 2 and 4.

The equestrian facility is accessed off Bower Heath Lane which runs along the western boundary, and joins Lower Luton Road at the south-west corner of the site. Common Lane runs along the eastern half of the north-eastern boundary, whilst the northern boundary adjoins further farmland. To the south lies residential housing, with a small section of the southern boundary adjoining further pasture fronting Lower Luton Road, immediately to the south of the riding school.

A track runs from the riding school through the site in a westerly direction, exiting the site in the north-east onto Common Lane.

17.2 Topography

The site topography is relatively complex with heights across the site ranging from around 90-135m AOD. The south-western corner of the site is the lowest lying point, just lying at the bottom of the valley adjacent to the River Lea. The main stable yard area and riding school complex rises gently to the north, to slightly above 100m AOD. Within the yard, there is a combination of cuts into the hill and retains to provide the necessary footprints for the stables, barns, manege and other facilities.

From the top of the yard the site changes to fields, with the three central western fields (fields 1-3) the steepest across the site, with a north-south orientated rise from around 100-125m AOD. There is a perpendicular dip within the slope of field 1, running down slope, broadly parallel to Bower Heath Road. The northern section of Field 3 has noticeable undulations running parallel to the slope, which may be a remnant ridge and furrow. The topography within eastern half of the site is less steep, and more undulating, with the northern field (field 4) fairly flat from the top of the hill.

The central-western fields (fields 5-6) are also fairly flat from the top of the main crest. A dip is present between the two fields, which converges on the corner of the L-shaped hedgerow in this area. The ground surface within the dip has a fairly uneven appearance on the slopes. The remainder of the south-western field (field 6) is relatively flat.

The most western field (field 7) which is accessed separately from Common Lane, falls gently to the south. Immediately off-site to the west is a significant slope down into what has been established as the former Batford Chalk Pit. The sides are relatively uneven, but have become quite heavily vegetated and difficult to assess in any detail. The land is also noted to fall quite steeply from the eastern corner of field 6, again, likely to be remnant of the former chalk pit.

Also of note are several discrete depressions or hollows within the central area of the site, mainly seen within field 4, 5, 6 and 7. The reason for these is not clear, but have also been noted on online LiDAR images, which has potentially identified up to 15 such features across the site.

17.3 Vegetation

The majority of the site comprising grassed pasture. Hedgerows are present along most of the boundaries, with some present inside the site, dividing up the existing fields. The most significant hedgerows are located between fields 5/6 and field 7, but more remnant hedgerows are also located between fields 3 and 6.

Significant boundary vegetation is also located along the northern boundary of fields 5 and 7, the southern boundary of field 3 and northern and the western boundary of field 1.

Around the buildings, within the yard area, are significant trees as well.

17.4 Buildings and Land Use on Site and Nearby

Outside of the main riding school, the only structures on site are those associated with the telecommunications mast, positioned fairly centrally within the site.

The riding school comprises a mix of structures, including a residential dwelling, car park, brick stables, steel framed sheds, timber stables, manege and trotting ring, amongst others. Surfacing within the yard is a mixture of macadam, concrete, and loose gravels. Although a full building survey was not undertaken, some of the roofing products may potentially have comprised asbestos cement; some of the more recent buildings may have included modern alternatives.

Many of the structures within the riding school have had to be cut into the slope of the hill to provide the necessary construction platform for them. This has left numerous banks and changes of levels across this part of the site.

Behind the indoor rider arena, are two modern bunded tanks thought to be fuel oil for the adjacent generator, presumably used as a backup, when required.

C PRELIMINARY SITE MODELS

18 Conceptual Engineering Geological Ground Model

From the desk study information and walkover undertaken at this site, the following conceptual ground model has been formulated.

Data Source	Comments
Geology	The mapped geology beneath the site comprises Clay with Flints over Upper and Middle chalk, sub-divided by a chalk rock band. The superficial deposits are broadly confined to the higher more level areas of site, present centrally and in the far east. There are no archive boreholes locally which provide information on the likely thickness of the clays over chalk; however, the interface can be very variable. Upper chalk is mapped to be present across much of the site, with the chalk rock band mapped to be present close to the northern end of the yard, where it meets the fields. This band is likely to be significantly harder than the surrounding chalk and will likely require rock drilling/ breaking methods to penetrate. Below the chalk rock, the middle chalk will be present. The superficial deposits are likely to be characterised as highly shrinkable clays and, therefore, will impact foundation design, where foundations are within tree influence. However, both the superficial soils and chalk bedrock do potentially offer good bearing strata – subject to the assessment of the chalk dissolution risk: see Geo-hazards section below.
Former Site Use	The existing fields have predominantly remained unchanged since first mappings. The residential dwelling and riding school in the south of the site were constructed more recently, prior to which the land was an extension to the existing pasture.
Groundwater	Although not confirmed by local boreholes, hydrogeological mapping, and the height of the River Lea, which is present just to the south of the site, infers groundwater is likely to be around 87m AOD. The groundwater flood maps show that the southern tip of the site, including much of the riding school area, lies within an area with the potential for groundwater flooding of property situated below ground level, with a small area located in areas with the potential for flooding to occur at surface. The site will likely need to be the subject of a formal flood risk assessment by a specialist.
Surface Water	Two areas of the site are mapped at being at risk from surface water flooding. The first coincides with the dip running down the wider slope in field 1 and through the centre of the yard. The second lies to the west of the site and follows the lowest lying ground in fields 5 and 7, running easterly through the chalk pit. The River Lea is located around 30m to the south of the site.

Data Source	Comments
Potential Geo-hazards	As discussed above, in areas where clay with flint are present, swelling and shrinkage of the clays by vegetation is likely which will require specific design to mitigate the risk. Results of the Stantec Cavity Occurrence Assessment have concluded: - A solution feature hazard rating of MODERATELY HIGH TO HIGH in the central and eastern portion of the site, where the feathering margin with the superficial Clay-with-Flints is present to MODERATELY LOW TO MODERATE in the western portion of the site. - The potential for historical, subterranean chalk mining at the site is considered to MODERATELY HIGH TO HIGH for the central and eastern portion of the site, where the Clay-with-Flints deposits is recorded and LOW for the western sections where the water table lies above or near the chalk interface. Recommendations at this stage include a detailed geomorphological survey, followed by phased ground investigation, likely comprising of specialist geophysical surveys followed by targeted intrusive investigations. The results of these investigation will drive any following work, but if natural or man made cavities are identified this will have significant implications for the site, including, but not limited to; detailed plot specific investigation, potentially remedial works (compaction grouting) and robust foundation design, in the affected areas. Drainage schemes will also need to take into account the chalk hazard in the design. Parts of the site include steep slopes, which are likely a function of the chalk bedrock. However, pending initial investigation and final layouts, more specific slope stability analysis may be necessary.

19 Conceptual Site Model

In the context of this report, the conceptual model summarises the potential pollutant linkages identified for the site and forms the basis of the risk assessment for the site. The preliminary model comprises the potential sources of contamination, receptors that could be harmed and exposure pathways identified from the desk study and walkover survey. These potential linkages form the basis upon which the investigation is designed and reported.

19.1 Potential Sources of Contamination

The site has a history of agricultural use, set within a rural area, with residential housing to the south. As such few potentially contaminative uses have been identified, either on site or in the locality. These are reviewed below, with the salient sources, carried through to the conceptual site model.

19.1.1 On-Site Sources

Potential Source	Potential Contaminants
Pasture	Pesticides and Herbicides.
Farm tracks	Asbestos, heavy metals and PAHs.
Stables/ riding school (including above ground bunded tanks)	Asbestos, heavy metals, PAHs and petroleum hydrocarbons (locally).

The historical pasture use of the site means that pesticides and herbicides were potentially used, as on all farm land. The overall risk is considered low, based on our experience with similar sites, but screening of the site topsoil would be prudent to confirm any impact and assess the suitability of re-use within the development.

There is a single main farm track running across the centre of the site. Often farm tracks are laid with mixed recycled aggregates, which have the potential to contain ACMs, some heavy metals and PAHs, the latter often associated with blacktop plainings or coal tars. As such, some basic assessment of the track materials would be prudent to confirm suitability for potential reuse or removal.

The riding school complex is a relatively recent addition, with the exception of several older buildings. Potential for contamination associated with this is low, however there remains low level risk of contamination, for the development/

redevelopment of this part of the site, via demolition of older structures, and slightly more historic uses prior to the known development of the equestrian centre. The recent construction on the land to the north may have impacted on site and therefore some made ground cannot be ruled out in places.

Some modern looking bunded above ground oil tanks were observed during the walkover survey behind the indoor rider arena. These represent potential point sources which will require some assessment during a Phase II investigation.

19.1.2 Off-Site Sources

No significant off-site potential sources of contamination have been identified.

19.2 Preliminary Conceptual Site Model

The table below assess the risk for the possible potential pollutant linkages that could exist during the proposed development works. This risk estimation assumes no mitigation has been undertaken.

Source		Pathway	Potential Receptor		Prob	Con	Risk Category	Explanation
On site Sources of Contamination in Table 9.1.1	Affects Soils: Heavy metals, PAHs, asbestos, & petroleum hydrocarbons	Inhalation, Ingestion Dermal Contact & Plant uptake	Humans	Future Site Workers and Maintenance workers	Low Likelihood	Mild	Low	Although the site is considered a low risk, there remains the potential for localised areas of contamination in association with the minor development on site, in particular. However, these are anticipated to be easily manageable.
				Construction Workers	Low Likelihood	Mild	Low	Exposure to maintenance and construction workers can be mitigated by the use of appropriate PPE and maintaining good hygiene levels.
		Run-Off Leaching Direct Contact	Controlled Waters	Groundwater – Principal Aquifer, SPZ3 (Outer SPZ).	Low Likelihood	Medium	Low/ Moderate	The site overlies a principal chalk aquifer, and lies within an outer SPZ. Groundwater is potentially shallow in the lower lying areas of the site, and therefore at risk from soil contamination. At this stage, however, the likelihood of significant soil contamination is considered low.
				Surface water – River Lea	Low Likelihood	Medium	Low/ Moderate	Although the River Lea lies just off the southern site boundary, significantly mobile pollutants are not anticipated on or off-site.
		Direct Contact	Property	Infrastructure - Water Supply Pipes	Low Likelihood	Minor	Very Low	Organic contamination may affect pipes is possible, but the pipe could be upgraded to mitigate the risk, if necessary.
				Structures - Substructures/ foundations	Low Likelihood	Minor	Very Low	The underlying clay with flints is a natural source of pyrite and therefore may pose a threat to buried concrete. The chalk where present is not. The risk from pyrite can, however, be mitigated with appropriate concrete classification, based upon laboratory test results.
Off Site Sources of Contamination Section 9.1.2	Affected Groundwater (from adjoining sites): None	Direct Contact	Controlled Waters	Groundwater - Low permeability drift deposits	--	--	n/a	No off site sources of potential contamination have been identified.
				Property	Infrastructure - Water Supply Pipes	--	--	
			Structures - Substructures/ foundations		--	--	n/a	
	Vapours and Land Gases: None	Inhalation	Humans	Future Site Workers	--	--	n/a	No on or off-site sources of ground gases have been identified.
		Fire/ Explosion	Property	Structures - Substructures/ foundations	--	--	n/a	

Very Low

Low

Moderate/ Low

Moderate

High

Very High

PROBABILITY					CONSEQUENCE		
Classification	Definition				Classification	Definition	
Unlikely	Circumstances are such that it is improbable that an event would occur even in the very long term.				Minor	- Easily preventable, non-permanent health effect on humans, or no effects. - Minor, low level & localised contamination of onsite soils. - Easily repairable damage to crops/ buildings/property/ infrastructure.	
Low Likelihood	Circumstances are such that it is by no means certain that an event would occur even over a longer period, and it is less likely in the short term.				Mild	- Easily preventable, permanent health effects on humans. - Pollution of non-sensitive water resources. - Localised damage to crops/ buildings/property/ infrastructure (on or off site).	
Likely	Circumstances are such that such an event is not inevitable, but is possible in the short term and is likely over the long term.				Medium	- Medium/ long-term (chronic) risks to human health. - Medium/ long-term risk of pollution of sensitive water resources or ecosystems. - Significant damage to crops/ buildings/ property/ infrastructure (on or off site). - Contamination of off-site soils.	
High Likelihood	Circumstances are such that an event appears very likely in t short term or almost inevitable in the long term. or there is already evidence that such an event has occurred.				Severe	- Short-term (acute) risk to human health. - Short-term risk of pollution of sensitive water resources or ecosystems. - Catastrophic damage to crops/buildings/infrastructure, including off-site soils.	
RISK CLASSIFICATION MATRIX					RISK CATEGORY		
		Consequence				Category	Definition & Likely actions required
						Very Low	- Harm to a defined receptor is unlikely, and would be minor at worst. - No liabilities are likely to arise. - Further Investigation is not required at this stage. - Remediation is very unlikely to be required.
						Low	- Harm to a defined receptor is possible, but is likely to be mild at worst. - Liabilities could theoretically arise, but are unlikely. - Further investigation is not required at this stage. - Remediation is unlikely to be required.
						Moderate	- Harm to a defined receptor is possible, but severe harm is unlikely. - Investigation is likely to be required to clarify the level of potential liability & risk. - Some remediation may be required in the longer term.
Probability	High Likelihood	Very High	High	Moderate	Moderate/ Low	High	- Harm to a defined receptor is likely. - The risk, if realised, may result in a substantial liability. - Urgent investigation (if not already undertaken) is likely to be required. - Remediation is likely to be required in the long term, possibly sooner.
	Likely	High	Moderate	Moderate/ Low	Low		- Severe hard to a defined receptor is very likely, or has already occurred. - The risk is likely to results in a substantial liability. - Urgent investigation (if not already undertaken) is likely to be required. - Urgent remediation is likely to be required.
	Low Likelihood	Moderate	Moderate/ Low	Low	Very Low		
	Unlikely	Moderate/ Low	Low	Very Low	Very Low		

20 Conclusions and Recommendations

20.1 Risk of Soil Contamination

Given the site history, a low contamination risk is considered at this stage. However, there is some potential for localised contamination associated with the riding school and the existing farm track, as some Made Ground may have been imported for construction; some above ground oil tanks were also noted during the walkover survey, behind the indoor riding school. As such, a Phase II investigation is recommended to better assess the basic conceptual model.

20.2 Risk of Groundwater Contamination

The site is underlain by a principal chalk aquifer and lies within an Outer Source Protection Zone (SPZ). The River Lea lies just to the south of the site; as such it is acknowledged as a sensitive setting. However, the on and off-site contamination risk is considered low at this stage and, consequentially, the risk to groundwater is considered very low.

No further assessment is considered necessary, subject to the findings of the Phase II investigation.

20.3 Risk from Ground Gases

No significant on or off-site potential sources of ground gases have been identified in the desk study. Basic radon protective measures are required for the site, although a site-specific BGS report is recommended to confirm whether this is site-wide.

21 Recommendations

The conceptual model is based upon both the historic and current uses of the site. As such, we would consider it prudent to undertake an intrusive investigation to assess the basic preliminary conceptual model. This investigation should also include a geophysical and geotechnical assessment, due to the chalk dissolution and mining risk, and consideration will also need to be given to the sloping nature of the site.

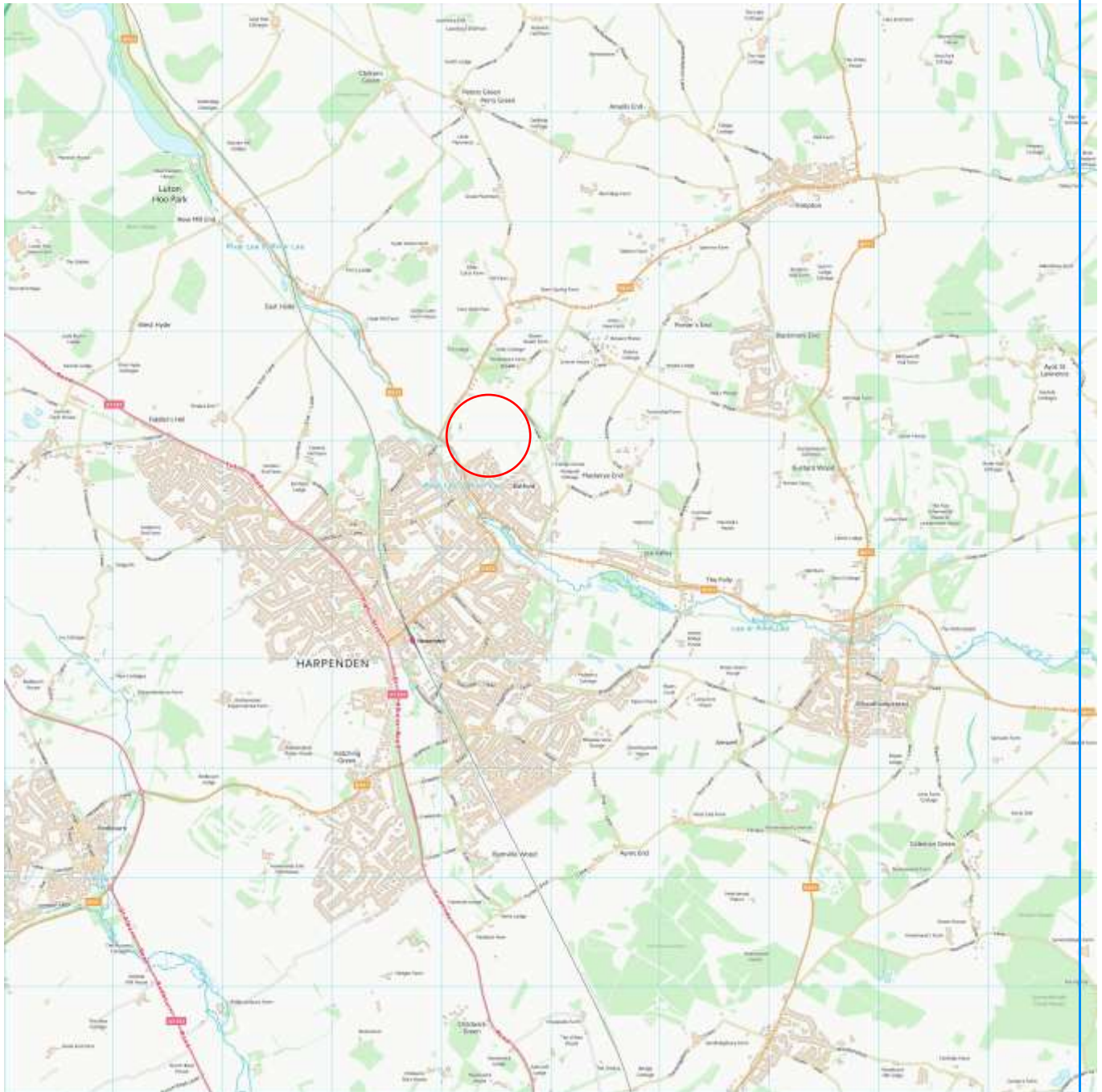
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APPENDIX A

Site Plans





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Site:	Lower Luton Road, Harpenden	Project ID	JN1933
Figure 1	Site Location Plan	Date:	10/09/2024



KEY

Development

- 1. Local centre at heart of the site
- 2. Care home as part of the mixed-use centre
- 3. Two Form Entry primary school
- 4. Lower density area on sloping edge of site
- 5. Focal buildings in key locations to aid legibility
- 6. Built form to enclose key spaces

Access

- 7. Vehicular access from the B653 Lower Luton Road
- 8. High quality active travel route
- 9. Potential highway connection with adjoining land
- 10. Public Right of Way (PRoW) active travel access from B652 Bower Heath Lane
- 11. Foot/cycle path alongside parkland
- 12. PRoW active travel link to Turners Close
- 13. Potential active travel/emergency link to Noke Shot
- 14. Tree-lined primary street
- 15. Series of key spaces (including local centre square with visitor parking) to help create a low speed environment
- 16. Active travel (and potential emergency link) to Common Lane
- 17. Active travel access from Common Lane
- 18. Vehicular loop in broadly central location to aid functionality
- 19. Highway connection to south-eastern area

Landscape

- 20. Retained vegetation around site boundaries
- 21. New and retained planting to create a strong, landscaped edge to the Green Belt
- 22. Multi-functional parkland towards the site's northern edge, including natural play
- 23. Retained boundary hedgerow
- 24. Green corridor including retained vegetation
- 25. Central village green with children's play area, and incorporating surface water attenuation features as part of a Sustainable Drainage System across the site
- 26. Green corridor linking Porters Hill Park to Common Lane

Context (Adjoining Sites)

- 27. Vehicular access from B653 to adjoining land
- 28. Green corridor across the adjoining land, including attenuation
- 29. Green corridor across the adjoining land
- 30. Landscape edge beside Common Lane within adjoining land
- 31. Village green within the adjoining land
- 32. Active travel access from Common Lane to adjoining land

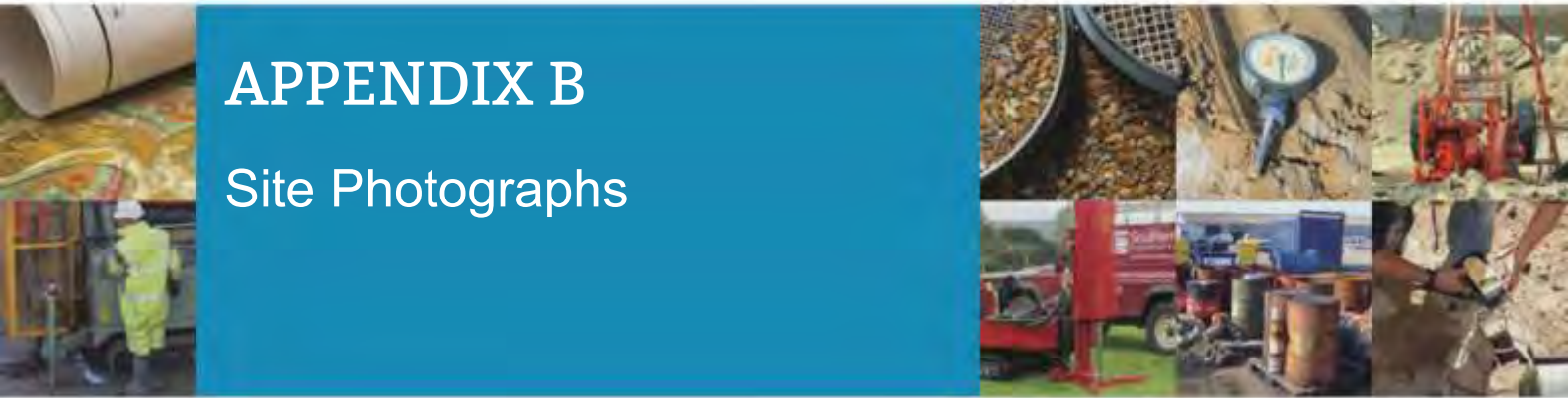
Context (Existing Urban Area)

- 33. Katherine Warington School
- 34. The Rock Church
- 35. Sauncey Wood Primary School
- 36. Batford Early Years Centre
- 37. Harpenden Children's Centre
- 38. Porters Hill Park, including play, sports and allotments
- 39. Batford Methodist Church
- 40. Public House / cafe
- 41. Convenience store / Petrol Filling Station
- 42. All Saints Church
- 43. Convenience store and take away, local facilities on the B653
- 44. Employment area
- 45. Sir John Lawes School
- 46. Manland Primary School
- 47. Allotments alongside River Lea
- 48. The Red Cow Public House
- 49. Convenience store
- 50. Westfield Recreation Ground

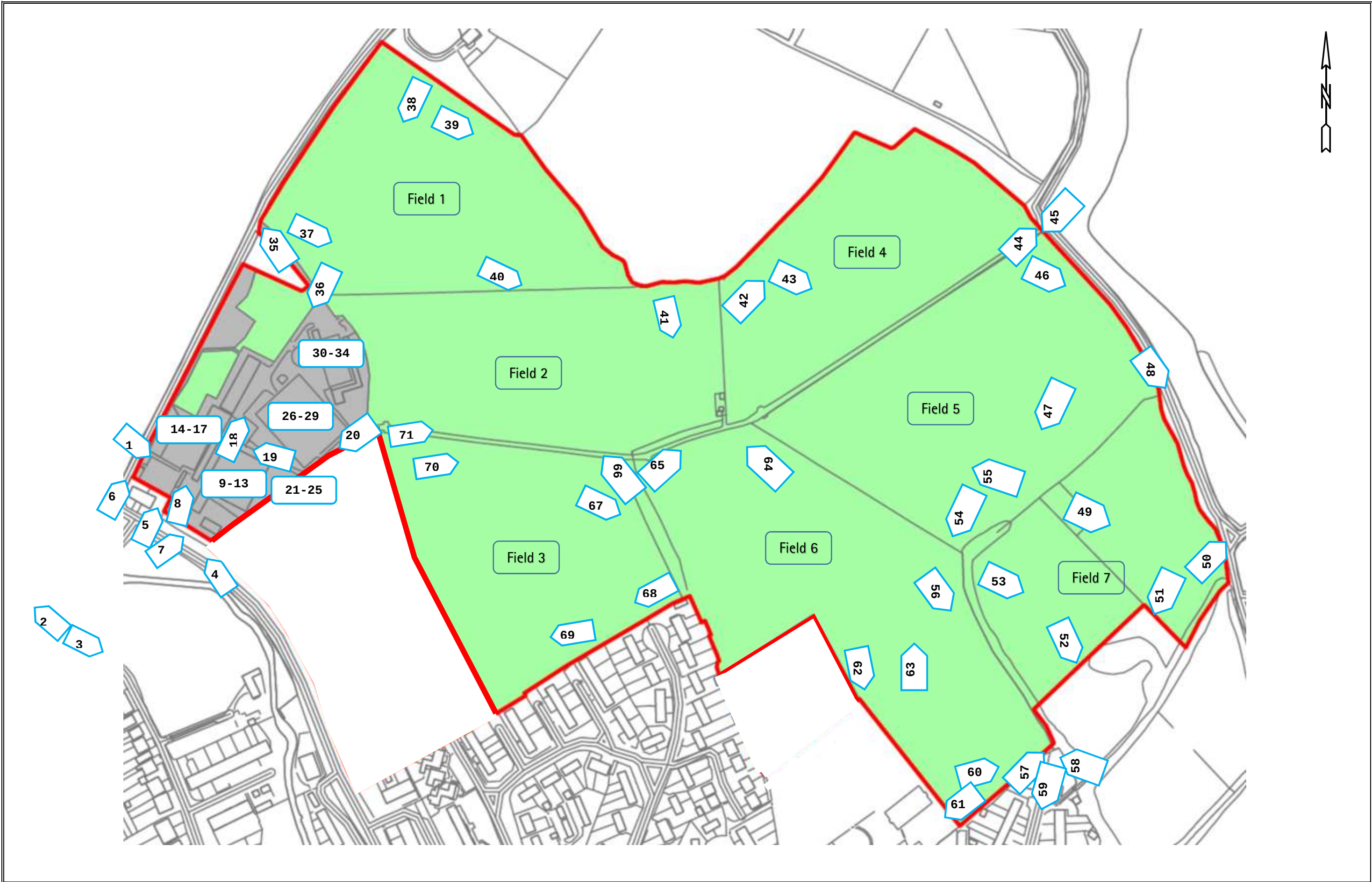
- Local Bus Stop

APPENDIX B

Site Photographs



B



Site: Lower Luton Road, Harpenden		STL: JN1933	Fig No: 2
Date: 19 September 2024		Photo Index.	
 Southern Testing Southern Testing: Keeble House, Stuart Way, East Grinstead, West Sussex RH19 4QA ST Consult: Twigden Barns, Brixworth Road, Creton, Northampton NN6 8NN  ST Consult			



1. Access into the riding school car park off Bower Heath Lane.



2. The River Lea looking up stream from Westfield Road.



3. The River Lea looking down stream from Westfield Road.



4. Site frontage from Lower Luton Road.



5. Lower Luton Road, sewage pumping station.



6. Looking north up Bower Heath Lane from the site access.



7. Greenacres from Lower Luton Road.



8. Southern end of the stable block – looking north.



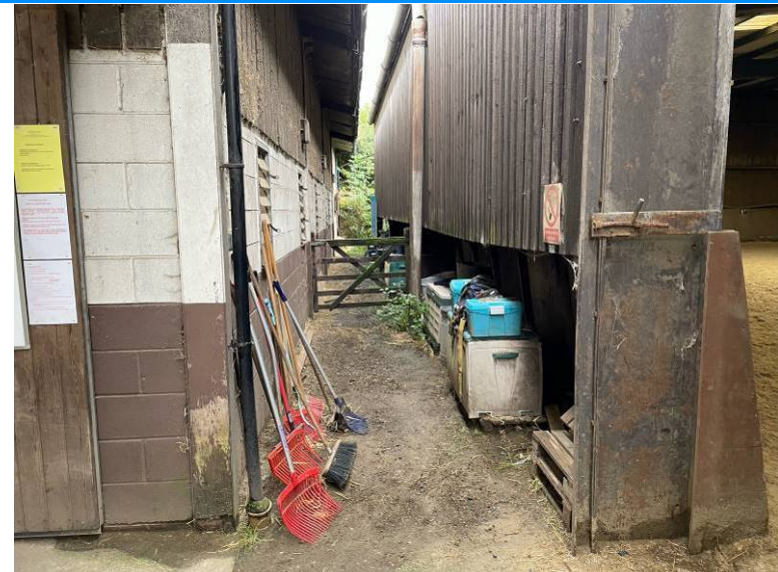
9. Main stable yard – looking north.



10. Main stable yard – looking south (possible oldest building on site).



11. Indoor riding area.



12. Between stables and indoor riding area.



13. Inside on of the stable blocks.



14. The small field behind the stable block, north of the car park (looking south).



15. Chicken coop, at field edge.



16. Southern end of the paddock behind the riding centre. Looking north.



17. Behind the horse stalls – showing cut into the hill.



18. Northern end of the yard – looking north.



19. Looking west towards the horse stalls from the main track to the fields.



20. Looking south along the track back to the yard. Rear of manege to the RHS.



21. Generator and tanks behind the indoor riding arean.



22. Tanks shown on concrete plinth.



23. Access down from track to indoor arena – showing change in levels (and cut).



24. Rear of indoor arena, showing cut and level difference.



25 Side of indoor arena.



26. Showing change in levels & retain between the loose horse housing and barn.



27. Manege.



28. Northern end of the main stable yard.



29. Northern end of the main stable yard – looking south.



30. Northern stable yard.



31. Looking north towards the fields from northern yard car park.



32. Northern stable yard.



33. Access track off Bower Heath Road, to northern yard.



34. Existing cut into hill, showing chalk face.



35. Gated access of Bower Heath Road.



36. Looking south toward the paddock within the riding school.



37. Looking north into fields 1 and 2.



38. Looking south from the northern end of field 1 (southerly dip visible within slope).



39. Looking north towards phone mast.



40. Boundary fence between field 1 and 2 – looking north.



41. Looking south across field 2.



42. Looking northeast in field 4 along the northern boundary.



43. Looking across field 4 towards the central track and field 5.



44. Gated access from the central track onto Common Lane.



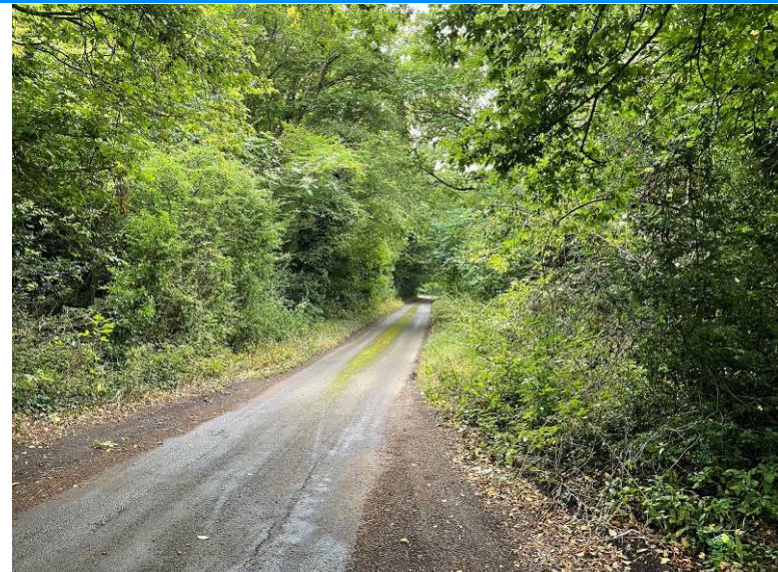
45. Looking through site along the central trackway from Common Lane.



46. Looking along the northern boundary of field 5.



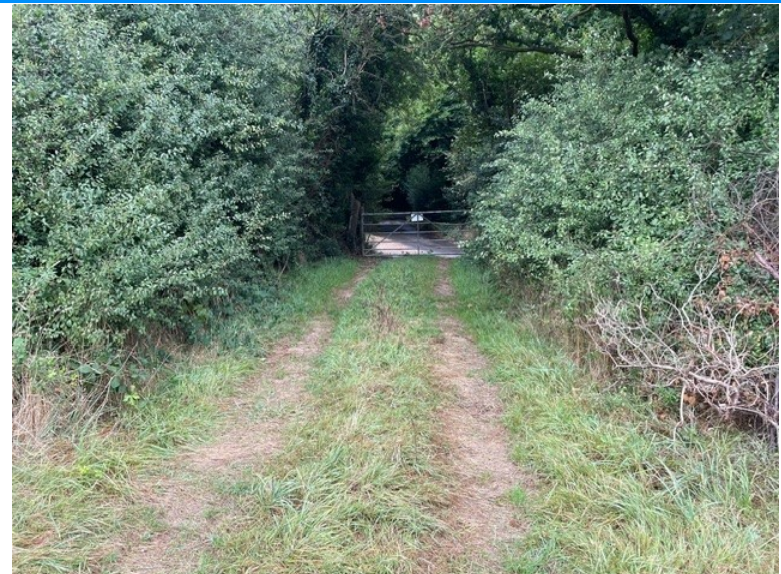
47. Looking south in field 5 towards field 6.



48. Looking southeast along Common Lane from corner of field 5.



49. Field 7 looking southeast.



50. Access into field 7 from Common Lane.



51. Looking south (off site) from field 7 into the Former Batford Chalk Pit.



52. Looking southeast (off site) into the former Batford Chalk Pit.



53. Looking across the southern section eastward in field 7.



54/. Looking into field 6 at the corner of the L-shaped hedgerow.



55. Looking up the dip in field 5 towards the communications mast.



56. Looking eastward along the hedge line between field 6 and 7.



57. The eastern corner of field 6 – looking down into the Batford Chalk pit.



58. Looking back up towards field 6.



59. Pedestrian footpath from Whittings Close to Common Lane.



60. Looking north along the eastern boundary of field 6.



61. Looking south towards Porters Hill Park from field 6.



62. The central corner within field 6, between site and adjoining pasture.



63. Looking north from field 6.



64. The communications mast adjacent to the main farm track.



65. Looking north up the access track.



66. Gated access into field 6.



67. Looking south along the boundary between field 6 and field 3.



68. Looking south (down slope) of field 3, along the south eastern boundary.



69. Looking south from field 6 towards the riding school.



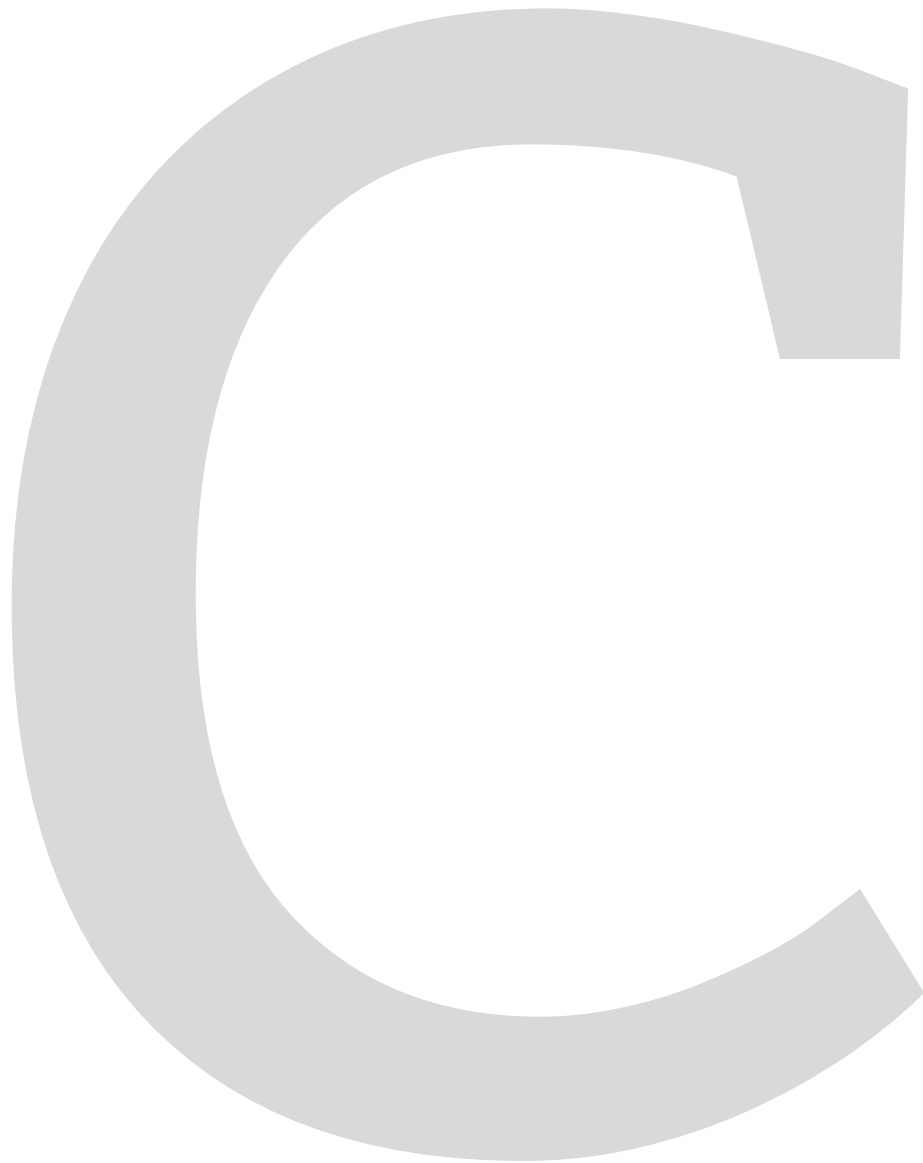
70. The northern section of field 3 – looking back up slope.



71. Looking up the track from the western end of the riding school.

APPENDIX C

**Phase 1 Desk Study –
Historical Mapping**



Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	•285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

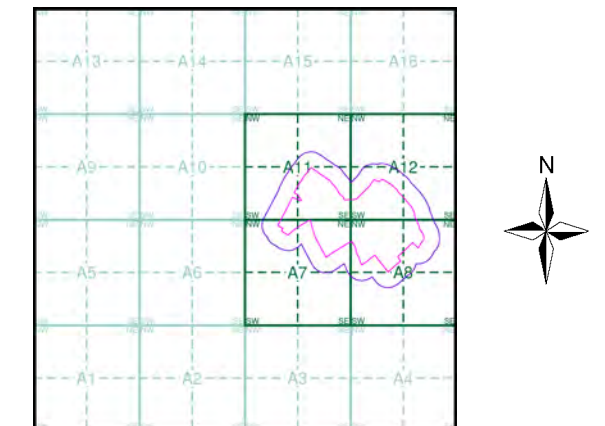
1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	Mean high water (springs)		Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hertfordshire	1:10,560	1884	3
Bedfordshire	1:10,560	1885	4
Hertfordshire	1:10,560	1899	5
Bedfordshire	1:10,560	1901	6
Bedfordshire	1:10,560	1925	7
Bedfordshire	1:10,560	1925	8
Bedfordshire	1:10,560	1938 - 1947	9
Bedfordshire	1:10,560	1938	10
Historical Aerial Photography	1:10,560	1947 - 1949	11
Historical Aerial Photography	1:10,560	1947	12
Bedfordshire	1:10,560	1950	13
Ordnance Survey Plan	1:10,000	1960	14
Luton	1:10,000	1973	15
Ordnance Survey Plan	1:10,000	1974 - 1976	16
Ordnance Survey Plan	1:10,000	1981	17
Ordnance Survey Plan	1:10,000	1993	18
10K Raster Mapping	1:10,000	1999	19
10K Raster Mapping	1:10,000	2006	20
VectorMap Local	1:10,000	2024	21

Historical Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings Military and Industrial Buildings

Military and Communication Areas Subway Entrance

Fireproof Building Prominent Fireproof Building

Non-fireproof Building Non-fireproof Building (non-dwelling)

Factory, mill, and flour mill, with chimneys Factory, mill, and flour mill, without chimneys

Power Station, drawn to scale Hydroelectric Power Station

Radio Station, drawn to scale Telephone Station, drawn to scale

Abandoned Open-pit Mine or Quarry Open-pit Salt Mine

Pit Oil Deposit or Well Oil Seepage

Tailings Pile Fuel Storage Tanks Natural Gas Tank

Bench Mark Drill Hole Burial Mound Triangulation Point on Burial Mound

Single-track Railroad Double-track Railroad and Station Building

Coniferous Forest Deciduous Forest Mixed Forest

Lawns Citrus Orchard Wet Ground Scattered Vegetation

243.8 Values for prominent elevations

186.0 Numbers for spot elevations, depth soundings, contour lines, etc.

0.2 Velocity of the current, width of river bed, depth of river

180/12 Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	Ъ (-)
Д д (D)	Л л (L)	У у (U)	Ы (Y)
Е е (E)	М м (M)	Ф ф (F)	Ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings Military and Industrial Buildings

Military and Communication Areas Subway Entrance

Partly Demolished Buildings Demolished Buildings

Built-Up Area with Fireproof Buildings Predominant Built-Up Area with Non-Fireproof Buildings Predominant

Individual Fireproof Building Prominent Industrial Building

Individual Dwelling, Fireproof Ruins of an Individual Dwelling

Factory or Mill Chimney Factory or Mill with Chimney Factory or Mill without Chimney Mine or Open Pit Mine

Operating Shaft or Mine Non-Operating Shaft or Mine Salt Mine Tailings Pile

Pit Stone Quarry Gas Pump or Service Station Fuel Storage or Natural Gas Tank

Oil or Natural Gas Derrick Small Hydroelectric Power Station Power Station Transformer Station

Cemetery Burial Mound (height in metres) Triangulation Point on Burial Mound Triangulation Point

Bench Mark Bench Mark (monumented) Telegraph Office Telephone Station

Radio Station Radio Tower Airfield or Seaplane Base Landing Strip

Telegraph/Telephone Lines Main Highway Highway under Construction Improved Dirt Road (former truck road)

Double-track Railroad with First Class Station Railroad Under Construction

Shore Embankment River or Ditch with Embankment Direction and velocity of current Water Gauge Water Level Mark

Well Water Reservoir or Rain Water Pit Spring Isobath with value

Heavy (Index) Contour Line Contour Line and Value Half Contour Line Spot Elevation Value

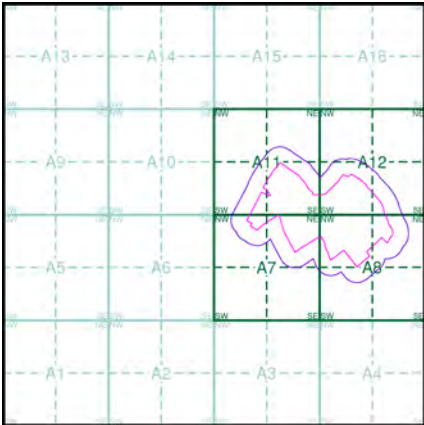
Coniferous Deciduous Mixed Scrub

Key to Numbers on Mapping

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hertfordshire	1:10,560	1884	3
Bedfordshire	1:10,560	1885	4
Hertfordshire	1:10,560	1899	5
Bedfordshire	1:10,560	1901	6
Bedfordshire	1:10,560	1925	7
Bedfordshire	1:10,560	1925	8
Bedfordshire	1:10,560	1938 - 1947	9
Bedfordshire	1:10,560	1938	10
Historical Aerial Photography	1:10,560	1947 - 1949	11
Historical Aerial Photography	1:10,560	1947	12
Bedfordshire	1:10,560	1950	13
Ordnance Survey Plan	1:10,000	1960	14
Luton	1:10,000	1973	15
Ordnance Survey Plan	1:10,000	1974 - 1976	16
Ordnance Survey Plan	1:10,000	1981	17
Ordnance Survey Plan	1:10,000	1993	18
10K Raster Mapping	1:10,000	1999	19
10K Raster Mapping	1:10,000	2006	20
VectorMap Local	1:10,000	2024	21

Russian Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

Hertfordshire

Published 1884

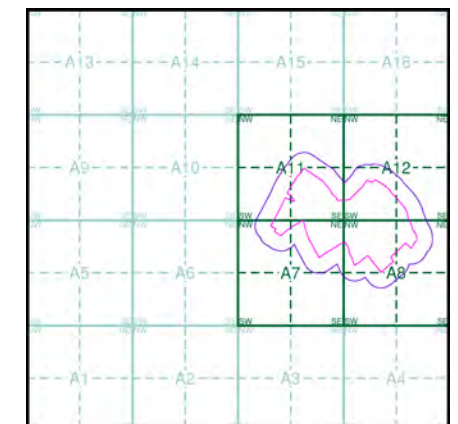
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

01900
1884
1:10,560
02700
1884
1:10,560

Historical Map - Slice A

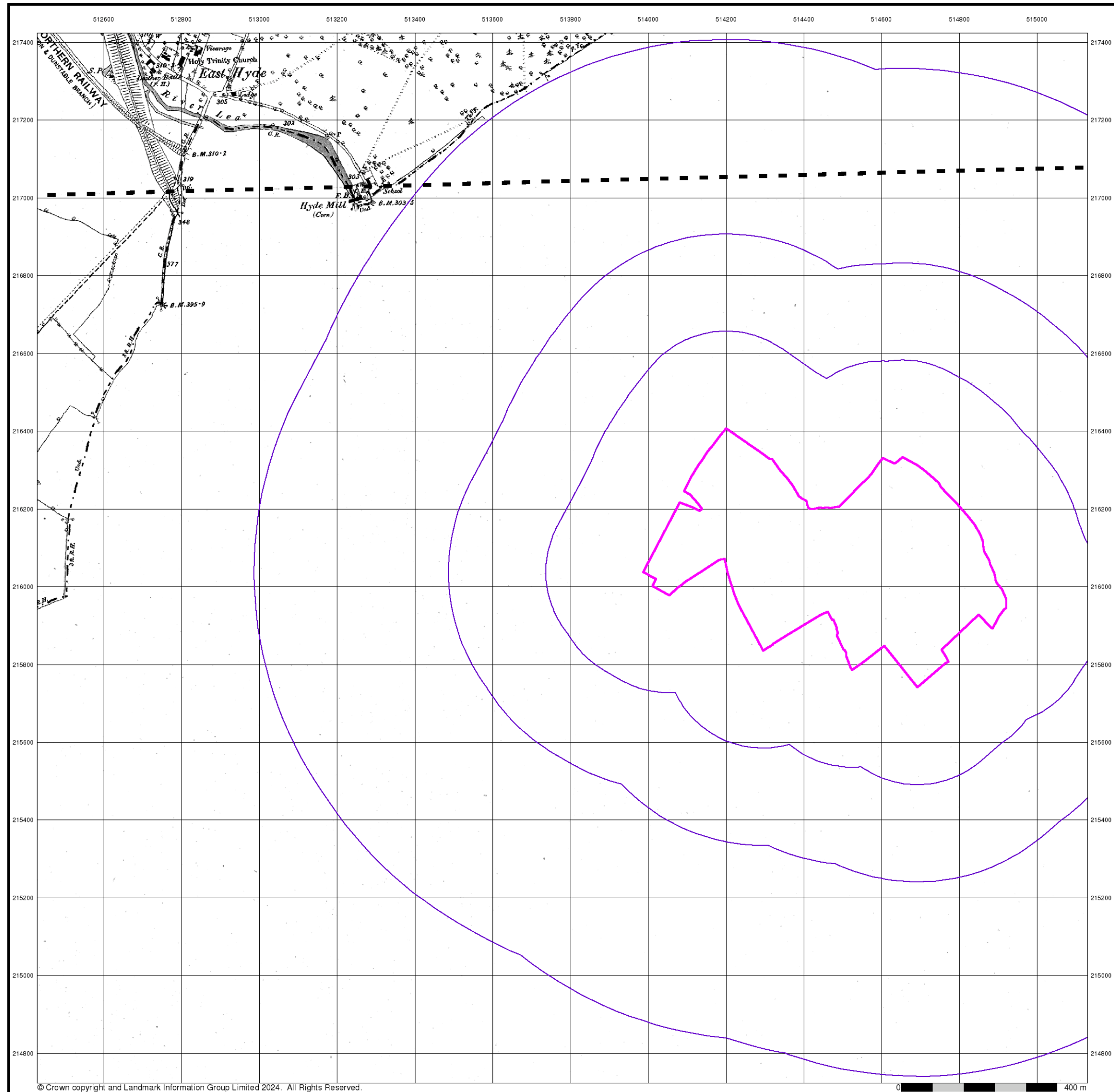


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



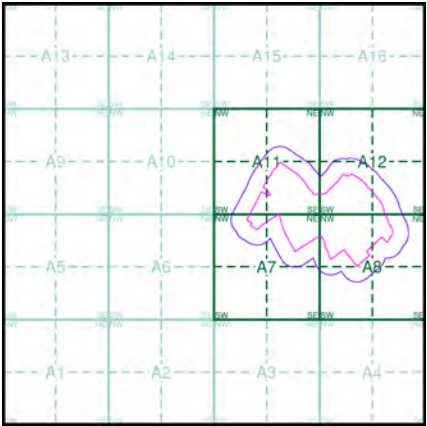
Bedfordshire
Published 1885
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

033SE 1885 1:10,560
035NE 1885 1:10,560

Historical Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
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Hertfordshire

Published 1899

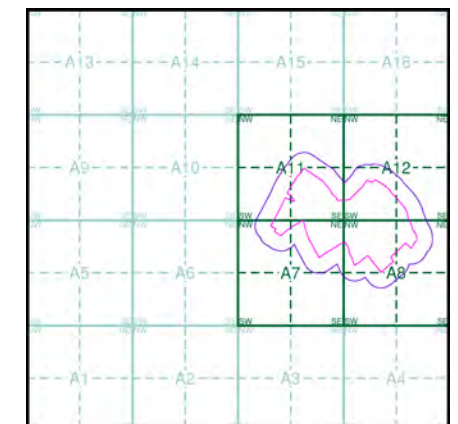
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

019SE
1899
1:10,560
027NE
1899
1:10,560

Historical Map - Slice A

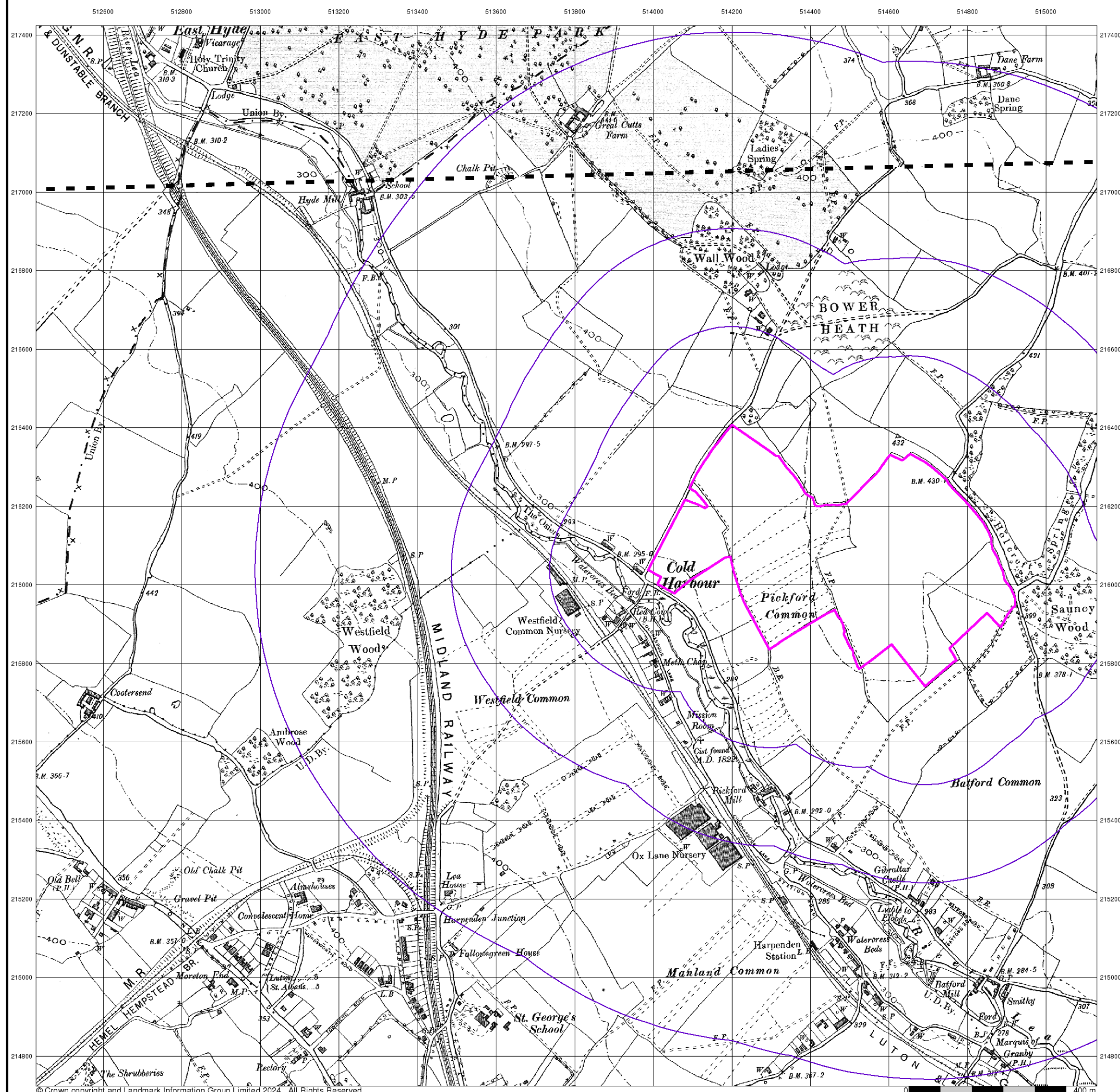


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Bedfordshire

Published 1901

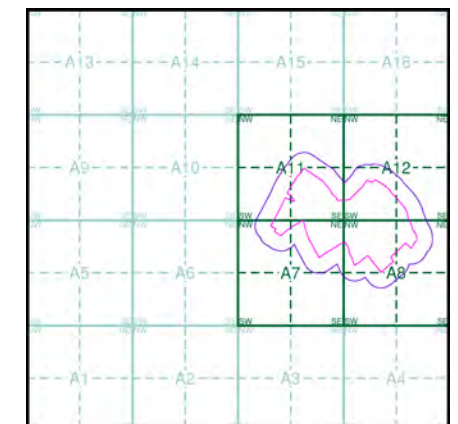
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

033SE	1901	1:10,560
035NE	1901	1:10,560

Historical Map - Slice A

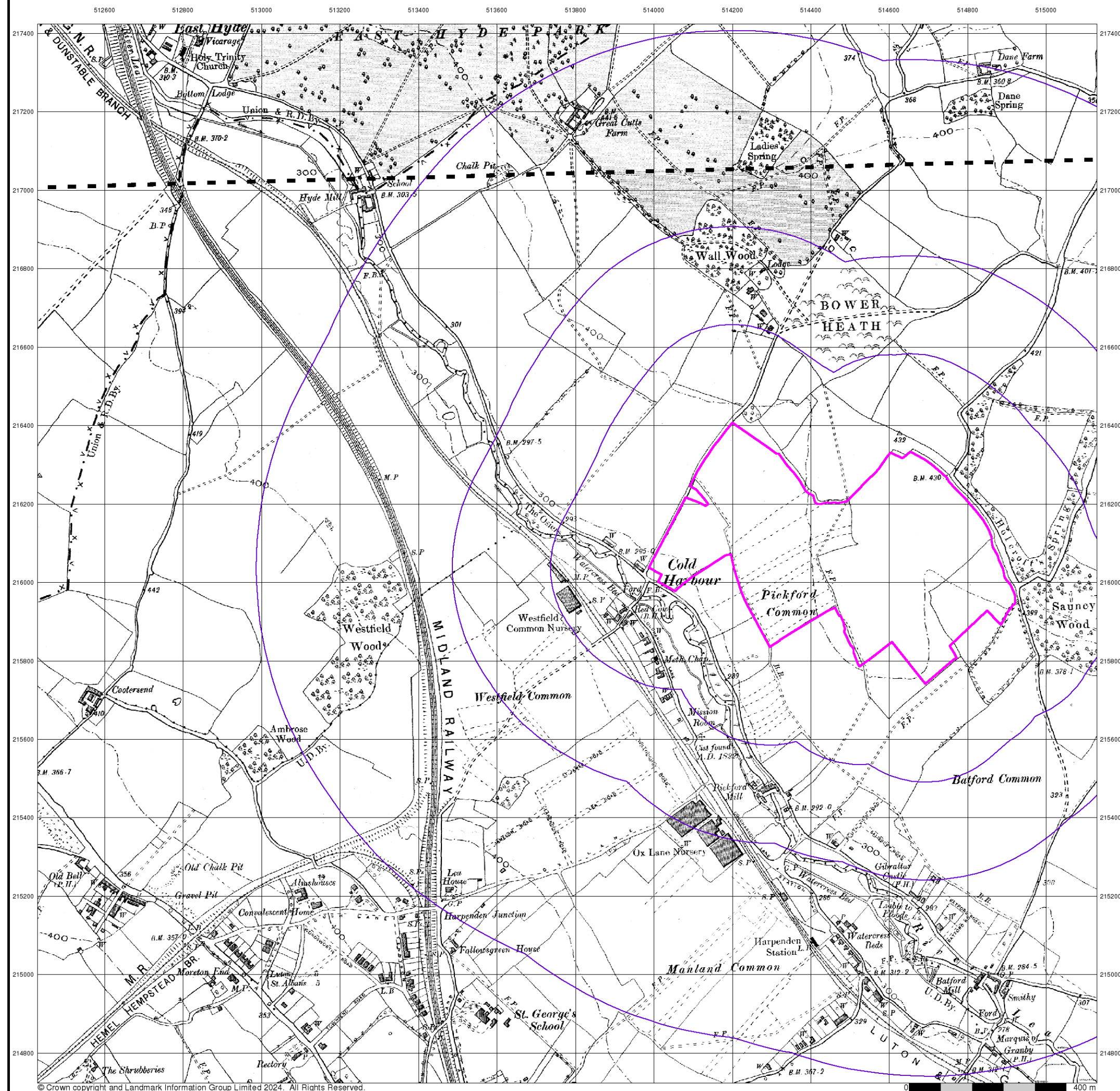


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Bedfordshire

Published 1925

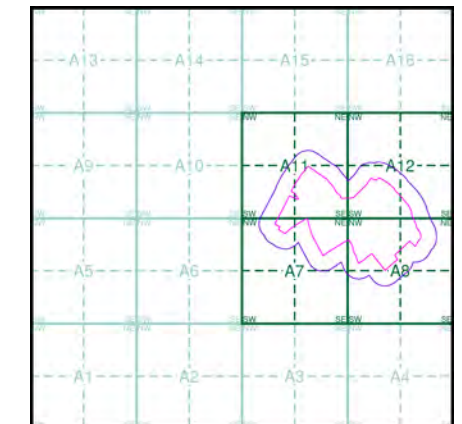
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

033SE	1925	1:10,560
035NE	1925	1:10,560

Historical Map - Slice A

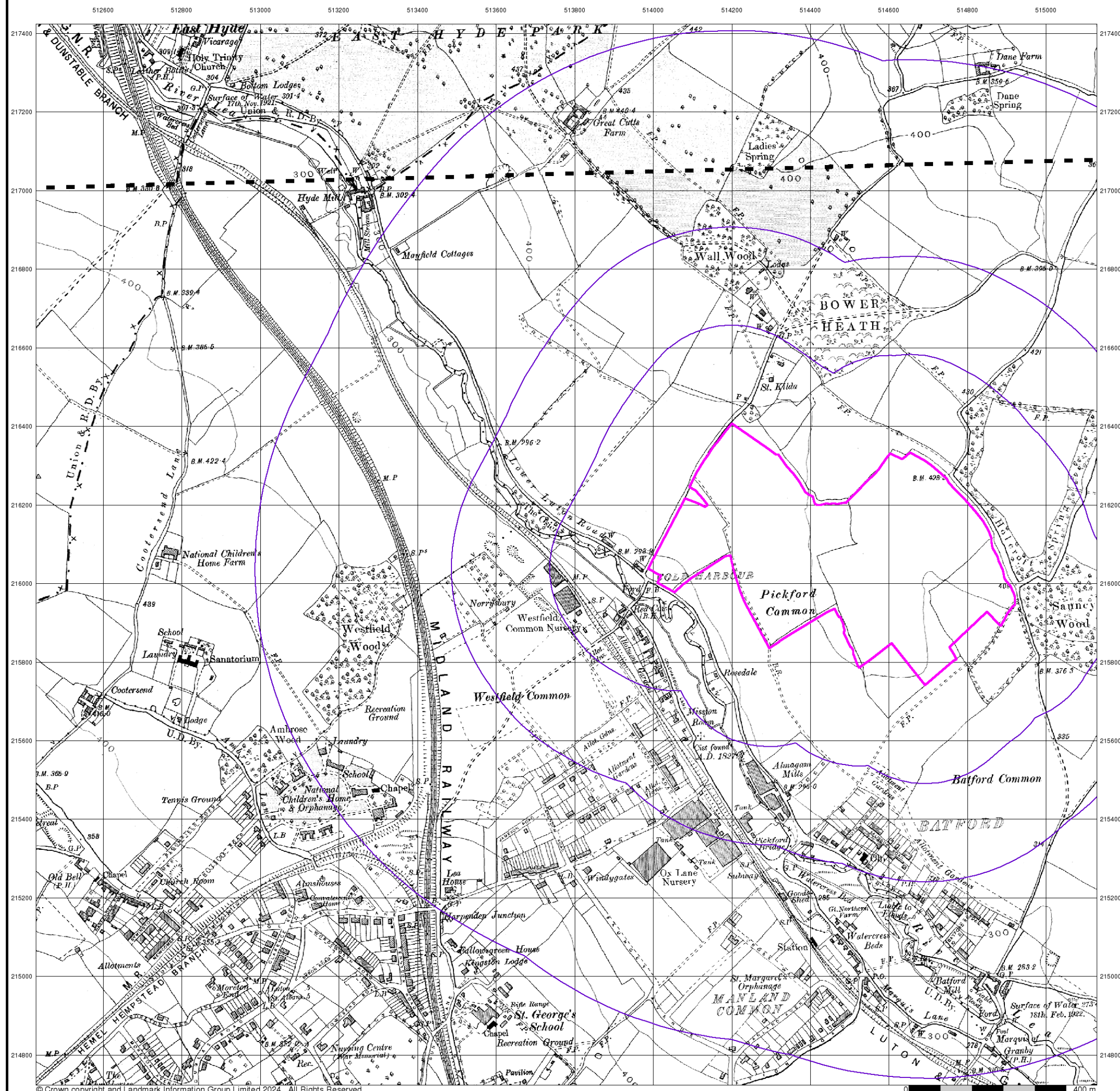


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



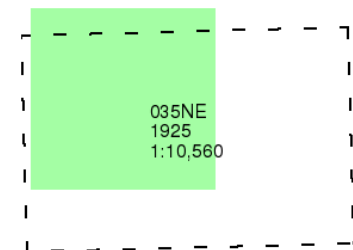
Bedfordshire

Published 1925

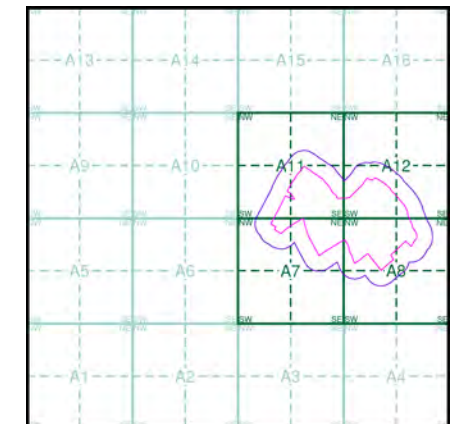
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

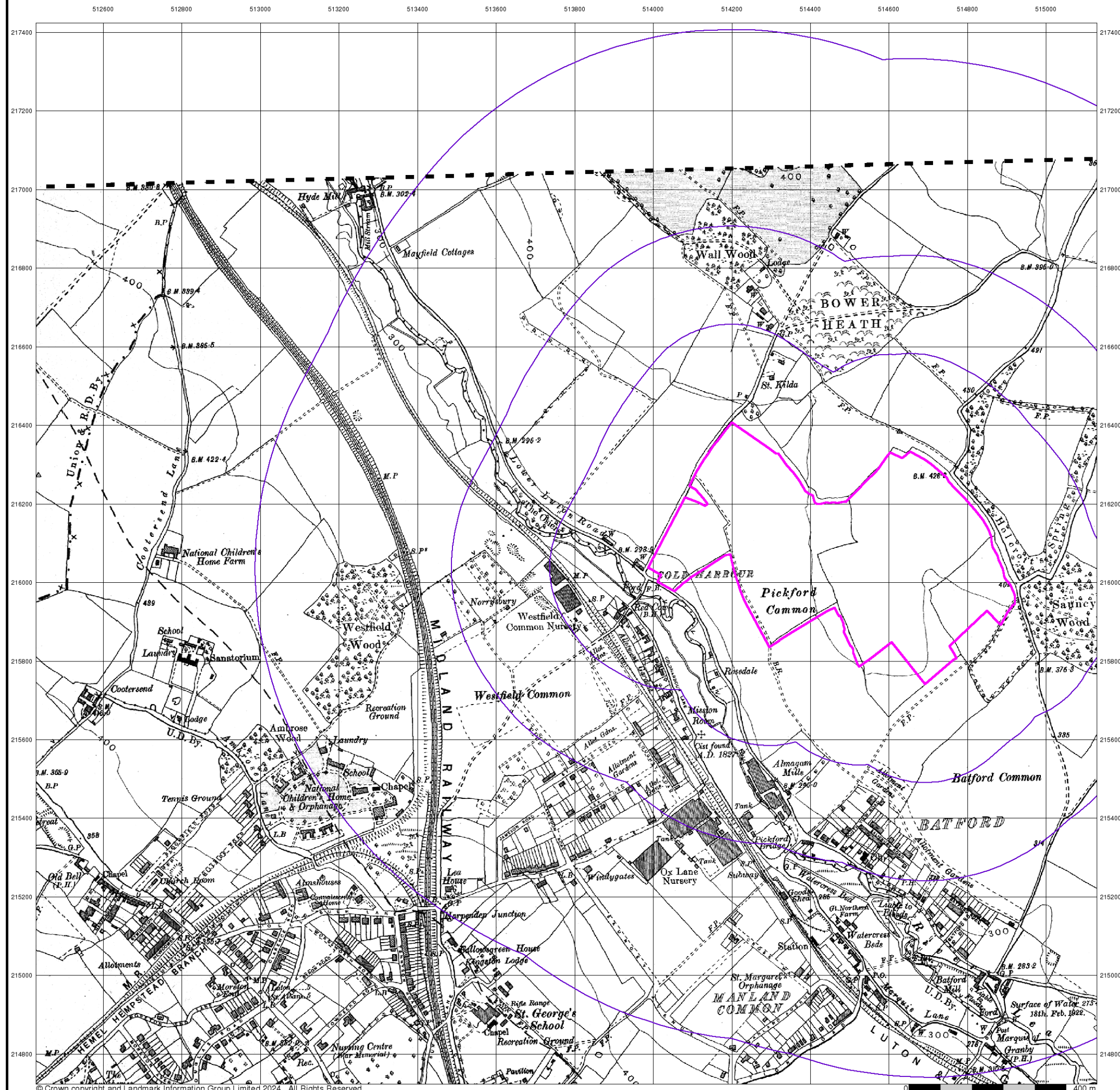


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Bedfordshire

Published 1938 - 1947

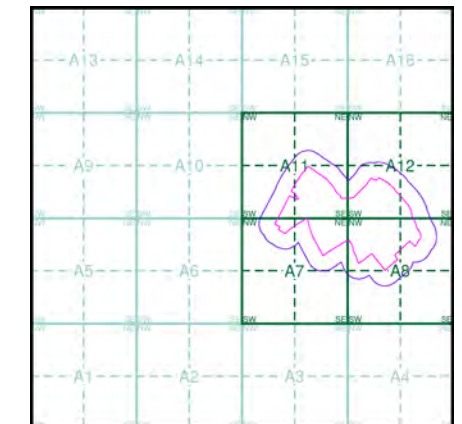
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

033SE
1947
1:10,560
035NE
1938
1:10,560

Historical Map - Slice A

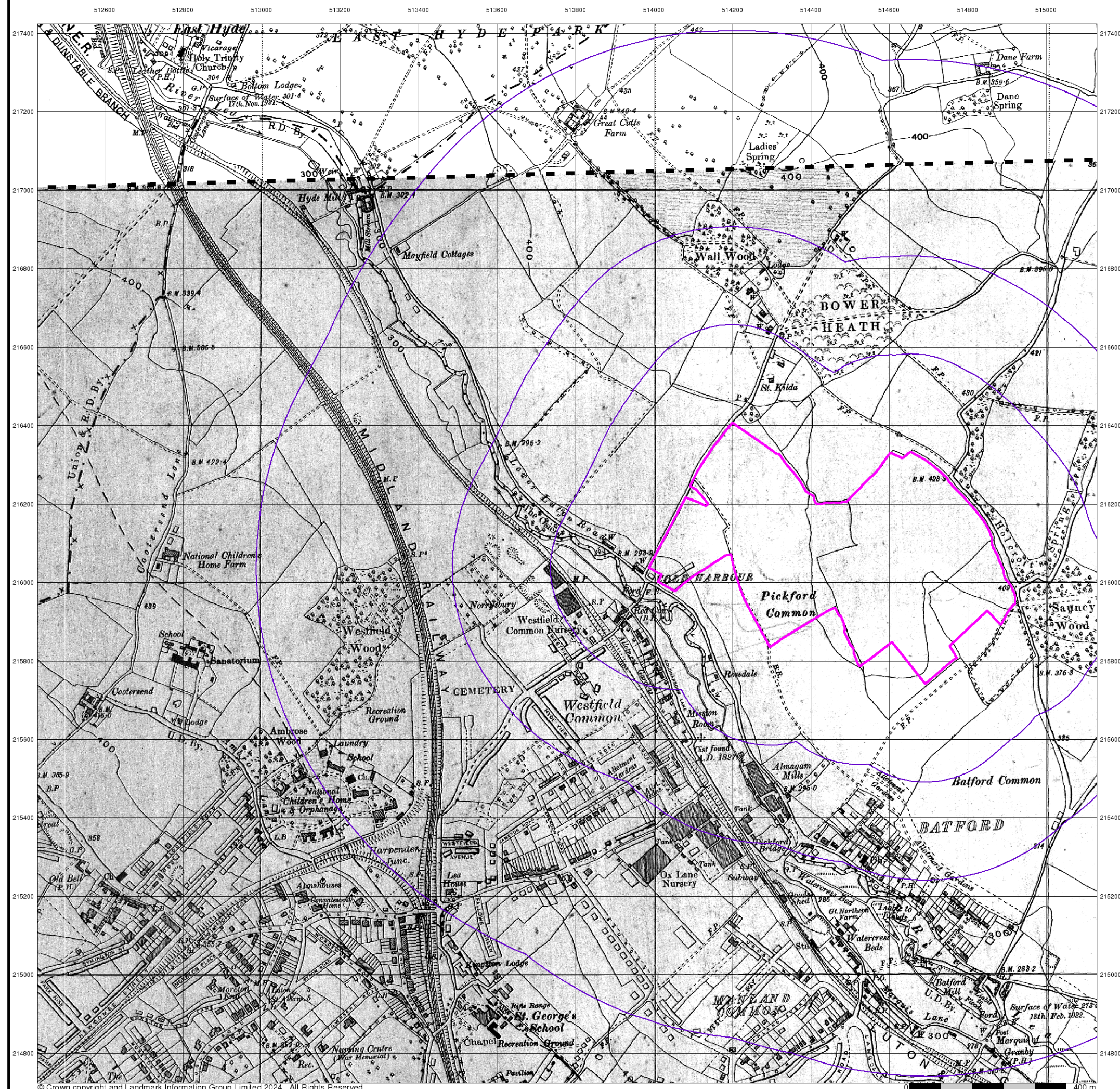


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



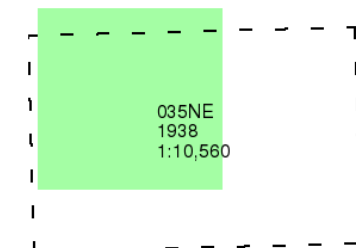
Bedfordshire

Published 1938

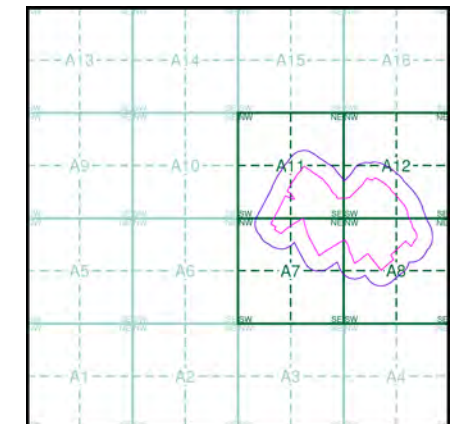
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A

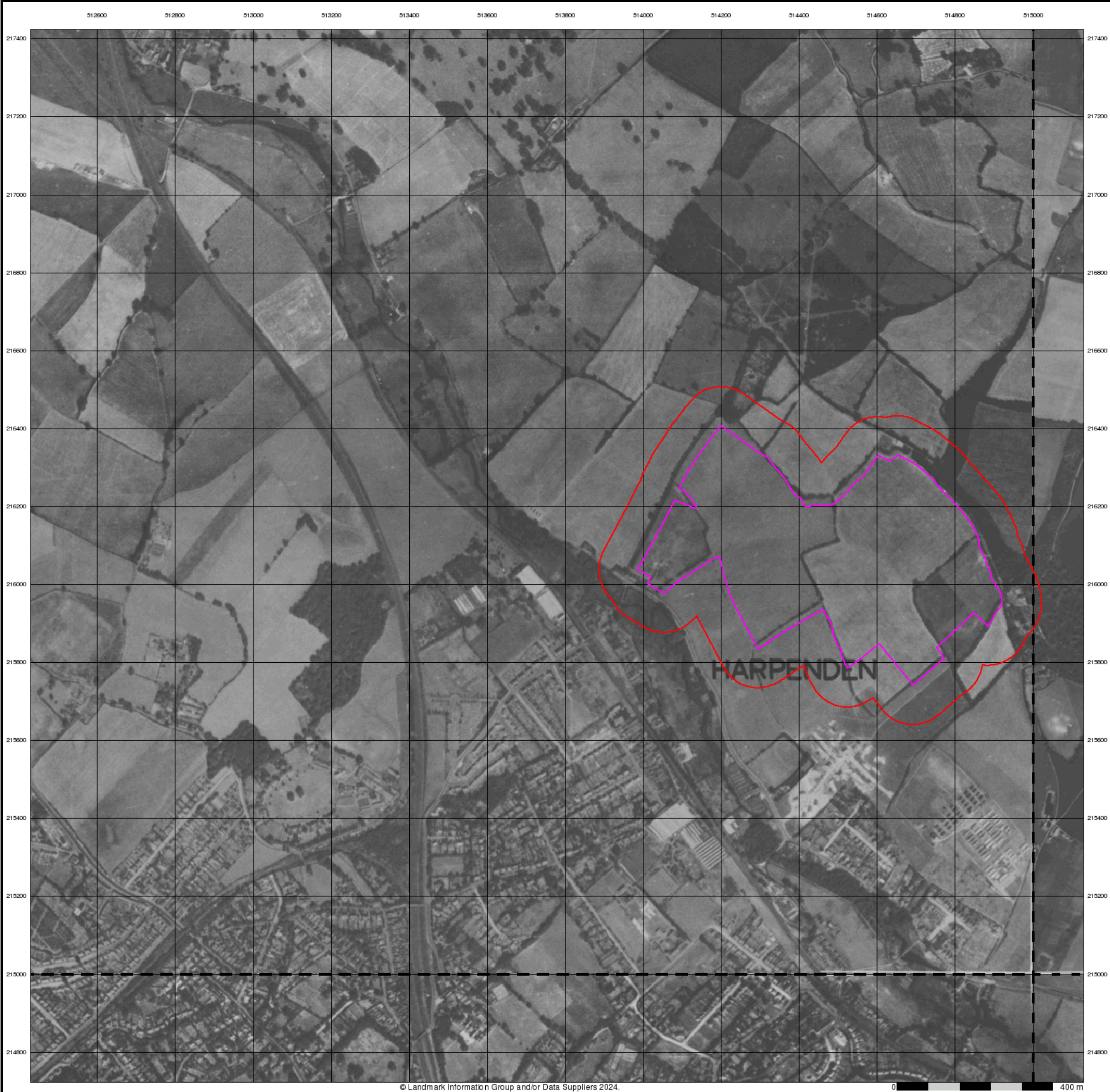


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Historical Aerial Photography

Published 1947 - 1949

Source map scale - 1:10,560

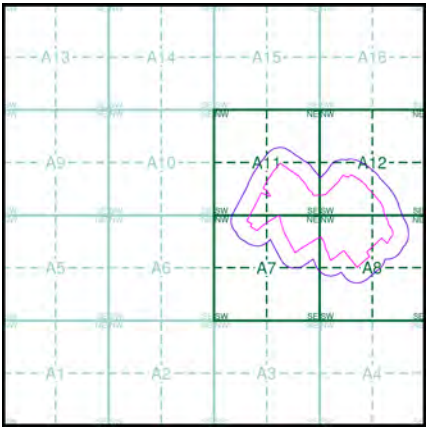
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)

TL11NW 1947 1:10,560	TL11NE 1949 1:10,560
TL11SW 1947 1:10,560	TL11SE 1947 1:10,560

Historical Aerial Photography - Slice A



Order Details

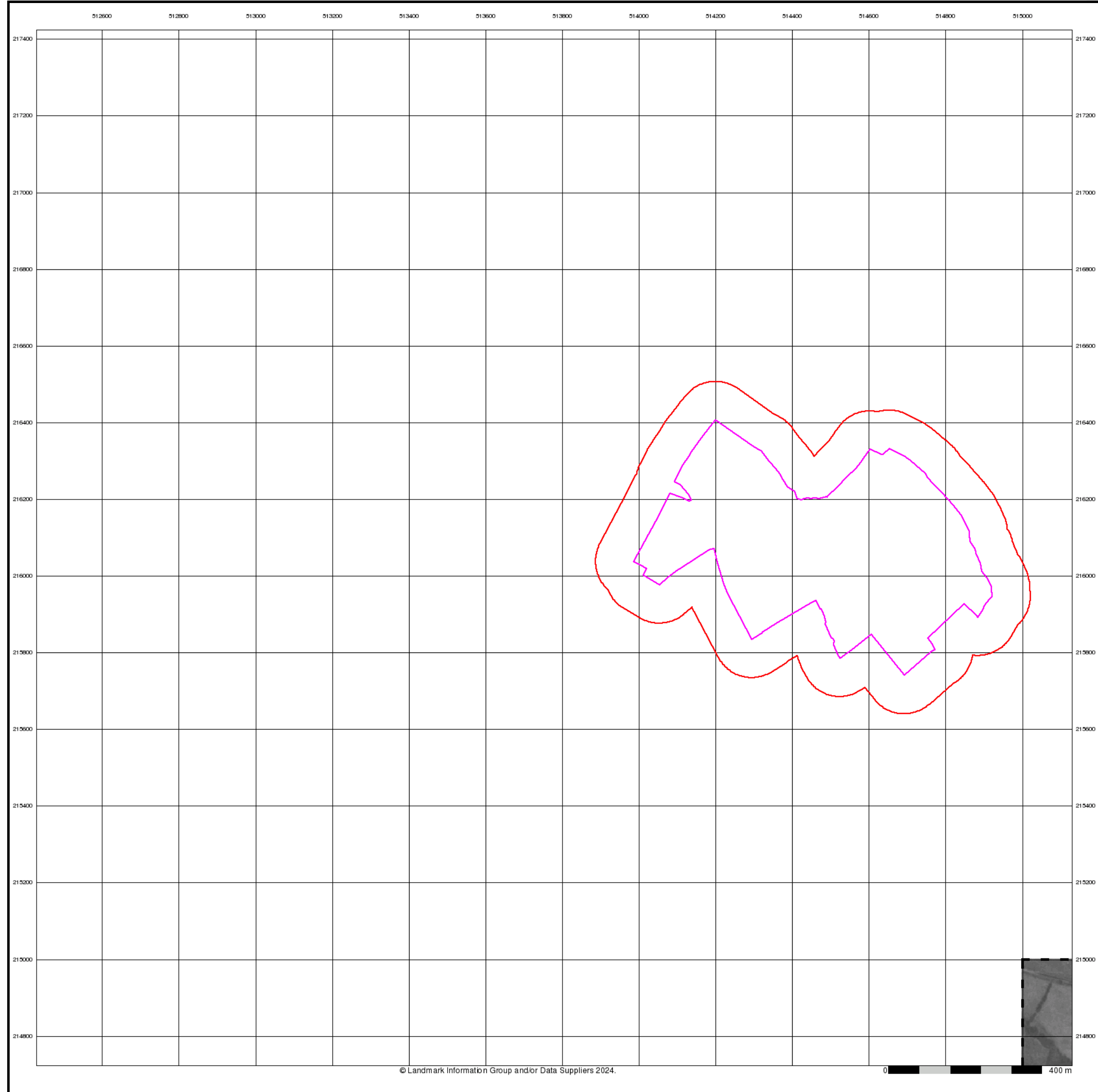
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

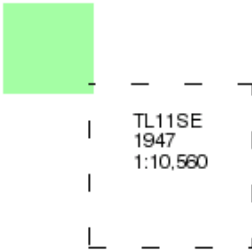


Historical Aerial Photography
Published 1947
Source map scale - 1:10,560

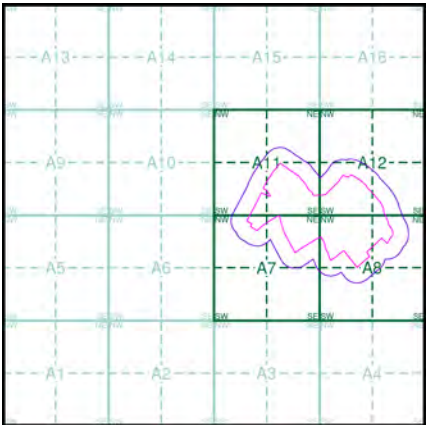
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

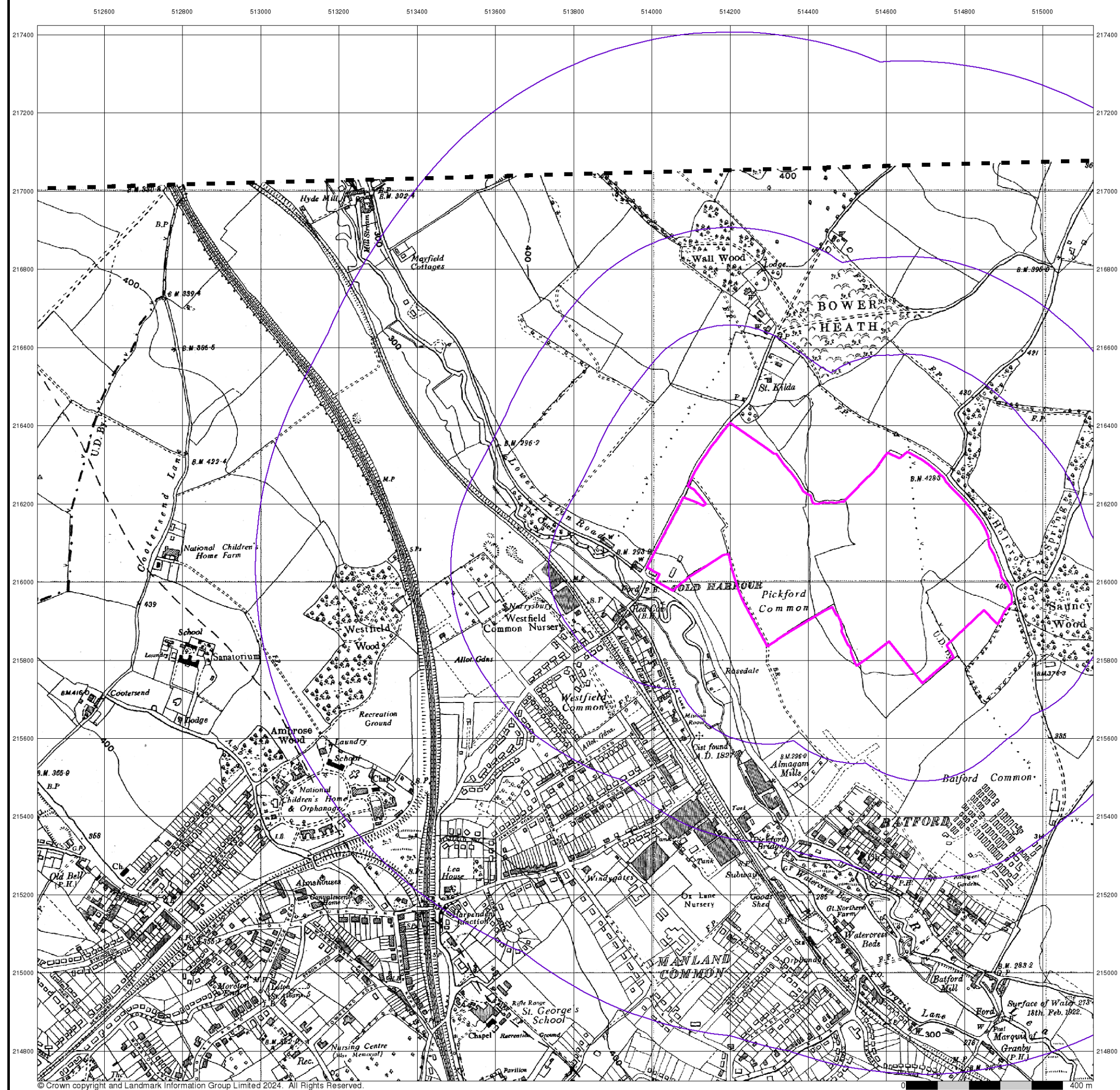
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



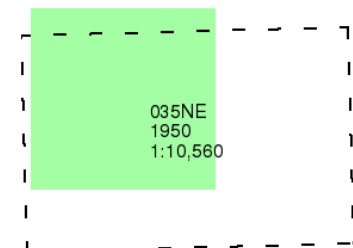
Bedfordshire

Published 1950

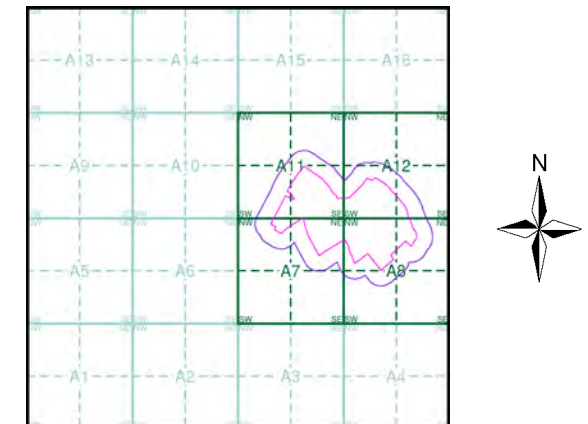
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Ordnance Survey Plan

Published 1960

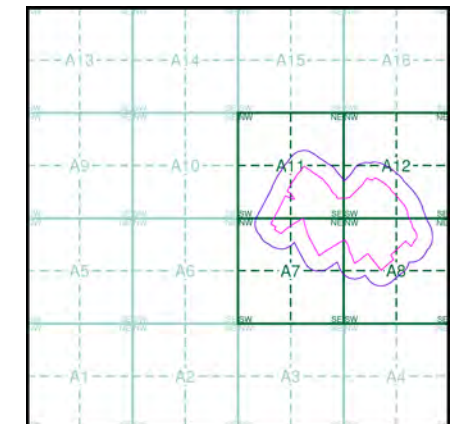
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

TL11NW	TL11NE
1960	1960
1:10,560	1:10,560
TL11SW	TL11SE
1960	1960
1:10,560	1:10,560

Historical Map - Slice A

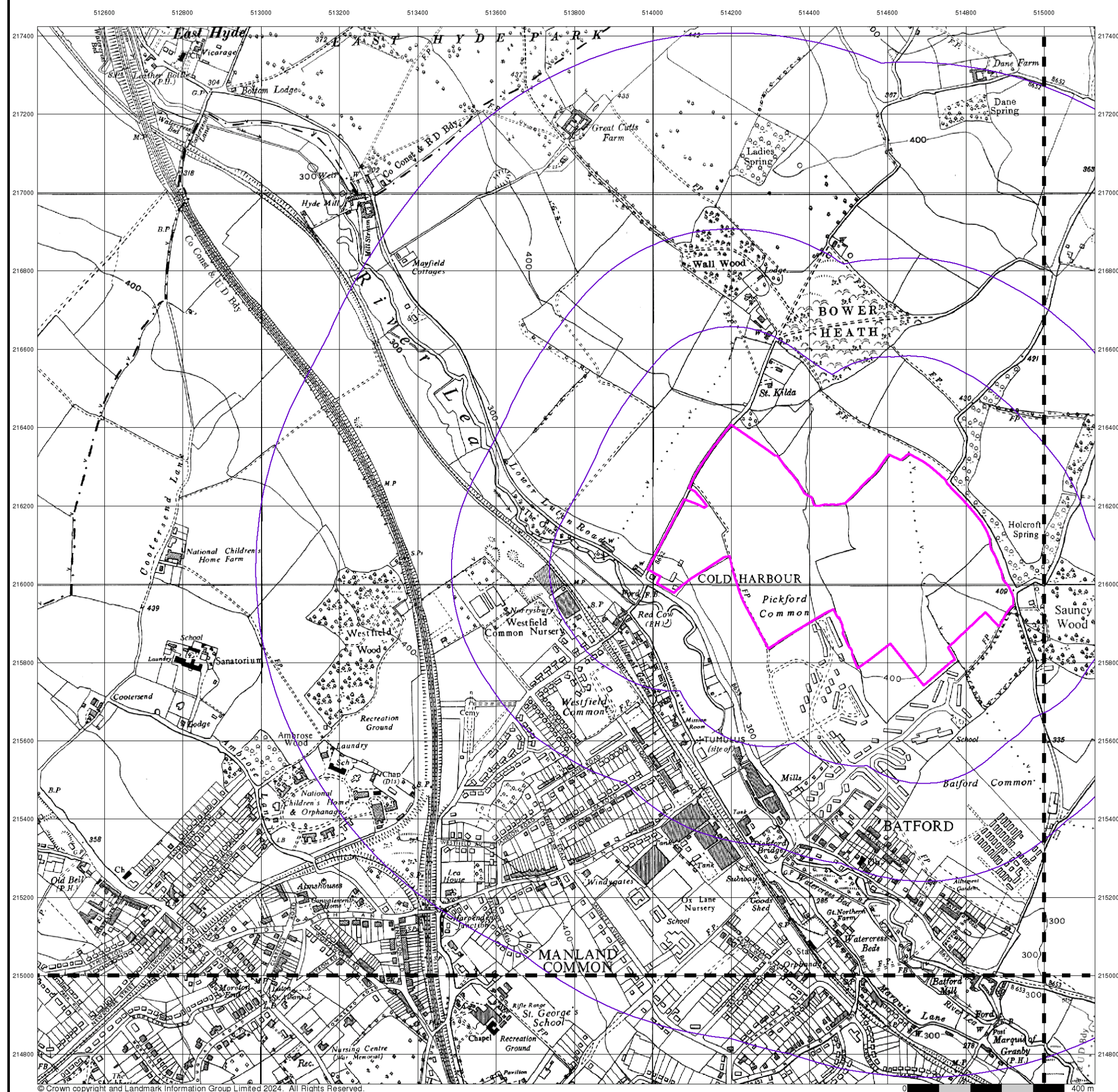


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Luton

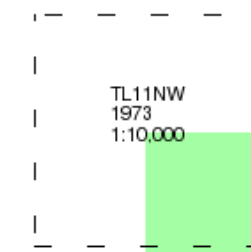
Published 1973

Source map scale - 1:10,000

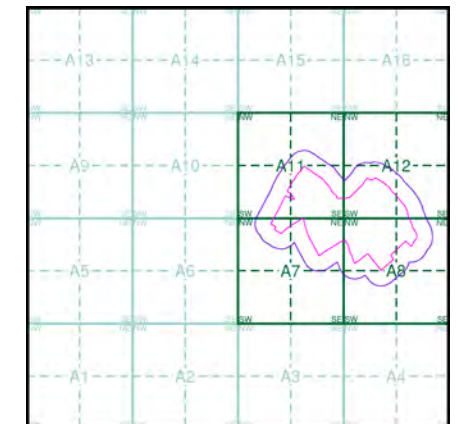
These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use.

They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)



Russian Map - Slice A

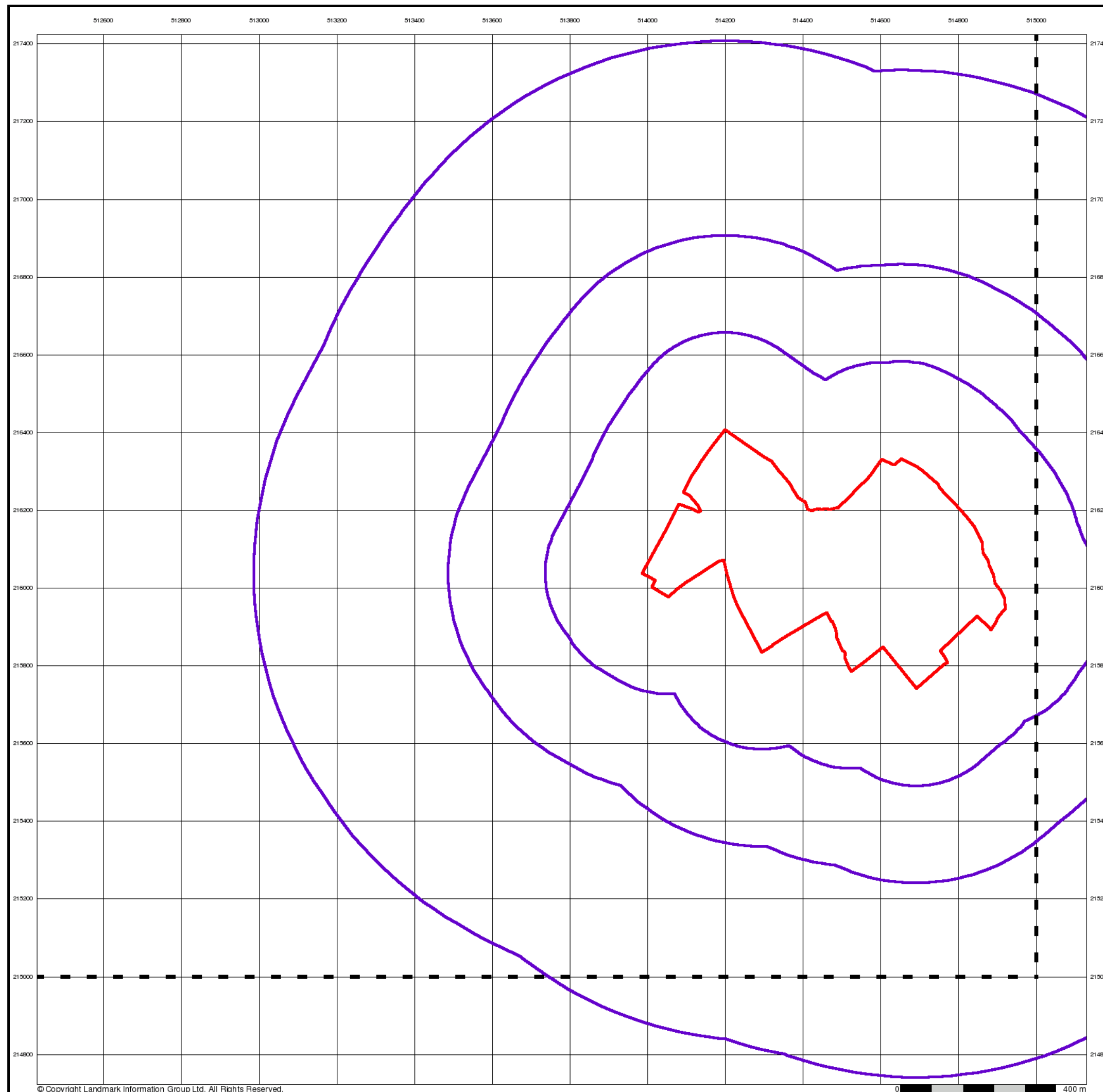


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Ordnance Survey Plan

Published 1974 - 1976

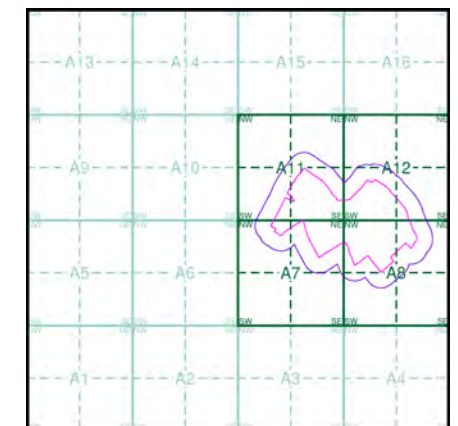
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

TL11NW 1974 1:10,000	TL11NE 1975 1:10,000
TL11SW 1976 1:10,560	

Historical Map - Slice A

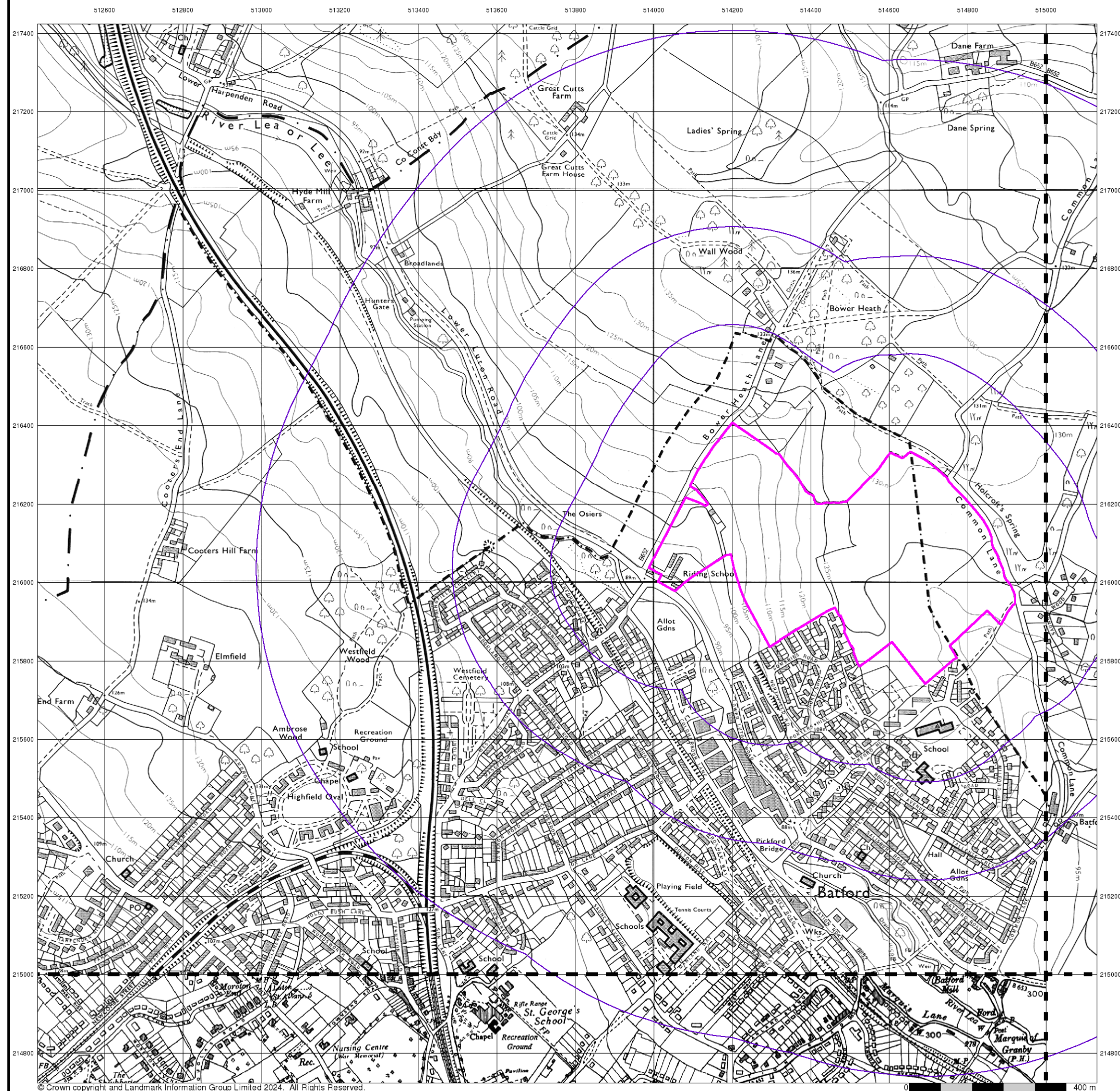


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden





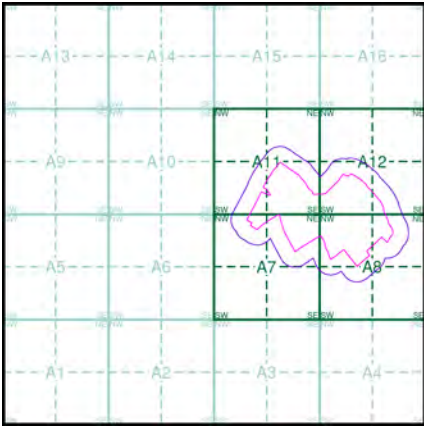
Ordnance Survey Plan
Published 1981
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

	
TL11SW 1981 1:10,000	TL11SE 1981 1:10,000

Historical Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

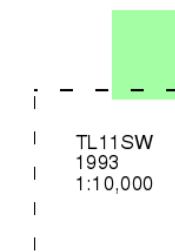
Ordnance Survey Plan

Published 1993

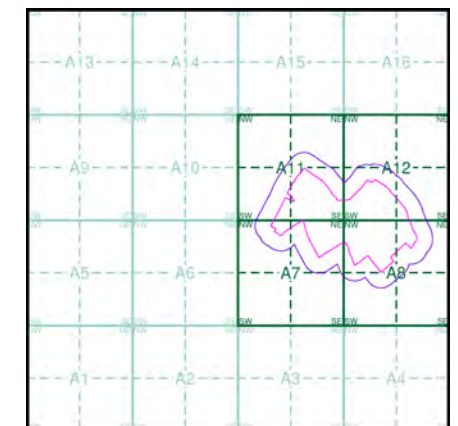
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

10k Raster Mapping

Published 1999

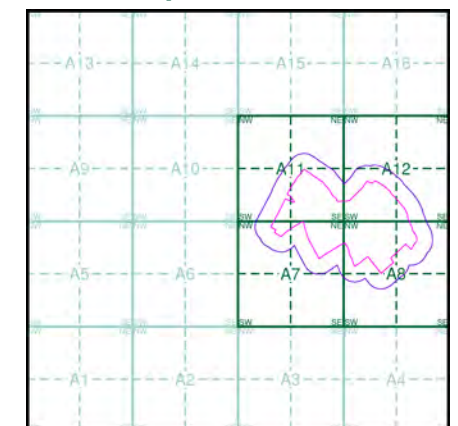
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

TL11NW 1999 1:10,000	TL11NE 1999 1:10,000
TL11SW 1999 1:10,000	TL11SE 1999 1:10,000

Historical Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

10k Raster Mapping

Published 2006

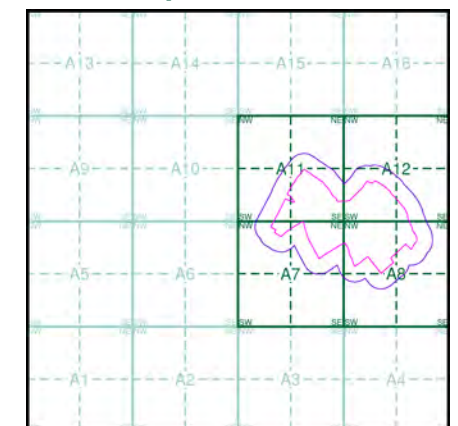
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

TL11NW 2006 1:10,000	TL11NE 2006 1:10,000
TL11SW 2006 1:10,000	TL11SE 2006 1:10,000

Historical Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

VectorMap Local

Published 2024

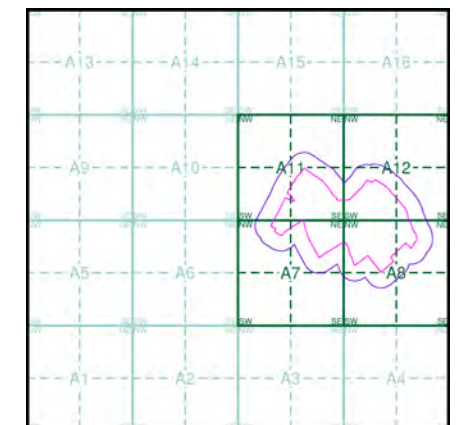
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

TL11NW 2024 Variable	TL11NE 2024 Variable
TL11SW 2024 Variable	TL11SE 2024 Variable

Historical Map - Slice A

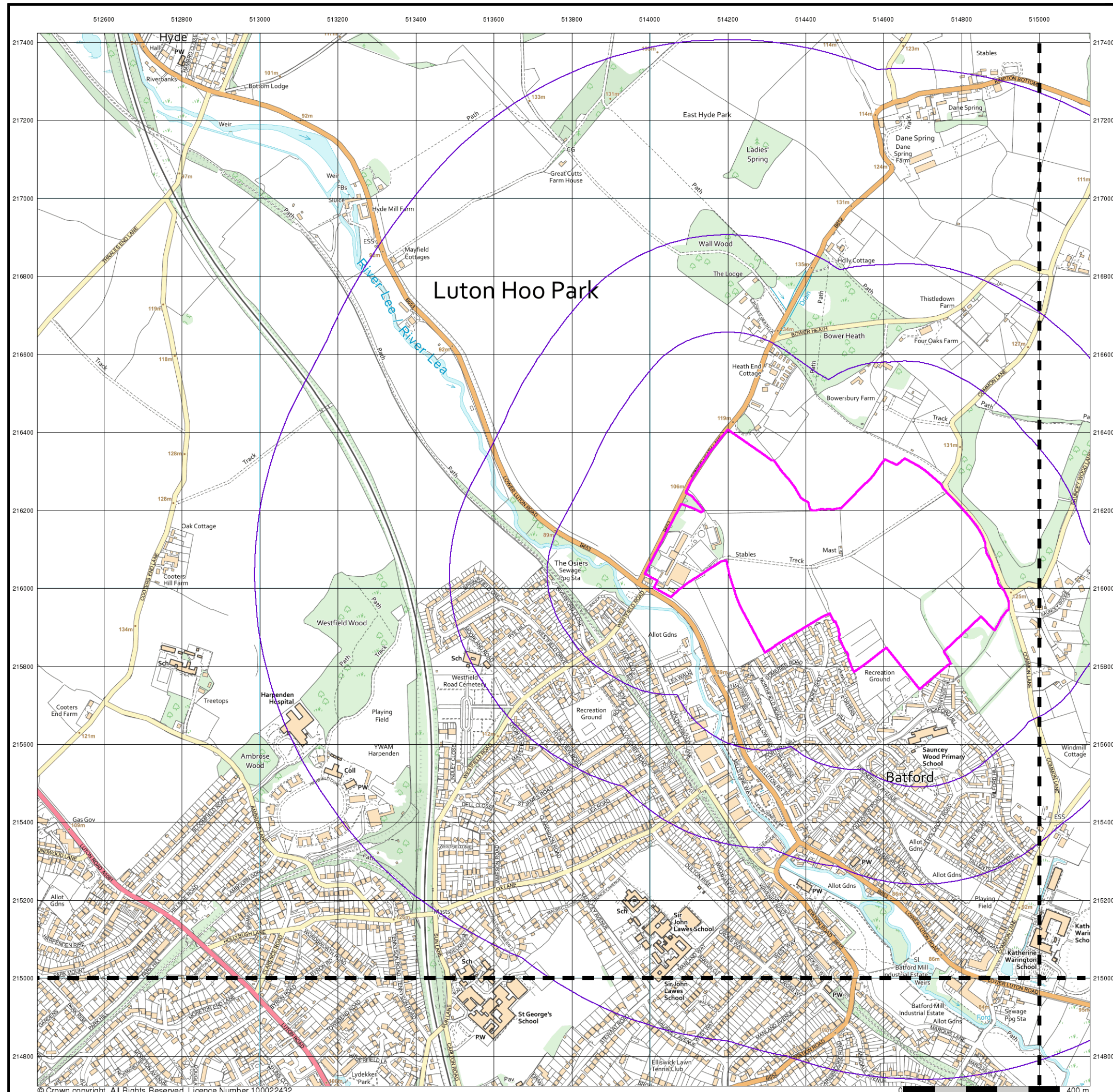


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

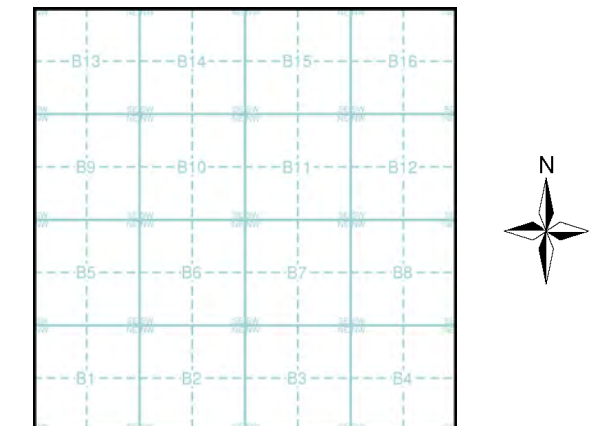
1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	Mean high water (springs)		Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hertfordshire	1:10,560	1884	2
Bedfordshire	1:10,560	1885	3
Hertfordshire	1:10,560	1899	4
Bedfordshire	1:10,560	1901	5
Bedfordshire	1:10,560	1925	6
Hertfordshire	1:10,560	1925	7
Bedfordshire	1:10,560	1925	8
Bedfordshire	1:10,560	1938 - 1947	9
Bedfordshire	1:10,560	1938	10
Hertfordshire	1:10,560	1946 - 1950	11
Historical Aerial Photography	1:10,560	1947 - 1949	12
Historical Aerial Photography	1:10,560	1947	13
Bedfordshire	1:10,560	1950	14
Ordnance Survey Plan	1:10,000	1960	15
Ordnance Survey Plan	1:10,000	1975	16
Ordnance Survey Plan	1:10,000	1981	17
10K Raster Mapping	1:10,000	1999	18
10K Raster Mapping	1:10,000	2006	19
VectorMap Local	1:10,000	2024	20

Historical Map - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

Hertfordshire

Published 1884

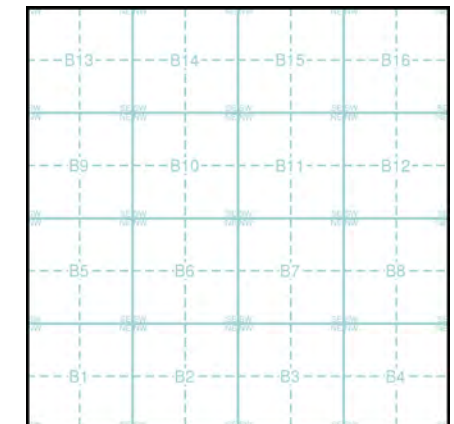
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

01900 1884 1:10,560	02000 1884 1:10,560
02700 1884 1:10,560	02800 1884 1:10,560

Historical Map - Slice B

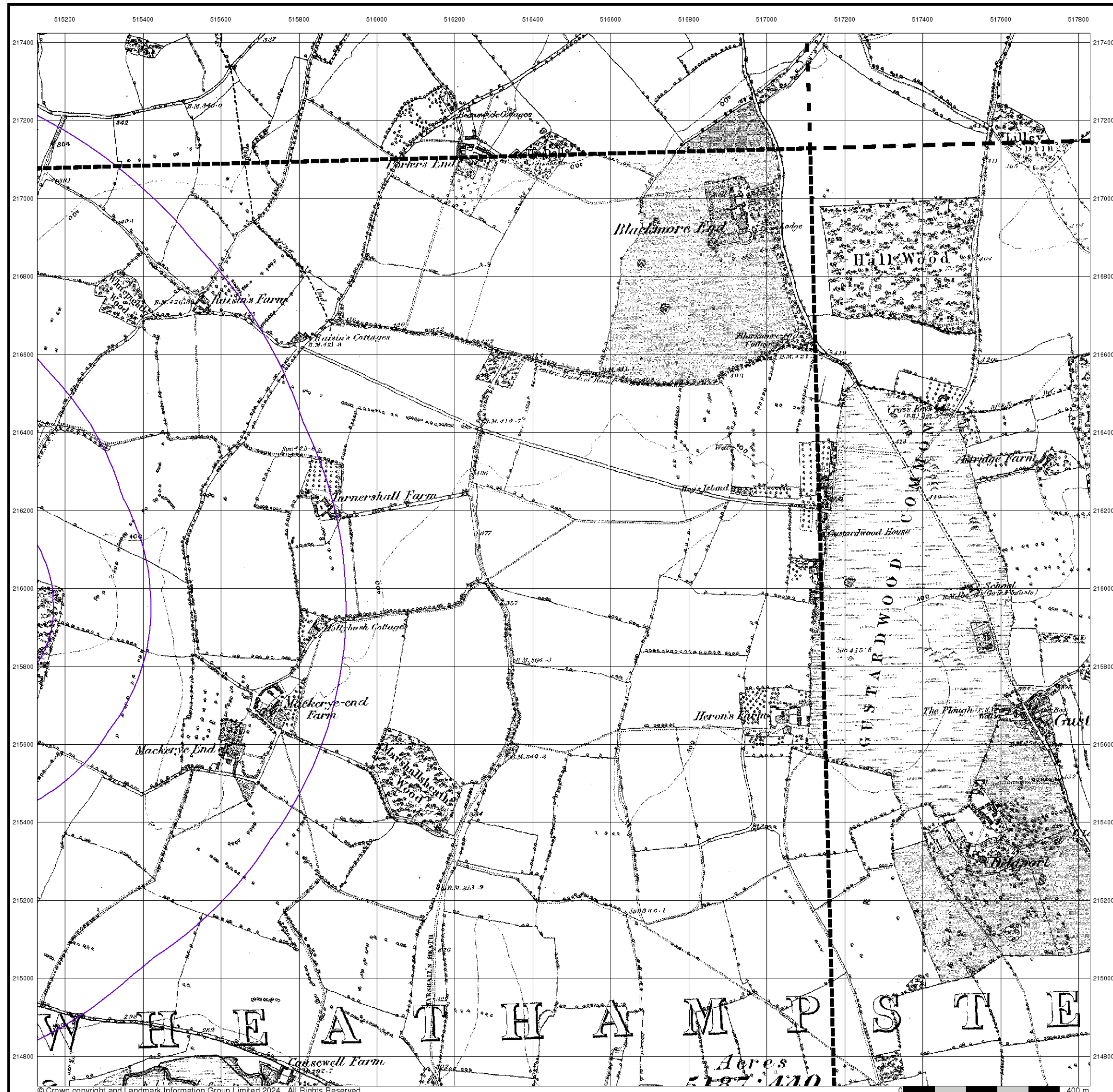


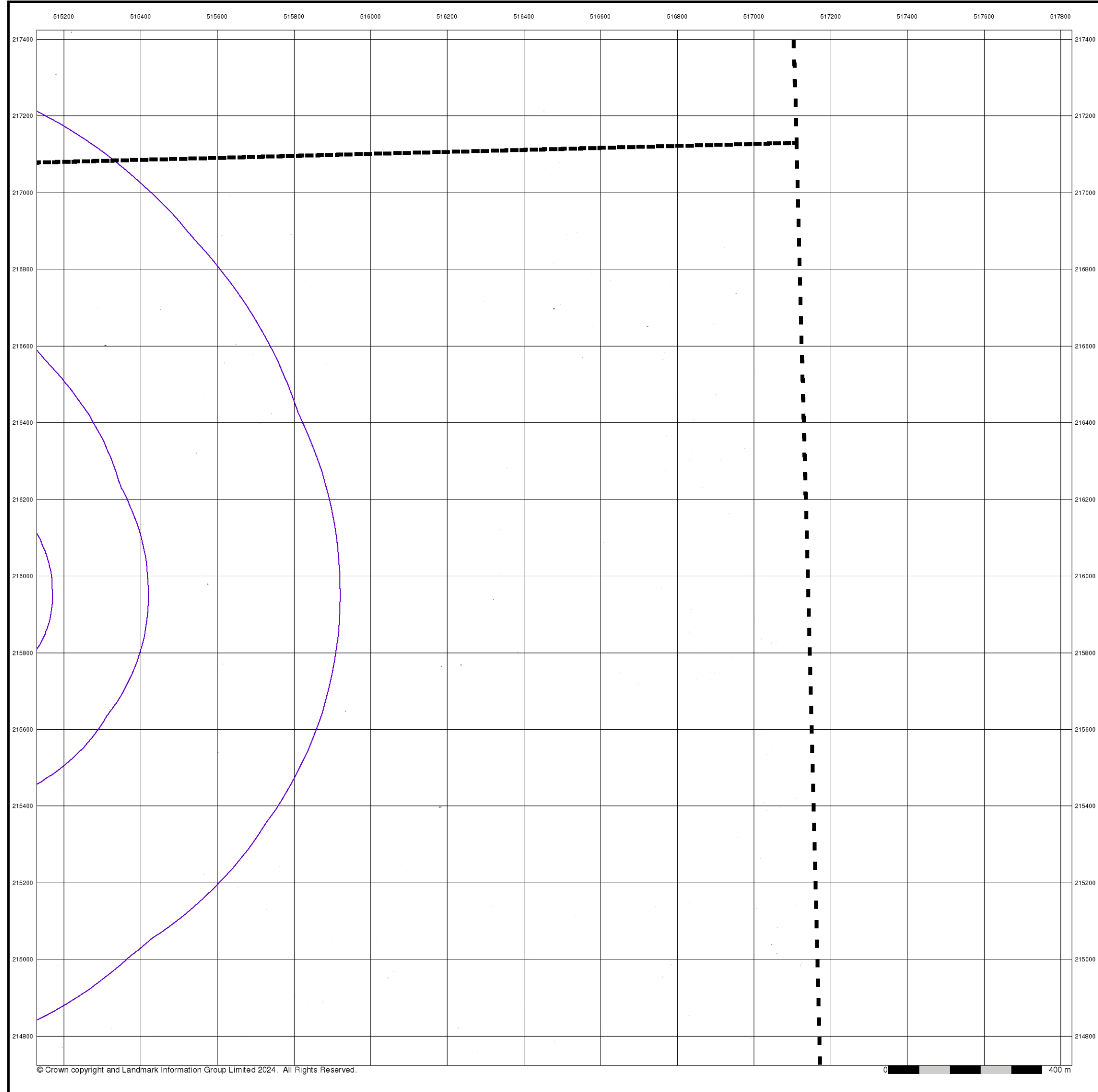
Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

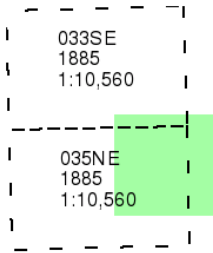




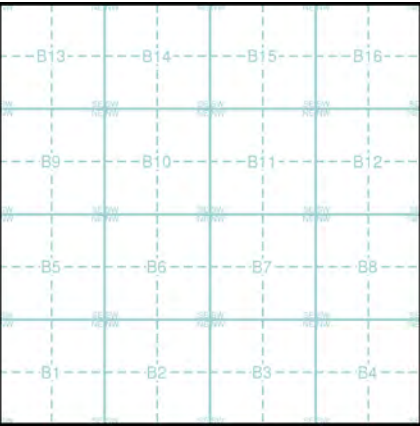
Bedfordshire
Published 1885
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice B



Order Details
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details
Lower Luton Road, Harpenden

Hertfordshire

Published 1899

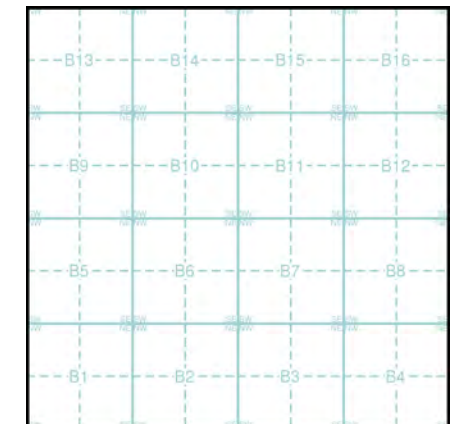
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

019SE 1899 1:10,560	020SW 1899 1:10,560
027NE 1899 1:10,560	028NW 1899 1:10,560

Historical Map - Slice B

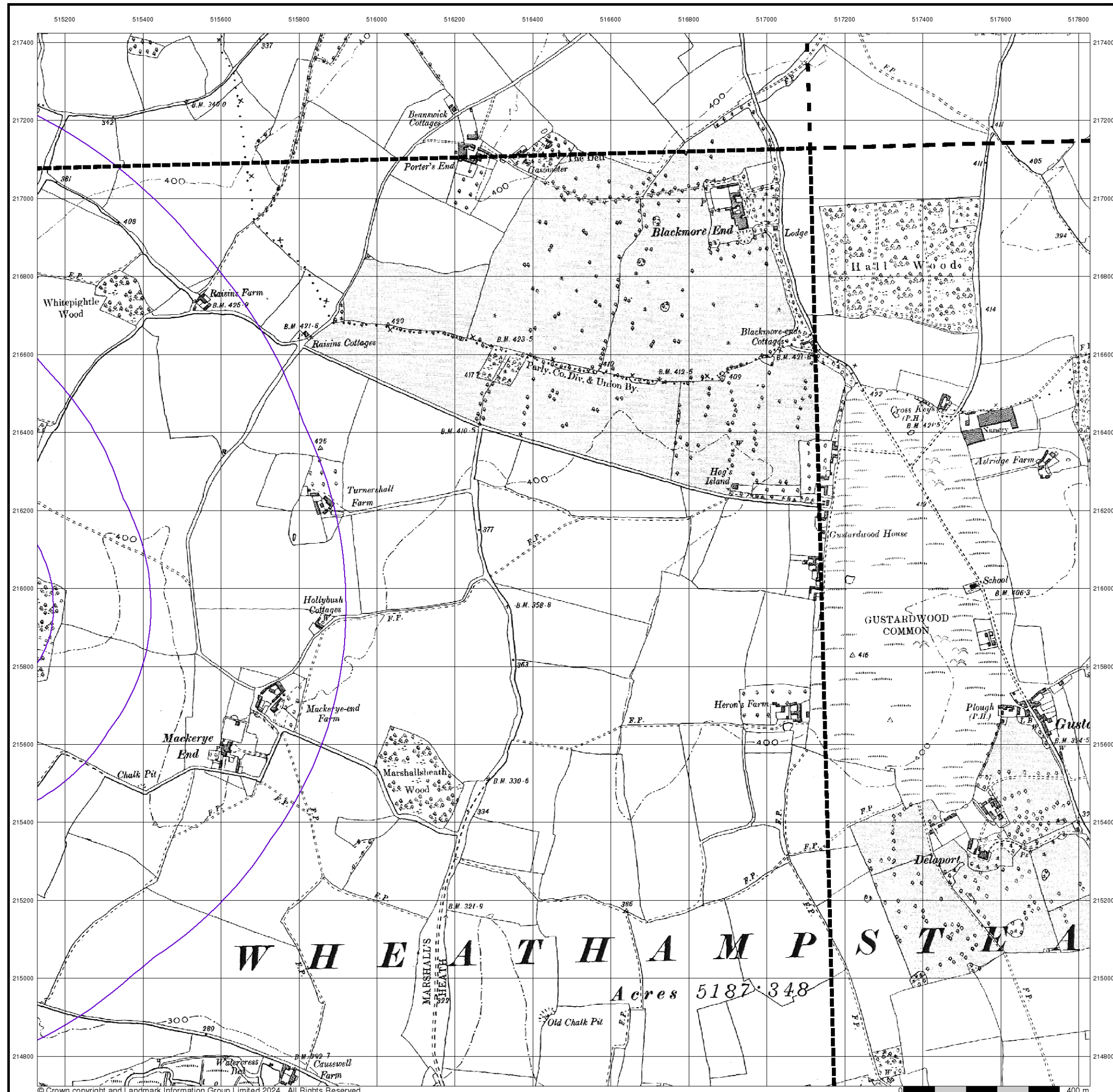


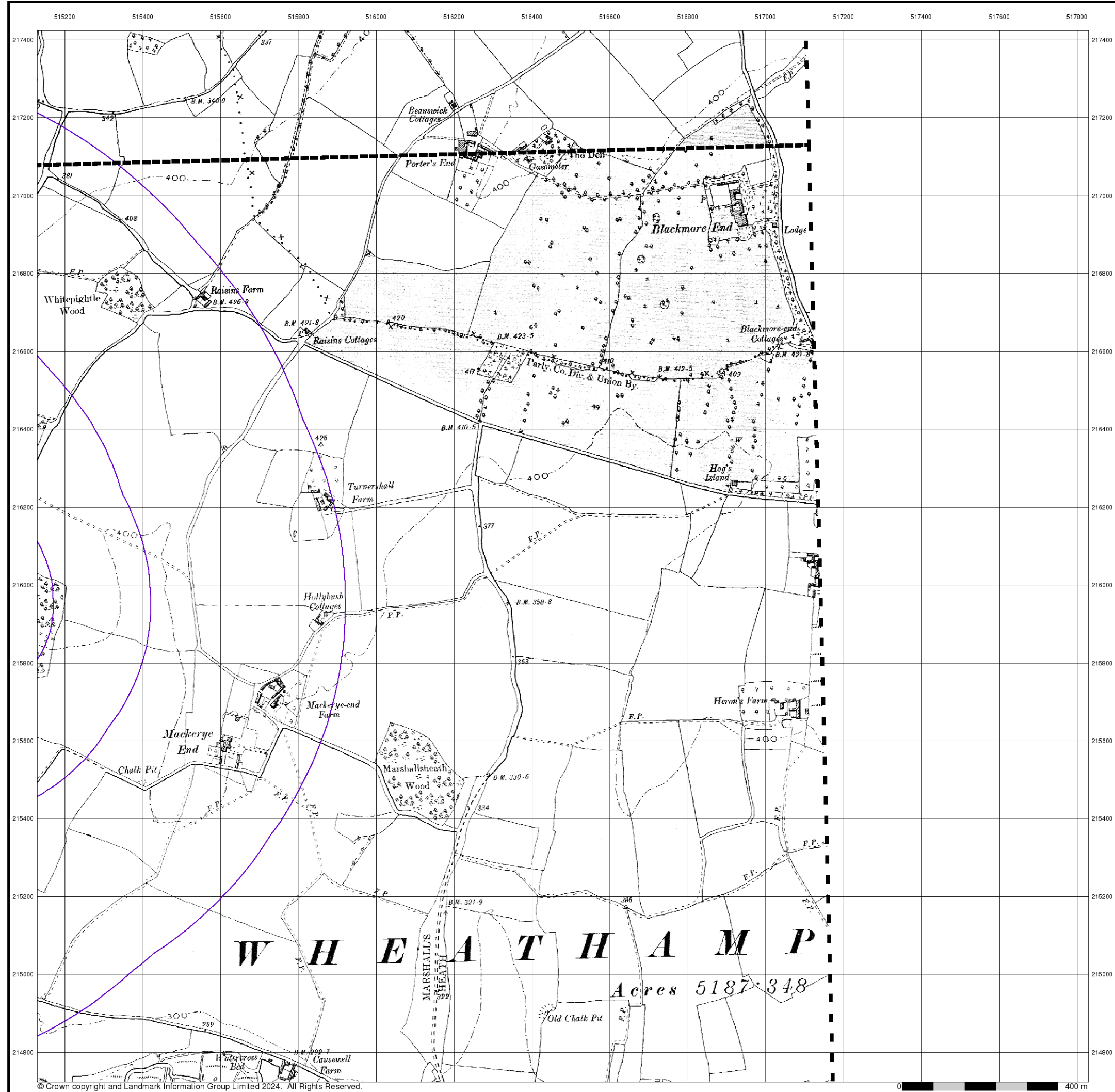
Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden





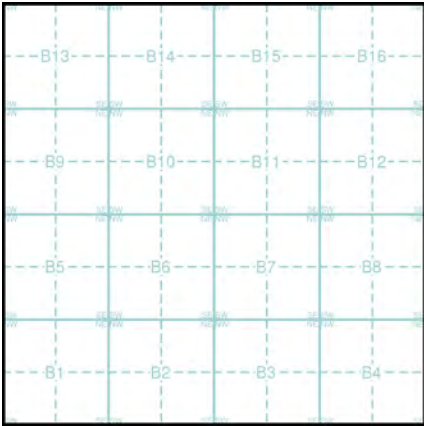
Bedfordshire
Published 1901
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

033SE	1901	1:10,560
035NE	1901	1:10,560

Historical Map - Slice B



Order Details

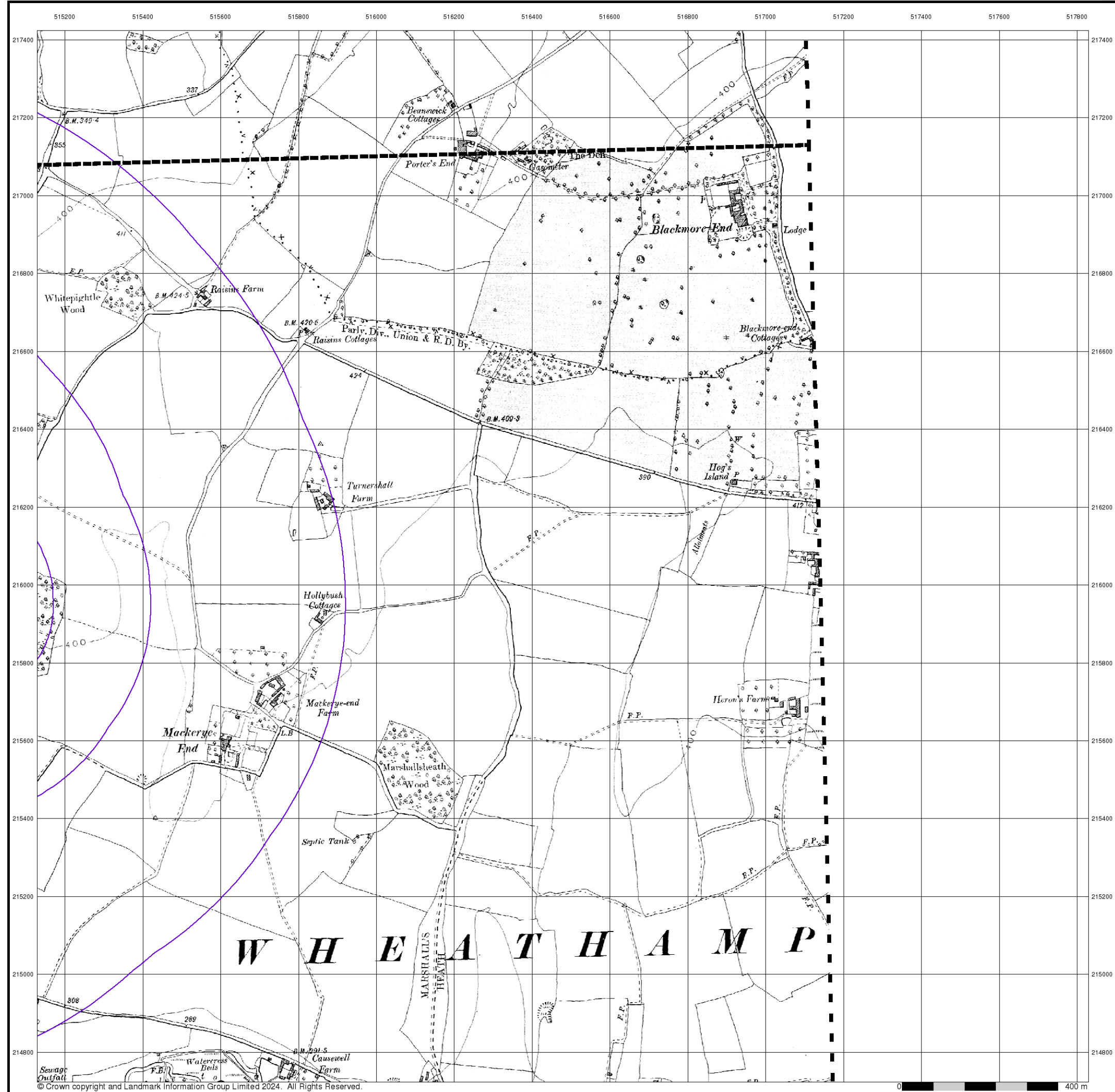
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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Web: www.envirocheck.co.uk



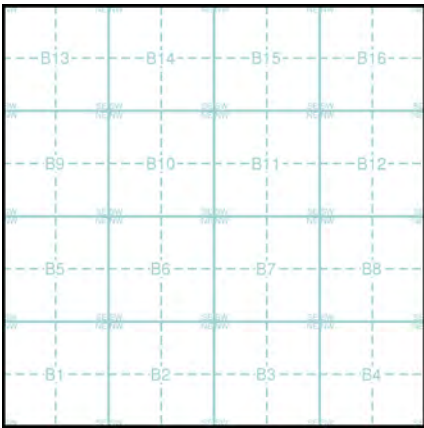
Bedfordshire
Published 1925
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

033SE	1925	1:10,560
035NE	1925	1:10,560

Historical Map - Slice B



Order Details

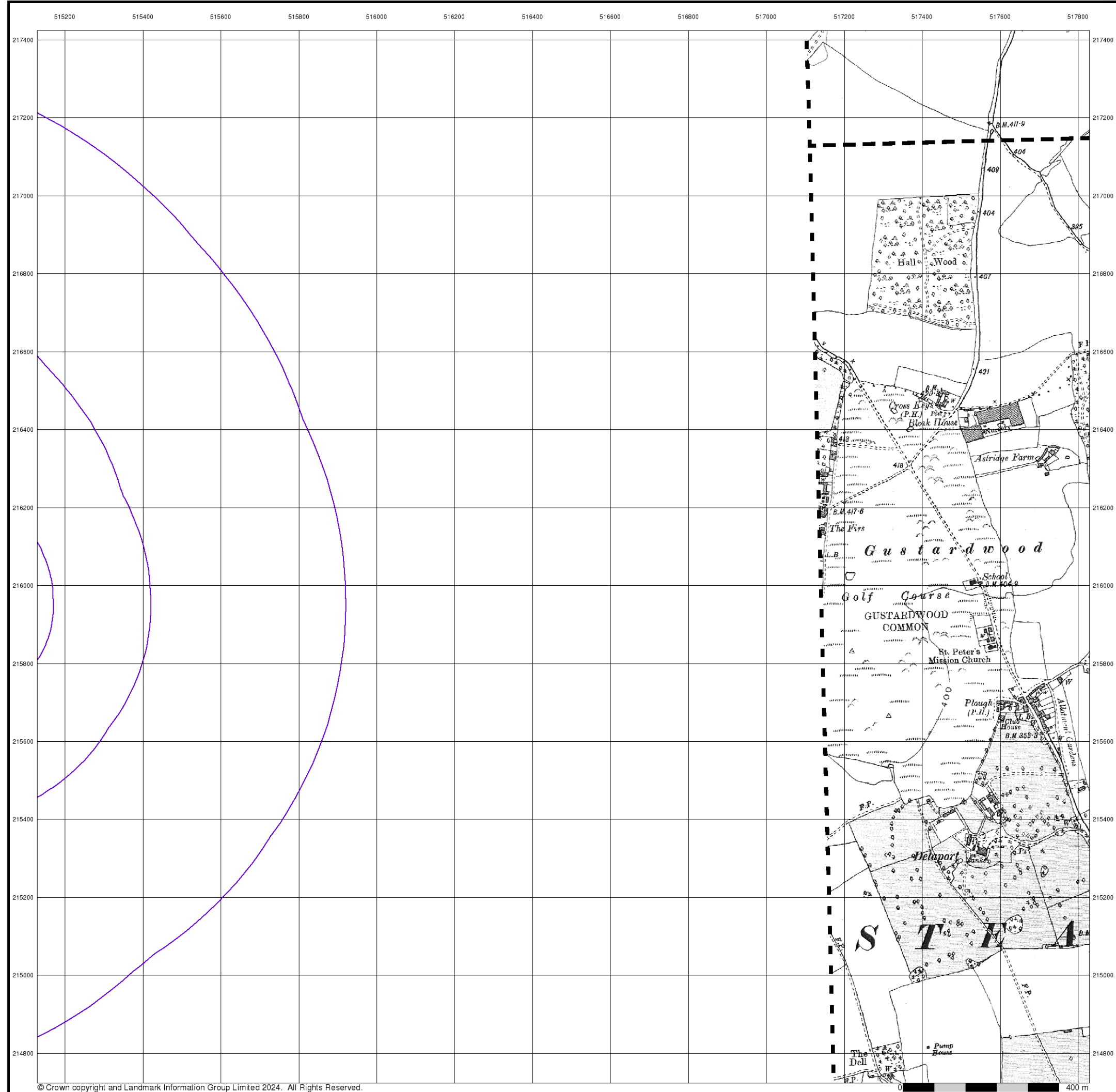
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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Hertfordshire

Published 1925

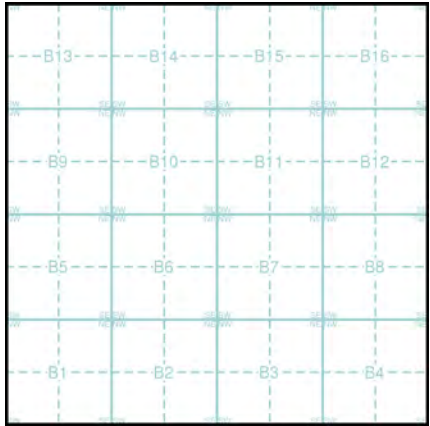
Source map scale - 1:10,560

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Map Name(s) and Date(s)

020SW	1925	1:10,560
028NW	1925	1:10,560

Historical Map - Slice B



Order Details

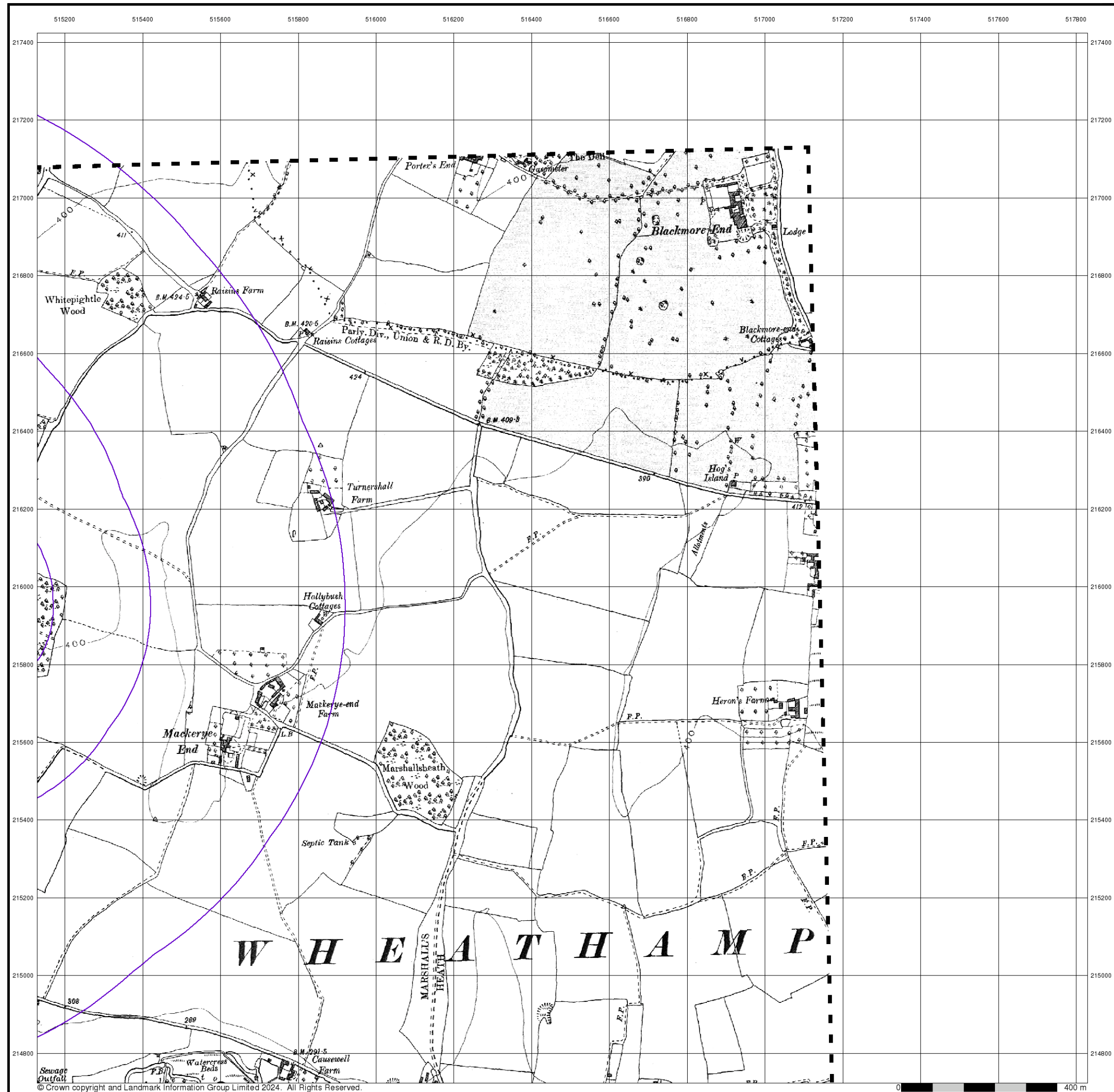
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



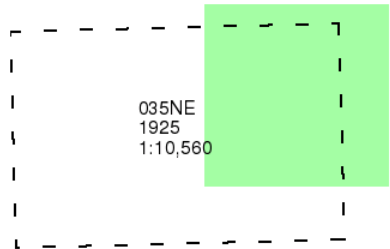
Tel: 0844 844 9952
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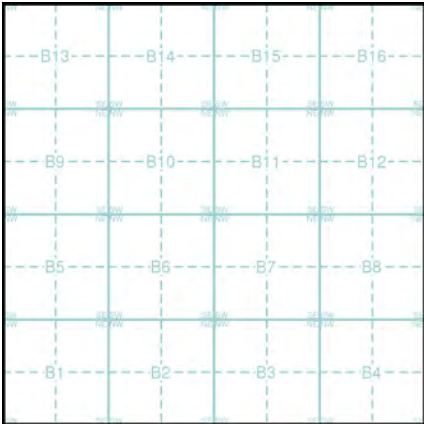
Bedfordshire
Published 1925
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice B



Order Details

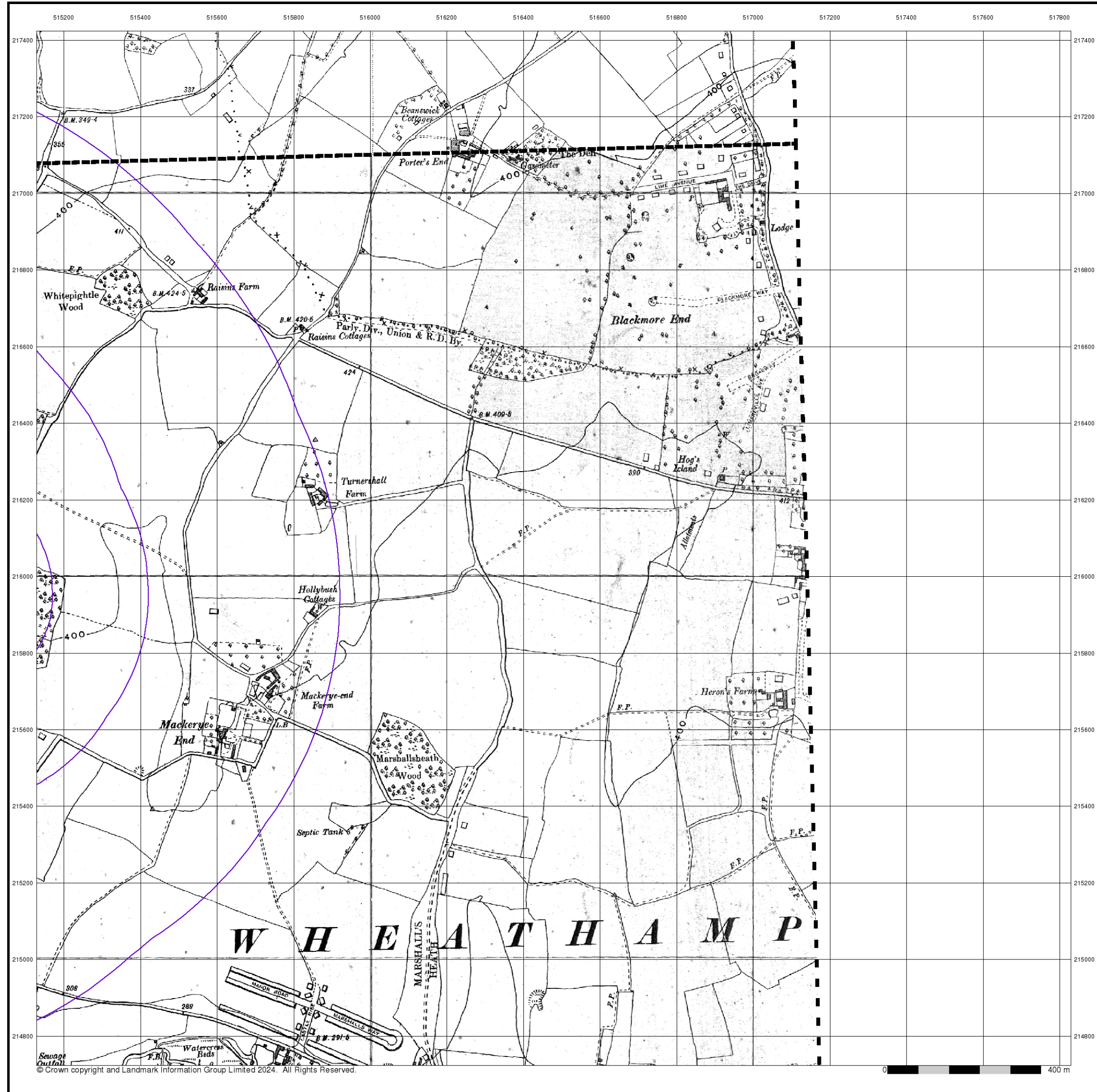
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



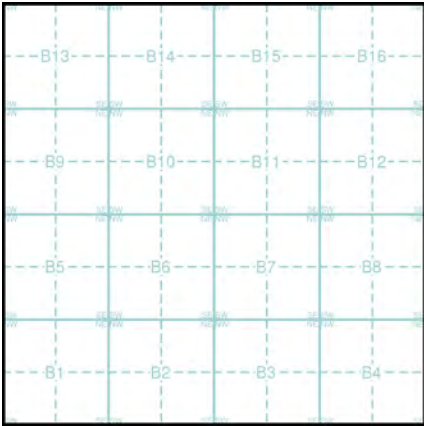
Bedfordshire
Published 1938 - 1947
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

033SE	1947	1:10,560
035NE	1938	1:10,560

Historical Map - Slice B



Order Details

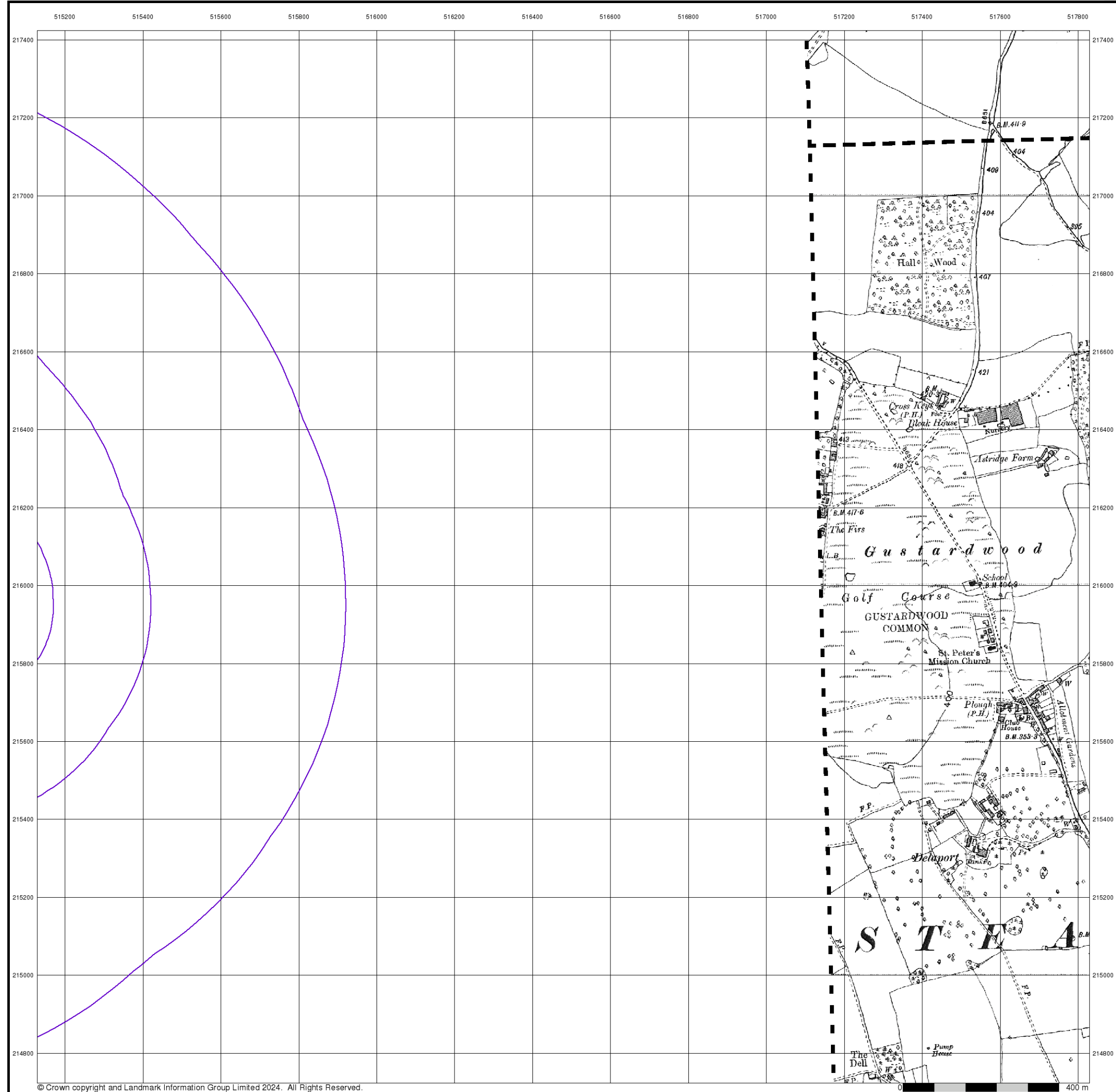
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Hertfordshire

Published 1946 - 1950

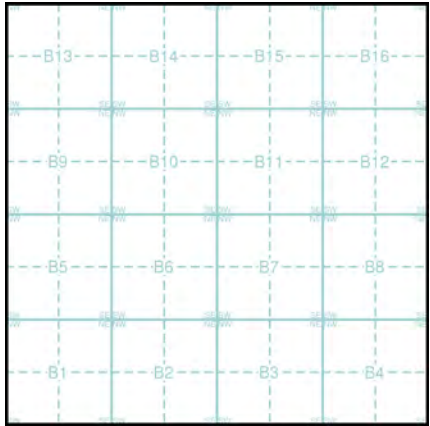
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

020SW 1950 1:10,560	028NW 1946 1:10,560
---------------------------	---------------------------

Historical Map - Slice B



Order Details

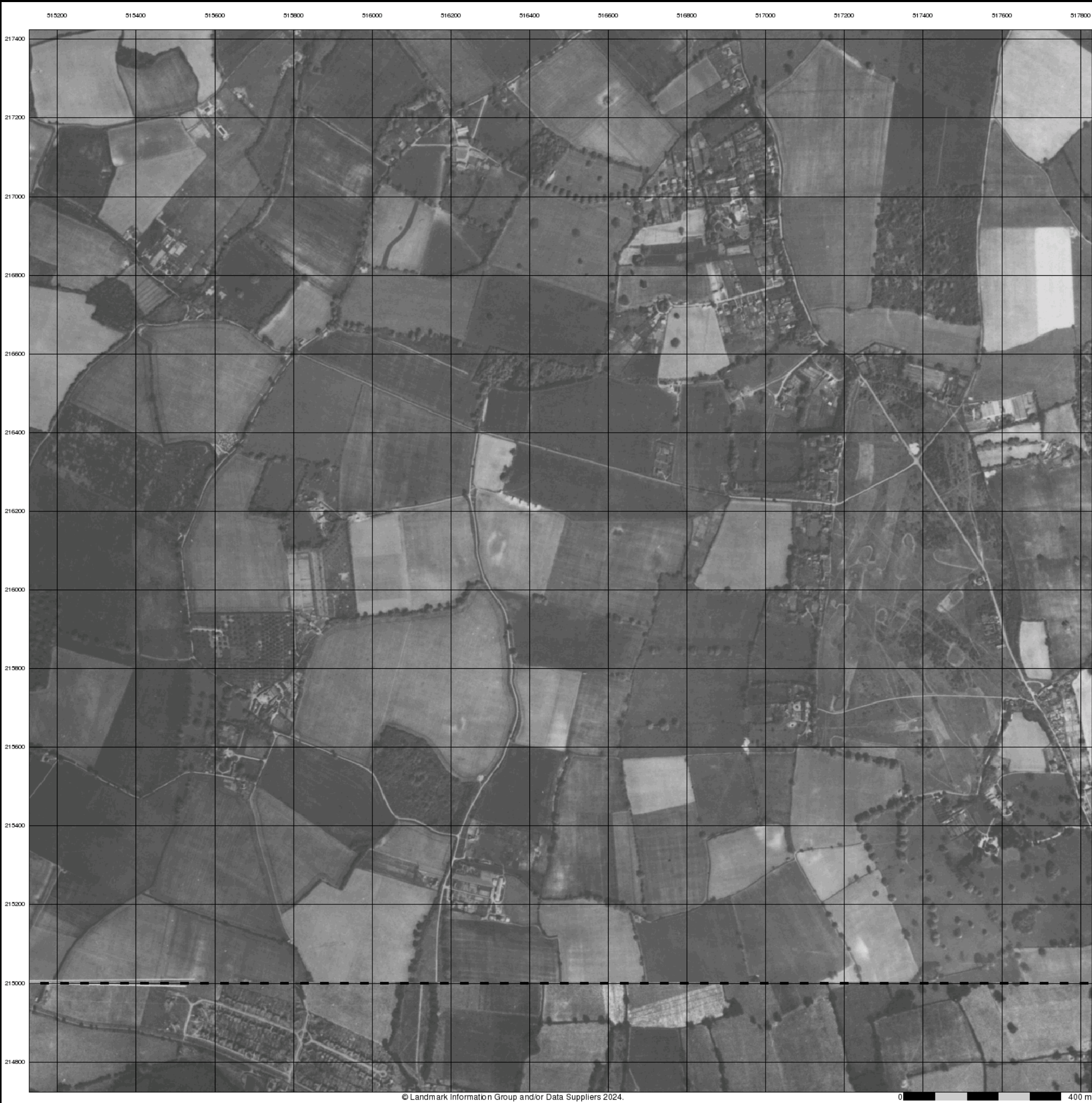
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Historical Aerial Photography

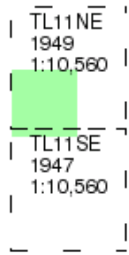
Published 1947 - 1949

Source map scale - 1:10,560

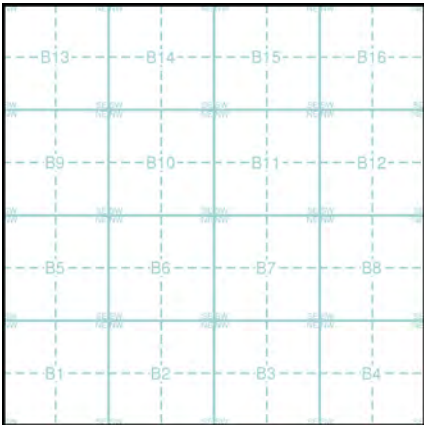
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice B



Order Details

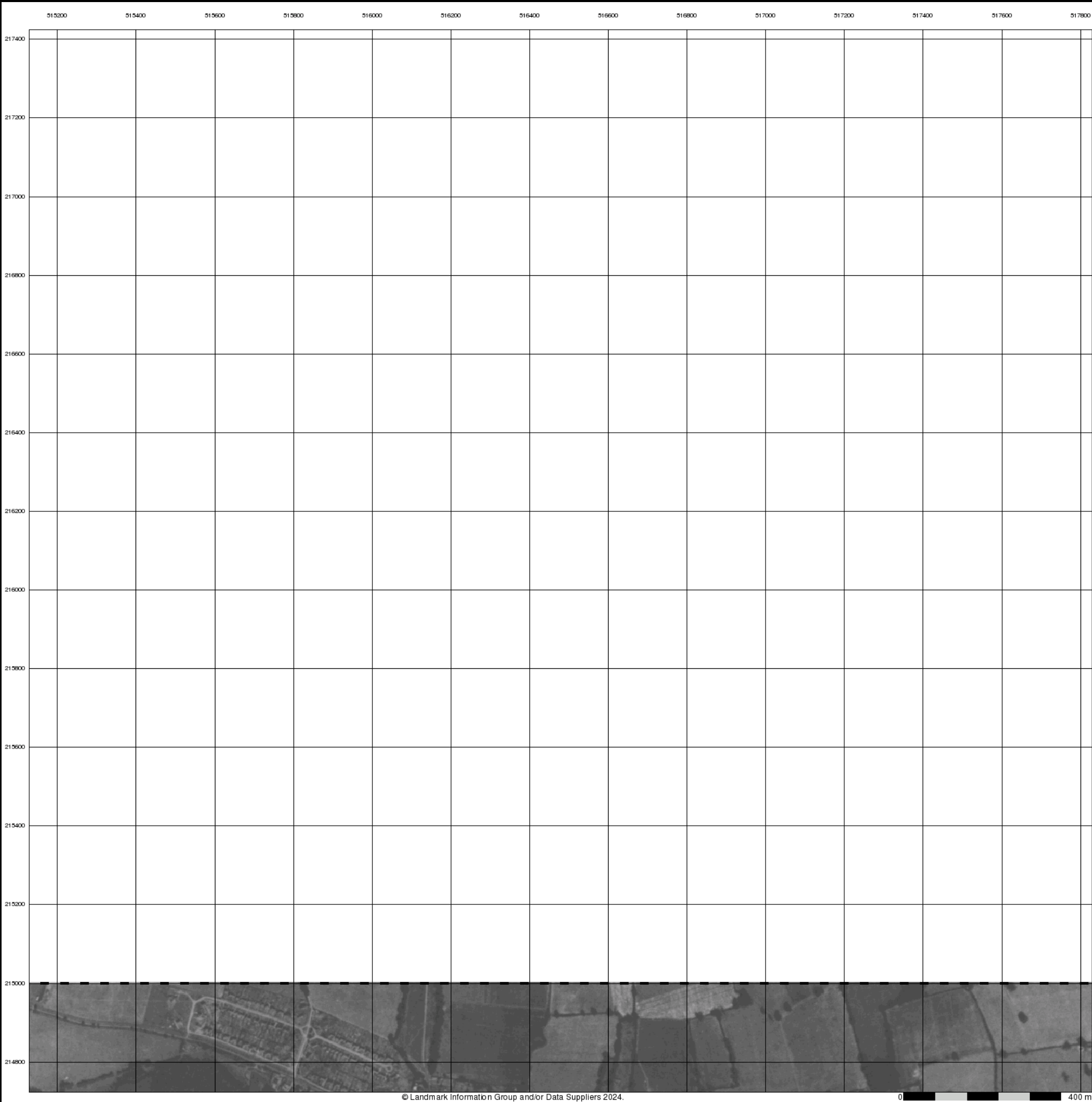
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

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Historical Aerial Photography

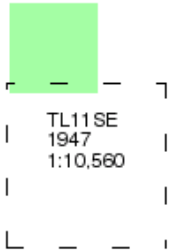
Published 1947

Source map scale - 1:10,560

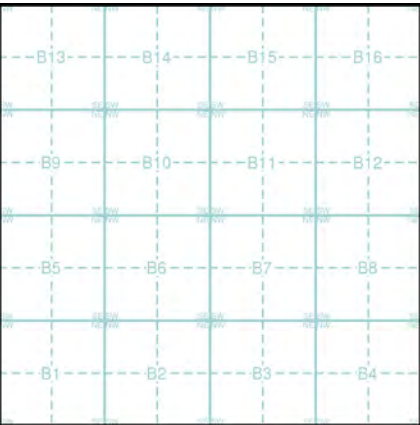
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
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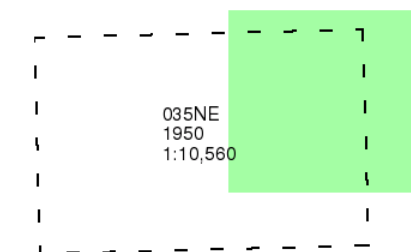
Bedfordshire

Published 1950

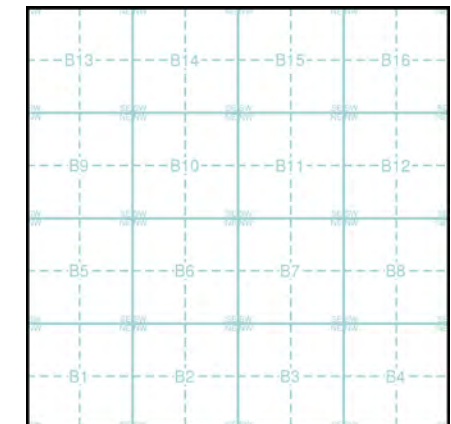
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

Ordnance Survey Plan

Published 1960

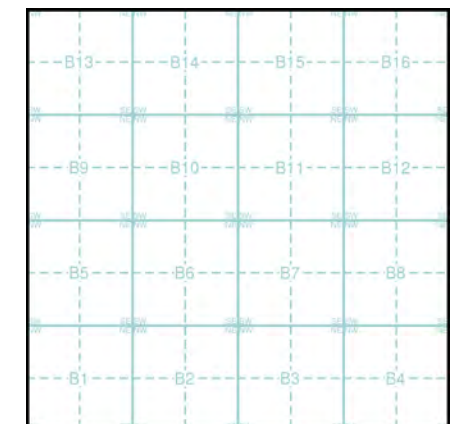
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

TL11NE	1960
1:10,560	
TL11SE	1960
1:10,560	

Historical Map - Slice B

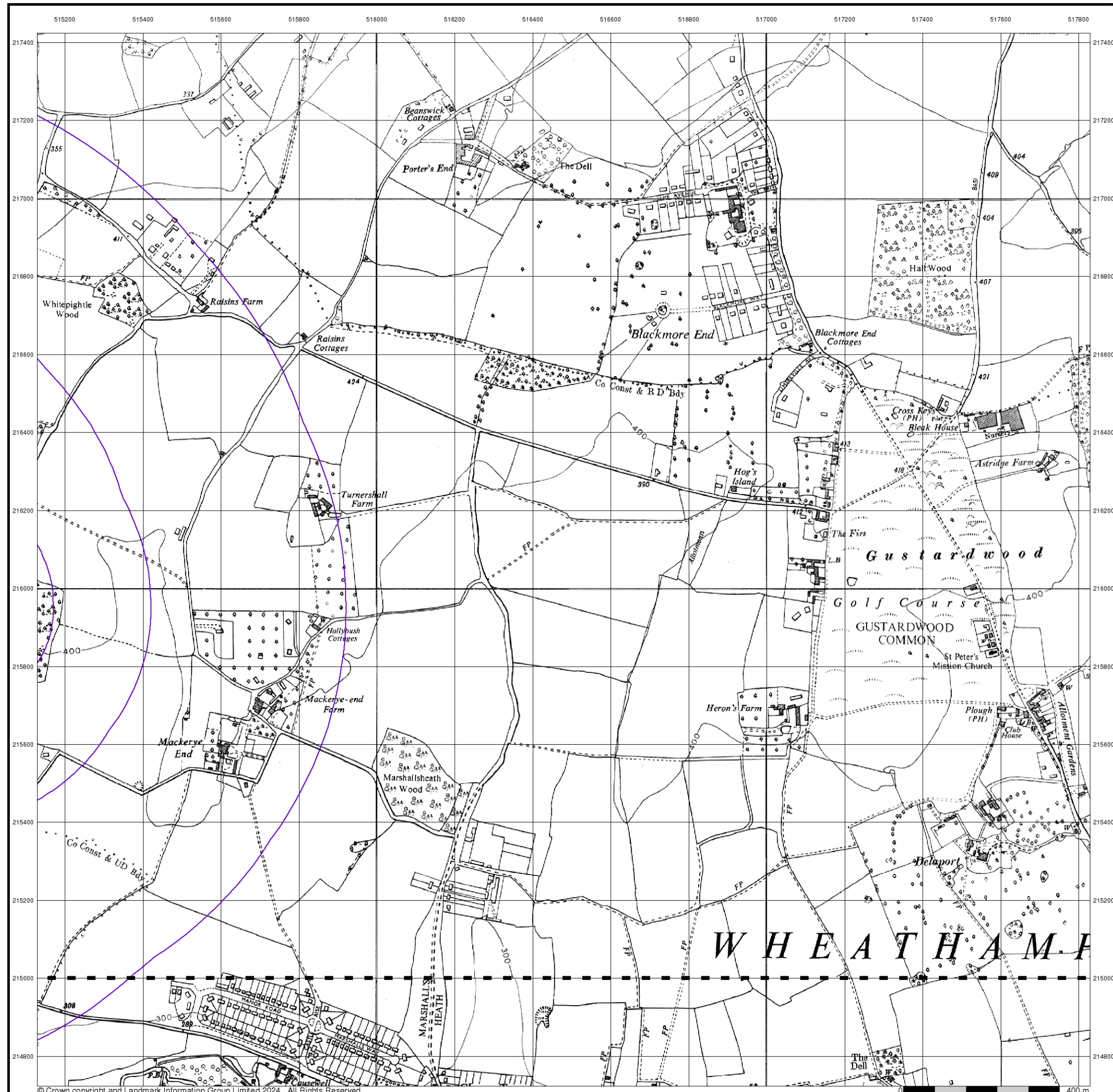


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



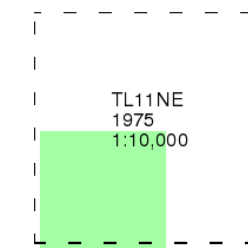
Ordnance Survey Plan

Published 1975

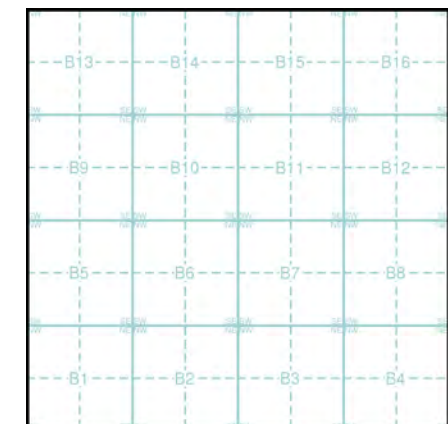
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice B

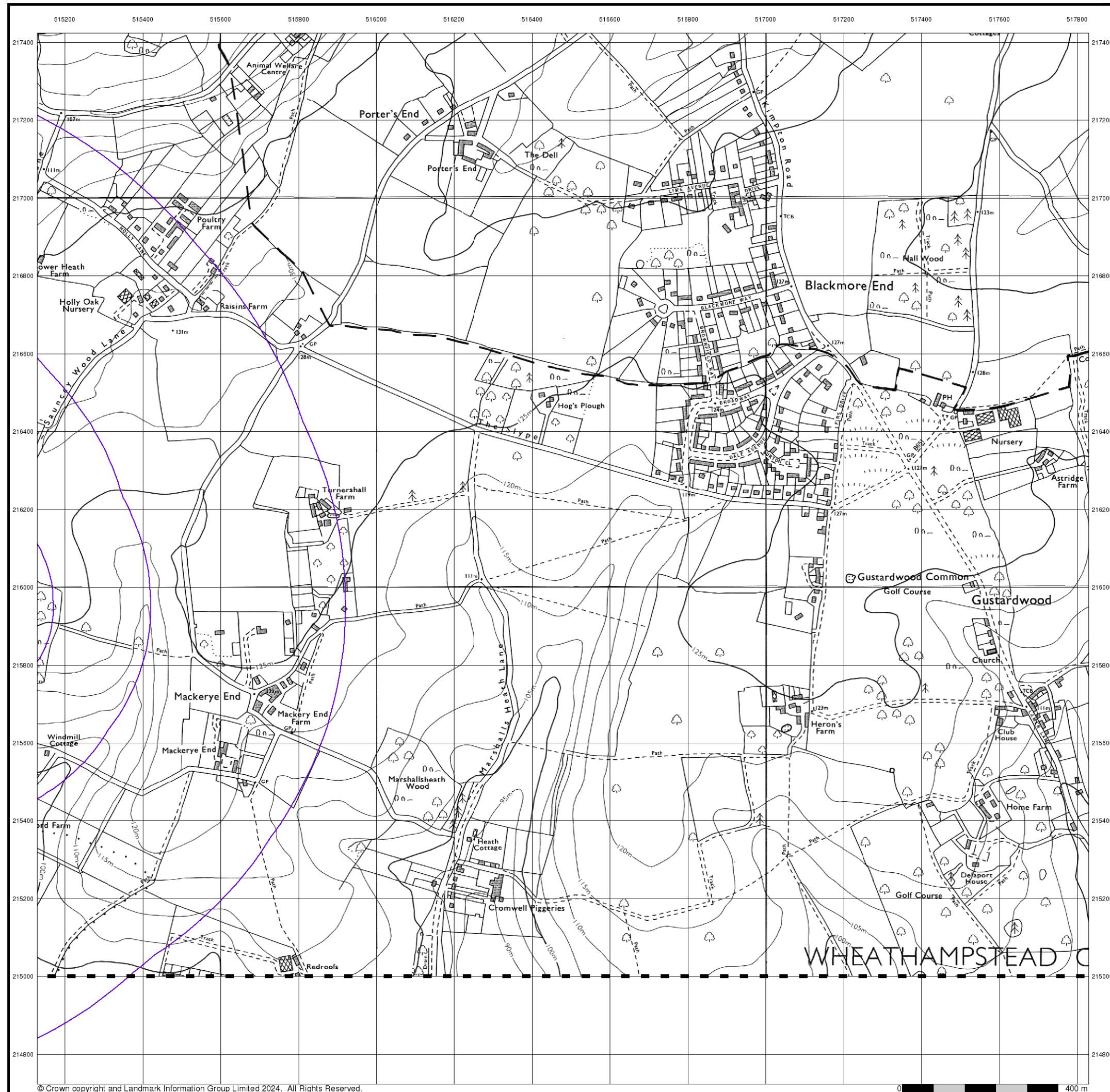


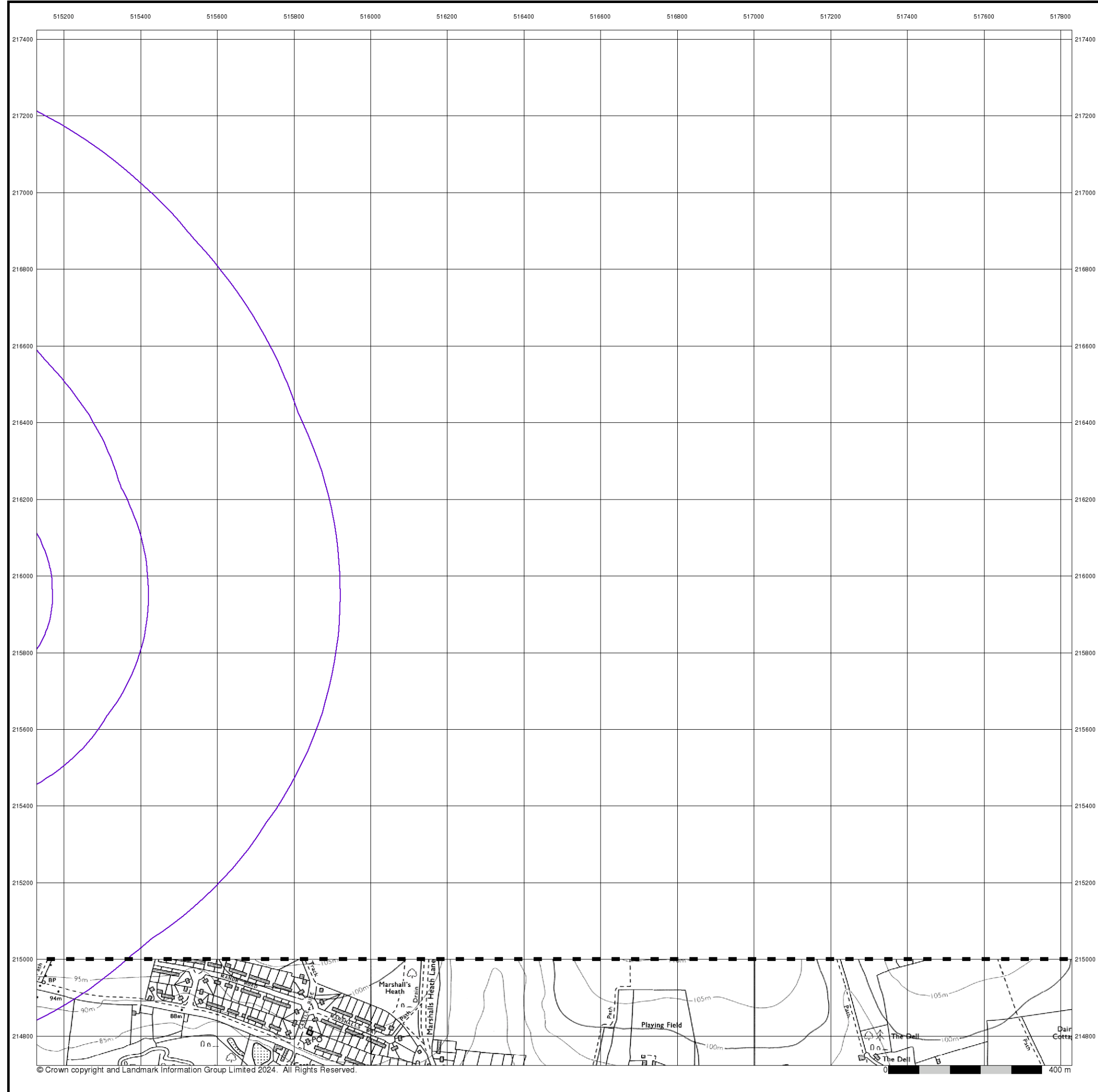
Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

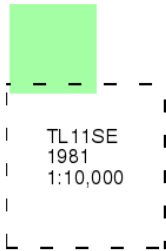




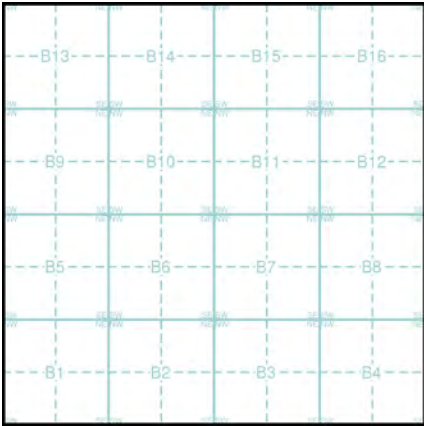
Ordnance Survey Plan
Published 1981
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

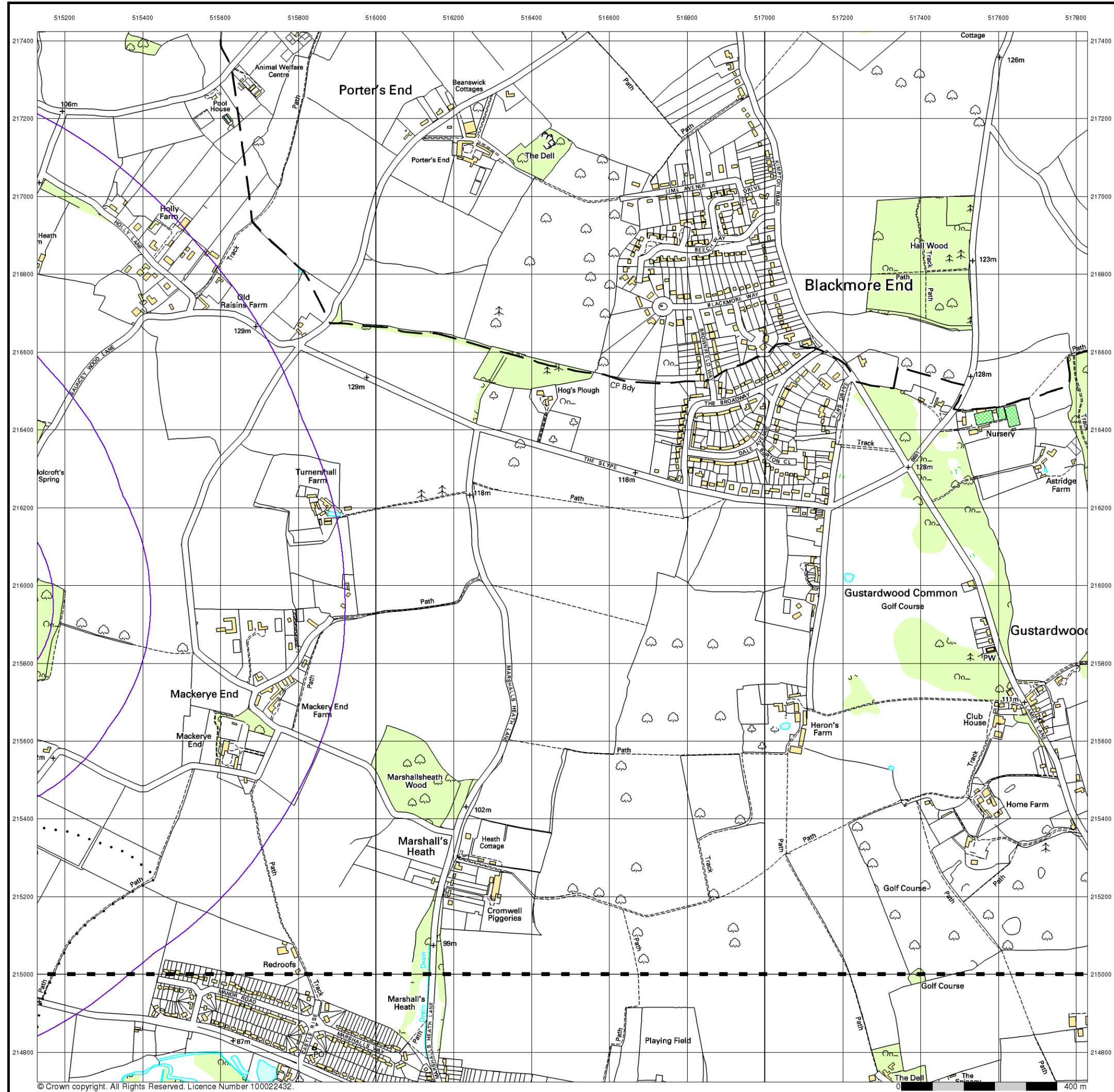


Historical Map - Slice B



Order Details
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details
Lower Luton Road, Harpenden



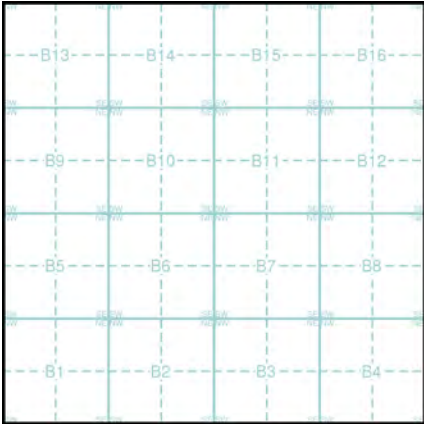
10k Raster Mapping
Published 1999
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

TL11NE	1999
1:10,000	
TL11SE	1999
1:10,000	

Historical Map - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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10k Raster Mapping

Published 2006

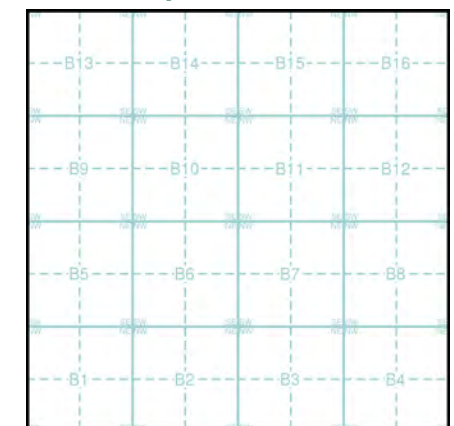
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

TL11NE	2006
1:10,000	
TL11SE	2006
1:10,000	

Historical Map - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



VectorMap Local

Published 2024

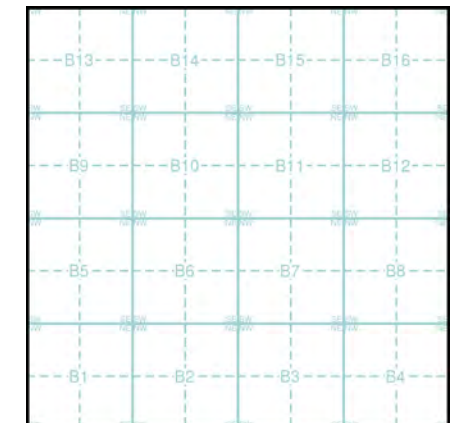
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

TL11NE
2024
Variable
TL11SE
2024
Variable

Historical Map - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

357545593_1_1

Customer Reference:

JN1933

National Grid Reference:

514180, 216090

Slice:

A

Site Area (Ha):

32.6

Search Buffer (m):

1000

Site Details:

Lower Luton Road
Harpenden

Client Details:

Ms R Parkes
ST Consult
Twigden Barns
Brixworth Road
Creaton
Northampton
NN6 8NN

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	26
Hazardous Substances	-
Geological	28
Industrial Land Use	39
Sensitive Land Use	52
Data Currency	53
Data Suppliers	60
Useful Contacts	61

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 4		8	7	7
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 9			1	1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 9		Yes		
Pollution Incidents to Controlled Waters	pg 10		2	10	6
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 13	1			
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 13				2
Water Abstractions	pg 13				16 (*8)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 19	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk	pg 20	3	n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 20	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 21	Yes	n/a	n/a	n/a
Source Protection Zones	pg 21	1	1	1	1
Extreme Flooding from Rivers or Sea without Defences	pg 21	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 22		Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences	pg 22		Yes	n/a	n/a
OS Water Network Lines	pg 22		3	9	17

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 26				1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 26		1		
Local Authority Landfill Coverage	pg 26	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 26		1		6
Potentially Infilled Land (Non-Water)	pg 27			4	
Potentially Infilled Land (Water)					
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 27		1		
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 28	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 28	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 34		4		6
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability	pg 35	Yes	n/a	n/a	n/a
Man-Made Mining Cavities	pg 36		1		
Natural Cavities	pg 36				1
Non Coal Mining Areas of Great Britain	pg 36	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 36	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 36		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 37	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 37	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 37		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 37	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 38	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 38	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 39		8	53	25
Fuel Station Entries	pg 46			1	
Points of Interest - Commercial Services	pg 46			5	7
Points of Interest - Education and Health	pg 47				3
Points of Interest - Manufacturing and Production	pg 48		3	14	2
Points of Interest - Public Infrastructure	pg 49		1	4	11
Points of Interest - Recreational and Environmental	pg 50		2	1	1
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 52		1		1
Areas of Adopted Green Belt	pg 52	1			
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 52	1			1
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (W)	0	1	514150 216100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SE (NW)	0	1	514150 216150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (W)	0	1	514150 216088
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SE (SW)	0	1	514183 216088
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A7NW (SW)	0	1	514100 216050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SE (E)	0	1	514200 216088
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (S)	10	1	514200 215900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (W)	18	1	514000 216100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (S)	32	1	514183 215950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (W)	42	1	514000 216150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (S)	54	1	514183 215900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (S)	58	1	514200 215800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (E)	80	1	515000 216088
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (W)	86	1	513950 216150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (S)	97	1	514200 215750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (NW)	109	1	513950 216200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7SE (S)	135	1	514250 215700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (SW)	151	1	513900 215900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (SW)	162	1	513950 215850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (SW)	163	1	513850 215950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SE (S)	185	1	514250 215650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (SW)	188	1	513900 215850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (W)	191	1	513800 216000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (SW)	191	1	513850 215900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (W)	198	1	513850 216200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (W)	207	1	513800 215950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (NW)	221	1	513850 216250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (SW)	222	1	513900 215800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (SW)	232	1	513800 215900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7SE (S)	235	1	514300 215600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SE (S)	235	1	514250 215600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NE (W)	237	1	513750 216050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NE (W)	240	1	513750 216000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (W)	253	1	513750 215950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (SW)	261	1	513800 215850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (NW)	265	1	513800 216250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7SE (S)	267	1	514350 215550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (SW)	282	1	514000 215700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SE (S)	285	1	514300 215550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NE (W)	287	1	513700 216050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (NW)	289	1	513800 216300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (W)	290	1	513700 216000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7SE (S)	295	1	514400 215500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (SW)	296	1	513950 215700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (W)	310	1	513750 216250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SE (S)	312	1	514350 215500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SE (S)	335	1	514300 215500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (W)	337	1	513650 216050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7SE (SE)	337	1	514450 215450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (W)	338	1	513650 216088
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SE (S)	344	1	514400 215450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8SW (SE)	353	1	514550 215400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SE (S)	358	1	514350 215450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8SW (SE)	370	1	514500 215400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SE (S)	387	1	514400 215400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (W)	388	1	513600 216088
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (W)	392	1	513600 216100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A4NW (SE)	393	1	514600 215350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A4NW (SE)	402	1	514550 215350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (S)	411	1	514000 215550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (S)	415	1	514050 215500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A4NW (SE)	416	1	514500 215350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (NW)	422	1	513700 216400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A4NW (SE)	441	1	514650 215300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A4NW (SE)	443	1	514600 215300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A4NW (SE)	451	1	514550 215300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (W)	452	1	513550 216150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (NW)	468	1	513650 216400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (S)	477	1	514100 215400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A4NW (SE)	491	1	514600 215250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A3NE (S)	495	1	514183 215350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (W)	500	1	513500 216150
1	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Lower Luton Road, Harpendenlower Luton Roadharpenden Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1403 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: 19th August 2014 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Lee Status: Surrendered under EPR 2010 Positional Accuracy: Approximate location provided by supplier	A7NW (SW)	12	2	514000 216000
1	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Lower Luton Road, Harpendenlower Luton Roadharpenden Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1403 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Lee Status: Temporary Consents (Water Act 1989, Section 113) Positional Accuracy: Approximate location provided by supplier	A7NW (SW)	12	2	514000 216000
2	Discharge Consents Operator: Hincks & Sons Property Type: Undefined Or Other Location: 253 Lower Luton Road, Wheathamstead, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctwc.2782 Permit Version: 1 Effective Date: 28th November 1988 Issued Date: 28th November 1988 Revocation Date: 21st March 1996 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Lee Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A12SW (NE)	61	2	514500 216300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: D. C. Janes Ltd Property Type: SPORT, AMUSEMENT+RECREATION/GOLF CLUB/GYM/THEME PK/SPA Location: Scout Hut, North Of Lee Industrial Estate, Lower Luton Road, Harpenden, Herts Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.1195 Permit Version: 1 Effective Date: 10th September 1986 Issued Date: 10th September 1986 Revocation Date: 26th July 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Lee Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A7NE (S)	101	2	514200 215800
4	Discharge Consents Operator: Mr Ball Property Type: HOLIDAY ACCOM/CAMP SITE/CARAVAN SITE/HOTEL/HOSTEL Location: Bowers Heath Caravan Park, Bowers Heath Lane, Bowers Heath, Harpenden, Herts Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTWC.1338 Permit Version: 2 Effective Date: 11th February 1993 Issued Date: 25th November 1986 Revocation Date: 1st October 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Onto Land Environment: Receiving Water: Pebbly Clayand Sand Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m	A11NE (N)	134	2	514300 216500
4	Discharge Consents Operator: Mr Ball Property Type: HOLIDAY ACCOM/CAMP SITE/CARAVAN SITE/HOTEL/HOSTEL Location: Bowers Heath Caravan Park, Bowers Heath Lane, Bowers Heath, Harpenden, Herts Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.1338 Permit Version: 1 Effective Date: 25th November 1986 Issued Date: 25th November 1986 Revocation Date: 10th February 1993 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Into Land Environment: Receiving Water: Pebbly Clayand Sand Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m	A11NE (N)	134	2	514300 216500
5	Discharge Consents Operator: Mr Mark Smith Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Kings Heath Mobile Home Park Bower Heath Lane Harpenden Herts AL5 5ef Authority: Environment Agency, Thames Region Catchment Area: Lee-Source / Mimram Reference: Canm.0880 Permit Version: 1 Effective Date: 3rd May 2005 Issued Date: 23rd September 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Via A Borehole Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A11NE (N)	204	2	514339 216558

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Discharge Consents Operator: Mrs K Daly Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Kings Heath Park Bower Heath Lane Harpenden Herts Herts AL55ef Authority: Environment Agency, Thames Region Catchment Area: Lee-Source / Mimram Reference: Canm.0587 Permit Version: 1 Effective Date: 1st August 2003 Issued Date: 1st August 2003 Revocation Date: 26th May 2005 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Land/Soakaway Environment: Receiving Water: Into Land Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A11NE (NE)	232	2	514400 216550
7	Discharge Consents Operator: Mr David Nash & Mrs Lesley Nash Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: 2 Windy Nook Cottages Bower Heath Harpenden Hertfordshire AL5 5ee Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Npswqd001470 Permit Version: 1 Effective Date: 17th March 2008 Issued Date: 17th March 2008 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Land/Soakaway Environment: Receiving Water: Ground Waters Via Soakaway Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A11NE (N)	261	2	514258 216661
7	Discharge Consents Operator: Mr Trevor White Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: 3 Windy Nook Bower Heath Harpenden Hertfordshire AL5 5ee Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Npswqd001916 Permit Version: 1 Effective Date: 30th May 2008 Issued Date: 30th May 2008 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Land/Soakaway Environment: Receiving Water: Groundwaters Via Soakaway Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A11NE (N)	297	2	514263 216697
8	Discharge Consents Operator: Mr. R. Haines Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Bondgate, Bower Heath, Harpenden, Bondgate, Bower Heath, Harpenden, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTCTU.1291 Permit Version: 1 Effective Date: 21st January 1983 Issued Date: 21st January 1983 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Land/Soakaway Environment: Receiving Water: Clay With Flints Strata Status: Transferred from Water Resources Act 1963 Positional Accuracy: Located by supplier to within 100m	A15SE (N)	356	2	514240 216760

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Riverford Close Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1801 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: 19th August 2014 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Lee Status: Surrendered under EPR 2010 Positional Accuracy: Located by supplier to within 100m	A6NE (SW)	372	2	513700 215800
9	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Riverford Close Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1801 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Lee Status: Temporary Consents (Water Act 1989, Section 113) Positional Accuracy: Located by supplier to within 100m	A6NE (SW)	372	2	513700 215800
10	Discharge Consents Operator: Cgl Engineers Ltd Property Type: Undefined Or Other Location: 32 Coldharbour Lane, Harpenden, Herts Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Clcr.0244 Permit Version: 1 Effective Date: 7th January 1977 Issued Date: 7th January 1977 Revocation Date: 26th November 1990 Discharge Type: Trade Discharges - Cooling Water Discharge: Freshwater Stream/River Environment: Receiving Water: Lee Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m	A7SE (S)	407	2	514260 215430
11	Discharge Consents Operator: Mr. A. Stephenson Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Windmill Cottage, Mackerye End, Harpenden, Herts Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTWC.0647 Permit Version: 1 Effective Date: 12th February 1986 Issued Date: 12th February 1986 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Onto Land Environment: Receiving Water: Soil Overlying Upper Chalk Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m	A8SE (SE)	448	2	515100 215500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	Discharge Consents Operator: Affinity Water Limited. Property Type: WTW/WATER COLLECTION/TREATMENT/SUPPLY Location: East Hyde Pumping Station, Lower Luton Road, Harpenden, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CNTS.0015 Permit Version: 1 Effective Date: 15th March 1995 Issued Date: 15th March 1995 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: River Lee Status: New Consent (Water Industry Act 1991, Section 166) Positional Accuracy: Located by supplier to within 100m	A10NW (NW)	772	2	513410 216605
12	Discharge Consents Operator: Three Valleys Water Plc Property Type: Water Treatment Works Location: East Hyde Pumping Station, Lower Luton Road, Harpenden, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CNTM.9015 Permit Version: 1 Effective Date: 19th April 1995 Issued Date: 19th April 1995 Revocation Date: Not Supplied Discharge Type: Unknown Discharge: Freshwater Stream/River Environment: Receiving Water: River Lee Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A10NW (NW)	774	2	513410 216610
13	Discharge Consents Operator: Affinity Water Limited Property Type: WTW/WATER COLLECTION/TREATMENT/SUPPLY Location: East Hyde Pumping Station, Lower Luton Road, Harpenden, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CATM.2842 Permit Version: 1 Effective Date: 27th March 1997 Issued Date: 27th March 1997 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Process Effluent - Water Company (Wtw) Discharge: Freshwater Stream/River Environment: Receiving Water: River Lea Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	859	2	513350 216680
14	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Batford Mill, Harpendenbatford Millharpenden Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0407 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: 19th August 2014 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Lea Status: Surrendered under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	865	2	514900 214901

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Batford Mill, Harpendenbatford Millharpenden Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0407 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Lea Status: Temporary Consents (Water Act 1989, Section 113) Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	865	2	514900 214901
14	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Batford, The Forgebatfordthe Forge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0408 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 27th January 1997 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Lea Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	865	2	514900 214902
15	Discharge Consents Operator: Youth With A Mission Property Type: PUBLISHING ACTIVITIES/BOOK/NEWSPAPER/COMPUTER GAMES Location: Printing Works, Highfield, Harpenden, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTLU.0676 Permit Version: 1 Effective Date: 31st July 1980 Issued Date: 31st July 1980 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Not Supplied Status: Transferred from Water Resources Act 1963 Positional Accuracy: Located by supplier to within 100m	A2NW (SW)	922	2	513340 215370
16	Local Authority Pollution Prevention and Controls Name: Leaside Service Station Location: 105 Lower Luton Road, HARPENDEN, Hertfordshire, AL5 5AL Authority: St Albans City & District Council, Environmental Health Department Permit Reference: VRP/17/2006 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address	A3NE (S)	499	3	514441 215294
17	Local Authority Pollution Prevention and Controls Name: Bowers Accident Repairs Ltd Location: Unit 4 Batford Mill Industrial Estate, Lower Luton Road, HARPENDEN, AL5 Authority: St Albans City & District Council, Environmental Health Department Permit Reference: 18/97 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/34 Respraying of road vehicles Status: Authorisation certificate surrendered by operator Positional Accuracy: Manually positioned to the address or location	A4SE (SE)	817	3	514850 214940
	Nearest Surface Water Feature	A7NW (SW)	30	-	514058 215946

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 9th December 1989 Incident Reference: NE890522 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	90	2	514100 215900
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 21st December 1995 Incident Reference: NE950734 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NE (S)	128	2	514200 215750
20	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 8th November 1993 Incident Reference: NE930770 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (SE)	287	2	514500 215500
21	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HARPENDEN Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 8th June 1992 Incident Reference: NE920293 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (S)	338	2	514250 215500
22	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 1st November 1993 Incident Reference: NE930735 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (SE)	387	2	514500 215400
23	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Lower Luton Road, BATFORD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 30th June 1992 Incident Reference: NE920347 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (S)	405	2	514400 215400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Battford Mill Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 2nd February 1993 Incident Reference: NE930082 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A3NE (S)	410	2	514400 215395
25	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 28th October 1989 Incident Reference: NE890463 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (S)	435	2	514300 215400
26	Pollution Incidents to Controlled Waters Property Type: Not Given Location: B653 At Harpenden Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 3rd March 1993 Incident Reference: NE930170 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A3NE (S)	440	2	514300 215395
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 8th October 1989 Incident Reference: NE890433 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A4NW (S)	481	2	514500 215300
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 21st March 1990 Incident Reference: NE900098 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A4NW (S)	486	2	514500 215295
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 10th November 1990 Incident Reference: NE900479 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A4NW (SE)	500	2	514600 215250

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HARPENDEN Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 15th November 1990 Incident Reference: NE900490 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A3NE (S)	502	2	514400 215300
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: NE920044 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A4NW (S)	574	2	514500 215200
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HARPENDEN Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 29th September 1993 Incident Reference: NE930669 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A4SW (SE)	740	2	514701 215001
32	Pollution Incidents to Controlled Waters Property Type: Not Given Location: BATFORD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 8th February 1994 Incident Reference: NE940071 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A4SE (SE)	856	2	514850 214900
32	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Sheepcote Lane, WHEATHAMPSTEAD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 4th March 1996 Incident Reference: NE960138 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A4SE (SE)	866	2	514900 214900
33	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HARPENDEN Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 8th February 1993 Incident Reference: NE930092 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A5NE (W)	988	2	513000 216000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Lee GQA Grade: River Quality B Reach: East Hyde Bridge - Wheathamstead Estimated Distance (km): 6.6 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A7NW (SW)	0	2	514094 215979
34	Substantiated Pollution Incident Register Authority: Environment Agency - Thames Region, North East Area Incident Date: 6th January 2016 Incident Reference: 1400372 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Organic Chemicals/Products: Surfactants And Detergents	A4SW (SE)	735	2	514719 215007
35	Substantiated Pollution Incident Register Authority: Environment Agency - Thames Region, North East Area Incident Date: 24th December 2007 Incident Reference: 552623 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Oils And Fuel: Kerosene And Aviation Fuel	A10NW (NW)	857	2	513373 216717
36	Water Abstractions Operator: Mr B R Dulieu Licence Number: 29/38/02/0021 Permit Version: 100 Location: Bower Heath Farm, Harpenden - Borehole Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 7 Yearly Rate (m3): 2489 Details: Bower Heath Farm, Harpenden, Herts Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th April 1976 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16SE (NE)	577	2	515000 216800
37	Water Abstractions Operator: Affinity Water Limited Licence Number: 29/38/01/0041 Permit Version: 103 Location: East Hyde Pumping Station - Point 'C' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (NW)	734	2	513460 216620
37	Water Abstractions Operator: Veolia Water Central Limited Licence Number: 29/38/01/0041 Permit Version: 102 Location: East Hyde Pumping Station - Point 'C' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th July 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (NW)	734	2	513460 216620

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
37	Water Abstractions Operator: Three Valleys Water Plc Licence Number: 29/38/01/0041 Permit Version: 101 Location: East Hyde Pumping Station - Point 'C' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th December 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (NW)	734	2	513460 216620
37	Water Abstractions Operator: Affinity Water Limited Licence Number: 29/38/01/0041 Permit Version: 104 Location: East Hyde Pumping Station - Point 'C' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (NW)	735	2	513460 216622
38	Water Abstractions Operator: Three Valleys Water Plc Licence Number: 29/38/01/0041 Permit Version: 100 Location: East Hyde Pumping Station Point C Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 4546 Yearly Rate (m3): Not Supplied Details: Annual Abstraction Total Aggregated To Another Licence For Quantity Purposes. Chalk (Undifferentiate) Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th August 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	778	2	513400 216600
39	Water Abstractions Operator: Affinity Water Limited Licence Number: 29/38/01/0041 Permit Version: 104 Location: East Hyde Pumping Station - Point 'B' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	822	2	513391 216677

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	Water Abstractions Operator: Affinity Water Limited Licence Number: 29/38/01/0041 Permit Version: 103 Location: East Hyde Pumping Station - Point 'B' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	828	2	513380 216670
39	Water Abstractions Operator: Veolia Water Central Limited Licence Number: 29/38/01/0041 Permit Version: 102 Location: East Hyde Pumping Station - Point 'B' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th July 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	828	2	513380 216670
39	Water Abstractions Operator: Three Valleys Water Plc Licence Number: 29/38/01/0041 Permit Version: 101 Location: East Hyde Pumping Station - Point 'B' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th December 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	828	2	513380 216670
39	Water Abstractions Operator: Affinity Water Limited Licence Number: 29/38/01/0041 Permit Version: 104 Location: East Hyde Pumping Station - Point 'A' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	832	2	513383 216685

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	Water Abstractions Operator: Affinity Water Limited Licence Number: 29/38/01/0041 Permit Version: 103 Location: East Hyde Pumping Station - Point 'A' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	833	2	513380 216680
39	Water Abstractions Operator: Veolia Water Central Limited Licence Number: 29/38/01/0041 Permit Version: 102 Location: East Hyde Pumping Station - Point 'A' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th July 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	833	2	513380 216680
39	Water Abstractions Operator: Three Valleys Water Plc Licence Number: 29/38/01/0041 Permit Version: 101 Location: East Hyde Pumping Station - Point 'A' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th December 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	833	2	513380 216680
40	Water Abstractions Operator: Three Valleys Water Plc Licence Number: 29/38/01/0041 Permit Version: 100 Location: East Hyde Pumping Station Points A & B Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th August 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	869	2	513300 216600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	Water Abstractions Operator: St Albans City & District Council Licence Number: Th/039/0028/011 Permit Version: 1 Location: Verulamium Lake, Holywell Hill, St Albans Authority: Environment Agency, Thames Region Abstraction: Other Environmental Improvements: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Verulamium Park, St Albans, Herts. Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 4th October 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NW (N)	920	2	513938 217288
	Water Abstractions Operator: Hambros Bank Executor & Trustee Company Ltd Licence Number: 29/38/02/0016 Permit Version: 100 Location: The Hyde, Near Luton - Borehole Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 32 Yearly Rate (m3): 10228 Details: The Hyde, Near Luton, Bedfordshire Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(N)	1354	2	513800 217700
	Water Abstractions Operator: Hambros Bank Executor & Trustee Company Ltd Licence Number: 29/38/02/0016 Permit Version: 100 Location: The Hyde, Near Luton - Borehole Authority: Environment Agency, Thames Region Abstraction: Private Non-Industrial Amenity: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Hyde, Near Luton, Bedfordshire Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1354	2	513800 217700
	Water Abstractions Operator: Rathbone Trust Company Limited Licence Number: 29/38/02/0016 Permit Version: 102 Location: The Hyde, Near Luton - Borehole Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Hyde Estate, Near Luton, Bedfordshire Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1355	2	513830 217710

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: S.G.Hambros Trust Company Ltd Licence Number: 29/38/02/0016 Permit Version: 101 Location: The Hyde, Near Luton - Borehole Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Hyde, Near Luton, Bedfordshire Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 2nd November 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1355	2	513830 217710
	Water Abstractions Operator: Affinity Water Limited Licence Number: 28/39/28/0337 Permit Version: 102 Location: Shakespeare Road Pumping Station Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 1st April 2024 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1545	2	514100 214300
	Water Abstractions Operator: Affinity Water Limited Licence Number: 28/39/28/0337 Permit Version: 102 Location: Shakespeare Road Pumping Station Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1545	2	514100 214300
	Water Abstractions Operator: Veolia Water Central Limited Licence Number: 28/39/28/0337 Permit Version: 101 Location: Shakespeare Road Pumping Station Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th July 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1545	2	514100 214300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Three Valleys Water Plc Licence Number: 28/39/28/0337 Permit Version: 100 Location: Shakespeare Road Pumping Station Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 20457 Yearly Rate (m3): 1 Details: Annual Abstraction Total Aggregated To Another Licence For Quantity Purposes. Chalk (Undifferentiate) Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 12th June 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1545	2	514100 214300
	Groundwater Vulnerability Map Combined: Principle Bedrock Aquifer - High Vulnerability Classification: High Combined: High Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: 40-70% Superficial: <90% Patchiness: 3-10m Superficial Thickness: No Data Superficial Recharge: No Data	A7NE (S)	0	4	514183 216000
	Groundwater Vulnerability Map Combined: Principle Bedrock Aquifer - High Vulnerability Classification: High Combined: High Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: 40-70% Superficial: <90% Patchiness: 3-10m Superficial Thickness: No Data Superficial Recharge: No Data	A11SW (W)	0	4	514000 216088
	Groundwater Vulnerability Map Combined: Principle Bedrock Aquifer - Medium Vulnerability Classification: Medium Combined: Medium Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: 40-70% Superficial: <90% Patchiness: 3-10m Superficial Thickness: Low Superficial Recharge: Low	A11SE (SW)	0	4	514183 216088

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: Low	A8NW (E)	0	4	514619 216059
	Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: Low	A7NE (E)	0	4	514416 216068
	Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A8NW (E)	0	4	514723 216000
	Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A7NE (E)	0	4	514411 216000
	Groundwater Vulnerability - Soluble Rock Risk Classification: Very Significant Risk - Moderate Possibility	A7NE (S)	0	4	514183 216000
	Groundwater Vulnerability - Soluble Rock Risk Classification: Very Significant Risk - Moderate Possibility	A11SW (W)	0	4	514000 216088
	Groundwater Vulnerability - Soluble Rock Risk Classification: Very Significant Risk - Moderate Possibility	A11SE (SW)	0	4	514183 216088
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A11SE (SW)	0	4	514183 216088

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A7NE (E)	0	4	514416 216068
42	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	A11SE (SW)	0	2	514183 216088
43	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	A11SW (NW)	233	2	513863 216326
44	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.	A10NE (NW)	453	2	513707 216517
45	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	(E)	781	2	515653 215671
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A7NW (SW)	0	2	514060 215995
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A7NW (SW)	24	2	514062 215944
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A7NW (SW)	44	2	513965 215997
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A7NW (SW)	46	2	513969 215985
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A7NW (SW)	103	2	513956 215913
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A7NW (SW)	109	2	513971 215894
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A7NW (SW)	112	2	513975 215894
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A7NW (SW)	115	2	513985 215881
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A7NW (S)	119	2	514115 215875
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A7NW (S)	122	2	514116 215872

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A7NW (SW)	134	2	513991 215859
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A7NE (S)	141	2	514125 215826
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A7NE (S)	147	2	514125 215844
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A7SE (S)	193	2	514205 215665
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A7NW (S)	209	2	514073 215768
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A6NE (W)	213	2	513775 216056
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A7NW (S)	223	2	514083 215745
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A7NW (SW)	20	2	514062 215946
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A7NW (W)	37	2	513954 216022
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences Type: Flood Defences Reference: Not Supplied	A7NW (SW)	28	2	514065 215944
	Flood Defences Type: Flood Defences Reference: Not Supplied	A7NW (SW)	36	2	514055 215941
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 958.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A7NW (SW)	33	5	514061 215941
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NW (W)	84	5	513906 216058

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 195.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A7NW (W)	85	5	513904 216056
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 2	A10SE (W)	264	5	513733 216107
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A10SE (W)	265	5	513733 216111
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 931.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A10SE (W)	274	5	513723 216108
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A11NE (N)	275	5	514334 216646
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 124.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A11NE (N)	328	5	514354 216696
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A11NE (N)	340	5	514348 216713
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 114.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A11NE (N)	340	5	514348 216713
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (S)	353	5	514292 215482

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A3NE (S)	485	5	514360 215330
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 532.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A3NE (S)	502	5	514346 215317
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 237.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A3NE (S)	533	5	514331 215287
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 173.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A4NE (SE)	560	5	515037 215299
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A4NW (S)	562	5	514549 215189
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 274.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A4NW (S)	580	5	514543 215180
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A4NE (SE)	648	5	514990 215166
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 80.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A4NE (SE)	669	5	514981 215137
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 2	A4SW (SE)	703	5	514688 215038

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A4SW (SE)	703	5	514688 215038
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A4NE (SE)	726	5	514951 215063
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A4SW (SE)	731	5	514719 215010
69	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 31.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A4SE (SE)	734	5	514934 215048
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 176.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A4SW (SE)	770	5	514703 214972
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A4SE (SE)	871	5	514876 214890
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 355.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A4SE (SE)	874	5	514873 214886
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Lea Catchment Name: Thames Primacy: 1	A4SE (SE)	874	5	514848 214877
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A4SE (SE)	874	5	514850 214881

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	Historical Landfill Sites Licence Holder: Not Supplied Location: Westfield Road, Harpenden Name: Dell Hole Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHL35035 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A6SE (SW)	614	2	513675 215486
76	Licensed Waste Management Facilities (Locations) Licence Number: 80222 Location: Red Cow Yard, Westfield Road, Harpenden, Hertfordshire, AL5 4NA Operator Name: D V BAULK LIMITED Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Expired Issued: 4th March 1983 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	232	2	513800 215900
	Local Authority Landfill Coverage Name: Hertfordshire County Council - Has supplied landfill data		0	6	514183 216088
	Local Authority Landfill Coverage Name: St Albans District Council - Has supplied landfill data		0	3	514183 216088
77	Local Authority Recorded Landfill Sites Location: Adjacent 175 Westfield Road, Harpenden Reference: 407 Authority: Hertfordshire County Council, Spatial Planning and Economy Unit Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Applicable	A7NW (SW)	90	6	513937 215952
78	Local Authority Recorded Landfill Sites Location: Lower Luton Road, Harpenden Reference: 220 Authority: Hertfordshire County Council, Spatial Planning and Economy Unit Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable	A4NW (SE)	631	6	514680 215110
79	Local Authority Recorded Landfill Sites Location: Westfield Road,, Harpenden Reference: 267 Authority: Hertfordshire County Council, Spatial Planning and Economy Unit Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable	A6SE (SW)	652	6	513635 215470

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
80	Local Authority Recorded Landfill Sites Location: Old Railway Line, Harpenden Reference: CM0295 Authority: Hertfordshire County Council, Spatial Planning and Economy Unit Last Reported Status: Not Supplied Types of Waste: Soil, Sub-Soil, Builders Rubble Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A3NE (S)	722	6	514403 215074
81	Local Authority Recorded Landfill Sites Location: Old Railway Line, Harpenden Reference: CM0295 Authority: Hertfordshire County Council, Spatial Planning and Economy Unit Last Reported Status: Unknown Types of Waste: Soil, Sub-Soil, Builders Rubble Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A4SW (S)	815	6	514527 214943
82	Local Authority Recorded Landfill Sites Location: Old Railway Line Reference: 295 Authority: Hertfordshire County Council, Spatial Planning and Economy Unit Last Reported Status: Not Supplied Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A4SE (SE)	991	6	514802 214756
83	Local Authority Recorded Landfill Sites Location: Old Railway Line, Harpenden Reference: CM0295 Authority: Hertfordshire County Council, Spatial Planning and Economy Unit Last Reported Status: Not Supplied Types of Waste: Soil, Sub-Soil, Builders Rubble Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A4SE (SE)	991	6	514799 214756
84	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A6NE (W)	295	-	513709 215940
85	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A6NE (W)	315	-	513677 215986
86	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A10SE (W)	350	-	513639 216075
87	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A10SE (W)	414	-	513577 216092
88	Registered Waste Transfer Sites Licence Holder: D V Baulk Ltd Licence Reference: 83/150 Site Location: Red Cow Yard, 175 Westfield Road, Harpenden, Hertfordshire, AL5 4na Operator Location: As Site Address Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Site dormant (licence suspended)Site Dormant Dated: 4th March 1983 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate Authorised Waste: Constr'N/Demol. Inert/Non-Haz/Non-Tox	A7NW (SW)	82	2	513943 215958

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: White Chalk Subgroup	A11SE (SW)	0	1	514183 216088
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (E)	0	1	514619 216059
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11SE (SW)	0	1	514183 216088
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (E)	0	1	514639 216000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (E)	0	1	514500 216000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (E)	0	1	514723 216000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NE (E)	0	1	514416 216068

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A11SW (W)	0	1	514000 216088
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7NE (E)	0	1	514411 216000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (SW)	14	1	514062 215948
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A12SE (E)	80	1	515000 216088
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7NW (SW)	115	1	513965 215885
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7NW (SW)	150	1	513924 215877

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (SW)	166	1	513948 215847
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A11NW (N)	236	1	514000 216534
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7SE (S)	277	1	514128 215615
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A6NE (W)	377	1	513613 216000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7SW (S)	400	1	514000 215566
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A3NE (S)	485	1	514256 215352

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A12NE (NE)	493	1	514982 216715
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A10SE (W)	538	1	513457 216130
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A6NW (W)	550	1	513438 216000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A15SE (N)	579	1	514236 216984
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A15SE (N)	596	1	514142 217000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A6NW (W)	603	1	513385 216000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A15SE (N)	606	1	514322 217000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A15SW (N)	627	1	514000 217000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A15SE (N)	665	1	514223 217071
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A4SW (SE)	741	1	514658 215000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A4SW (S)	742	1	514558 215000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A3SE (S)	753	1	514342 215000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A4SE (SE)	754	1	514831 215000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A4SE (SE)	756	1	515000 215046
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A4SE (SE)	760	1	514928 215000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A4SE (SE)	778	1	514882 214973
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A3SE (S)	807	1	514183 215000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A3SW (S)	886	1	514000 215000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 90 - 120 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A4SW (S)	941	1	514454 214831
89	BGS Recorded Mineral Sites Site Name: Batford Chalk Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262299 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8NE (E)	30	1	514847 215885
90	BGS Recorded Mineral Sites Site Name: Bower Heath Lane Pit Location: Cold Harbour, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262525 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Lewes Nodular Chalk Formation And Seaford Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A11NE (N)	44	1	514246 216428
91	BGS Recorded Mineral Sites Site Name: Sauncy Wood Chalk Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262298 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8NE (E)	121	1	514985 215825
92	BGS Recorded Mineral Sites Site Name: Batford Common Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 220962 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8SE (SE)	224	1	514851 215582
93	BGS Recorded Mineral Sites Site Name: Westfield Common Shaft Location: Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262523 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Lewes Nodular Chalk Formation And Seaford Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A10SE (W)	547	1	513448 216126

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
94	BGS Recorded Mineral Sites Site Name: Westfield Wood Pit Location: Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262524 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Lewes Nodular Chalk Formation And Seaford Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A6NW (W)	648	1	513343 215973
95	BGS Recorded Mineral Sites Site Name: Batford Smithy Gravel Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262301 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Kesgrave Catchment Subgroup Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	773	1	515010 215037
96	BGS Recorded Mineral Sites Site Name: Great Cutts Farm Chalk Pit Location: East Hyde, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 194837 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A14SE (NW)	859	1	513620 217039
97	BGS Recorded Mineral Sites Site Name: Batford Smithy Gravel Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262302 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Kesgrave Catchment Subgroup Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	956	1	515050 214855
98	BGS Recorded Mineral Sites Site Name: Batford Smithy Gravel Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262303 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Kesgrave Catchment Subgroup Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	974	1	515127 214870
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Mining Instability Mining Evidence: Conclusive Rock Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A7NE (S)	0	-	514183 216000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Man-Made Mining Cavities Easting: 514800 Northing: 215600 Distance: 178 Quadrant Reference: A8 Quadrant Reference: SE Bearing Ref: SE Cavity Type: Chalkwell Commodity: Chalk Solid Geology Detail: Chalk Group Superficial Geology: NONE RECORDED Detail:	A8SE (SE)	178	7	514800 215600
	Natural Cavities Easting: 514570 Northing: 214920 Distance: 830 Quadrant Reference: A4 Quadrant Reference: SW Bearing Ref: S Cavity Type: Solution Pipe x 3 Solid Geology Detail: Chalk Group Superficial Geology: Glacial Sand & Gravel Detail:	A4SW (S)	830	7	514570 214920
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Non Coal Mining Areas of Great Britain Risk: Unlikely Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	80	1	515000 216000
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	86	1	515000 216088
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
	Non Coal Mining Areas of Great Britain Risk: Likely Source: British Geological Survey, National Geoscience Information Service	A8SW (SE)	124	1	514774 215646
	Non Coal Mining Areas of Great Britain Risk: Highly Likely Source: British Geological Survey, National Geoscience Information Service	A8SE (SE)	174	1	514813 215615
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	1	514416 216068
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SW (NE)	0	1	514649 216320
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NE (S)	26	1	514188 215994
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SW (W)	73	1	513967 216155
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216080
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	120	1	515000 216088
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	127	1	515000 215839
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	150	1	513924 215877
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (N)	207	1	514223 216612
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	1	514416 216068
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	127	1	515000 215839
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	1	514416 216068

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	127	1	515000 215839
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	166	1	513948 215847
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A12SW (E)	0	1	514600 216088
	Radon Potential - Radon Affected Areas Affected Area: The property is an Intermediate probability radon area (3 to 5% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A7NE (S)	0	1	514183 216025
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	1	514425 216025
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A12SW (E)	0	1	514600 216088
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A7NE (S)	0	1	514183 216025
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	1	514425 216025

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
99	Contemporary Trade Directory Entries Name: Carrubba Cleaning Location: 8, Barley Rise, Northfield Road, Harpenden, Hertfordshire, AL5 5JJ Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (S)	63	-	514255 215786
100	Contemporary Trade Directory Entries Name: Pinewood Building & Landscape Centre Location: 175, Westfield Road, Harpenden, Hertfordshire, AL5 4ND Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	86	-	513941 215953
101	Contemporary Trade Directory Entries Name: Hockley Cleaning Services Location: 65, Northfield Road, Harpenden, Hertfordshire, AL5 5JA Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (S)	102	-	514266 215737
102	Contemporary Trade Directory Entries Name: Allegro Blinds Location: 3, ST MARTINS CLOSE, HARPENDEN, AL5 5JG Classification: Blinds, Awnings & Canopies Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (S)	104	-	514214 215770
102	Contemporary Trade Directory Entries Name: E M C Sheilding Solutions Ltd Location: 1, St. Martins Close, Harpenden, Hertfordshire, AL5 5JG Classification: Electronic Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (S)	114	-	514204 215768
103	Contemporary Trade Directory Entries Name: Herts Pressure Washing Location: 1, Northfield Road, Harpenden, Hertfordshire, AL5 5JA Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	220	-	514325 215618
104	Contemporary Trade Directory Entries Name: Colourseen Location: 151, Lea Industrial Estate, Lower Luton Road, Harpenden, Hertfordshire, AL5 5EQ Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	245	-	514204 215608
105	Contemporary Trade Directory Entries Name: G A B Designs Location: 29, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4NQ Classification: Printed Circuit Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (SW)	248	-	514017 215732
106	Contemporary Trade Directory Entries Name: Pan Auto Services Location: UNIT 2, 48, COLDHARBOUR LANE, HARPENDEN, AL5 4UN Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (S)	256	-	514123 215645
106	Contemporary Trade Directory Entries Name: Stanley Handling Ltd Location: 48, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UR Classification: Fork Lift Trucks Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	261	-	514125 215637
107	Contemporary Trade Directory Entries Name: Zanussi & Whirlpool Service Centre Location: Unit 2 Coldharbour La, Harpenden, Hertfordshire, AL5 4UN Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SE (S)	264	-	514239 215577

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
107	Contemporary Trade Directory Entries Name: Javelin Press Ltd Location: Unit C, Lea Industrial Estate, Lower Luton Road, Harpenden, Hertfordshire, AL5 5EQ Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	282	-	514225 215563
108	Contemporary Trade Directory Entries Name: A Plus Aluminium Location: 46c, Coldharbour Lane, Harpenden, AL5 4UN Classification: Window Frame Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	287	-	514145 215591
108	Contemporary Trade Directory Entries Name: Hertswood Ltd Location: 44-46, Coldharbour Lane, Harpenden, AL5 4UN Classification: Window Frame Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	291	-	514138 215590
108	Contemporary Trade Directory Entries Name: Waters Retail Ltd Location: 44, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UN Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	294	-	514157 215576
108	Contemporary Trade Directory Entries Name: Herts Precision Engineering Location: Unit 1, Riverside Estate, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UN Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	298	-	514173 215564
108	Contemporary Trade Directory Entries Name: Churchill Contract Services Ltd Location: Unit 1, 40, Coldharbour Lane, Harpenden, AL5 4UN Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	323	-	514196 215528
108	Contemporary Trade Directory Entries Name: Churchill Services Location: Unit 1, 40, Coldharbour Lane, Harpenden, AL5 4UN Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	323	-	514196 215528
108	Contemporary Trade Directory Entries Name: Churchill Location: Unit 1, 40 Coldharbour La, Harpenden, Hertfordshire, AL5 4UN Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SE (S)	324	-	514196 215527
108	Contemporary Trade Directory Entries Name: A L R Tyres Location: Interior House, 40, Coldharbour Lane, Harpenden, AL5 4UN Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	330	-	514188 215523
108	Contemporary Trade Directory Entries Name: Cooper Printing Machinery Ltd Location: 42, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UN Classification: Printing Equipment Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	333	-	514148 215536
108	Contemporary Trade Directory Entries Name: Churchill Contract Services Ltd Location: 40, COLDHARBOUR LANE, HARPENDEN, AL5 4UN Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (S)	340	-	514177 215517

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
108	Contemporary Trade Directory Entries Name: Gatran Supplies Ltd Location: 4, Riverside Estate, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UN Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	343	-	514173 215514
109	Contemporary Trade Directory Entries Name: G B Screws & Fixings Location: Unit E3, Lea Industrial Estate, Lower Luton Road, Harpenden, Hertfordshire, AL5 5EQ Classification: Nuts, Bolts & Fixings Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A7SE (S)	333	-	514259 215504
109	Contemporary Trade Directory Entries Name: Go Interiors Ltd Location: Unit D, Lea Industrial Estate, Lower Luton Road, Harpenden, Hertfordshire, AL5 5EQ Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	356	-	514270 215480
109	Contemporary Trade Directory Entries Name: Go Interiors Location: Unit D, Lea Industrial Estate, Lower Luton Road, Harpenden, Hertfordshire, AL5 5EQ Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	356	-	514270 215480
110	Contemporary Trade Directory Entries Name: Boxer Location: 4-5, Allied Business Centre, Coldharbour Lane, Harpenden, AL5 4UT Classification: Distribution Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	338	-	514201 215511
110	Contemporary Trade Directory Entries Name: Boxer Systems Ltd Location: 4-5, Allied Business Centre, Coldharbour Lane, Harpenden, AL5 4UT Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	338	-	514201 215511
110	Contemporary Trade Directory Entries Name: Elliot Scientific Ltd Location: 3, Allied Business Centre, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UT Classification: Scientific Apparatus & Instruments - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (S)	353	-	514190 215498
110	Contemporary Trade Directory Entries Name: A L R Tyres Harpenden Location: Unit 6, 40, Coldharbour Lane, Harpenden, AL5 4UN Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	357	-	514157 215506
110	Contemporary Trade Directory Entries Name: Antons Cars Location: Interior House, 40, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UN Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	358	-	514158 215505
110	Contemporary Trade Directory Entries Name: Marketing Print & Promotion Ltd Location: 1, Allied Business Centre, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UT Classification: Printers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SE (S)	362	-	514173 215495
110	Contemporary Trade Directory Entries Name: Berthold Technologies Location: 6, Allied Business Centre, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UT Classification: Scientific Apparatus & Instruments - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (S)	365	-	514222 215478

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
110	Contemporary Trade Directory Entries Name: Dysk Air Conditioning Location: 7, Allied Business Centre, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UT Classification: Air Conditioning Equipment & Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	370	-	514216 215473
110	Contemporary Trade Directory Entries Name: H G S Europe Ltd Location: 8, Allied Business Centre, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UT Classification: Distribution Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SE (S)	375	-	514210 215470
110	Contemporary Trade Directory Entries Name: Keyphoto Location: 8, Allied Business Centre, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UT Classification: Photographic Equipment & Supplies - Wholesale Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	376	-	514210 215470
110	Contemporary Trade Directory Entries Name: Q H I Group Ltd Location: 9-10, Allied Business Centre, Coldharbour Lane, Harpenden, AL5 4UT Classification: Temperature Monitoring Systems Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	379	-	514202 215468
110	Contemporary Trade Directory Entries Name: Super Steam Location: 9, Allied Business Centre, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UT Classification: Ironing & Home Laundry Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SE (S)	380	-	514204 215466
110	Contemporary Trade Directory Entries Name: Nickerson Chemical Trading Ltd Location: 10, Allied Business Centre, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UT Classification: Chemicals - Distributors & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SE (S)	387	-	514196 215461
111	Contemporary Trade Directory Entries Name: Globofleet Location: 40, Roundfield Avenue, HARPENDEN, Hertfordshire, AL5 5BE Classification: Hardware Status: Inactive Positional Accuracy: Automatically positioned to the address	A4NW (SE)	363	-	514711 215378
112	Contemporary Trade Directory Entries Name: T & M Precision Engineering Ltd Location: Unit D, Lea Industrial Estate, Ox Lane, Harpenden, Hertfordshire, AL5 4PS Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	374	-	514079 215531
112	Contemporary Trade Directory Entries Name: Surface Engineering Ltd Location: Unit F, Lea Industrial Estate, Ox Lane, Harpenden, Hertfordshire, AL5 4PS Classification: Coating Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	374	-	514079 215531
112	Contemporary Trade Directory Entries Name: Anglia Powered Benders Ltd Location: Unit G, Lea Industrial Estate, Ox Lane, Harpenden, Hertfordshire, AL5 4PS Classification: Tube Bending Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	374	-	514079 215531
112	Contemporary Trade Directory Entries Name: Bell Location: Unit B, Lea Industrial Estate, Ox Lane, Harpenden, Hertfordshire, AL5 4PS Classification: Classic Car Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	374	-	514079 215531

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
112	Contemporary Trade Directory Entries Name: Sunset Stripping Location: Unit B, Lea Industrial Estate, Ox Lane, Harpenden, Hertfordshire, AL5 4PS Classification: Paint & Varnish Stripping Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SW (S)	374	-	514079 215531
112	Contemporary Trade Directory Entries Name: London Musical Instruments Location: Unit E, Lea Industrial Estate, Ox Lane, Harpenden, Hertfordshire, AL5 4PS Classification: Musical Instrument - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	374	-	514079 215531
113	Contemporary Trade Directory Entries Name: Spic N Span Location: 9, Southview Road, Harpenden, Hertfordshire, AL5 5AW Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A4NW (SE)	394	-	514494 215393
114	Contemporary Trade Directory Entries Name: Browning Joinery Location: Unit E3, Lea Industrial Estate, Lower Luton Road, Harpenden, Hertfordshire, AL5 5EQ Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	400	-	514299 215435
115	Contemporary Trade Directory Entries Name: Bruce Logan Location: Unit 4, 34, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UN Classification: Sheet Metal Work Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	402	-	514202 215445
115	Contemporary Trade Directory Entries Name: Vortech Food Machinery Ltd Location: Unit 1, 34, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UN Classification: Machinery - Industrial & Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	402	-	514202 215445
115	Contemporary Trade Directory Entries Name: Jms Plant Hire Location: 32, Coldharbour Lane, Harpenden, AL5 4UN Classification: Mechanical Handling Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (S)	422	-	514220 215420
116	Contemporary Trade Directory Entries Name: Get A Grip Mobile Tyre Service Location: 36, Hyde View Road, HARPENDEN, Hertfordshire, AL5 4NZ Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A6SE (SW)	419	-	513725 215696
117	Contemporary Trade Directory Entries Name: Close Clean Location: 38, Milford Hill, Harpenden, Hertfordshire, AL5 5BN Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A4NE (SE)	433	-	514891 215357
118	Contemporary Trade Directory Entries Name: Global Rail Construction Location: 28, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UN Classification: Railways Status: Inactive Positional Accuracy: Manually positioned to the address or location	A3NE (S)	451	-	514228 215390
118	Contemporary Trade Directory Entries Name: Church Hill Contract Services Location: Unit 1-4, Coldharbour Lane, Harpenden, Hertfordshire, AL5 4UN Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A3NE (S)	469	-	514220 215372

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
119	Contemporary Trade Directory Entries Name: Drakes Renewables Ltd Location: Waterside, Station Road, Harpenden, AL5 4US Classification: Electricity Generating & Distributing Equipment Status: Active Positional Accuracy: Automatically positioned to the address	A3NE (S)	489	-	514323 215340
119	Contemporary Trade Directory Entries Name: Jarvis Joinery Ltd Location: Unit 1, Waterside, Station Road, Harpenden, Hertfordshire, AL5 4US Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A3NE (S)	522	-	514293 215313
120	Contemporary Trade Directory Entries Name: Esso Location: 103-105, Lower Luton Road, Harpenden, AL5 5AL Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A3NE (S)	499	-	514441 215294
120	Contemporary Trade Directory Entries Name: Leaside Service Station Location: 103-105, Lower Luton Road, Harpenden, Hertfordshire, AL5 5AL Classification: Petrol Filling Stations - 24 Hour Status: Inactive Positional Accuracy: Automatically positioned to the address	A3NE (S)	499	-	514441 215294
120	Contemporary Trade Directory Entries Name: Esso Location: 103-105, Lower Luton Road, Harpenden, AL5 5AL Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A3NE (S)	499	-	514441 215294
120	Contemporary Trade Directory Entries Name: Tesco Petrol Station Location: 103-105, Lower Luton Road, Harpenden, AL5 5AL Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A3NE (S)	499	-	514441 215294
120	Contemporary Trade Directory Entries Name: Tesco Express Location: 103-105, Lower Luton Road, Harpenden, Hertfordshire, AL5 5AL Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A3NE (S)	499	-	514441 215294
121	Contemporary Trade Directory Entries Name: Clearview Location: 1, Gibraltar Lodge, Batford Road, Harpenden, Hertfordshire, AL5 5AS Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A4NW (SE)	549	-	514711 215192
122	Contemporary Trade Directory Entries Name: Harlequin Environmental Products Location: 22, Wroxham Way, Harpenden, Hertfordshire, AL5 4PP Classification: Chemicals & Allied Products Status: Inactive Positional Accuracy: Automatically positioned to the address	A3NE (S)	554	-	514154 215300
123	Contemporary Trade Directory Entries Name: Raef Green Mobile Valeting Location: 31, COMMON LANE, BATFORD, HARPENDEN, AL5 5BT Classification: Carpet, Curtain & Upholstery Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A4NE (SE)	566	-	514954 215239
124	Contemporary Trade Directory Entries Name: Domestic Bliss Location: 32, Masefield Road, Harpenden, Hertfordshire, AL5 4JN Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A6SE (SW)	606	-	513632 215529
125	Contemporary Trade Directory Entries Name: Sounds Secure Location: Flat 44, Stephens Court, Station Road, Harpenden, AL5 4FE Classification: Mobile Phone Accessories and Car Kits Status: Inactive Positional Accuracy: Automatically positioned to the address	A3NE (S)	630	-	514450 215159

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
126	Contemporary Trade Directory Entries Name: Mercedes-Benz Of Harpenden Ltd Location: Station Road, Harpenden, Hertfordshire, AL5 4UY Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A4NW (S)	649	-	514492 215124
127	Contemporary Trade Directory Entries Name: Total Soft Water Ltd Location: 54, Westfield Road, Harpenden, Hertfordshire, AL5 4HW Classification: Water Softeners Status: Active Positional Accuracy: Automatically positioned to the address	A6SE (SW)	763	-	513499 215437
128	Contemporary Trade Directory Entries Name: Lambda Photometrics Location: Unit 1, Lambda House, Batford Mill, Lower Luton Road, Harpenden, Hertfordshire, AL5 5BZ Classification: Distribution Services Status: Active Positional Accuracy: Automatically positioned to the address	A4SE (SE)	766	-	514828 214988
128	Contemporary Trade Directory Entries Name: R B Plastics Location: Unit 1, Lambda House, Batford Mill, Lower Luton Road, Harpenden, Hertfordshire, AL5 5BZ Classification: Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A4SE (SE)	766	-	514828 214988
128	Contemporary Trade Directory Entries Name: Superfine Tapes Co Ltd Location: Batford Mill, Lower Luton Road, HARPENDEN, Hertfordshire, AL5 5ES Classification: Print Finishers Status: Active Positional Accuracy: Automatically positioned to the address	A4SE (SE)	787	-	514852 214970
128	Contemporary Trade Directory Entries Name: C H S Switchgear Ltd Location: Unit 3, Batford Mill, Lower Luton Road, Harpenden, Hertfordshire, AL5 5BZ Classification: Control Panels Status: Inactive Positional Accuracy: Automatically positioned to the address	A4SE (SE)	810	-	514845 214945
128	Contemporary Trade Directory Entries Name: Harpenden Mill Autocare Location: Unit 3, Batford Mill, Lower Luton Road, Harpenden, AL5 5BZ Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A4SE (SE)	814	-	514836 214941
128	Contemporary Trade Directory Entries Name: Bowers Accident Repair Ltd Location: Batford Mill, Lower Luton Road, Harpenden, Hertfordshire, AL5 5BZ Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A4SE (SE)	817	-	514850 214940
128	Contemporary Trade Directory Entries Name: Document Technology Location: Unit 4, Batford Mill, Lower Luton Road, Harpenden, Hertfordshire, AL5 5BZ Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A4SE (SE)	817	-	514850 214940
128	Contemporary Trade Directory Entries Name: Fleet Sales Location: Unit 5, Batford Mill, Lower Luton Road, Harpenden, AL5 5BZ Classification: Commercial Vehicle Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A4SE (SE)	835	-	514857 214923
128	Contemporary Trade Directory Entries Name: Victoria Garage Location: Unit 5, Batford Mill, Lower Luton Road, Harpenden, AL5 5BZ Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A4SE (SE)	835	-	514857 214923

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
128	Contemporary Trade Directory Entries Name: Fleet Sales Location: Unit 5, Batford Mill, Lower Luton Road, Harpenden, AL5 5BZ Classification: Salvage Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A4SE (SE)	835	-	514857 214923
129	Contemporary Trade Directory Entries Name: Rti Group Location: Batford Mill, Lower Luton Road, Harpenden, Hertfordshire, AL5 5BZ Classification: Photographic Processors Status: Inactive Positional Accuracy: Automatically positioned to the address	A4SE (SE)	767	-	514796 214981
130	Contemporary Trade Directory Entries Name: Audio Engine Location: 1, Lower Luton Road, Harpenden, Hertfordshire, AL5 5AF Classification: Sound Equipment Systems Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A4SE (SE)	800	-	514891 214966
131	Contemporary Trade Directory Entries Name: Oriel Glass Studio Location: 9, Ox Lane, Harpenden, Hertfordshire, AL5 4HH Classification: Stained Glass Designers & Producers Status: Inactive Positional Accuracy: Automatically positioned to the address	A2NE (SW)	882	-	513574 215236
132	Contemporary Trade Directory Entries Name: Spire Harpenden Hospital Location: Harpenden Hospital, Ambrose Lane, Harpenden, Hertfordshire, AL5 4BP Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A5SE (W)	976	-	513087 215661
132	Contemporary Trade Directory Entries Name: Bupa Hospital (Harpenden) Location: Harpenden Hospital, Ambrose Lane, Harpenden, Hertfordshire, AL5 4BP Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A5SE (W)	976	-	513087 215661
132	Contemporary Trade Directory Entries Name: Spire Harpenden Hospital Location: Harpenden Hospital, Ambrose Lane, Harpenden, AL5 4BP Classification: Hospitals Status: Active Positional Accuracy: Automatically positioned to the address	A5SE (W)	976	-	513087 215661
132	Contemporary Trade Directory Entries Name: Spire Harpenden Hospital Location: Harpenden Hospital, Ambrose Lane, Harpenden, Hertfordshire, AL5 4BP Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A5SE (W)	976	-	513087 215661
133	Fuel Station Entries Name: Harpenden Express Location: 103-105, Lower Luton Road, Batford, Harpenden, Hertfordshire, AL5 5AL Brand: ESSO Premises Type: Petrol Station Status: Open Positional Accuracy: Automatically positioned to the address	A3NE (S)	499	-	514441 215294
134	Points of Interest - Commercial Services Name: Pan Auto Services Location: Unit 2 48, Coldharbour Lane, Harpenden, AL5 4UN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (S)	257	8	514123 215645
134	Points of Interest - Commercial Services Name: Waters Retail Ltd Location: 44 Coldharbour Lane, Harpenden, AL5 4UN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (S)	294	8	514157 215576
134	Points of Interest - Commercial Services Name: W Waters & Sons Ltd Location: 44 Coldharbour Lane, Harpenden, AL5 4UN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (S)	294	8	514157 215576

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
134	Points of Interest - Commercial Services Name: Boxer Location: 4-5 Allied Business Centre, Coldharbour Lane, Harpenden, AL5 4UT Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A7SE (S)	341	8	514191 215511
135	Points of Interest - Commercial Services Name: Bell Location: Unit H Lea Industrial Estate, Ox Lane, Harpenden, AL5 4PS Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SW (S)	374	8	514079 215531
136	Points of Interest - Commercial Services Name: Waterless Detailers Location: 68 Ox Lane, Harpenden, AL5 4PJ Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A3NW (S)	560	8	514002 215358
136	Points of Interest - Commercial Services Name: Waterless Specialist Valeting Location: 68 Ox Lane, Harpenden, AL5 4PJ Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A3NW (S)	560	8	514002 215358
137	Points of Interest - Commercial Services Name: Lambda Photometrics Location: Lambda House Batford Mill, Lower Luton Road, Harpenden, AL5 5BZ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A4SE (SE)	766	8	514828 214987
137	Points of Interest - Commercial Services Name: Harpenden Mill Autocare Location: Unit 3 Batford Mill, Lower Luton Road, Harpenden, AL5 5BZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A4SE (SE)	813	8	514836 214941
137	Points of Interest - Commercial Services Name: Fleet Sales Location: Unit 5 Batford Mill, Lower Luton Road, Harpenden, AL5 5BZ Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A4SE (SE)	826	8	514860 214932
137	Points of Interest - Commercial Services Name: Fleet Sales Location: Unit 5 Batford Mill, Lower Luton Road, Harpenden, AL5 5BZ Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A4SE (SE)	835	8	514857 214923
137	Points of Interest - Commercial Services Name: Victoria Garage Location: Unit 5 Batford Mill, Lower Luton Road, Harpenden, AL5 5BZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A4SE (SE)	835	8	514857 214923
138	Points of Interest - Education and Health Name: Spire Harpenden Hospital Location: Spire Harpenden Hospital, Ambrose Lane, Harpenden, AL5 4BP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A5SE (W)	976	8	513087 215661
138	Points of Interest - Education and Health Name: Spire Harpenden Hospital Location: Harpenden Hospital, Ambrose Lane, Harpenden, AL5 4BP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A5SE (W)	976	8	513087 215661
138	Points of Interest - Education and Health Name: Spire Harpenden Hospital Location: Harpenden Hospital, Ambrose Lane, Harpenden, AL5 4BP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A5SE (W)	976	8	513087 215661

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
139	Points of Interest - Manufacturing and Production Name: Chris Grey General Maintenance & Repairs Ltd Location: 52 Noke Shot, Harpenden, AL5 5HS Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A8NW (SE)	26	8	514472 215841
140	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	206	8	514196 215655
140	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	243	8	514200 215612
140	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	262	8	514126 215635
140	Points of Interest - Manufacturing and Production Name: Factory Location: AL5 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A7SE (S)	268	8	514119 215633
141	Points of Interest - Manufacturing and Production Name: Tank Location: AL5 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A7SE (S)	299	8	514239 215542
141	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	314	8	514231 215528
141	Points of Interest - Manufacturing and Production Name: Allied Business Centre Location: AL5 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	364	8	514197 215485
141	Points of Interest - Manufacturing and Production Name: Allied Business Centre Location: AL5 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	365	8	514196 215484
141	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	424	8	514222 215418
141	Points of Interest - Manufacturing and Production Name: Works Location: AL5 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	424	8	514222 215418
142	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	353	8	514266 215483

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
142	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SE (S)	400	8	514310 215436
143	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SW (S)	377	8	514051 215548
143	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SW (S)	378	8	514082 215523
144	Points of Interest - Manufacturing and Production Name: Tanks Location: AL5 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A3NE (S)	464	8	514296 215371
144	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A3NE (S)	493	8	514288 215342
145	Points of Interest - Manufacturing and Production Name: Batford Mill Industrial Estate Location: AL5 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A4SE (SE)	815	8	514810 214935
146	Points of Interest - Manufacturing and Production Name: Tank Location: LU2 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A10NW (NW)	831	8	513379 216674
147	Points of Interest - Public Infrastructure Name: Sewage Pumping Station Location: AL5 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A6NE (W)	225	8	513763 216019
148	Points of Interest - Public Infrastructure Name: Tesco Petrol Station Location: 103-105 Lower Luton Road, Harpenden, AL5 5AL Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A3NE (S)	499	8	514441 215294
148	Points of Interest - Public Infrastructure Name: Harpenden Express Location: 103-105, Lower Luton Road, Batford, Harpenden, Hertfordshire, AL5 5AL Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A3NE (S)	499	8	514441 215294
148	Points of Interest - Public Infrastructure Name: Esso Location: 103-105 Lower Luton Road, Harpenden, AL5 5AL Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A3NE (S)	500	8	514441 215293
148	Points of Interest - Public Infrastructure Name: Harpenden Express Location: 103-105 Lower Luton Road, Harpenden, AL5 5AL Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A3NE (S)	500	8	514441 215293

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
149	Points of Interest - Public Infrastructure Name: Westfield Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A6SE (SW)	549	8	513568 215678
149	Points of Interest - Public Infrastructure Name: Westfield Road Cemetery Location: AL5 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A6SE (SW)	549	8	513569 215677
150	Points of Interest - Public Infrastructure Name: Westfield Road Cemetery Location: AL5 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A6SE (SW)	595	8	513476 215733
151	Points of Interest - Public Infrastructure Name: Burial Ground Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A6NW (W)	641	8	513354 215937
151	Points of Interest - Public Infrastructure Name: Burial Ground Location: AL5 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A6NW (W)	641	8	513354 215937
152	Points of Interest - Public Infrastructure Name: Sluice Location: AL5 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A4SW (SE)	706	8	514688 215035
152	Points of Interest - Public Infrastructure Name: Sluice Location: AL5 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A4SW (SE)	706	8	514688 215035
152	Points of Interest - Public Infrastructure Name: Weirs Location: AL5 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A4SW (SE)	725	8	514720 215017
152	Points of Interest - Public Infrastructure Name: Weirs Location: AL5 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A4SW (SE)	725	8	514721 215017
152	Points of Interest - Public Infrastructure Name: Weir Location: AL5 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A4SW (SE)	768	8	514698 214973
153	Points of Interest - Public Infrastructure Name: Pumping Station (Sewage) Location: AL5 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A4SE (SE)	852	8	514910 214917
154	Points of Interest - Recreational and Environmental Name: Play Area Location: AL5 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (SE)	60	8	514629 215725

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
154	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (SE)	69	8	514550 215722
155	Points of Interest - Recreational and Environmental Name: Westfield Road Play Area Location: Hyde View Road, AL5 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7SW (SW)	397	8	513845 215640
156	Points of Interest - Recreational and Environmental Name: Marquis Lane Play Area Location: Marquis Lane, AL5 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A4SW (SE)	782	8	514670 214959

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
157	Ancient Woodland Name: Sauncy Wood Reference: 1115915 Area(m ²): 17411.61 Type: Ancient and Semi-Natural Woodland	A8NE (E)	185	9	515101 215906
158	Ancient Woodland Name: Westfield Wood Reference: 1115908 Area(m ²): 64437.57 Type: Ancient and Semi-Natural Woodland	A6NW (W)	614	9	513381 215940
159	Areas of Adopted Green Belt Authority: St Albans City & District Council Plan Name: St Albans District Local Plan Review Status: Adopted Plan Date: 30th November 1994	A11SE (SW)	0	10	514183 216088
160	Nitrate Vulnerable Zones Name: Lee Nvz Description: Surface Water Source: Environment Agency, Head Office	A11SE (SW)	0	4	514183 216088
161	Nitrate Vulnerable Zones Name: Hatfield Description: Groundwater Source: Environment Agency, Head Office	A4SW (SE)	719	4	514632 215025

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices South Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Environment Agency - Head Office North Hertfordshire District Council - Environmental Health Department St Albans City & District Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department Dacorum Borough Council - Environmental Health Department	July 2008 November 2023 October 2017 October 2017 October 2017 September 2017	Not Applicable Annually Annual Rolling Update Annual Rolling Update Annually Annual Rolling Update
Discharge Consents Environment Agency - Thames Region	July 2024	Quarterly
Enforcement and Prohibition Notices Environment Agency - Thames Region	March 2013	
Integrated Pollution Controls Environment Agency - Thames Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region	July 2024 July 2024	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control South Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department St Albans City & District Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department Dacorum Borough Council - Environmental Health Department North Hertfordshire District Council - Environmental Health Department	June 2008 May 2014 November 2014 October 2014 September 2014	Not Applicable Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls North Hertfordshire District Council - Environmental Health Department South Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department St Albans City & District Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department Dacorum Borough Council - Environmental Health Department	December 2020 June 2008 May 2014 November 2014 October 2014	Annual Rolling Update Not Applicable Annual Rolling Update Annually Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements South Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department St Albans City & District Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department Dacorum Borough Council - Environmental Health Department North Hertfordshire District Council - Environmental Health Department	June 2008 May 2014 November 2014 October 2014 September 2014	Not Applicable Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	July 2024	
Pollution Incidents to Controlled Waters Environment Agency - Thames Region	September 1999	
Prosecutions Relating to Authorised Processes Environment Agency - Thames Region	July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - Thames Region	March 2013	
Registered Radioactive Substances Environment Agency - Head Office Environment Agency - Thames Region	May 2023 May 2023	
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	April 2012	

Agency & Hydrological	Version	Update Cycle
River Quality Chemistry Sampling Points Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	April 2024 April 2024	Quarterly Quarterly
Water Abstractions Environment Agency - Thames Region	July 2024	Quarterly
Water Industry Act Referrals Environment Agency - Thames Region	October 2017	
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified
Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	As notified
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	As notified
Source Protection Zones Environment Agency - Head Office	September 2022	Bi-Annually
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2023	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2023	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2023	
Flood Water Storage Areas Environment Agency - Head Office	January 2024	Quarterly
Flood Defences Environment Agency - Head Office	August 2022	
OS Water Network Lines Ordnance Survey	July 2024	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water Suitability Environment Agency - Head Office	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Environment Agency - Head Office	August 2024	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Thames Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	August 2024 August 2024	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	July 2024 July 2024	Quarterly Quarterly
Local Authority Landfill Coverage Bedfordshire County Council (now part of Central Bedfordshire Council) Dacorum Borough Council - Environmental Health Department Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council - Environmental Health Department South Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department St Albans City & District Council - Environmental Health Department	February 2003 February 2003 February 2003 February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Bedfordshire County Council (now part of Central Bedfordshire Council) Dacorum Borough Council - Environmental Health Department Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council - Environmental Health Department South Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department St Albans City & District Council - Environmental Health Department	October 2018 October 2018 October 2018 October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency - Thames Region - North East Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency - Thames Region - North East Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency - Thames Region - North East Area	June 2015	

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	September 2024	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Central Bedfordshire Council - Planning Department Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council St Albans City & District Council Bedfordshire County Council (now part of Central Bedfordshire Council) South Bedfordshire District Council (now part of Central Bedfordshire Council) Dacorum Borough Council	February 2016 February 2016 February 2016 February 2016 July 2008 November 2008 October 2015	Variable Variable Variable Variable Annual Rolling Update Not Applicable Variable
Planning Hazardous Substance Consents Central Bedfordshire Council - Planning Department Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council St Albans City & District Council Bedfordshire County Council (now part of Central Bedfordshire Council) South Bedfordshire District Council (now part of Central Bedfordshire Council) Dacorum Borough Council	February 2016 February 2016 February 2016 February 2016 July 2008 November 2008 October 2015	Variable Variable Variable Variable Annual Rolling Update Not Applicable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	January 2024	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	October 2023	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	October 2023	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	June 2024	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2024	Quarterly
Gas Pipelines National Grid	October 2021	
Points of Interest - Commercial Services PointX	September 2024	Quarterly
Points of Interest - Education and Health PointX	September 2024	Quarterly
Points of Interest - Manufacturing and Production PointX	September 2024	Quarterly
Points of Interest - Public Infrastructure PointX	September 2024	Quarterly
Points of Interest - Recreational and Environmental PointX	September 2024	Quarterly
Underground Electrical Cables National Grid	January 2024	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	April 2024	Bi-Annually
Areas of Adopted Green Belt Dacorum Borough Council North Hertfordshire District Council South Bedfordshire District Council (now part of Central Bedfordshire Council) St Albans City & District Council Central Bedfordshire Council - Planning Department	July 2024 July 2024 July 2024 July 2024 May 2011	Quarterly Quarterly Quarterly Quarterly As notified
Areas of Unadopted Green Belt Dacorum Borough Council North Hertfordshire District Council South Bedfordshire District Council (now part of Central Bedfordshire Council) St Albans City & District Council Central Bedfordshire Council - Planning Department	July 2024 July 2024 July 2024 July 2024 May 2011	Quarterly Quarterly Quarterly Quarterly As notified
Areas of Outstanding Natural Beauty Natural England	May 2024	Bi-Annually
Environmentally Sensitive Areas Natural England	August 2023	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Natural England	August 2024	Bi-Annually
Marine Nature Reserves Natural England	August 2024	Bi-Annually
National Nature Reserves Natural England	August 2024	Bi-Annually
National Parks Natural England	February 2018	Bi-Annually
Nitrate Sensitive Areas Natural England	April 2023	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Environment Agency - Head Office	April 2016 April 2024	Bi-Annually
Ramsar Sites Natural England	August 2024	Bi-Annually
Sites of Special Scientific Interest Natural England	April 2024	Bi-Annually
Special Areas of Conservation Natural England	April 2024	Bi-Annually
Special Protection Areas Natural England	April 2024	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	St Albans City & District Council - Environmental Health Department Civic Centre, St Peters Street, St Albans, Hertfordshire, AL1 3JE	Telephone: 01727 866100 Fax: 01727 845658 Website: www.stalbans.gov.uk
4	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	Hertfordshire County Council - Spatial Planning and Economy Unit County Hall, Hertford, Hertfordshire, SG13 8DN	Telephone: 01992 556266 Fax: 01992 556015 Email: spatialplanning@hertfordshire.gov.uk Website: www.hertsdirect.org
7	Stantec UK Ltd Caversham Bridge House, Waterman Place, Reading, RG1 8DN	Telephone: 0118 950 0761 Email: pba.reading@stantec.com Website: www.stantec.com
8	PointX 5-6 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
10	St Albans City & District Council Civic Centre, St Peters Street, St Albans, Hertfordshire, AL1 3JE	Telephone: 01727 866100 Fax: 01727 845658 Website: www.stalbans.gov.uk
11	South Bedfordshire District Council (now part of Central Bedfordshire Council) Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ	Telephone: 0300 300 8301 Email: customers@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk
12	North Hertfordshire District Council Council Offices, Gernon Road, Letchworth, Hertfordshire, SG6 3JF	Telephone: 01462 474000 Fax: 01462 474558 Website: www.north-herts.gov.uk
13	Central Bedfordshire Council - Planning Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ	Telephone: 0300 300 8000 Email: info@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

Groundwater Vulnerability

General

- Specified Site
 Specified Buffer(s)
 Bearing Reference Point
 Slice
 Map ID

Agency and Hydrological

Bedrock Aquifers

- | | |
|---|---|
| High Vulnerability, Principal Aquifer | High Vulnerability, Principal Aquifer |
| High Vulnerability, Secondary Aquifer | High Vulnerability, Secondary Aquifer |
| Medium Vulnerability, Principal Aquifer | Medium Vulnerability, Principal Aquifer |
| Medium Vulnerability, Secondary Aquifer | Medium Vulnerability, Secondary Aquifer |
| Low Vulnerability, Principal Aquifer | Low Vulnerability, Principal Aquifer |
| Low Vulnerability, Secondary Aquifer | Low Vulnerability, Secondary Aquifer |

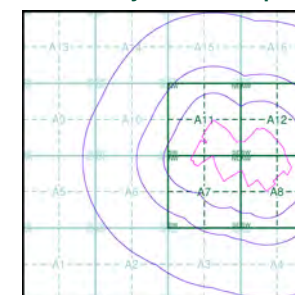
Superficial Aquifers

- | | |
|---|---|
| High Vulnerability, Principal Aquifer | High Vulnerability, Principal Aquifer |
| High Vulnerability, Secondary Aquifer | High Vulnerability, Secondary Aquifer |
| Medium Vulnerability, Principal Aquifer | Medium Vulnerability, Principal Aquifer |
| Medium Vulnerability, Secondary Aquifer | Medium Vulnerability, Secondary Aquifer |
| Low Vulnerability, Principal Aquifer | Low Vulnerability, Principal Aquifer |
| Low Vulnerability, Secondary Aquifer | Low Vulnerability, Secondary Aquifer |

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A

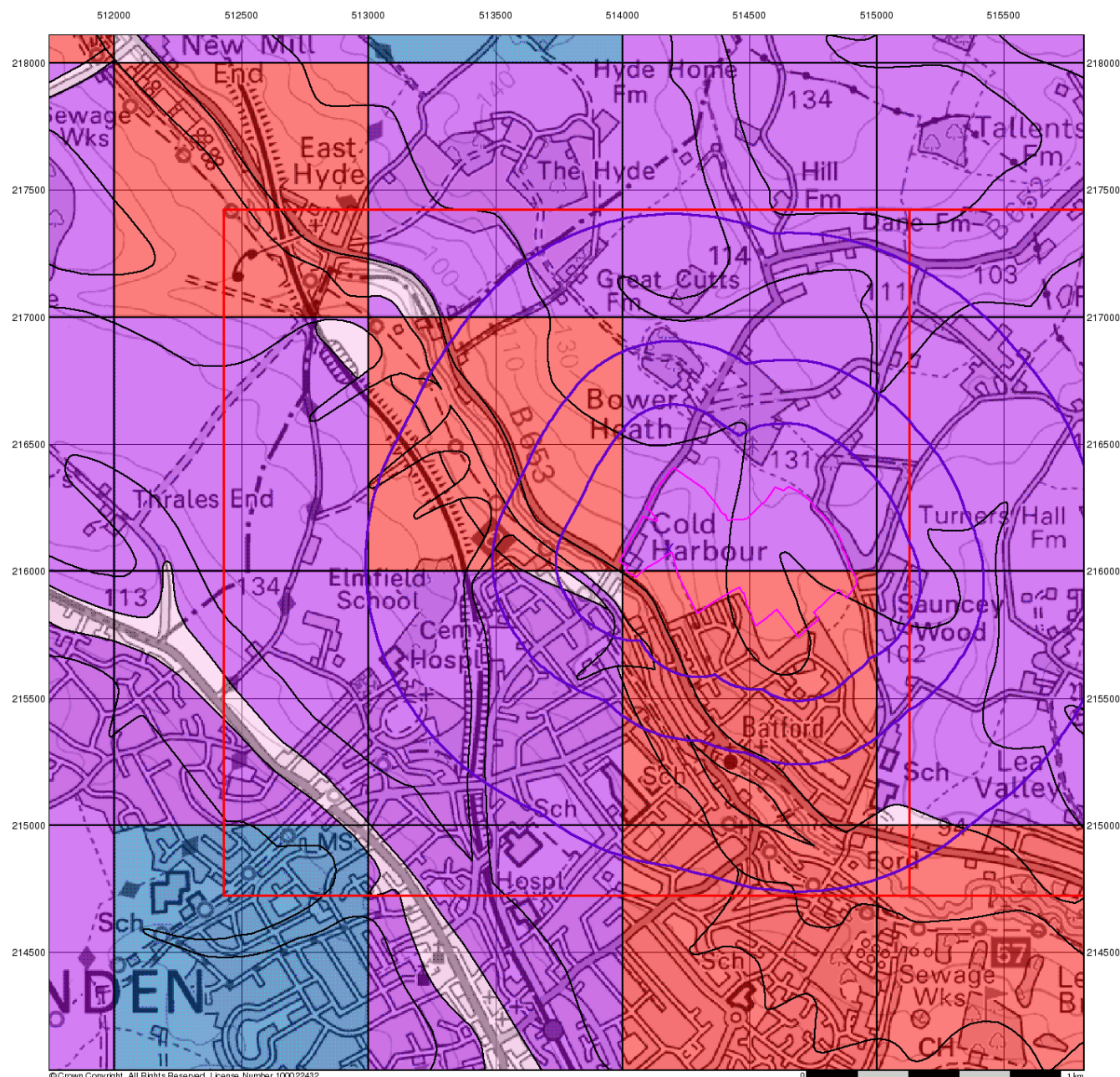


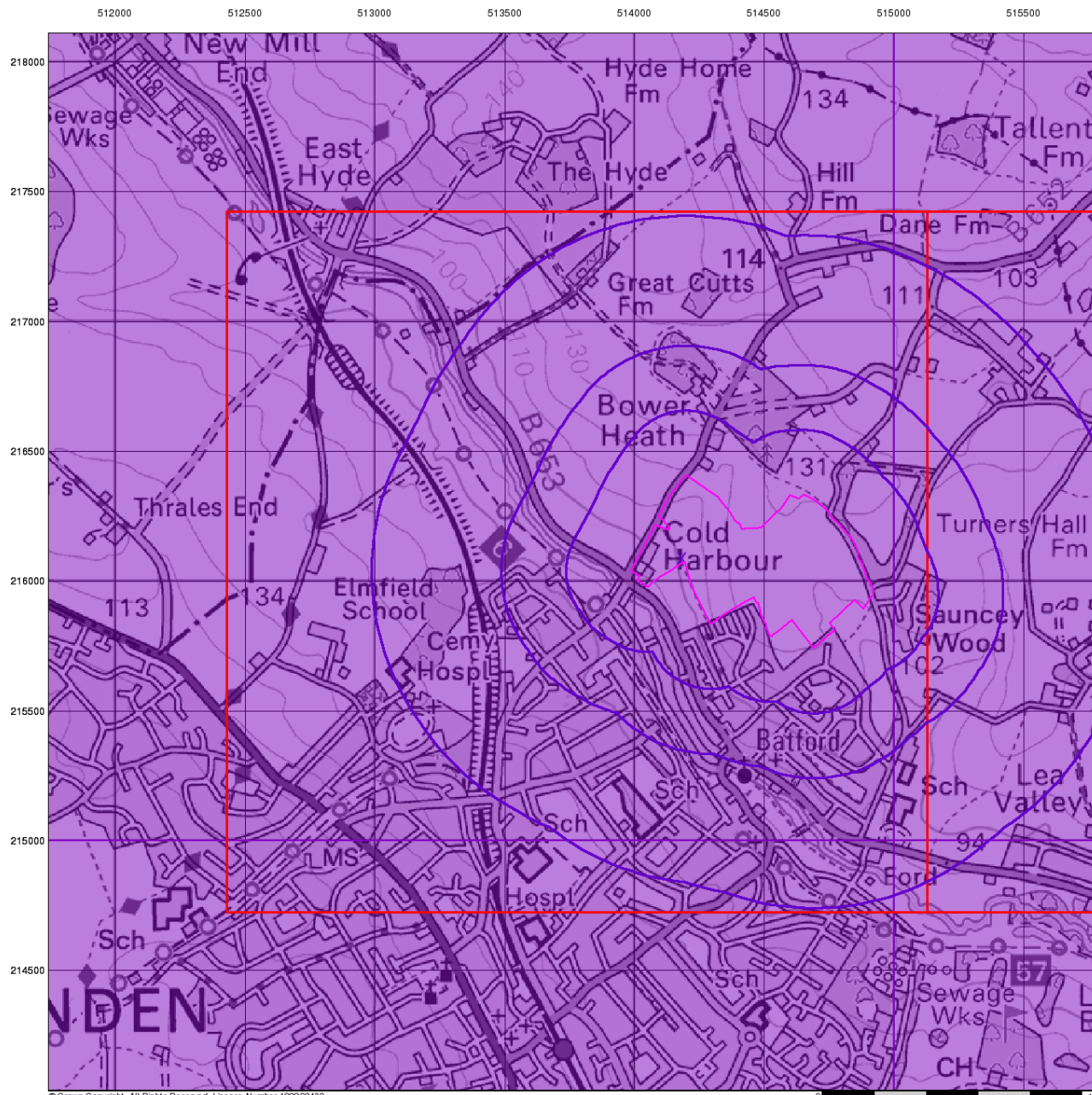
Order Details

Order Number: 357545593_1_1
 Customer Ref: JN1933
 National Grid Reference: 514180, 216090
 Slice: A
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden





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Bedrock Aquifer Designation

General

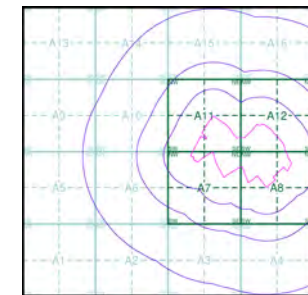
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A

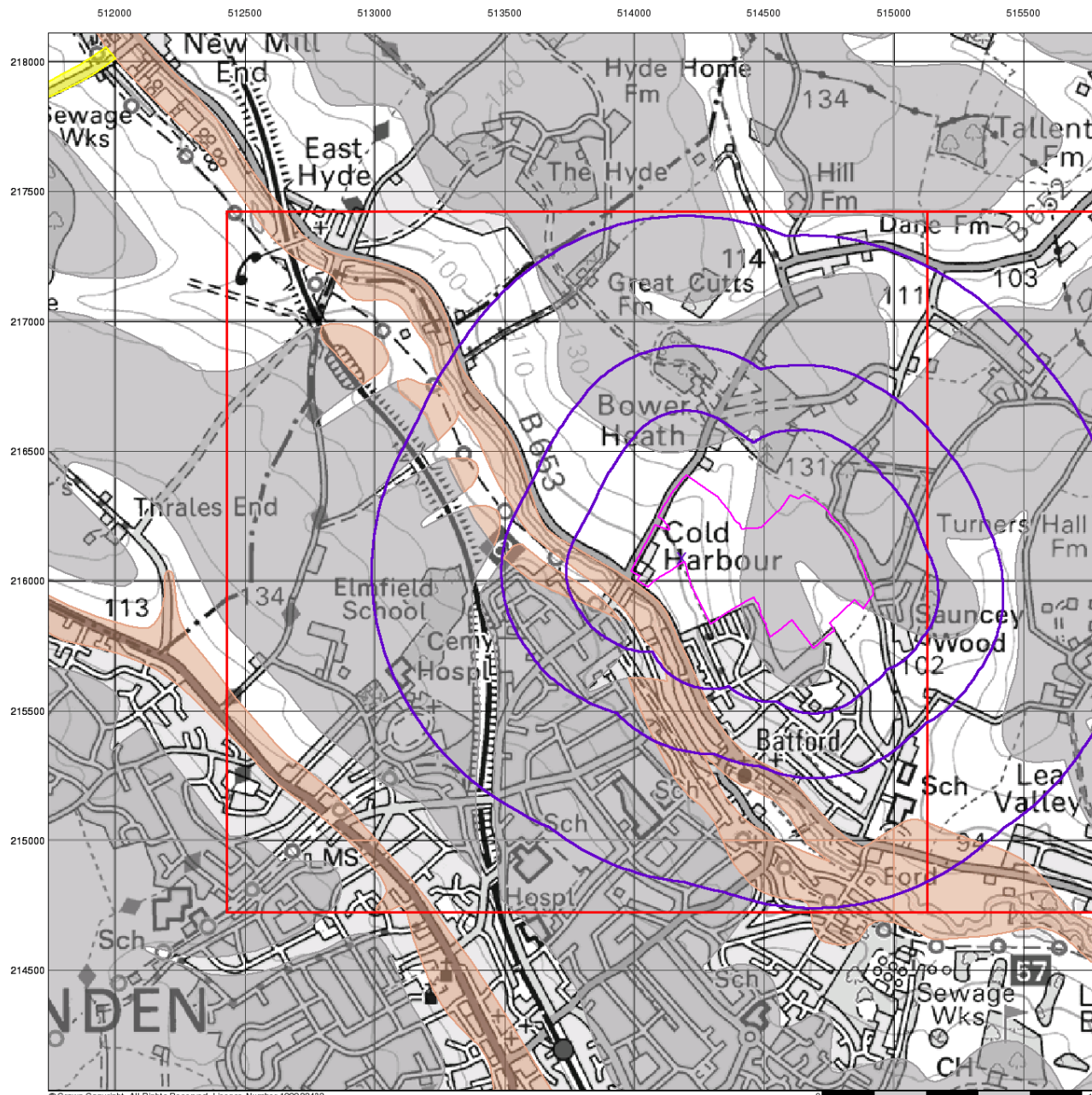


Order Details

Order Number: 357545593_1_1
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Site Details

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Superficial Aquifer Designation

General

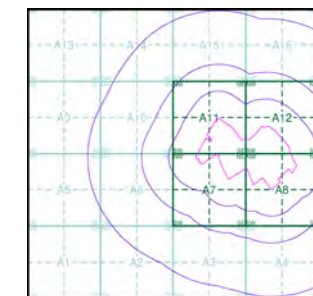
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A

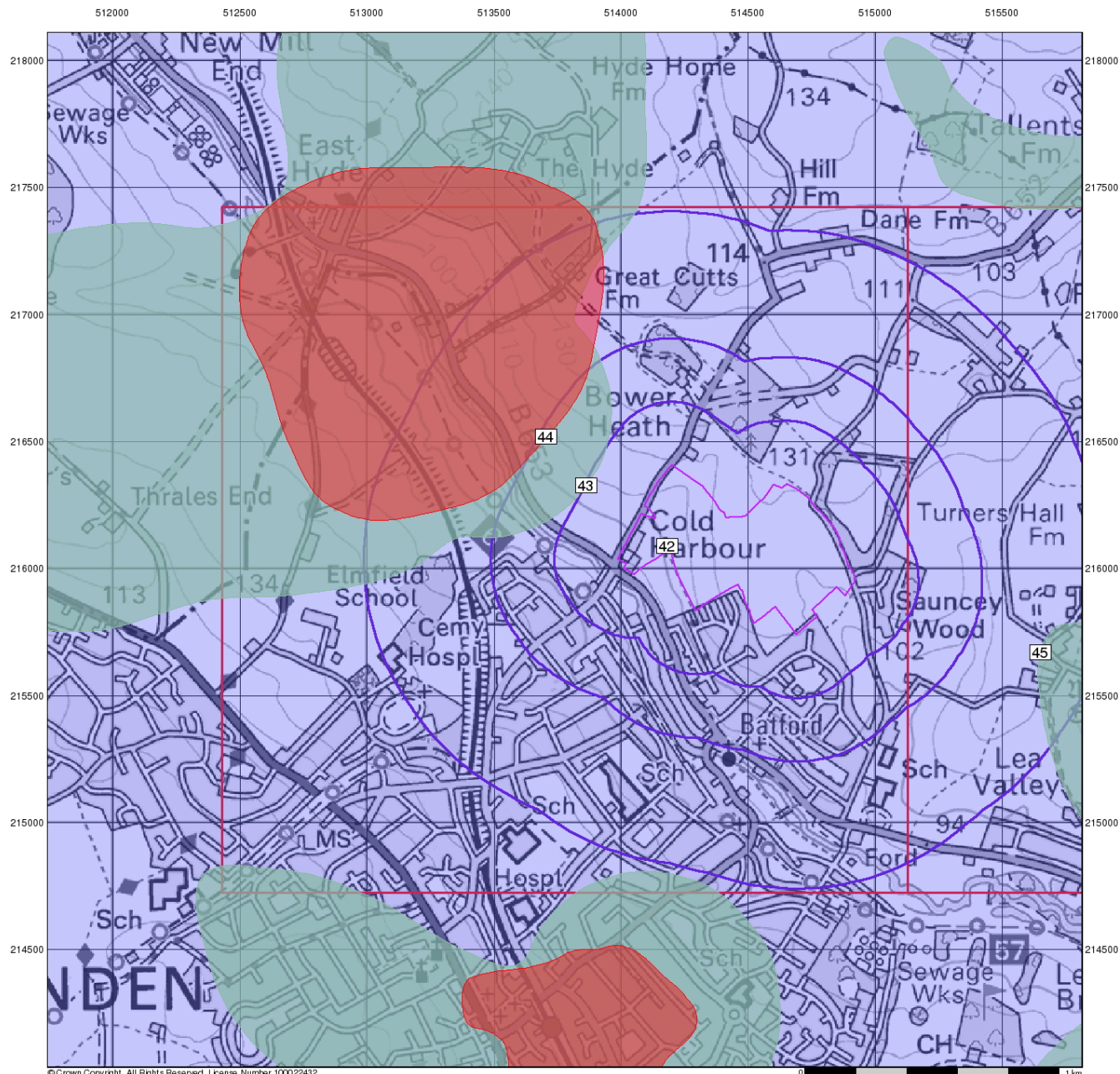


Order Details

Order Number: 357545593_1_1
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National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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0 1 km

Source Protection Zones

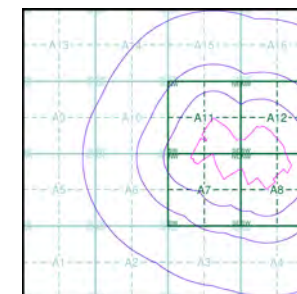
General

- ◊ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- ▨ Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- ▨ Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- ▨ Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A

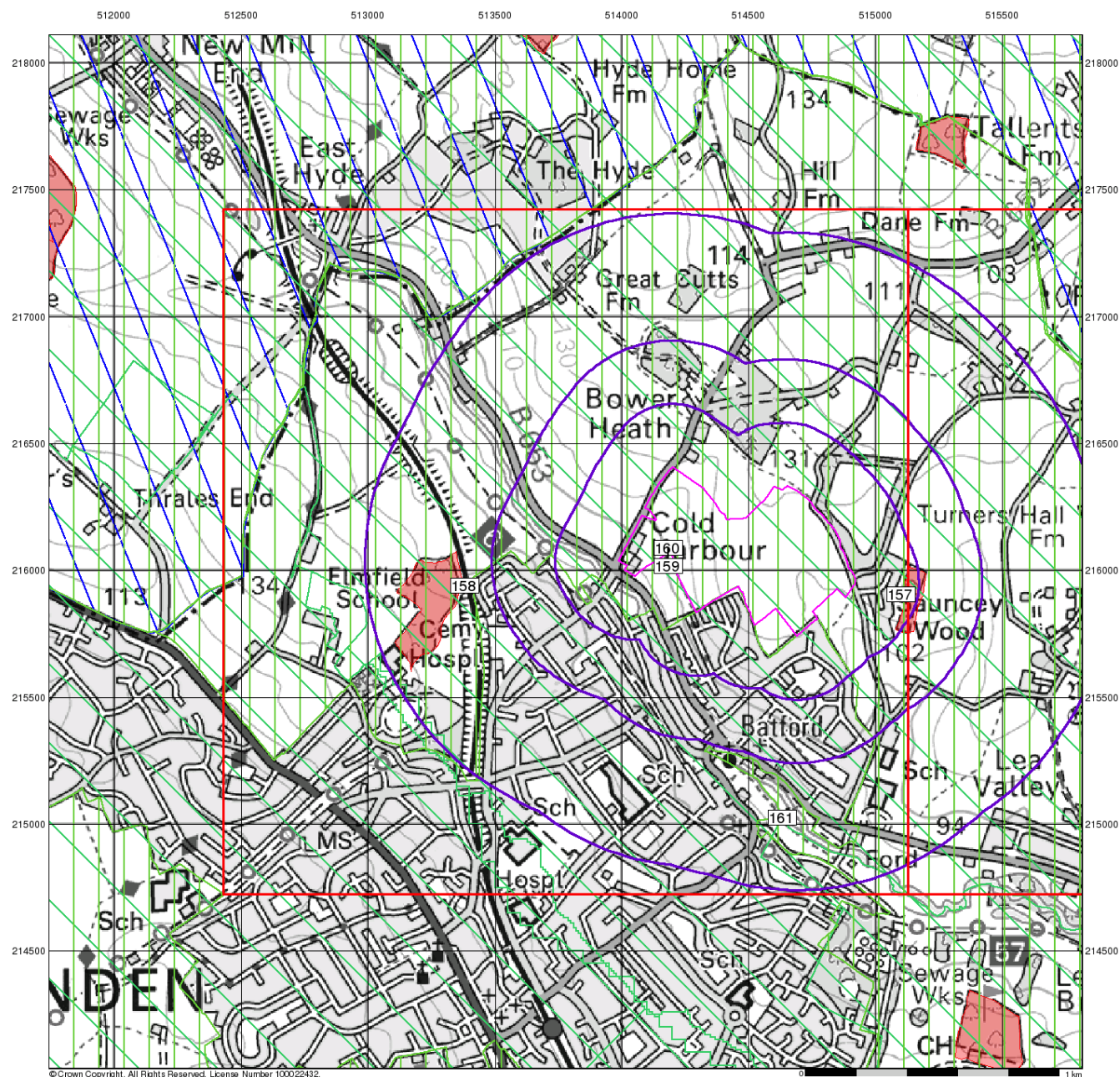


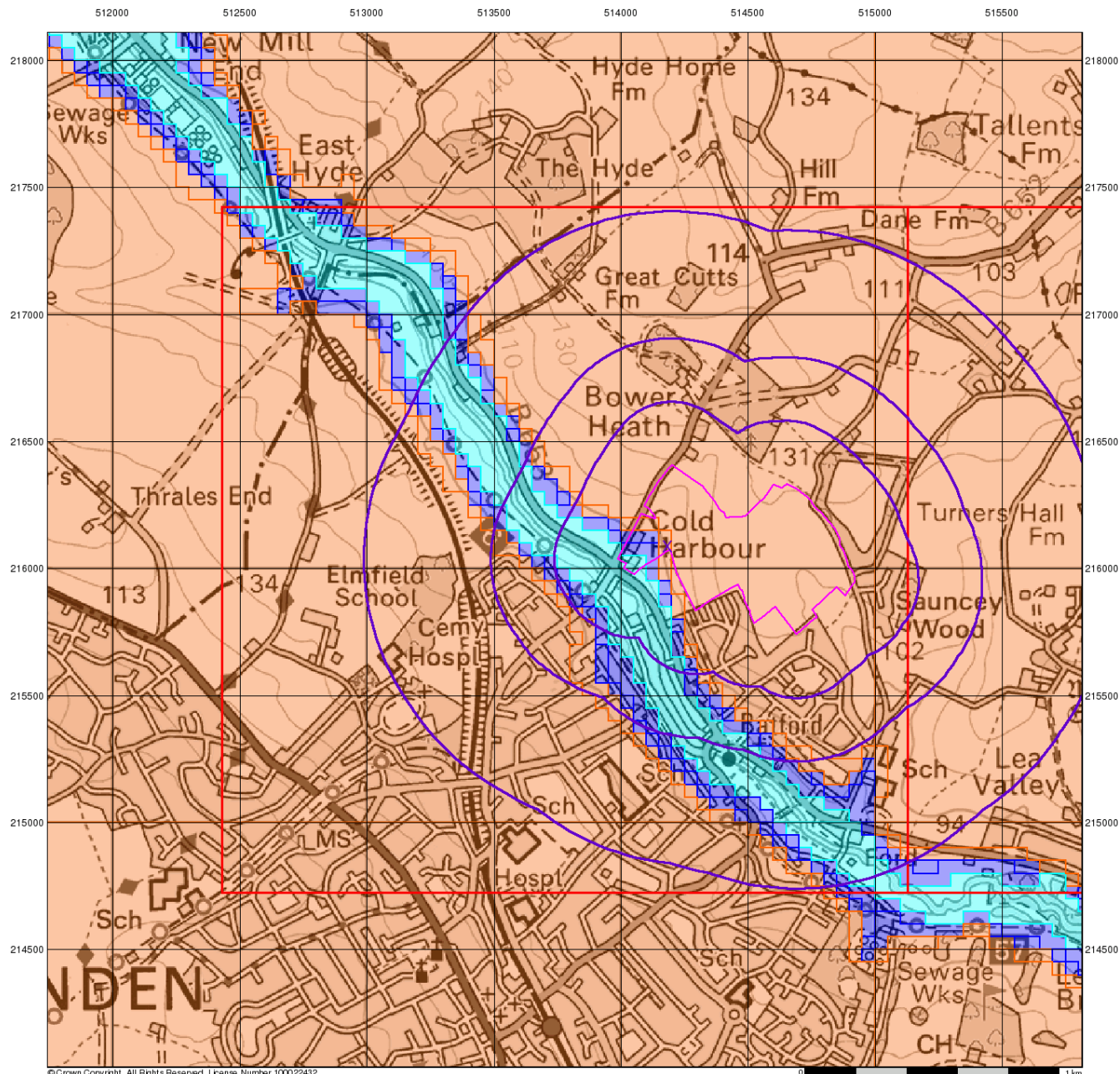
Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden





BGS Flood GFS Data

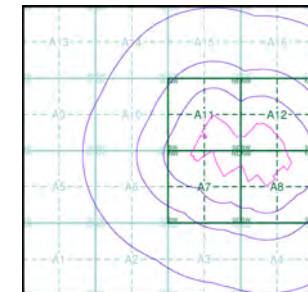
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 357545593_1_1
 Customer Ref: JN1933
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 Slice: A
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details

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 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Geology 1:50,000 Maps Legends

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	KGCA	Kesgrave Catchment Subgroup	Sand and Gravel	Not Supplied - Pleistocene
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Not Supplied - Quaternary
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary
	CWF	Clay-with-flints Formation	Clay, Silt, Sand and Gravel	Not Supplied - MIOCENE

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	CKR	Chalk Rock Member	Chalk	Not Supplied - Turonian
	LESE	Lewes Nodular Chalk Formation and Seaford Chalk Formation (Undifferentiated)	Chalk	Not Supplied - Turonian
	HNCK	Holywell Nodular Chalk Formation and New Pit Chalk Formation (Undifferentiated)	Chalk	Not Supplied - Cenomanian



Geology 1:50,000 Maps

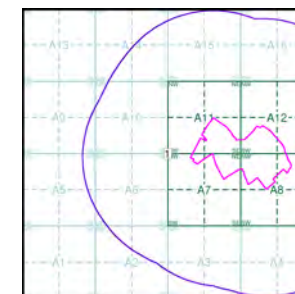
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	239
Map Name:	Hertford
Map Date:	1923
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Not Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

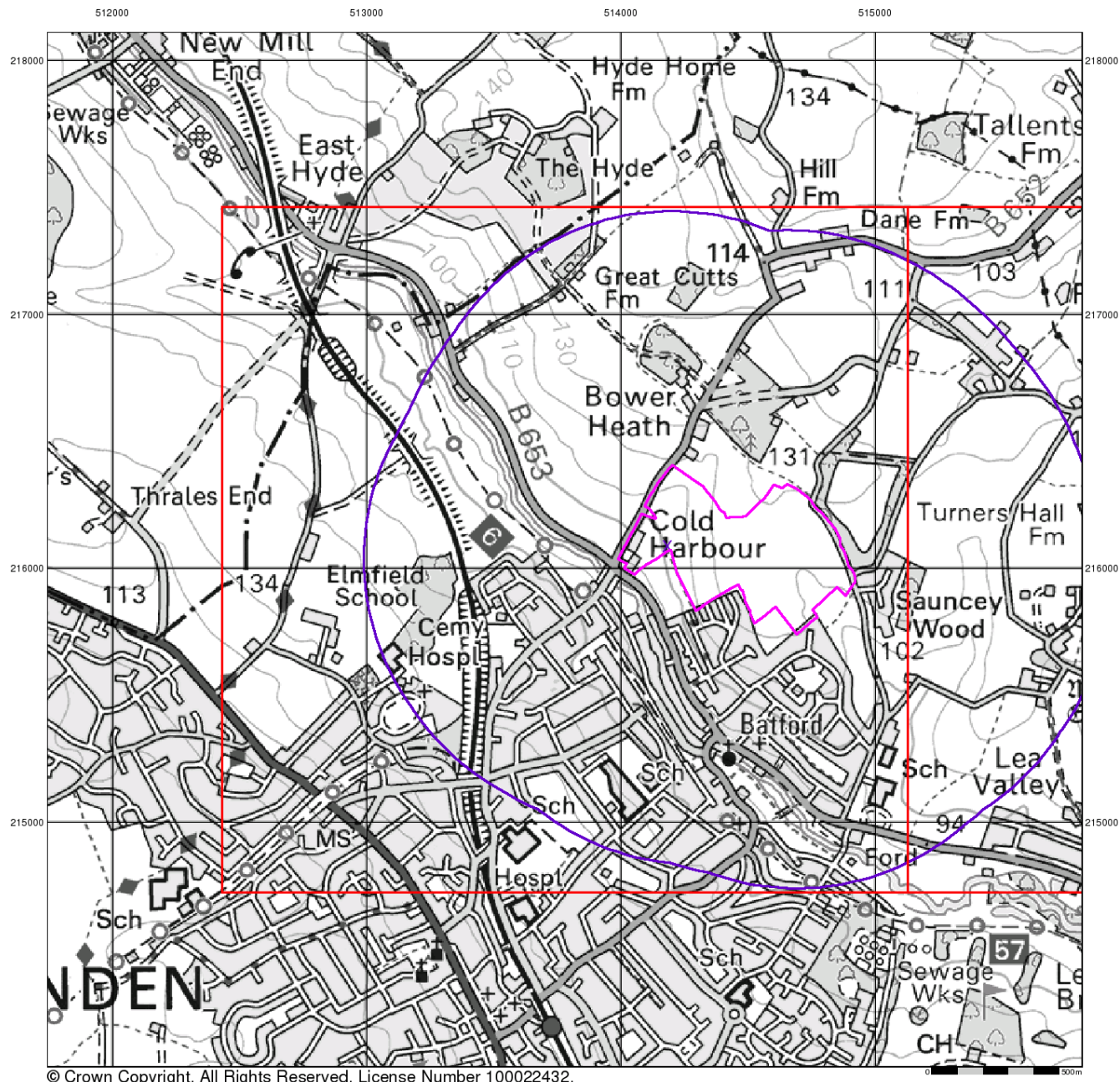
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Artificial Ground and Landslip

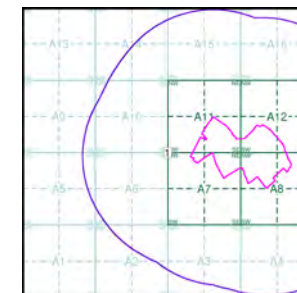
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number: 357545593_1_1
 Customer Reference: JN1933
 National Grid Reference: 514180, 216090
 Slice: A
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details:

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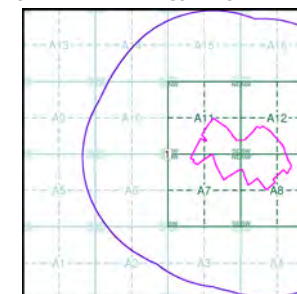
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A

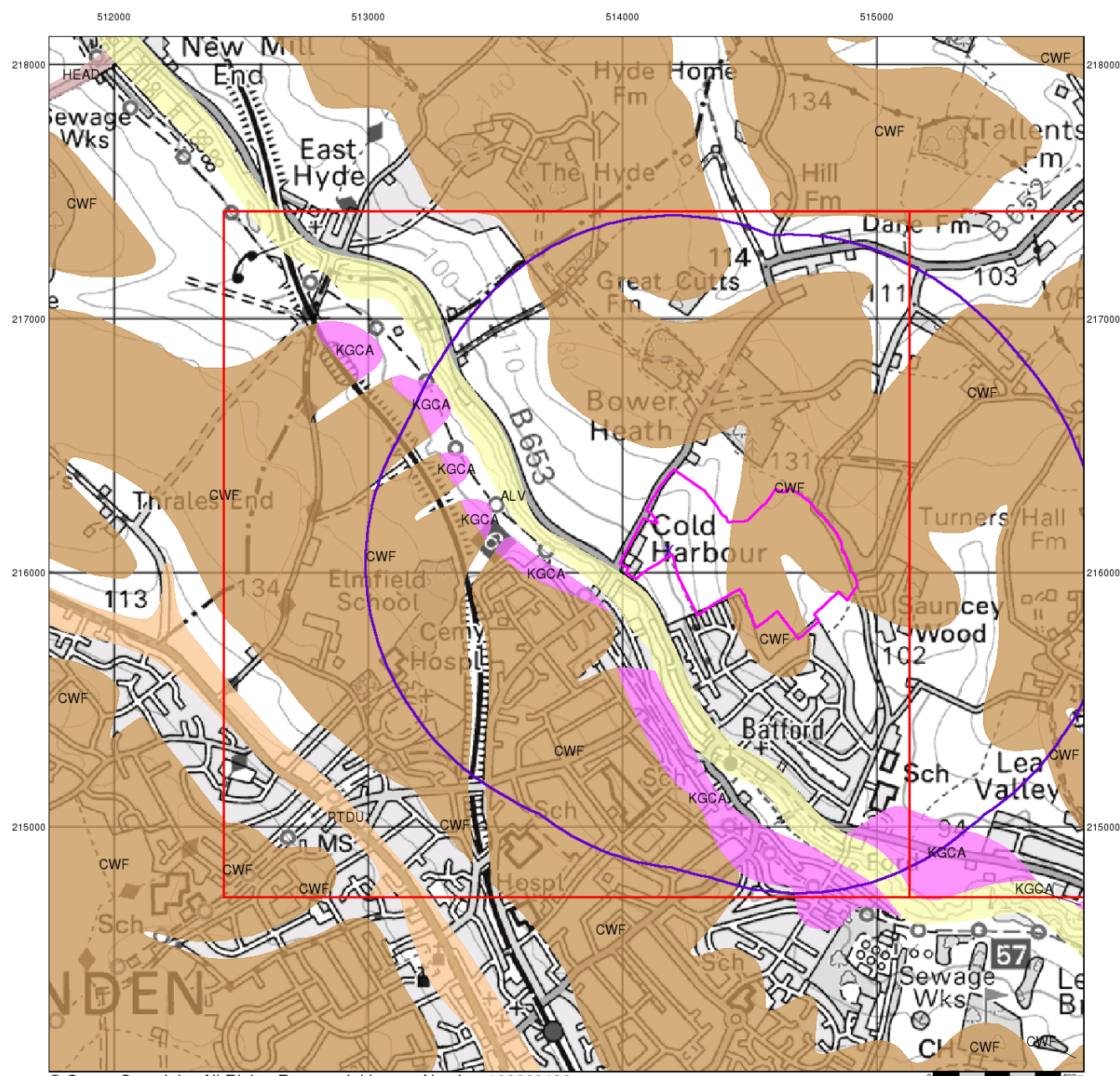


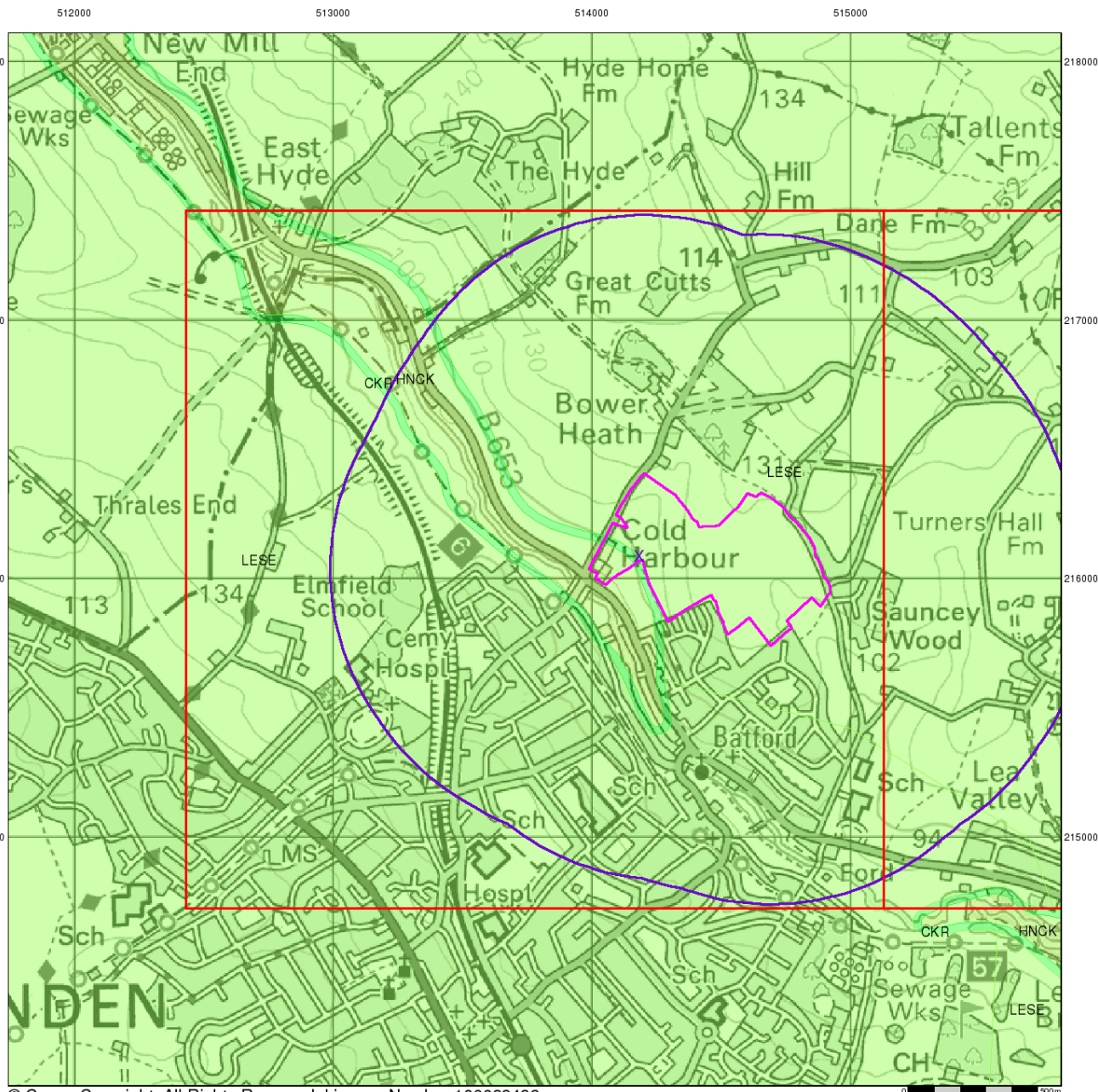
Order Details:

Order Number: 357545593_1_1
Customer Reference: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details:

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Bedrock and Faults

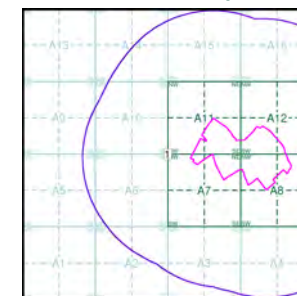
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 357545593_1_1
 Customer Reference: JN1933
 National Grid Reference: 514180, 216090
 Slice: A
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details:

Lower Luton Road, Harpenden



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location
- Pylon
- Overhead Transmission Line

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

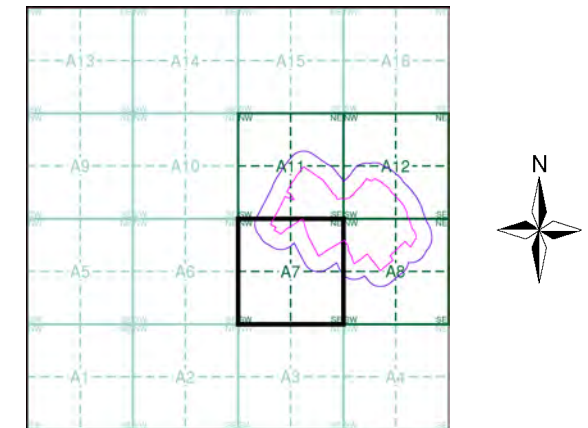
Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement
- BGS Recorded Mineral Site
- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Geological

- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A7



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Plot Buffer (m): 100

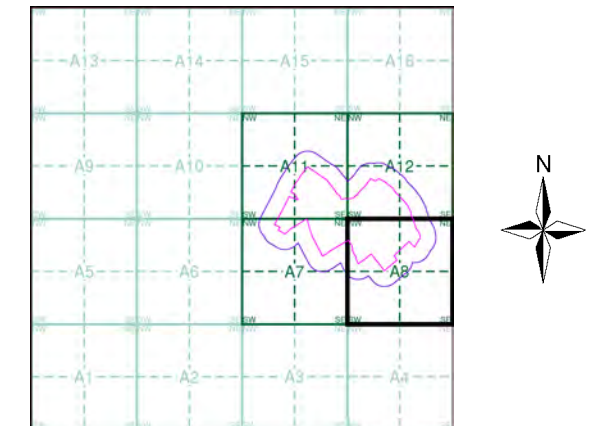
Site Details

Lower Luton Road, Harpenden

General

- | | | | |
|-----------------------------|---------------------|----------------------------|--------|
| Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID |
| Several of Type at Location | Pylon | Overhead Transmission Line | |
- ### Agency and Hydrological
- | | |
|--|--|
| Contaminated Land Register Entry or Notice (Location) | BGS Recorded Landfill Site (Location) |
| Contaminated Land Register Entry or Notice | BGS Recorded Landfill Site |
| Discharge Consent | EA Historic Landfill (Buffered Point) |
| Enforcement or Prohibition Notice | EA Historic Landfill (Polygon) |
| Integrated Pollution Control | Integrated Pollution Control Registered Waste Site |
| Integrated Pollution Prevention Control | Licensed Waste Management Facility (Landfill Boundary) |
| Local Authority Integrated Pollution Prevention and Control | Licensed Waste Management Facility (Location) |
| Local Authority Pollution Prevention and Control | Local Authority Recorded Landfill Site (Location) |
| Local Authority Pollution Prevention and Control Enforcement | Local Authority Recorded Landfill Site |
| Pollution Incident to Controlled Waters | Potentially Infilled Land (Non-water) |
| Prosecution Relating to Authorised Processes | Potentially Infilled Land (Non-water) |
| Prosecution Relating to Controlled Waters | Potentially Infilled Land (Non-water) |
| Registered Radioactive Substance | Potentially Infilled Land (Water) |
| River Network or Water Feature | Potentially Infilled Land (Water) |
| River Quality Sampling Point | Potentially Infilled Land (Water) |
| Substantiated Pollution Incident Register | Registered Landfill Site |
| Water Abstraction | Registered Landfill Site (Location) |
| Water Industry Act Referral | Registered Landfill Site (Point Buffered to 100m) |
- ### Hazardous Substances
- | | |
|--|----------------|
| COMAH Site | Explosive Site |
| NIHS Site | Explosive Site |
| Planning Hazardous Substance Consent | Explosive Site |
| Planning Hazardous Substance Enforcement | Explosive Site |
- ### Geological
- | | |
|---------------------------|----------------|
| BGS Recorded Mineral Site | Explosive Site |
|---------------------------|----------------|
- ### Waste
- | | |
|--|--|
| BGS Recorded Landfill Site | EA Historic Landfill (Buffered Point) |
| EA Historic Landfill (Polygon) | Integrated Pollution Control Registered Waste Site |
| Licensed Waste Management Facility (Landfill Boundary) | Licensed Waste Management Facility (Location) |
| Local Authority Recorded Landfill Site (Location) | Local Authority Recorded Landfill Site |
| Potentially Infilled Land (Non-water) | Potentially Infilled Land (Non-water) |
| Potentially Infilled Land (Non-water) | Potentially Infilled Land (Non-water) |
| Potentially Infilled Land (Water) | Potentially Infilled Land (Water) |
| Potentially Infilled Land (Water) | Potentially Infilled Land (Water) |
| Registered Landfill Site | Registered Landfill Site (Location) |
| Registered Landfill Site (Point Buffered to 100m) | Registered Landfill Site (Point Buffered to 250m) |
| Registered Waste Transfer Site (Location) | Registered Waste Transfer Site |
| Registered Waste Treatment or Disposal Site (Location) | Registered Waste Treatment or Disposal Site |

Site Sensitivity Map - Segment A8

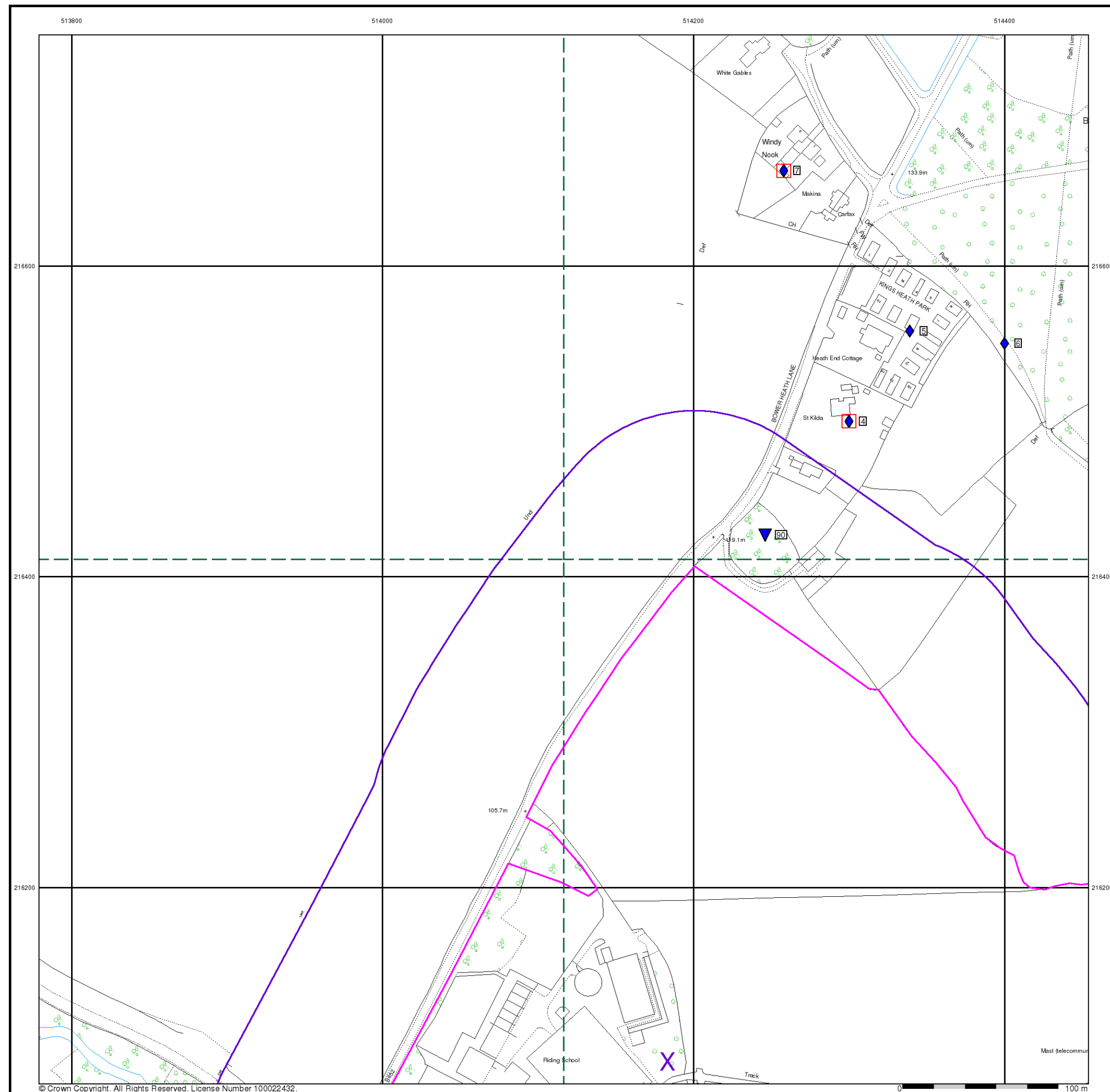


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Plot Buffer (m): 100

Site Details

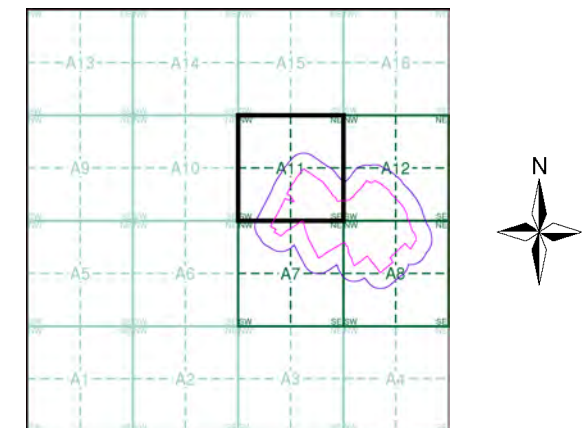
Lower Luton Road, Harpenden



General

- | | | | | | | | |
|--------------------------------|--|--|--|--------------|--|--|--------|
| | Specified Site | | Specified Buffer(s) | | Bearing Reference Point | | Map ID |
| | Several of Type at Location | | Pylon | | Overhead Transmission Line | | |
| Agency and Hydrological | | | | Waste | | | |
| | Contaminated Land Register Entry or Notice (Location) | | BGS Recorded Landfill Site (Location) | | BGS Recorded Landfill Site | | |
| | Contaminated Land Register Entry or Notice (Location) | | EA Historic Landfill (Buffered Point) | | EA Historic Landfill (Polygon) | | |
| | Discharge Consent | | Integrated Pollution Control Registered Waste Site | | Licensed Waste Management Facility (Landfill Boundary) | | |
| | Enforcement or Prohibition Notice | | Licensed Waste Management Facility (Location) | | Local Authority Recorded Landfill Site (Location) | | |
| | Integrated Pollution Control | | Local Authority Recorded Landfill Site | | Potentially Infilled Land (Non-water) | | |
| | Integrated Pollution Prevention Control | | Potentially Infilled Land (Non-water) | | Potentially Infilled Land (Non-water) | | |
| | Local Authority Integrated Pollution Prevention and Control | | Potentially Infilled Land (Water) | | Potentially Infilled Land (Water) | | |
| | Local Authority Pollution Prevention and Control | | Potentially Infilled Land (Water) | | Registered Landfill Site | | |
| | Local Authority Pollution Prevention and Control Enforcement | | Registered Landfill Site (Location) | | Registered Landfill Site (Point Buffered to 100m) | | |
| | Pollution Incident to Controlled Waters | | Registered Landfill Site (Point Buffered to 250m) | | Registered Waste Transfer Site | | |
| | Prosecution Relating to Authorised Processes | | Registered Waste Transfer Site | | Registered Waste Treatment or Disposal Site (Location) | | |
| | Prosecution Relating to Controlled Waters | | Registered Waste Treatment or Disposal Site | | | | |
| | Registered Radioactive Substance | | | | | | |
| | River Network or Water Feature | | | | | | |
| | River Quality Sampling Point | | | | | | |
| | Substantiated Pollution Incident Register | | | | | | |
| | Water Abstraction | | | | | | |
| | Water Industry Act Referral | | | | | | |
| Hazardous Substances | | | | | | | |
| | COMAH Site | | Explosive Site | | | | |
| | NIHHS Site | | | | | | |
| | Planning Hazardous Substance Consent | | | | | | |
| | Planning Hazardous Substance Enforcement | | | | | | |
| Geological | | | | | | | |
| | BGS Recorded Mineral Site | | | | | | |

Site Sensitivity Map - Segment A11



Order Details

Order Number:	357545593_1_1
Customer Ref:	JN1933
National Grid Reference:	514180, 216090
Slice:	A
Site Area (Ha):	32.6
Plot Buffer (m):	100

Site Details

Lower Luton Road, Harpenden

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location
- Pylon
- Overhead Transmission Line

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

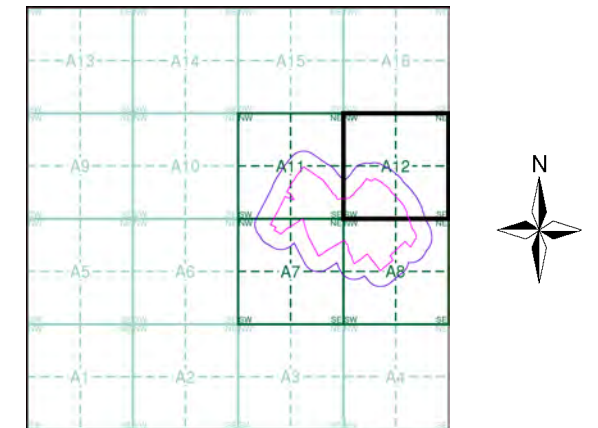
Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement
- BGS Recorded Mineral Site
- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Geological

- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A12

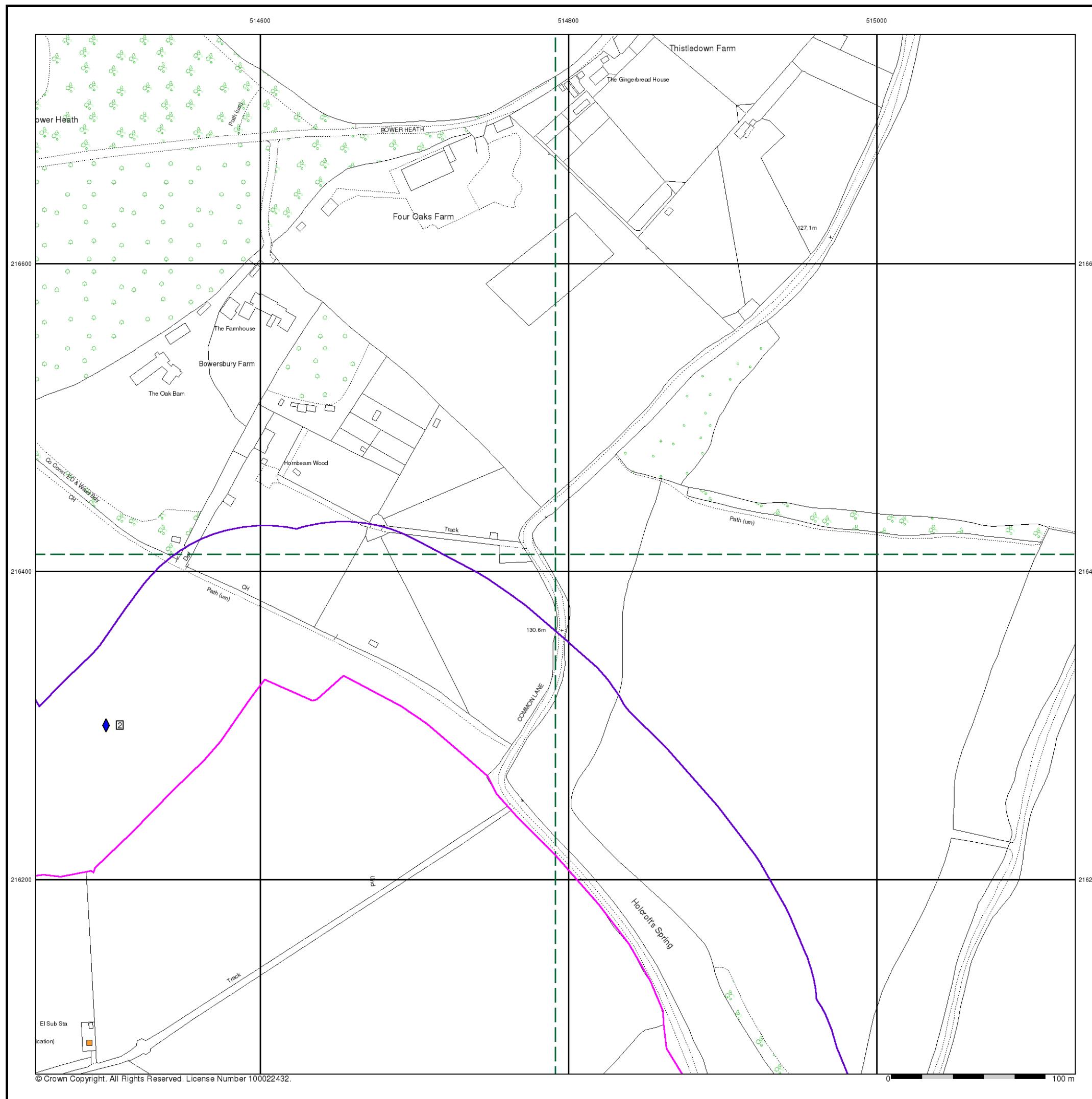


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Plot Buffer (m): 100

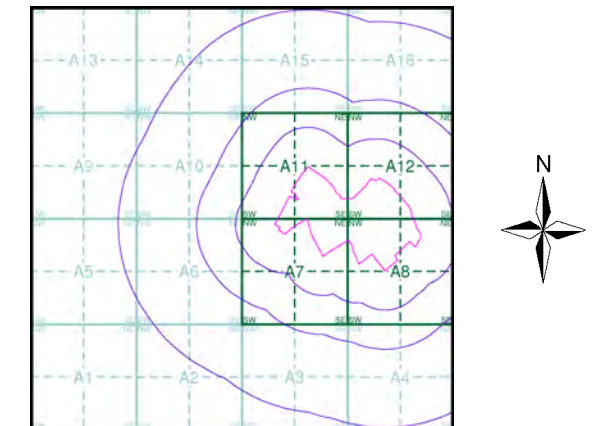
Site Details

Lower Luton Road, Harpenden



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A

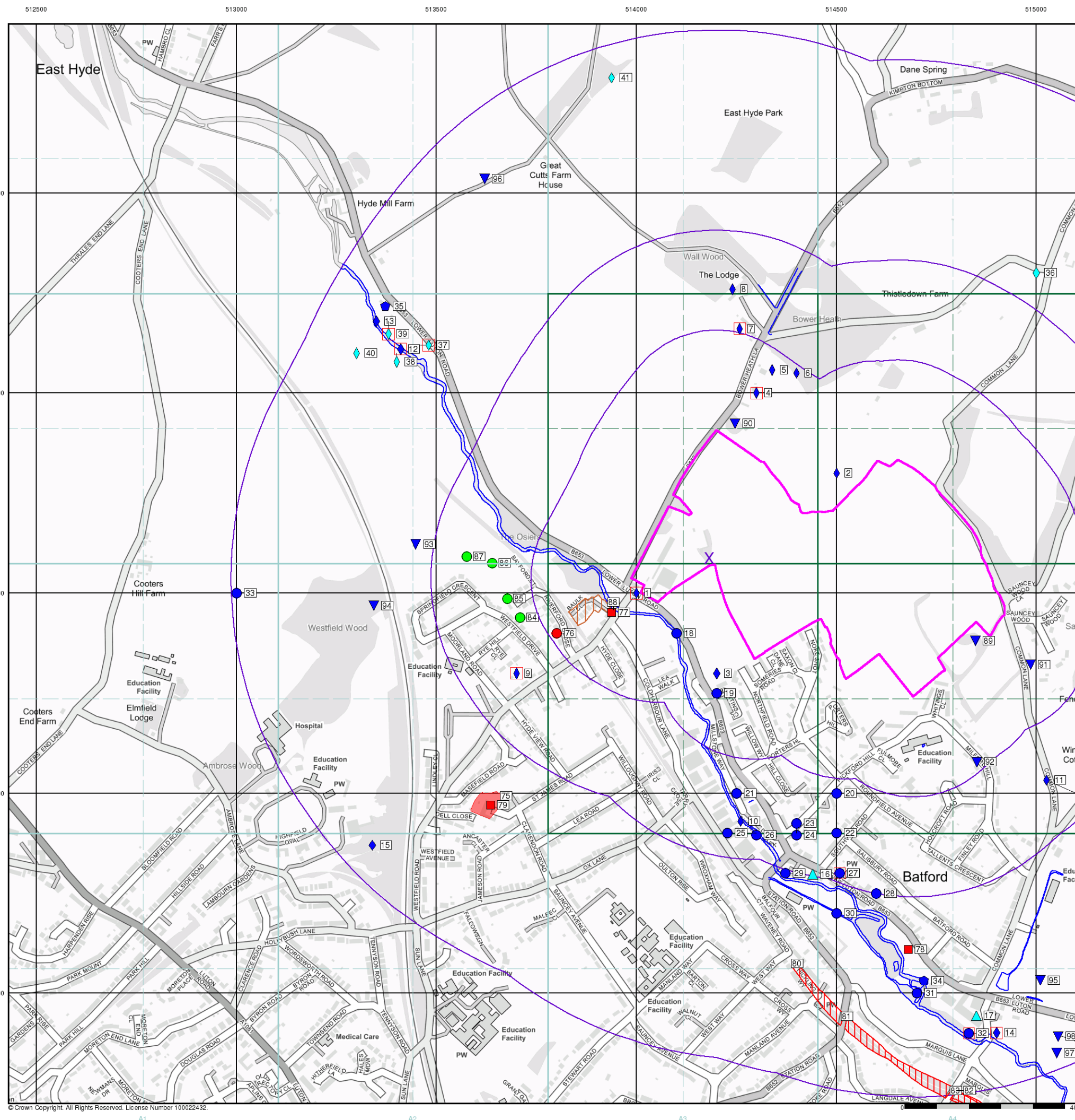


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Industrial Land Use Map

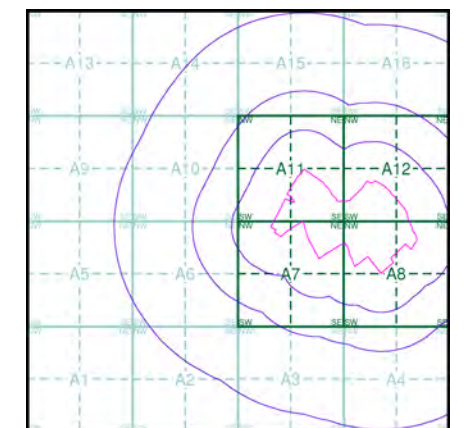
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

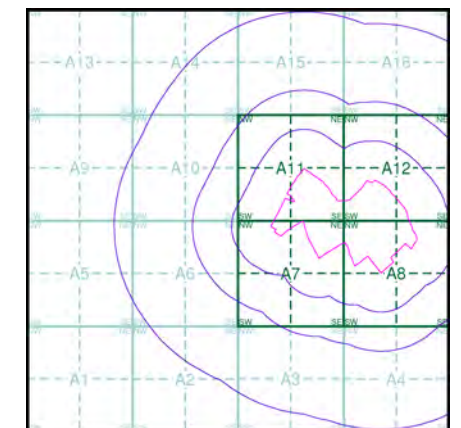
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

Order Number: 357545593_1_1
 Customer Ref: JN1933
 National Grid Reference: 514180, 216090
 Slice: A
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Map ID
-  Several of Type at Location

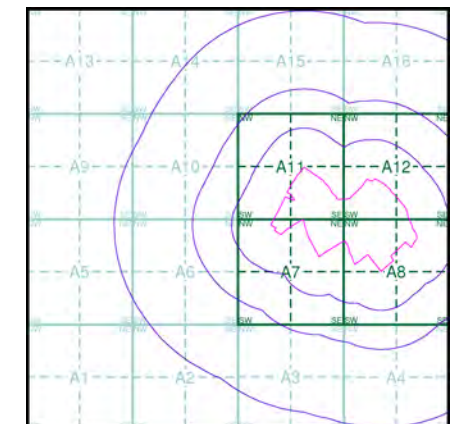
Agency and Hydrological (Boreholes)

-  BGS Borehole Depth 0 - 10m
-  BGS Borehole Depth 10 - 30m
-  BGS Borehole Depth 30m +
-  Confidential
-  Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

Order Number: 357545593_1_1
 Customer Ref: JN1933
 National Grid Reference: 514180, 216090
 Slice: A
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

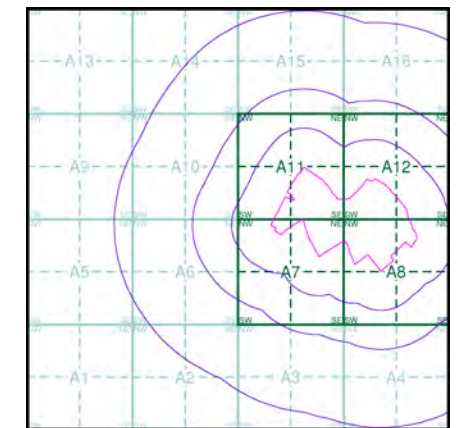
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point

Risk of Flooding from Surface Water

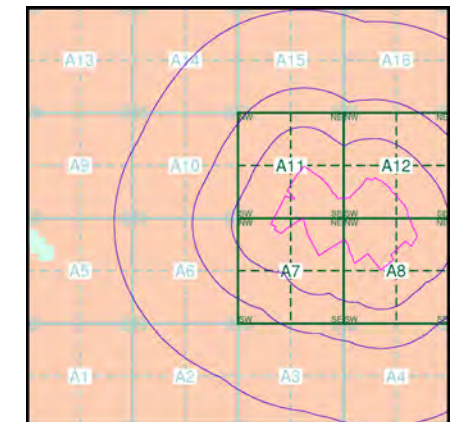
-  High - 30 Year Return
-  Medium - 100 Year Return
-  Low - 1000 Year Return

Suitability

See the suitability map below

-  National to county
-  County to town
-  Town to street
-  Street to parcels of land
-  Property

EA/NRW Suitability Map - Slice A

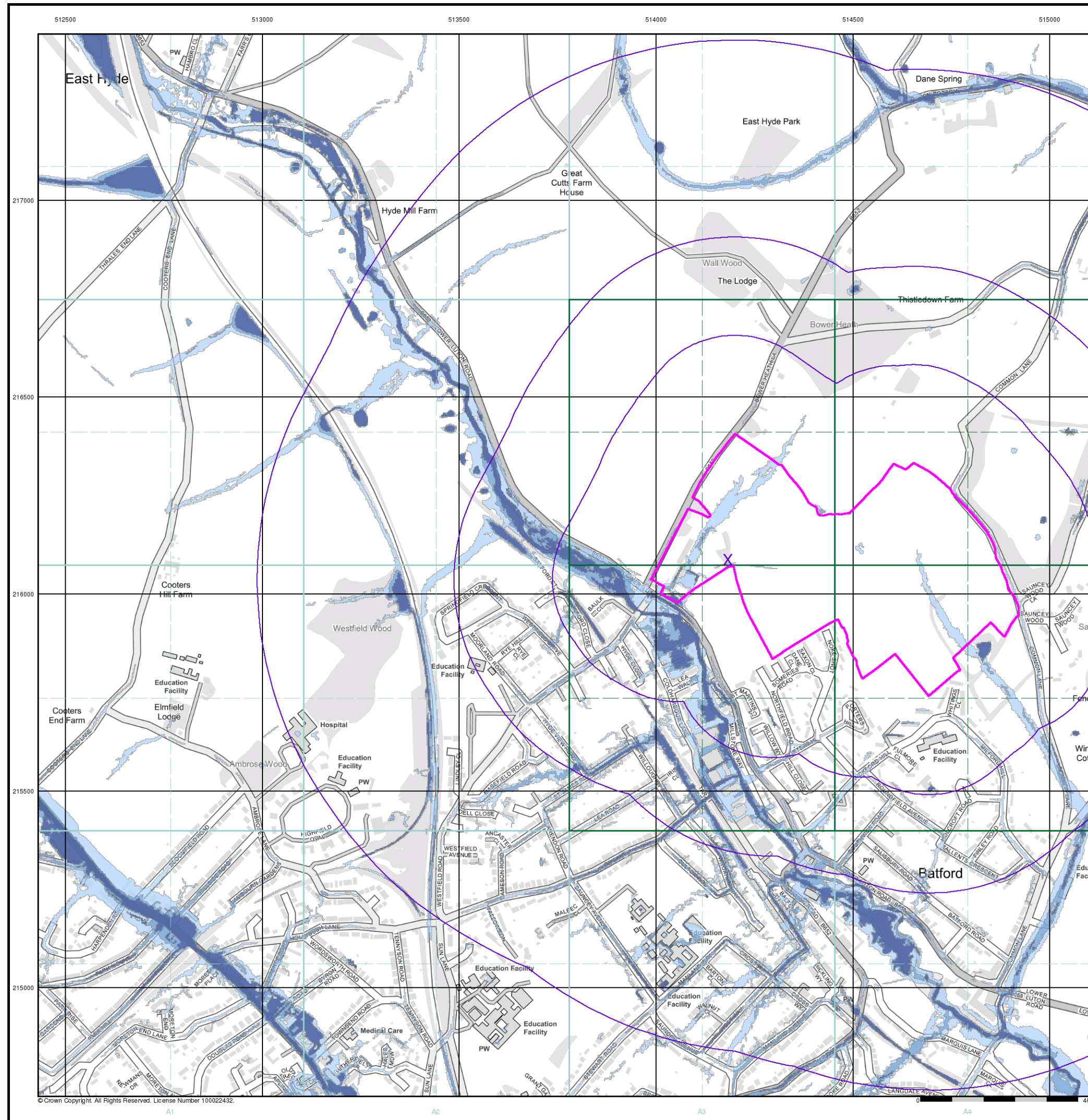


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

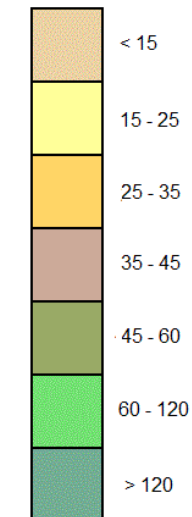


General

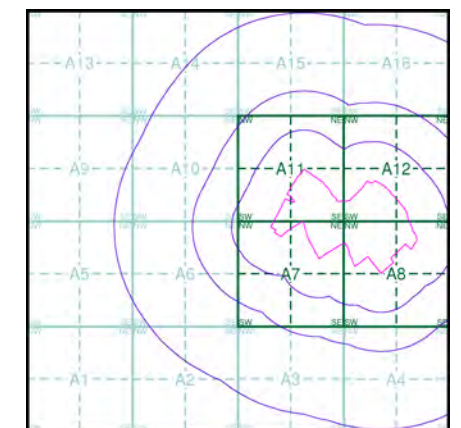
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

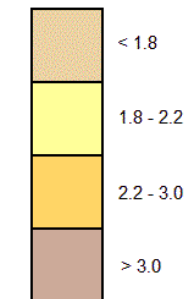
Lower Luton Road, Harpenden

General

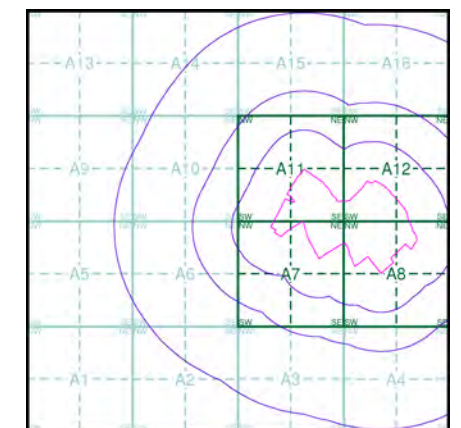
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

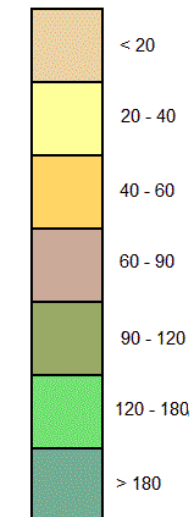
Lower Luton Road, Harpenden

General

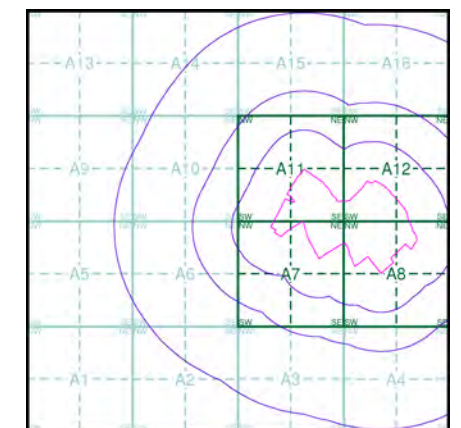
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

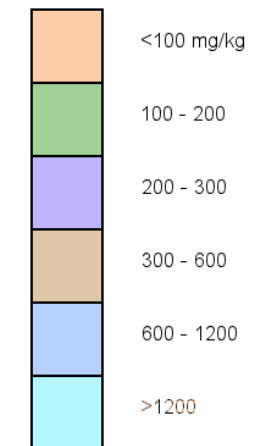
Lower Luton Road, Harpenden

General

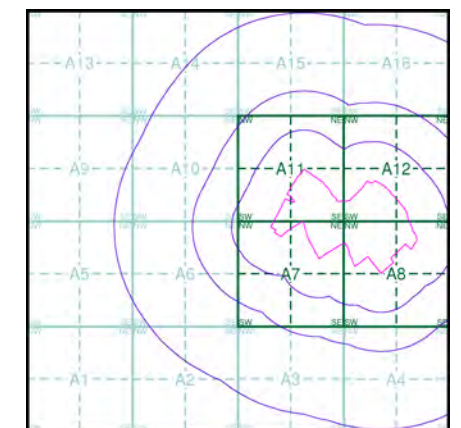
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

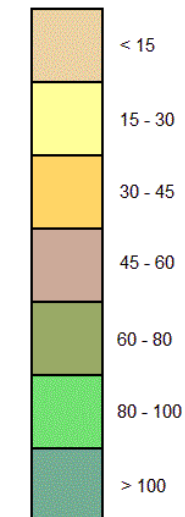
Lower Luton Road, Harpenden

General

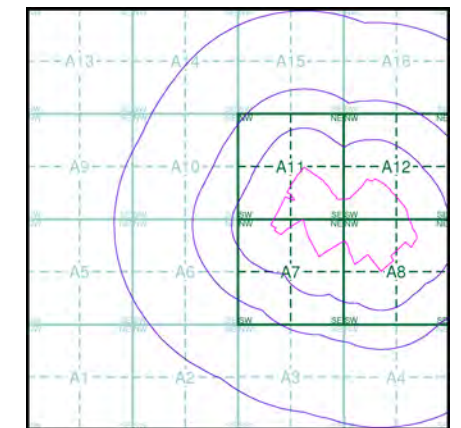
 Specified Site  Specified Buffer(s)  Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

357545593_1_1

Customer Reference:

JN1933

National Grid Reference:

515450, 216010

Slice:

B

Site Area (Ha):

32.6

Search Buffer (m):

1000

Site Details:

Lower Luton Road
Harpenden

Client Details:

Ms R Parkes
ST Consult
Twigden Barns
Brixworth Road
Creaton
Northampton
NN6 8NN

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	9
Hazardous Substances	-
Geological	10
Industrial Land Use	13
Sensitive Land Use	14
Data Currency	15
Data Suppliers	21
Useful Contacts	22

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				10
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 4				Yes
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 4				1 (*6)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 6	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk	pg 7	2	n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Source Protection Zones	pg 7	1			1
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 8				1

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 9	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)					
Potentially Infilled Land (Water)					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 10	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 10	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 11				2
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities	pg 12				1
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 12		Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 12		Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 12		Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 12		Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards				n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 12		Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries					
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 13				1
Points of Interest - Public Infrastructure	pg 13				1
Points of Interest - Recreational and Environmental					
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 14		1		
Areas of Adopted Green Belt	pg 14	1			
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 14	1			1
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(SW)	0	1	514900 215050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	0	1	515000 216012
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B5NW (NW)	80	1	515450 216012
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	295	1	514450 215500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	337	1	514500 215450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	344	1	514450 215450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	353	1	514600 215400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	370	1	514550 215400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	387	1	514500 215400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	393	1	514650 215350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	402	1	514600 215350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	416	1	514550 215350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	441	1	514950 215250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	443	1	514650 215300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	451	1	514600 215300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	491	1	514700 215250
1	Discharge Consents Operator: Mr & Mrs Carter Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Whitepightle Wood, Sauncey Wood Lane, Harpenden, Hertfordshire AL5 5dx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.3186 Permit Version: 2 Effective Date: 17th November 2006 Issued Date: 17th November 2006 Revocation Date: 17th November 2018 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Onto Land Environment: Receiving Water: Clay-With-Flints Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 10m	B9NW (N)	724	2	515320 216710

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Mr & Mrs Carter Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Whitepightle Wood, Sauncey Wood Lane, Harpenden, Hertfordshire AL5 5dx Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTWC.3186 Permit Version: 1 Effective Date: 11th April 1989 Issued Date: 11th April 1989 Revocation Date: 16th November 2006 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Onto Land Environment: Receiving Water: Clay-With-Flints Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m	B9NW (N)	724	2	515320 216710
2	Discharge Consents Operator: J Van Der Welle Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Location: Keepsfield Sauncey Wood Lane Harpenden Hertfordshire AL5 5dx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Canm.0049 Permit Version: 1 Effective Date: 2nd December 1999 Issued Date: 13th June 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Underground Water Environment: Receiving Water: Chalk Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	B9NW (N)	821	2	515450 216710
3	Discharge Consents Operator: Mr. B.H. & Mrs. J. Georgiou Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Hollyoak Corner, Sauncey Wood Lane, Harpenden, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CNTM.1100 Permit Version: 1 Effective Date: 28th September 1993 Issued Date: 28th September 1993 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of the River Lee Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	B9NE (N)	854	2	515500 216700
4	Discharge Consents Operator: Russell & Jane Skirrow Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Linton House Holly Lane Harpenden Herts AL5 5dy Authority: Environment Agency, Thames Region Catchment Area: Lee-Source / Mimram Reference: Canm.0809 Permit Version: 1 Effective Date: 9th November 2004 Issued Date: 9th November 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Ditch Status: New Consent (Water Industry Act 1991, Section 166) Positional Accuracy: Located by supplier to within 10m	B13SW (N)	874	2	515387 216862

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Mrs Sandra Meyer Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Manor Farm Mackerye Farm Harpenden Hertfordshire AL5 5ds Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Eprhb3390wy Permit Version: 1 Effective Date: 11th December 2017 Issued Date: 11th December 2017 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Land/Soakaway Environment: Receiving Water: Groundwater Status: New issued under EPR 2010 Positional Accuracy: Located by supplier to within 10m	B6NW (SE)	923	2	515823 215751
6	Discharge Consents Operator: Mr & Mrs K. Harrison Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Turners Hall Farm Mackereye End Harpenden Hertfordshire AL5 5du Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctlu.0562 Permit Version: 2 Effective Date: 21st December 2012 Issued Date: 21st December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Land/Soakaway Environment: Receiving Water: Groundwater Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	B10SW (E)	966	2	515870 216140
6	Discharge Consents Operator: Mr & Mrs K. Harrison Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Turners Hall Farm Mackereye End Harpenden Hertfordshire AL5 5du Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTLU.0562 Permit Version: 1 Effective Date: 24th August 1978 Issued Date: 24th August 1978 Revocation Date: 20th December 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Land/Soakaway Environment: Receiving Water: Groundwater Status: Transferred from Water Resources Act 1963 Positional Accuracy: Located by supplier to within 100m	B10SW (E)	966	2	515870 216140
7	Discharge Consents Operator: Mr & Mrs M Yarrow Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Holly Farm, Holly Lane, Harpende N, Herts AL5 5dy Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.0020 Permit Version: 2 Effective Date: 26th October 2006 Issued Date: 26th October 2006 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Onto Land Environment: Receiving Water: Clay With Flints Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m	B13SE (N)	984	2	515500 216900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Mr & Mrs M Yarrow Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Holly Farm, Holly Lane, Harpende N, Herts AL5 5dy Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTWC.0020 Permit Version: 1 Effective Date: 3rd April 1985 Issued Date: 3rd April 1985 Revocation Date: 25th October 2006 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Onto Land Environment: Receiving Water: Clay With Flints Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m	B13SE (N)	984	2	515500 216900
	Nearest Surface Water Feature	B5SE (SE)	819	-	515699 215692
8	Water Abstractions Operator: Sir W M H Williams Licence Number: 29/38/01/0015 Permit Version: Not Supplied Location: Holly Lane, HARPENDEN Authority: Environment Agency, Thames Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): 398 Details: Additional Purpose - Domestic (1). Chalk (Undifferentiated); Licence Status: Expired Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	B13SW (N)	841	2	515300 216900
	Water Abstractions Operator: Ac & Wc Maugham Licence Number: 29/38/01/0014 Permit Version: Not Supplied Location: Near Raisins Farm, HARPENDEN Authority: Environment Agency, Thames Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): 318 Details: Chalk (Undifferentiated). Status: Revoked; Lapsed Or Cancelled Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	B13SE (N)	1059	2	515600 216900
	Water Abstractions Operator: Dr M Foley & Mrs M Huck Licence Number: 29/38/02/0022 Permit Version: 100 Location: Pool House, Kimpton Bottom - Borehole Authority: Environment Agency, Thames Region Abstraction: Private Non-Industrial Amenity: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 55 Yearly Rate (m3): 591 Details: Pool House, Kimpton Bottom, Near Harpenden, Herts Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 21st February 1985 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	B13NE (N)	1198	2	515500 217200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr & Mrs M&Am Baldwin Licence Number: 29/38/02/0022 Permit Version: 102 Location: The Pool House, Kimpton Bottom - Borehole Authority: Environment Agency, Thames Region Abstraction: Private Non-Industrial Amenity: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Pool House, Kimpton Bottom, Near Harpenden, Herts Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 15th July 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	B13NE (N)	1295	2	515590 217250
	Water Abstractions Operator: Mr & Mrs D & J Brown Licence Number: 29/38/02/0022 Permit Version: 101 Location: The Pool House, Kimpton Bottom - Borehole Authority: Environment Agency, Thames Region Abstraction: Private Non-Industrial Amenity: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Pool House, Kimpton Bottom, Near Harpenden, Herts Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	B13NE (N)	1295	2	515590 217250
	Water Abstractions Operator: Burhill Golf And Leisure Limited Licence Number: 29/38/01/0089 Permit Version: 101 Location: River Lee At Aldwickbury Park Golf Club, Harpenden Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Aldwickbury Park Golf Club, Piggottshill Lane, Harpenden Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 6th June 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1318	2	515500 214700
	Water Abstractions Operator: Aldwickbury Park Golf Club Ltd Licence Number: 29/38/01/0089 Permit Version: 100 Location: River Lee At Aldwickbury Park Golf Club, Harpenden Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 960 Yearly Rate (m3): 25000 Details: Aldwickbury Park Golf Club, Piggottshill Lane, Harpenden Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 14th June 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1318	2	515500 214700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Principle Bedrock Aquifer - High Vulnerability Classification: High Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: 40-70% Superficial <90% Patchiness: 3-10m Superficial Thickness: No Data Superficial Recharge:	(W)	0	3	515000 215839
	Groundwater Vulnerability Map Combined Principle Bedrock Aquifer - Medium Vulnerability Classification: Medium Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: 40-70% Superficial <90% Patchiness: 3-10m Superficial Thickness: Low Superficial Recharge:	(W)	0	3	514423 216129
	Groundwater Vulnerability Map Combined Principle Bedrock Aquifer - Medium Vulnerability Classification: Medium Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: 40-70% Superficial <90% Patchiness: 3-10m Superficial Thickness: Low Superficial Recharge:	(W)	0	3	514723 216000
	Groundwater Vulnerability Map Combined Principle Bedrock Aquifer - Medium Vulnerability Classification: Medium Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: 40-70% Superficial <90% Patchiness: 3-10m Superficial Thickness: Low Superficial Recharge:	(W)	0	3	515000 216012

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Principle Bedrock Aquifer - High Vulnerability Classification: High Combined Vulnerability: Productive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: 40-70% Superficial <90% Patchiness: 3-10m Superficial Thickness: No Data Superficial Recharge:	(W)	0	3	515000 216000
	Groundwater Vulnerability Map Combined Principle Bedrock Aquifer - High Vulnerability Classification: High Combined Vulnerability: Productive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: 40-70% Superficial <90% Patchiness: 3-10m Superficial Thickness: No Data Superficial Recharge:	(W)	0	3	514733 215753
	Groundwater Vulnerability - Soluble Rock Risk Classification: Very Significant Risk - Moderate Possibility	(W)	0	3	515000 216000
	Groundwater Vulnerability - Soluble Rock Risk Classification: Very Significant Risk - Moderate Possibility	(W)	0	3	515000 216012
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	(W)	0	3	515000 216012
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	(W)	0	3	515000 216012
9	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	B5NW (NW)	0	2	515450 216012
10	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	B5NE (SE)	781	2	515699 215761
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 101.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	B9SE (NE)	850	4	515664 216391

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Hertfordshire County Council - Has supplied landfill data		0	5	515450 216012
	Local Authority Landfill Coverage Name: St Albans District Council - Has supplied landfill data		0	6	515450 216012

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: White Chalk Subgroup	B5NW (NW)	0	1	515450 216012
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	B5NW (NW)	0	1	515450 216012
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	(W)	0	1	515000 216012
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	B5NE (E)	80	1	515469 216012
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	(NW)	493	1	515025 216707
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	(SW)	741	1	514954 214943
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	(S)	756	1	515116 215074

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	B1SW (S)	778	1	515308 215000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	B5SE (SE)	955	1	515745 215465
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	B1SW (S)	964	1	515450 215000
12	BGS Recorded Mineral Sites Site Name: Makeyre End Chalk Pit Location: Mackeyre End, Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262300 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	B5NW (NW)	518	1	515435 216022
13	BGS Recorded Mineral Sites Site Name: Mackeyre End Chalk Pit Location: Mackeyre End, Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 168849 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	B5SW (S)	646	1	515392 215494
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Man-Made Mining Cavities Easting: 515600 Northing: 215600 Distance: 763 Quadrant Reference: B5 Quadrant Reference: SE Bearing Ref: S Cavity Type: Chalkwell Commodity: Chalk Solid Geology Detail: Chalk Group Superficial Geology: Clay-with-Flints Detail:	B5SE (S)	763	7	515600 215600
	Non Coal Mining Areas of Great Britain Risk: Unlikely Source: British Geological Survey, National Geoscience Information Service	B5NW (S)	80	1	515450 216000
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	86	1	515450 216012
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	80	1	515450 216012
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	80	1	515450 216012
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	B5NE (E)	80	1	515469 216012
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	B5NE (E)	120	1	515533 215999
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	127	1	515450 216012
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NE (E)	80	1	515469 216012
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	127	1	515450 216012
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	80	1	515450 216012
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	B5NE (E)	80	1	515469 216012
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	127	1	515450 216012
	Radon Potential - Radon Affected Areas No Data Available				
	Radon Potential - Radon Protection Measures No Data Available				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Points of Interest - Manufacturing and Production Name: Tank Location: AL5 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	B5SE (SE)	881	8	515774 215726
15	Points of Interest - Public Infrastructure Name: Slurry Bed Location: AL5 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	B6NW (E)	985	8	515900 216060

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Ancient Woodland Name: Sauncy Wood Reference: 1115915 Area(m ²): 17411.61 Type: Ancient and Semi-Natural Woodland	B5NW (W)	185	9	515198 215987
17	Areas of Adopted Green Belt Authority: St Albans City & District Council Plan Name: St Albans District Local Plan Review Status: Adopted Plan Date: 30th November 1994	B5NW (NW)	0	10	515450 216012
18	Nitrate Vulnerable Zones Name: Lee Nvz Description: Surface Water Source: Environment Agency, Head Office	B5NW (NW)	0	3	515450 216012
19	Nitrate Vulnerable Zones Name: Hatfield Description: Groundwater Source: Environment Agency, Head Office	B1SW (S)	719	3	515449 214764

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Environment Agency - Head Office North Hertfordshire District Council - Environmental Health Department St Albans City & District Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department	November 2023 October 2017 October 2017 October 2017	Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Thames Region	July 2024	Quarterly
Enforcement and Prohibition Notices Environment Agency - Thames Region	March 2013	
Integrated Pollution Controls Environment Agency - Thames Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region	July 2024 July 2024	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Welwyn Hatfield District Council - Environmental Health Department St Albans City & District Council - Environmental Health Department North Hertfordshire District Council - Environmental Health Department	February 2024 May 2014 September 2014	Variable Variable Variable
Local Authority Pollution Prevention and Controls North Hertfordshire District Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department St Albans City & District Council - Environmental Health Department	December 2020 February 2024 May 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Welwyn Hatfield District Council - Environmental Health Department St Albans City & District Council - Environmental Health Department North Hertfordshire District Council - Environmental Health Department	February 2024 May 2014 September 2014	Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	July 2024	
Pollution Incidents to Controlled Waters Environment Agency - Thames Region	September 1999	
Prosecutions Relating to Authorised Processes Environment Agency - Thames Region	July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - Thames Region	March 2013	
Registered Radioactive Substances Environment Agency - Head Office Environment Agency - Thames Region	May 2023 May 2023	
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	April 2012	
River Quality Chemistry Sampling Points Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	April 2024 April 2024	Quarterly Quarterly
Water Abstractions Environment Agency - Thames Region	July 2024	Quarterly
Water Industry Act Referrals Environment Agency - Thames Region	October 2017	
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified

Agency & Hydrological	Version	Update Cycle
Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	As notified
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	As notified
Source Protection Zones Environment Agency - Head Office	September 2022	Bi-Annually
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2023	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2023	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2023	
Flood Water Storage Areas Environment Agency - Head Office	January 2024	Quarterly
Flood Defences Environment Agency - Head Office	August 2022	
OS Water Network Lines Ordnance Survey	July 2024	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water Suitability Environment Agency - Head Office	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Environment Agency - Head Office	August 2024	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Thames Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	August 2024 August 2024	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	July 2024 July 2024	Quarterly Quarterly
Local Authority Landfill Coverage Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council - Environmental Health Department St Albans City & District Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department	February 2003 February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council - Environmental Health Department St Albans City & District Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department	October 2018 October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency - Thames Region - North East Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency - Thames Region - North East Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency - Thames Region - North East Area	June 2015	
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	September 2024	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council St Albans City & District Council Welwyn Hatfield District Council	February 2016 February 2016 February 2016 June 2023	Variable Variable Variable Variable
Planning Hazardous Substance Consents Hertfordshire County Council - Spatial Planning and Economy Unit North Hertfordshire District Council St Albans City & District Council Welwyn Hatfield District Council	February 2016 February 2016 February 2016 February 2016	Variable Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	January 2024	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	October 2023	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	October 2023	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	June 2024	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2024	Quarterly
Gas Pipelines National Grid	October 2021	
Points of Interest - Commercial Services PointX	September 2024	Quarterly
Points of Interest - Education and Health PointX	September 2024	Quarterly
Points of Interest - Manufacturing and Production PointX	September 2024	Quarterly
Points of Interest - Public Infrastructure PointX	September 2024	Quarterly
Points of Interest - Recreational and Environmental PointX	September 2024	Quarterly
Underground Electrical Cables National Grid	January 2024	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	April 2024	Bi-Annually
Areas of Adopted Green Belt North Hertfordshire District Council South Bedfordshire District Council (now part of Central Bedfordshire Council) St Albans City & District Council Welwyn Hatfield District Council	July 2024 July 2024 July 2024 July 2024	Quarterly Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt North Hertfordshire District Council St Albans City & District Council Welwyn Hatfield District Council Central Bedfordshire Council - Planning Department	July 2024 July 2024 July 2024 May 2011	Quarterly Quarterly Quarterly As notified
Areas of Outstanding Natural Beauty Natural England	May 2024	Bi-Annually
Environmentally Sensitive Areas Natural England	August 2023	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Natural England	August 2024	Bi-Annually
Marine Nature Reserves Natural England	August 2024	Bi-Annually
National Nature Reserves Natural England	August 2024	Bi-Annually
National Parks Natural England	February 2018	Bi-Annually
Nitrate Sensitive Areas Natural England	April 2023	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Environment Agency - Head Office	April 2016 April 2024	Bi-Annually
Ramsar Sites Natural England	August 2024	Bi-Annually
Sites of Special Scientific Interest Natural England	April 2024	Bi-Annually
Special Areas of Conservation Natural England	April 2024	Bi-Annually
Special Protection Areas Natural England	April 2024	Bi-Annually

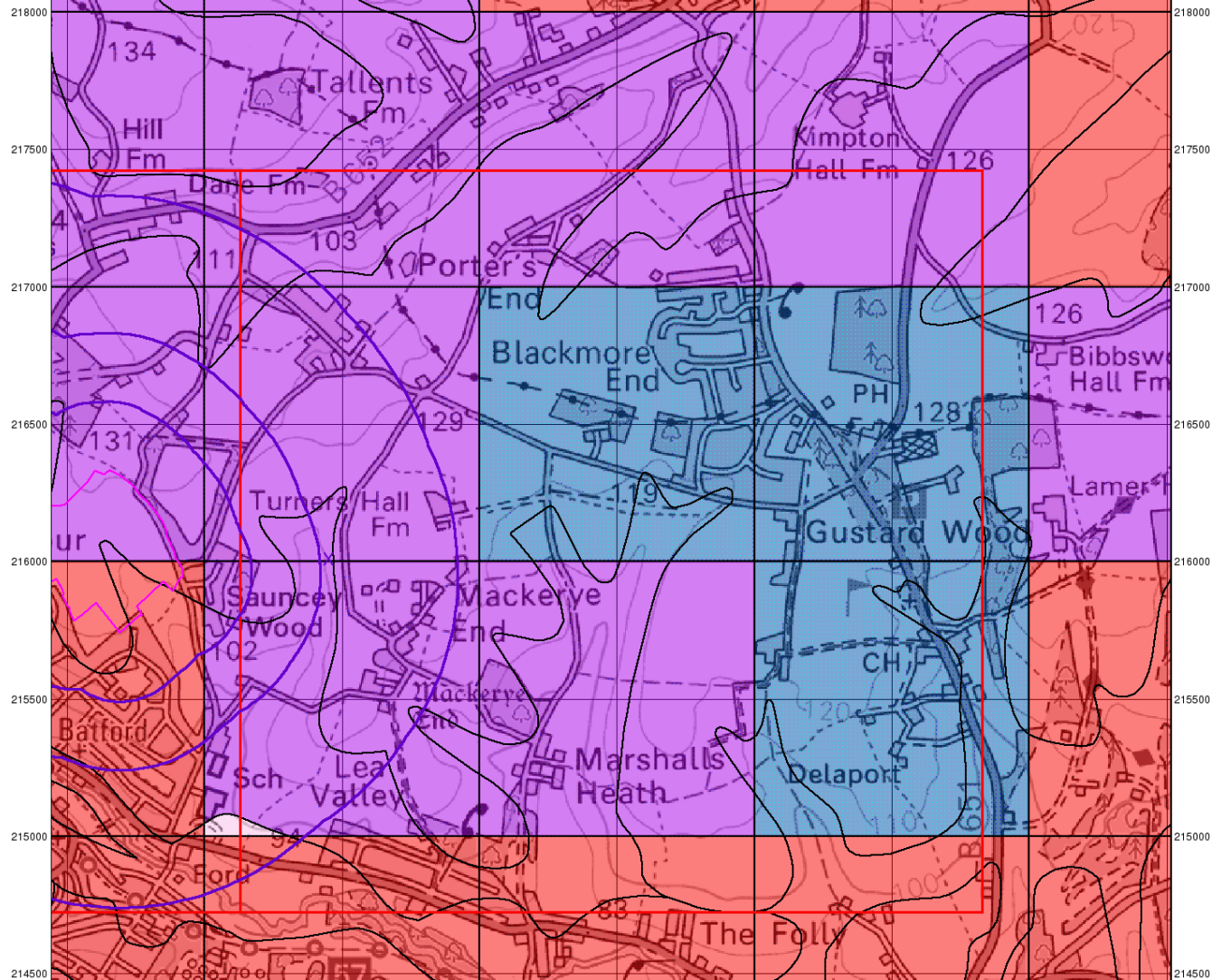
A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Hertfordshire County Council - Spatial Planning and Economy Unit County Hall, Hertford, Hertfordshire, SG13 8DN	Telephone: 01992 556266 Fax: 01992 556015 Email: spatialplanning@hertfordshire.gov.uk Website: www.hertsdirect.org
6	St Albans City & District Council - Environmental Health Department Civic Centre, St Peters Street, St Albans, Hertfordshire, AL1 3JE	Telephone: 01727 866100 Fax: 01727 845658 Website: www.stalbans.gov.uk
7	Stantec UK Ltd Caversham Bridge House, Waterman Place, Reading, RG1 8DN	Telephone: 0118 950 0761 Email: pba.reading@stantec.com Website: www.stantec.com
8	PointX 5-6 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
10	St Albans City & District Council Civic Centre, St Peters Street, St Albans, Hertfordshire, AL1 3JE	Telephone: 01727 866100 Fax: 01727 845658 Website: www.stalbans.gov.uk
11	South Bedfordshire District Council (now part of Central Bedfordshire Council) Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ	Telephone: 0300 300 8301 Email: customers@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk
12	North Hertfordshire District Council Council Offices, Gernon Road, Letchworth, Hertfordshire, SG6 3JF	Telephone: 01462 474000 Fax: 01462 474558 Website: www.north-herts.gov.uk
13	Central Bedfordshire Council - Planning Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ	Telephone: 0300 300 8000 Email: info@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

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Groundwater Vulnerability

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Bedrock Aquifers

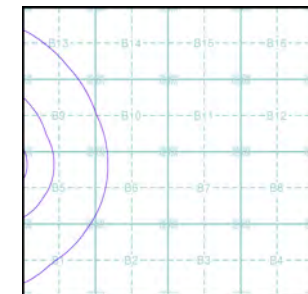
- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

- Unproductive Aquifer
- Soluble Rock

Site Sensitivity Context Map - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

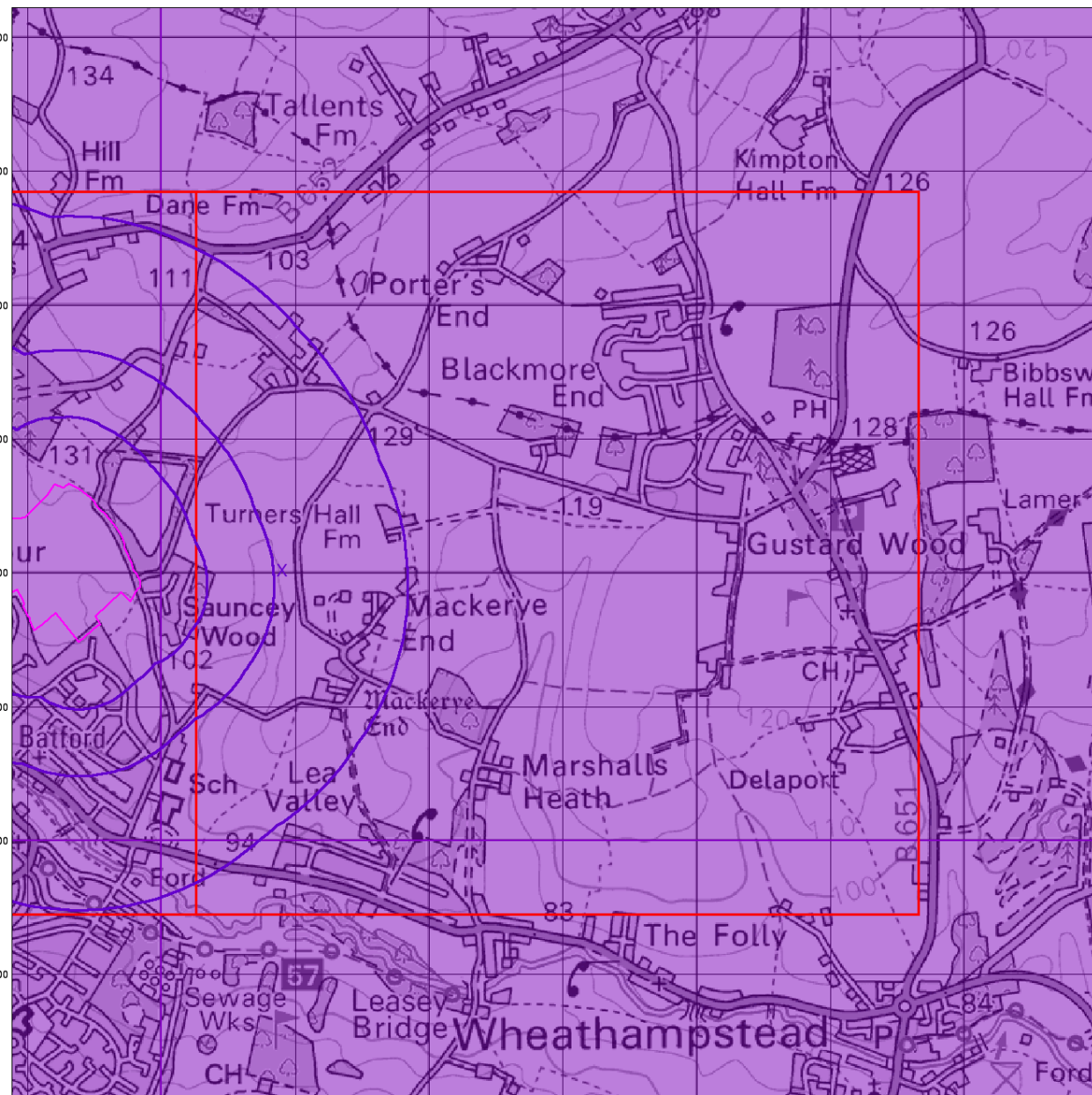
Lower Luton Road, Harpenden



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

514500 515000 515500 516000 516500 517000 517500 518000 518500

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Bedrock Aquifer Designation

General

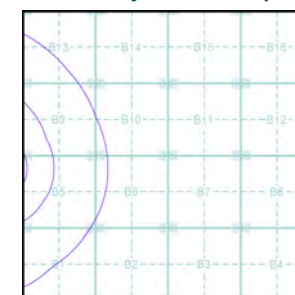
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice B



Order Details

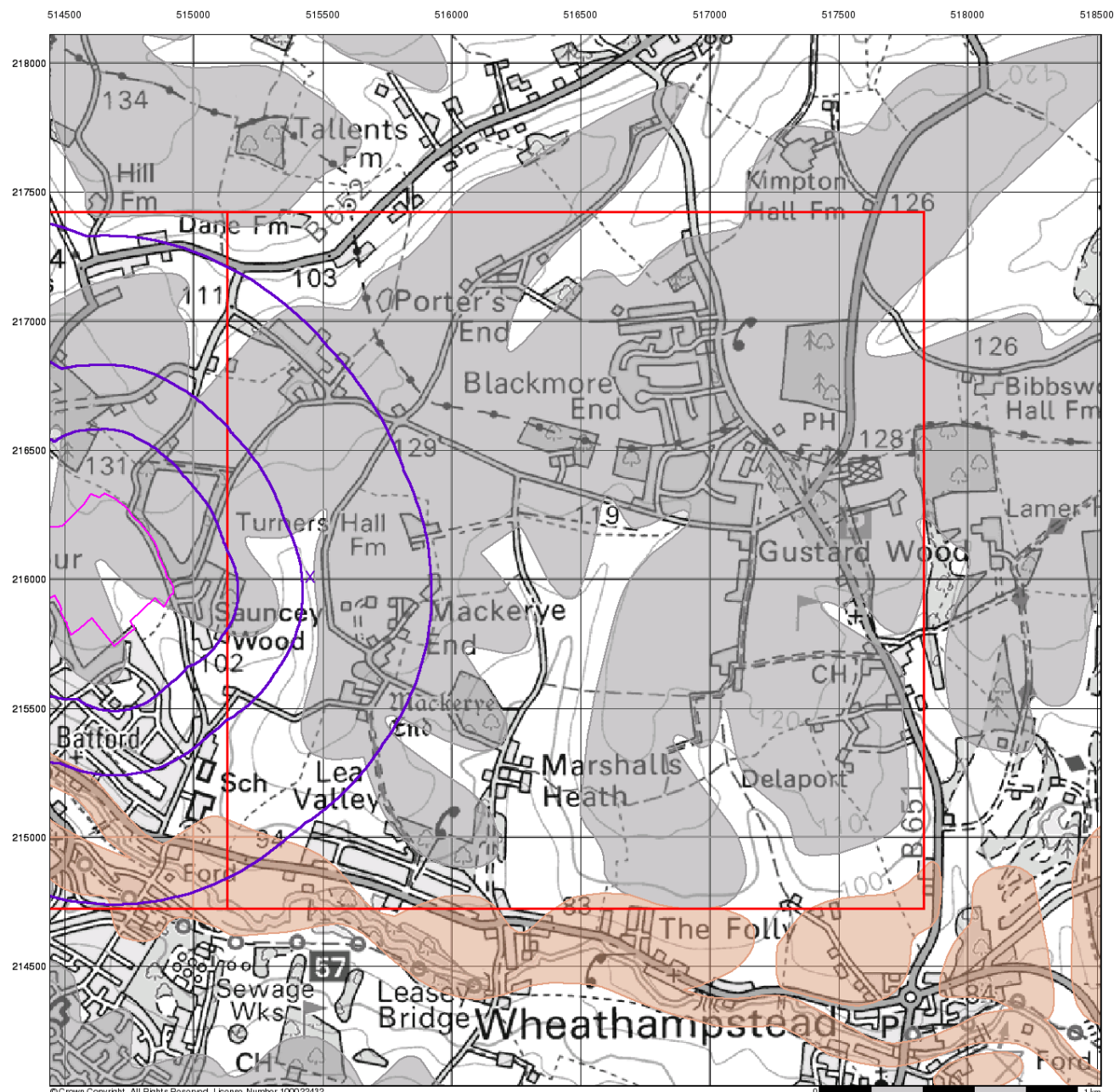
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Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

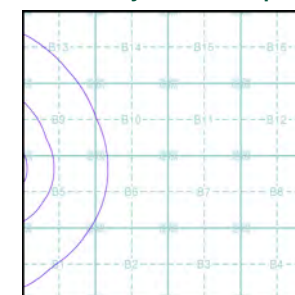
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice B

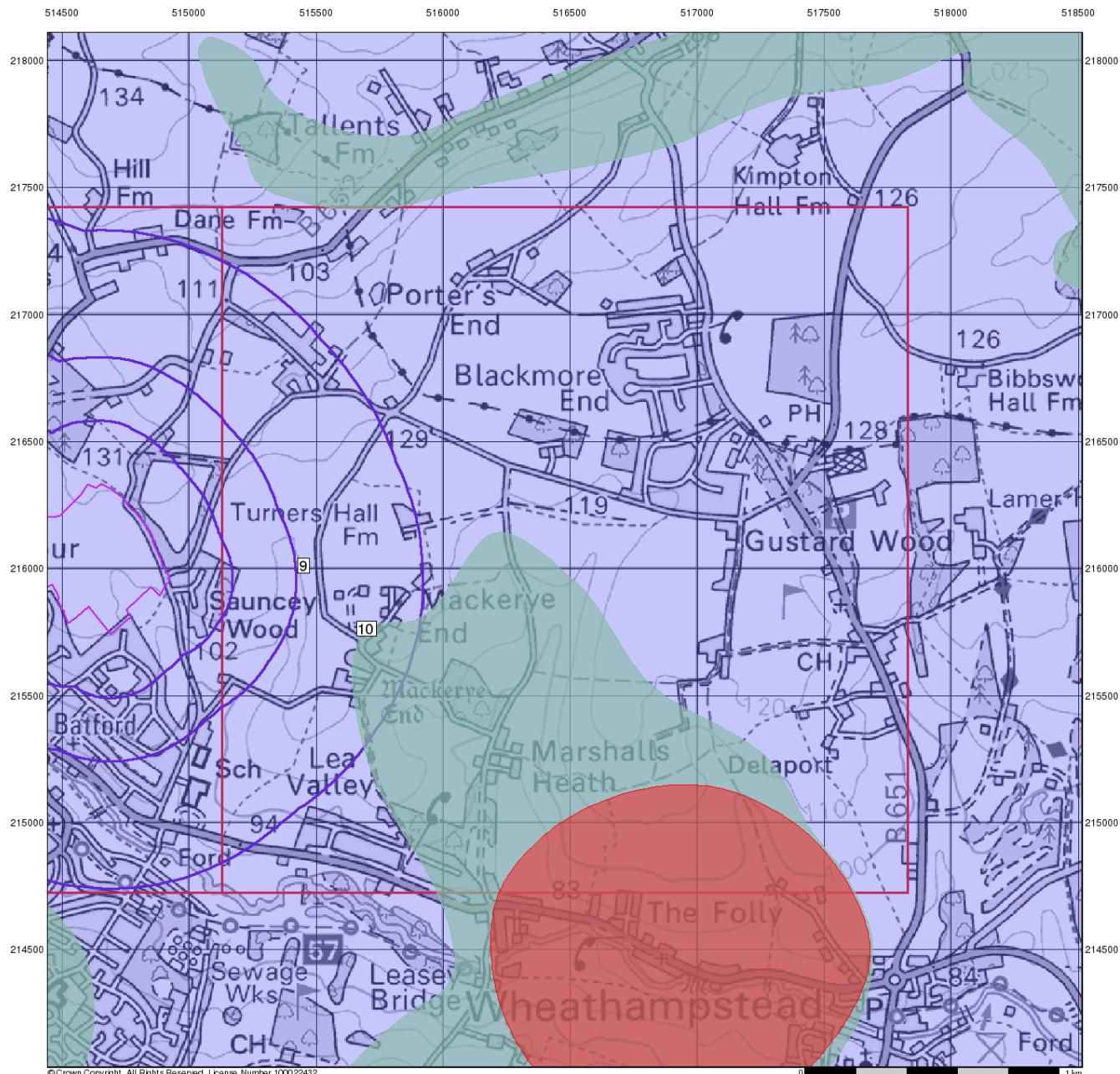


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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Source Protection Zones

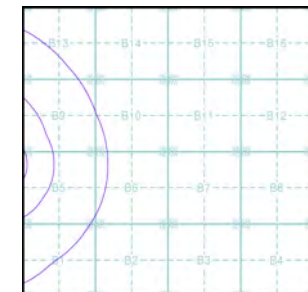
General

- ◇ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- ▨ Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- ▨ Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- ▨ Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice B



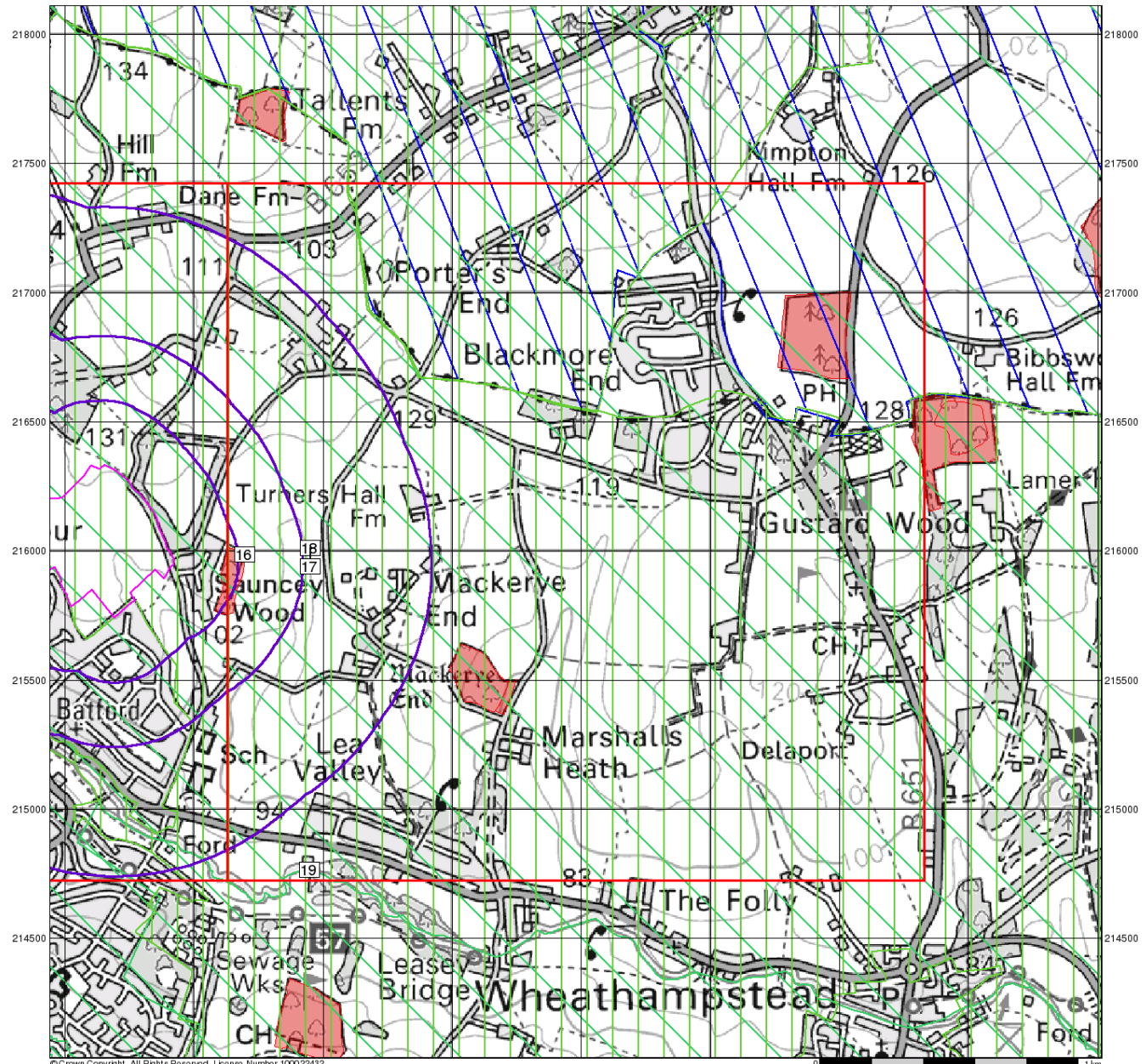
Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

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Sensitive Land Uses

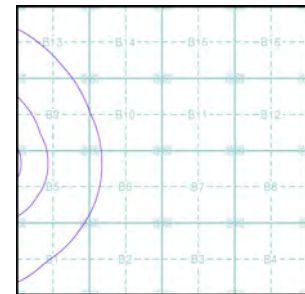
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice B



Order Details

Order Number: 357545593_1_1
 Customer Ref: JN1933
 National Grid Reference: 515450, 216010
 Slice: B
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

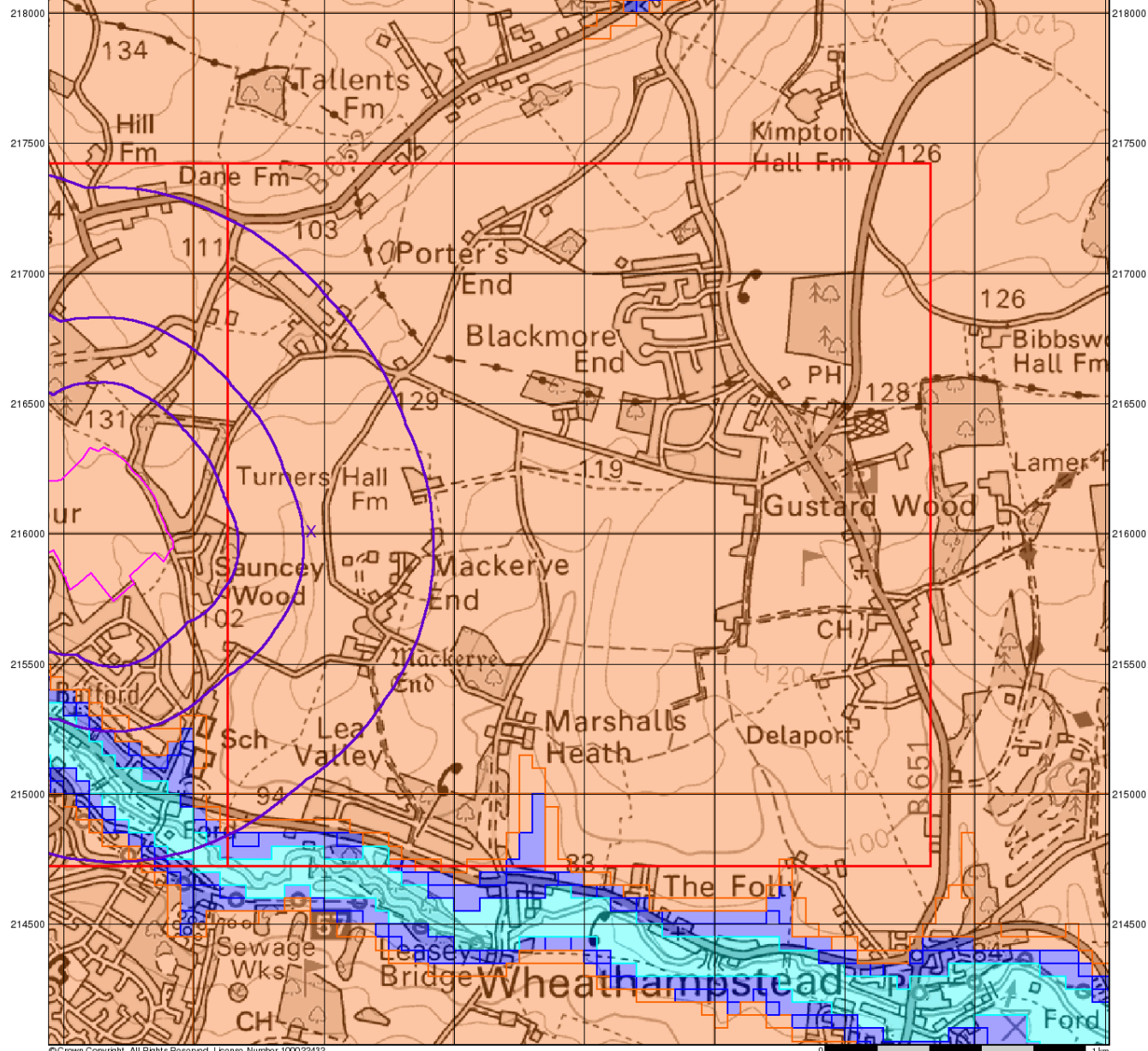
Site Details

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 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

514500 515000 515500 516000 516500 517000 517500 518000 518500



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BGS Flood GFS Data

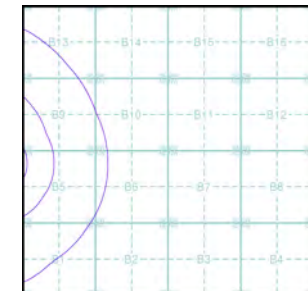
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice B



Order Details

Order Number: 357545593_1_1
 Customer Ref: JN1933
 National Grid Reference: 515450, 216010
 Slice: B
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Geology 1:50,000 Maps Legends

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	KGCA	Kesgrave Catchment Subgroup	Sand and Gravel	Not Supplied - Pleistocene
	CWF	Clay-with-flints Formation	Clay, Silt, Sand and Gravel	Not Supplied - MIOCENE

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LESE	Lewes Nodular Chalk Formation and Seaford Chalk Formation (Undifferentiated)	Chalk	Not Supplied - Turonian
	CKR	Chalk Rock Member	Chalk	Not Supplied - Turonian
	HNCK	Holywell Nodular Chalk Formation and New Pit Chalk Formation (Undifferentiated)	Chalk	Not Supplied - Cenomanian



Geology 1:50,000 Maps

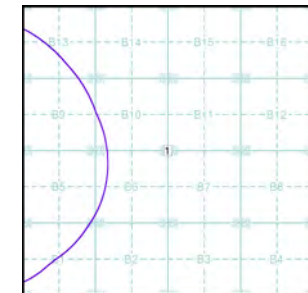
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	239
Map Name:	Hertford
Map Date:	1923
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Not Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice B



Order Details:

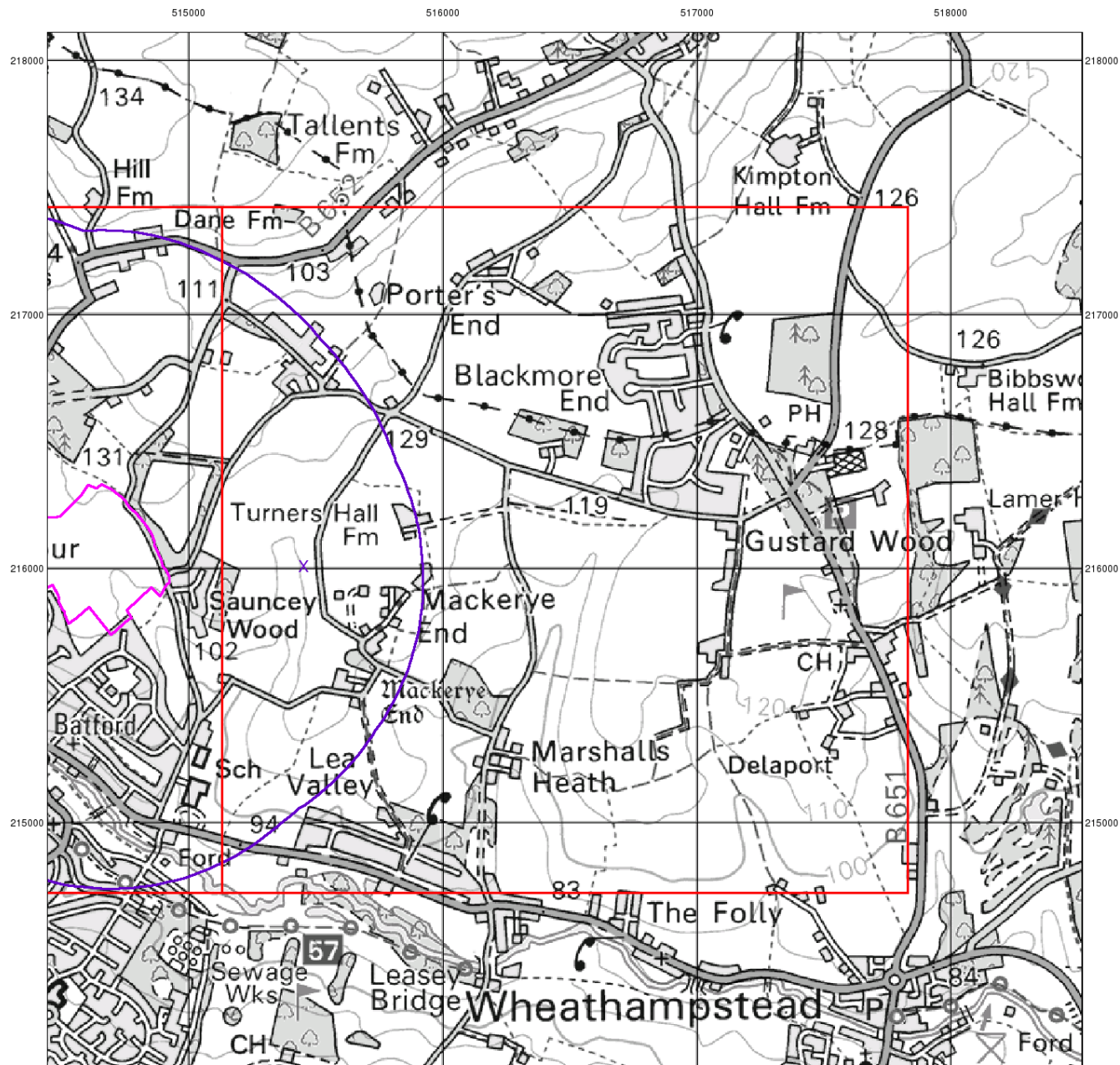
Order Number:	357545593_1_1
Customer Reference:	JN1933
National Grid Reference:	515450, 216010
Slice:	B
Site Area (Ha):	32.6
Search Buffer (m):	1000

Site Details:

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Artificial Ground and Landslip

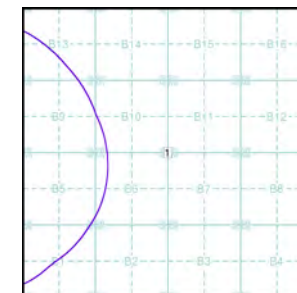
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice B



Order Details:

Order Number: 357545593_1_1
 Customer Reference: JN1933
 National Grid Reference: 515450, 216010
 Slice: B
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details:

Lower Luton Road, Harpenden



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

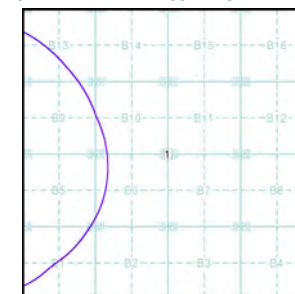
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice B

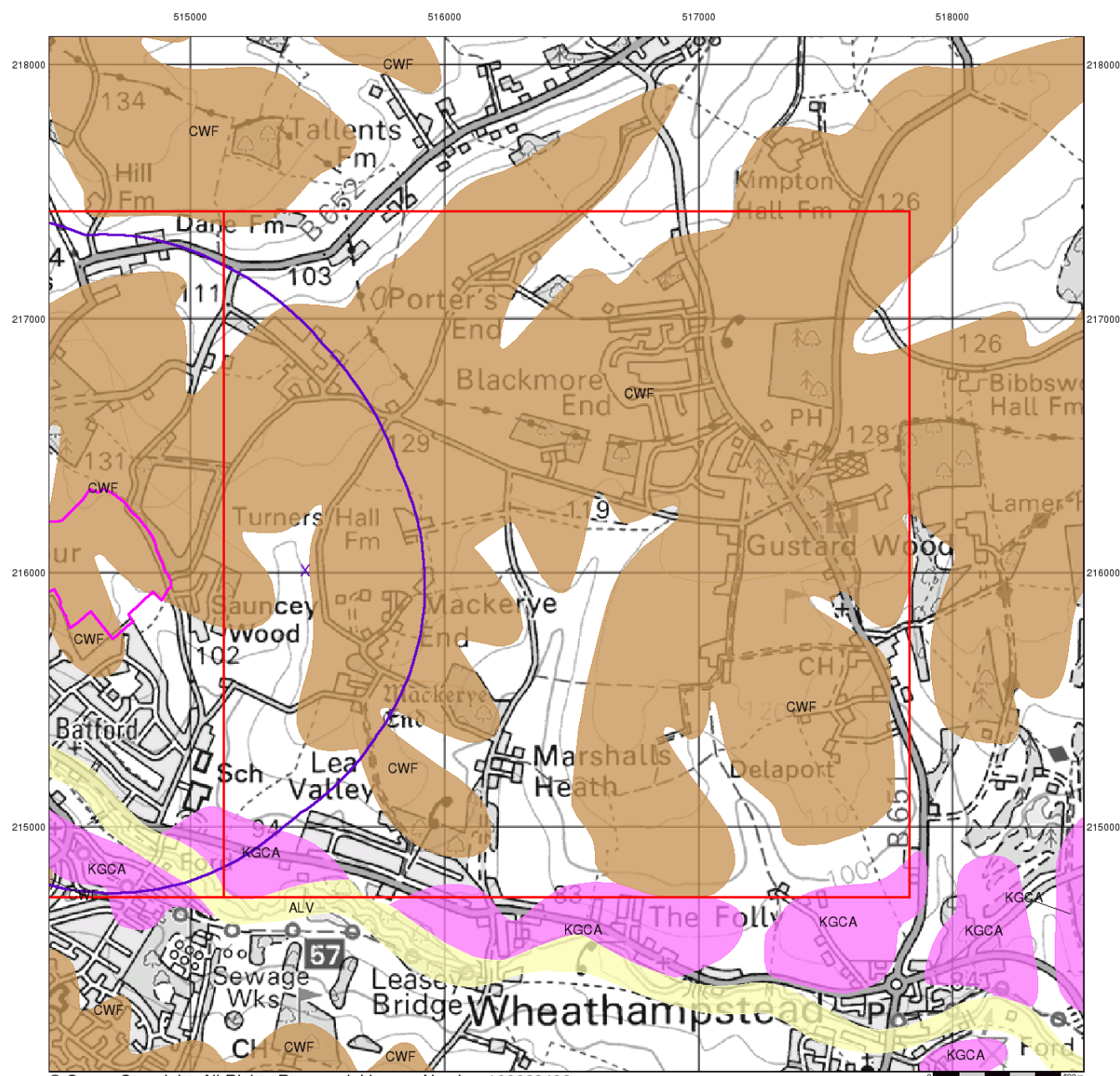


Order Details:

Order Number: 357545593_1_1
Customer Reference: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details:

Lower Luton Road, Harpenden



Bedrock and Faults

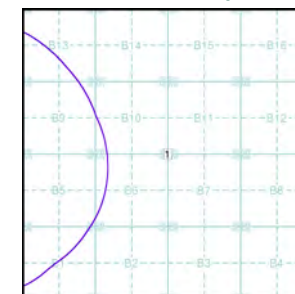
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice B

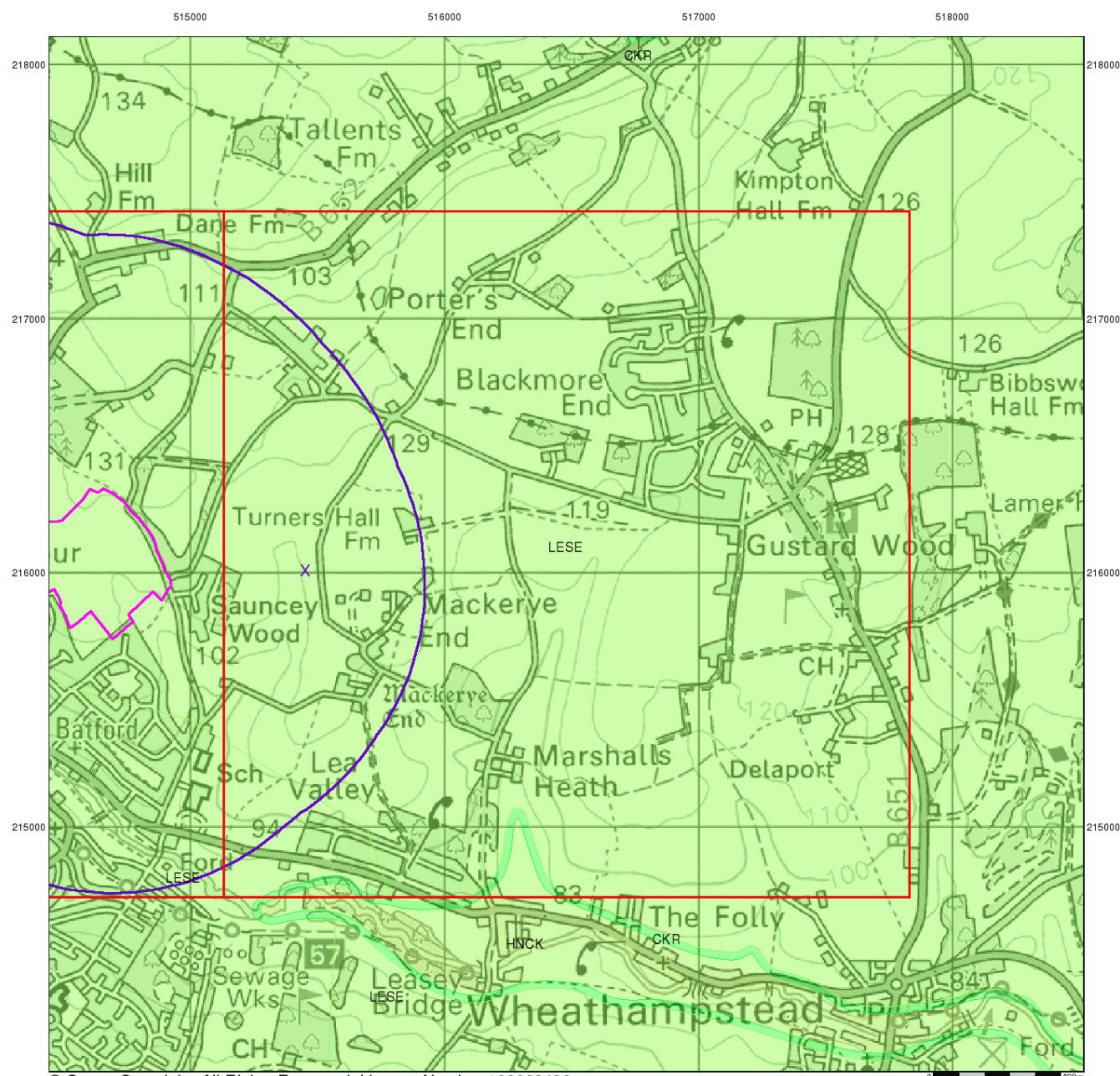


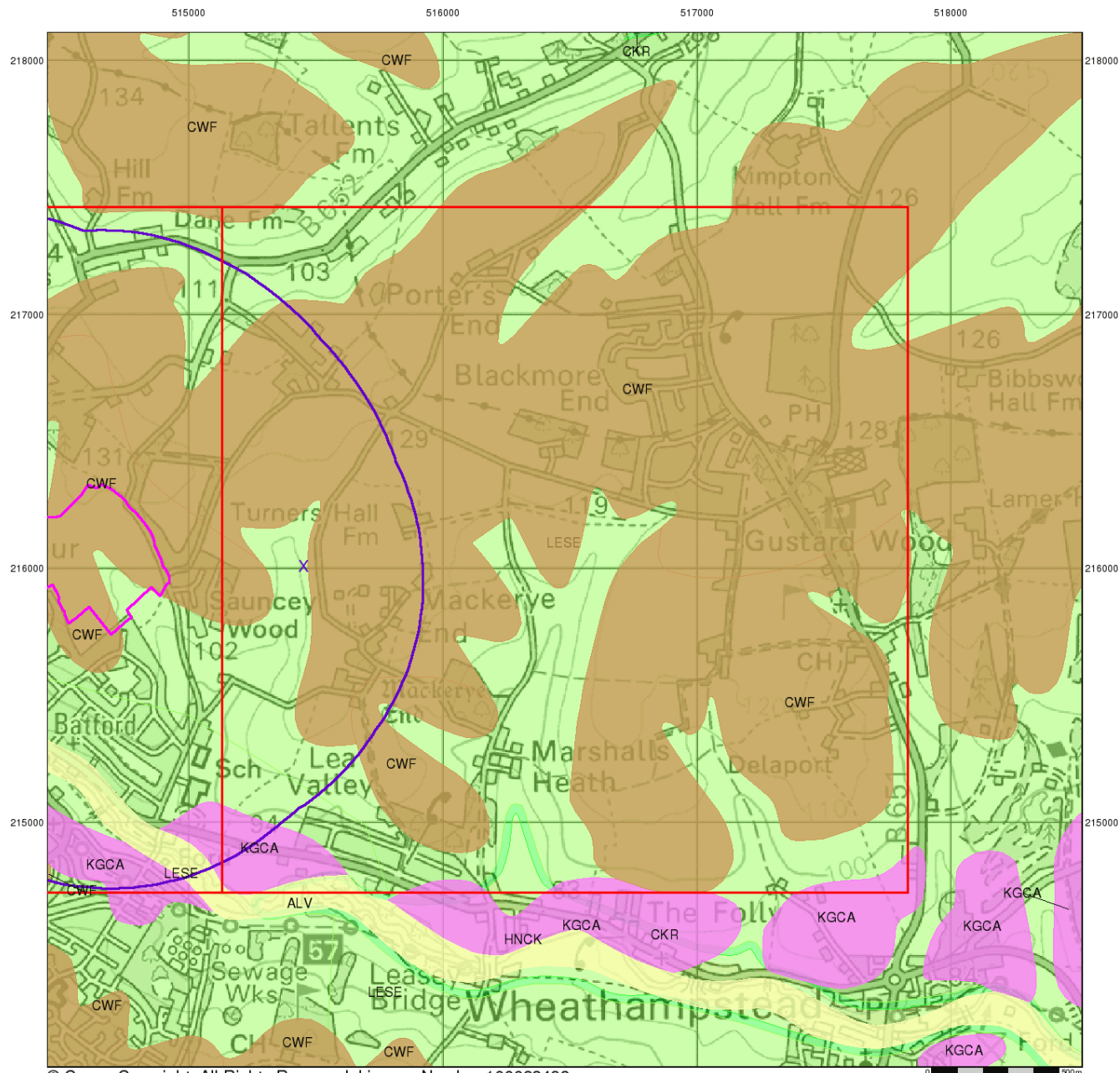
Order Details:

Order Number: 357545593_1_1
Customer Reference: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details:

Lower Luton Road, Harpenden





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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

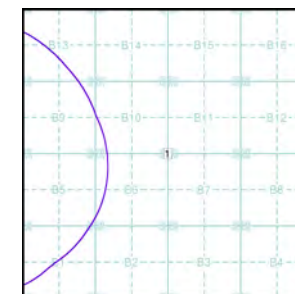
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice B



Order Details:

Order Number: 357545593_1_1
Customer Reference: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details:

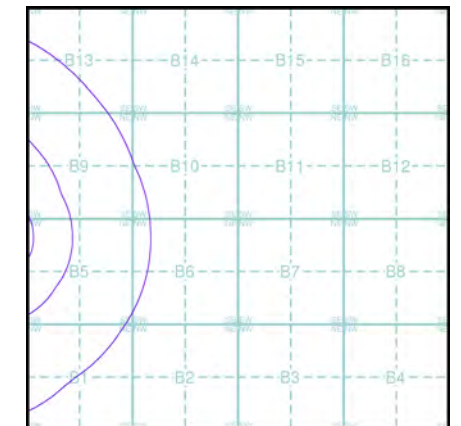
Lower Luton Road, Harpenden



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

General	
Specified Site	Specified Buffer(s)
Several of Type at Location	Bearing Reference Point
Map ID	
Agency and Hydrological	
Contaminated Land Register Entry or Notice (Location)	BGS Recorded Landfill Site (Location)
Contaminated Land Register Entry or Notice	BGS Recorded Landfill Site
Discharge Consent	EA Historic Landfill (Buffered Point)
Enforcement or Prohibition Notice	EA Historic Landfill (Polygon)
Integrated Pollution Control	Integrated Pollution Control Registered Waste Site
Integrated Pollution Prevention Control	Licensed Waste Management Facility (Landfill Boundary)
Local Authority Integrated Pollution Prevention and Control	Licensed Waste Management Facility (Location)
Local Authority Pollution Prevention and Control	Local Authority Recorded Landfill Site (Location)
Local Authority Pollution Prevention and Control Enforcement	Local Authority Recorded Landfill Site
Pollution Incident to Controlled Waters	Potentially Infilled Land (Non-water)
Prosecution Relating to Authorised Processes	Potentially Infilled Land (Non-water)
Prosecution Relating to Controlled Waters	Potentially Infilled Land (Non-water)
Registered Radioactive Substance	Potentially Infilled Land (Water)
River Network or Water Feature	Potentially Infilled Land (Water)
River Quality Sampling Point	Potentially Infilled Land (Water)
Substantiated Pollution Incident Register	Potentially Infilled Land (Water)
Water Abstraction	Registered Landfill Site (Location)
Water Industry Act Referral	Registered Landfill Site (Point Buffered to 100m)
Hazardous Substances	
COMAH Site	Explosive Site
NIHS Site	Registered Landfill Site
Planning Hazardous Substance Consent	Registered Landfill Site (Point Buffered to 250m)
Planning Hazardous Substance Enforcement	Registered Waste Transfer Site (Location)
BGS Recorded Mineral Site	Registered Waste Transfer Site
	Registered Waste Treatment or Disposal Site (Location)
	Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

Industrial Land Use Map

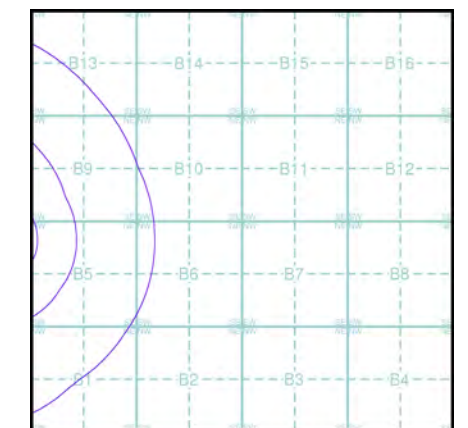
General

-  Specified Site  Specified Buffer(s)  Bearing Reference Point
 Slice  Map ID

Industrial Land Use

-  Contemporary Trade Directory Entry
-  Fuel Station Entry
-  Gas Pipeline
-  Points of Interest - Commercial Services
-  Points of Interest - Education and Health
-  Points of Interest - Manufacturing and Production
-  Points of Interest - Public Infrastructure
-  Points of Interest - Recreational and Environmental
-  Underground Electrical Cables

Industrial Land Use Map - Slice B

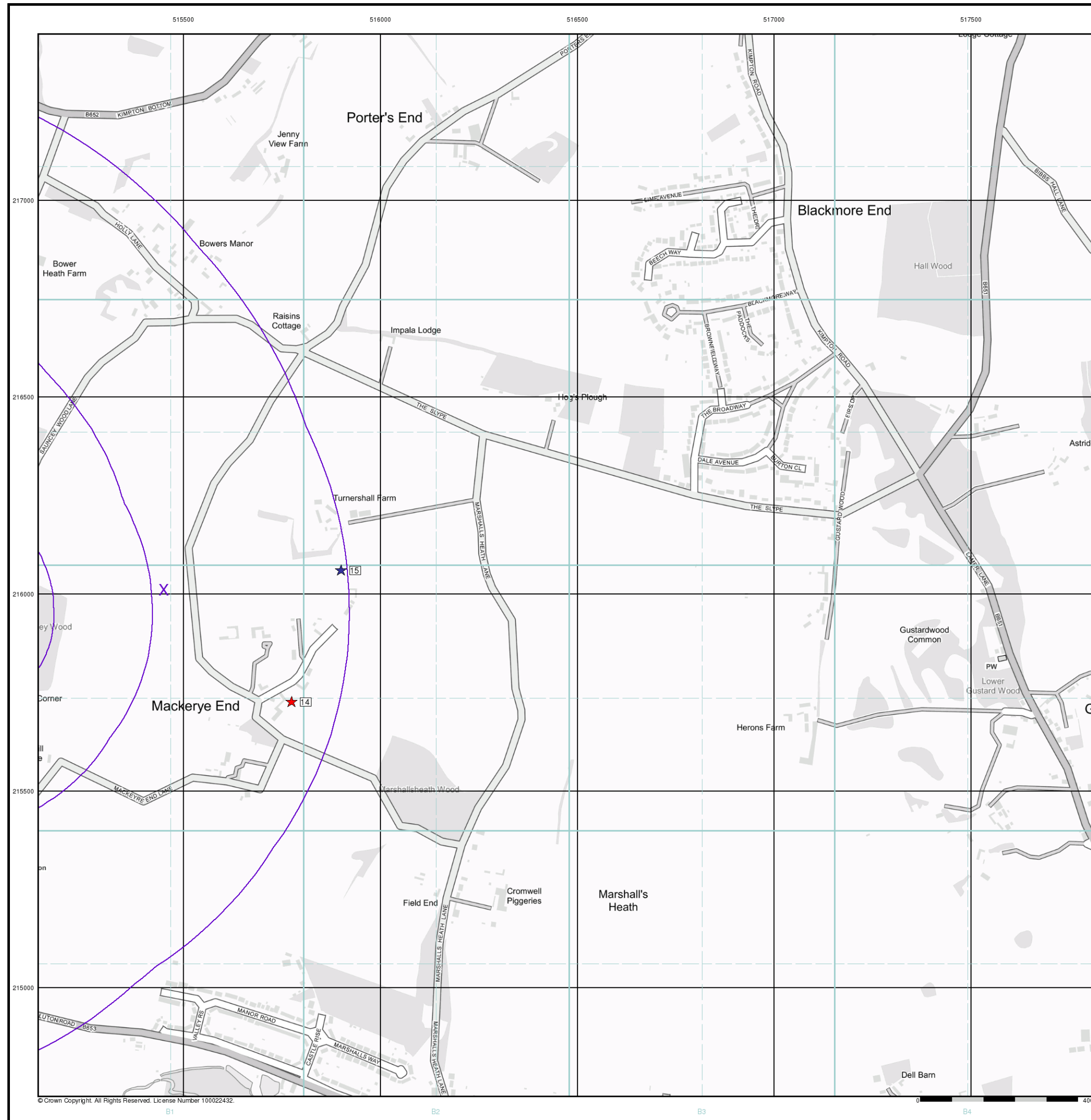


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



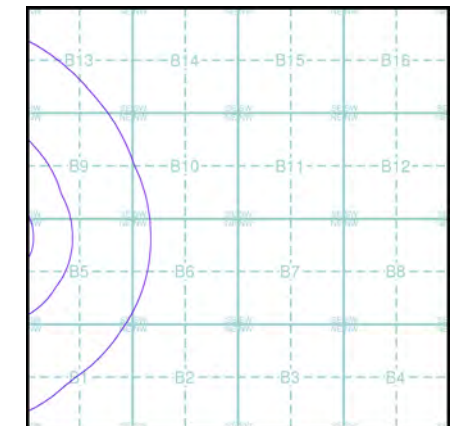
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice B

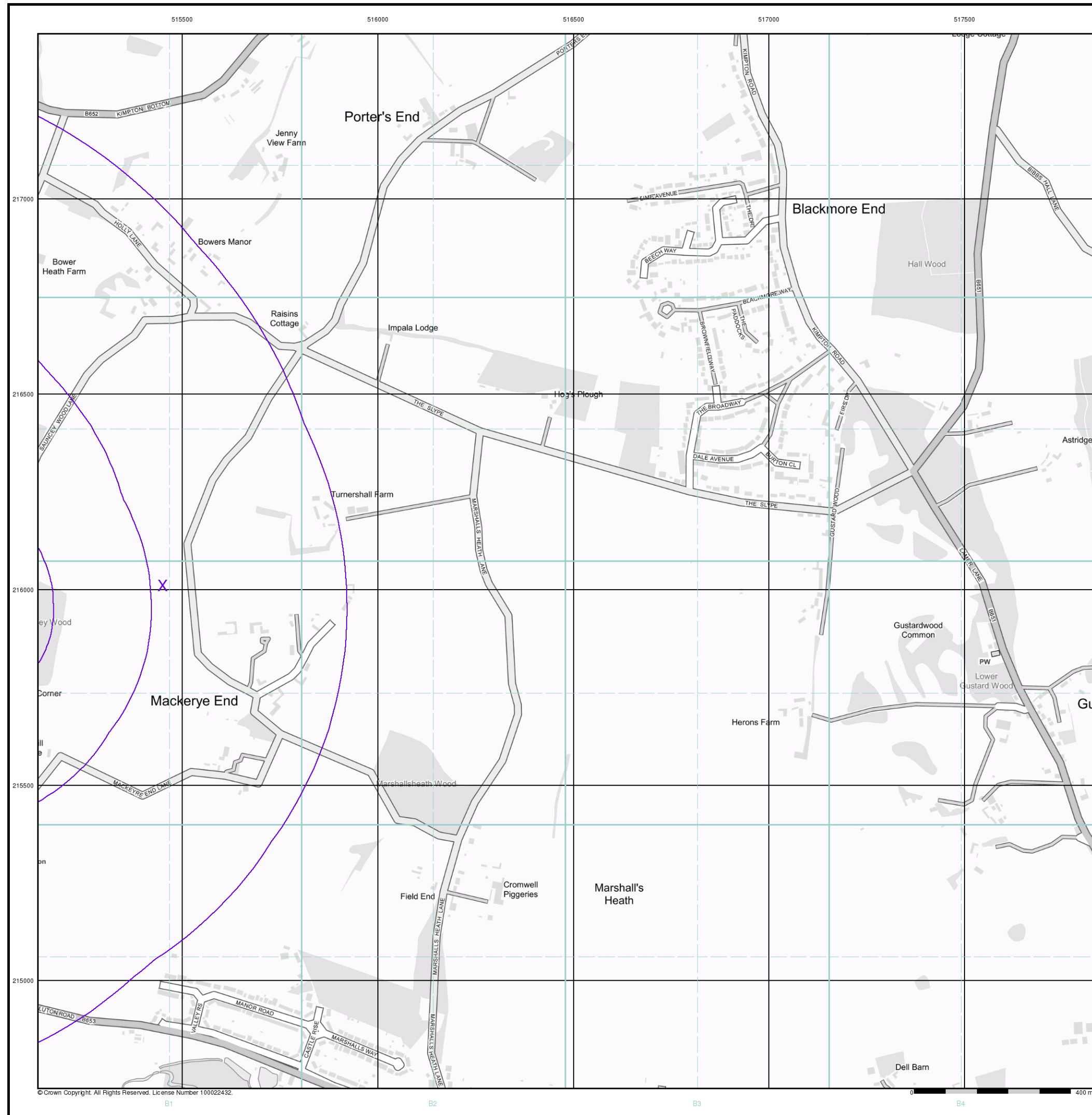


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

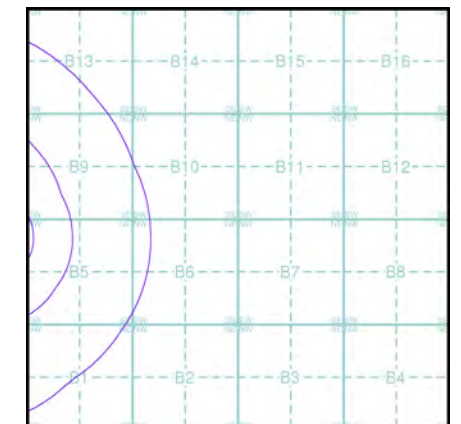
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

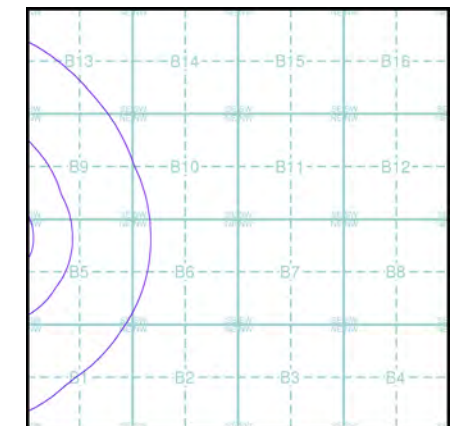
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice B



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point

Risk of Flooding from Surface Water

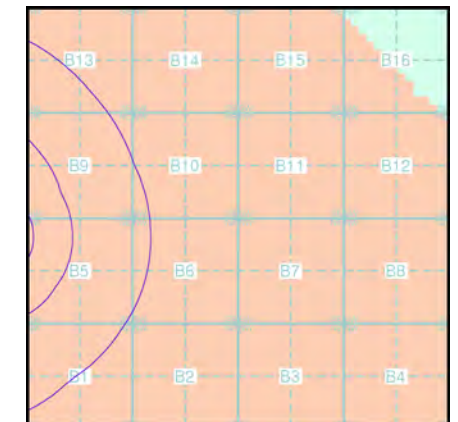
-  High - 30 Year Return
-  Medium - 100 Year Return
-  Low - 1000 Year Return

Suitability

See the suitability map below

-  National to county
-  County to town
-  Town to street
-  Street to parcels of land
-  Property

EA/NRW Suitability Map - Slice B

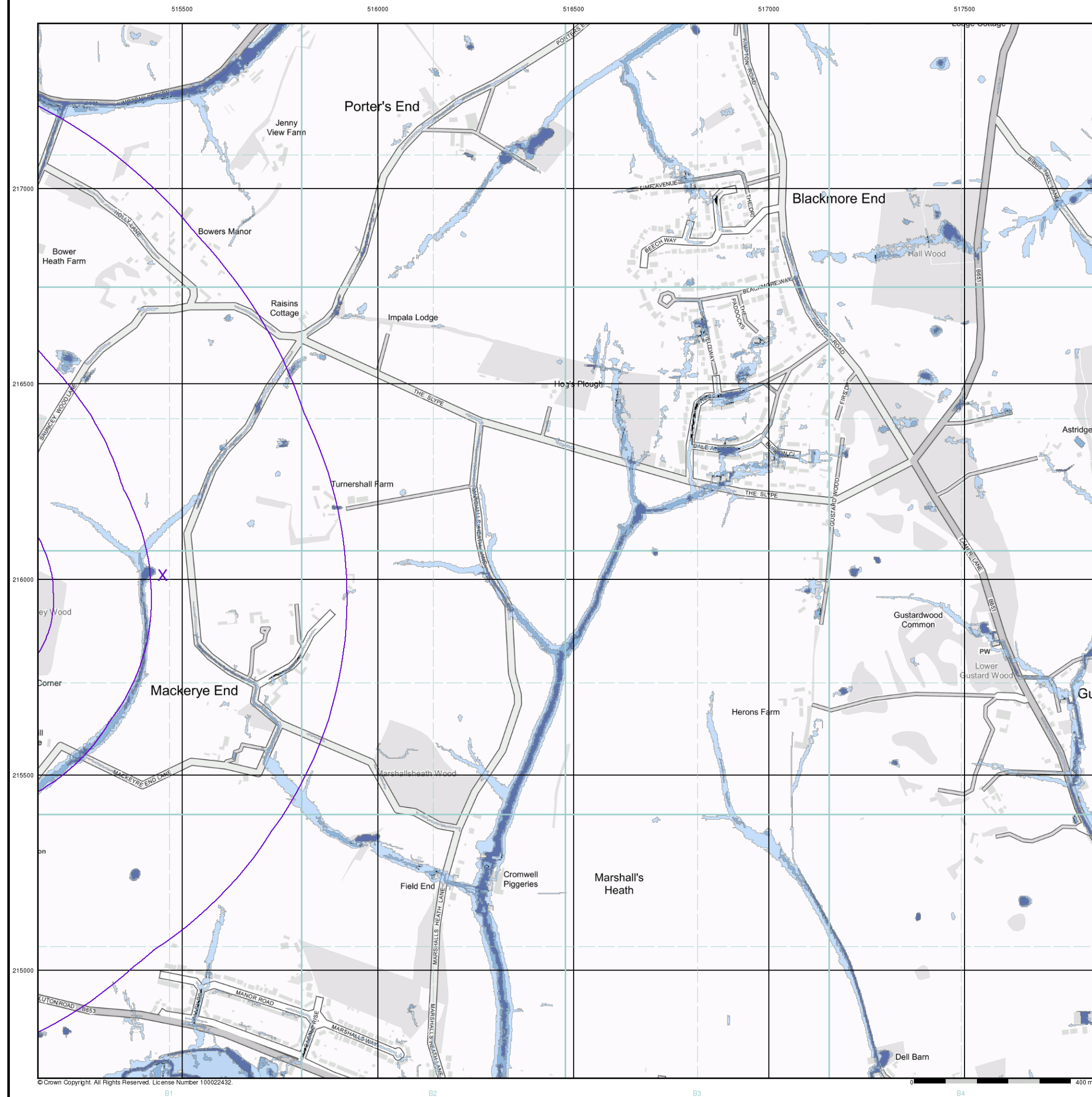


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

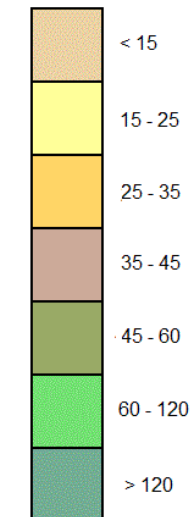


General

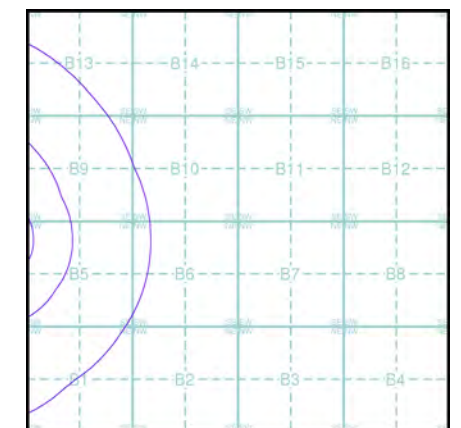
 Specified Site  Specified Buffer(s)  Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice B

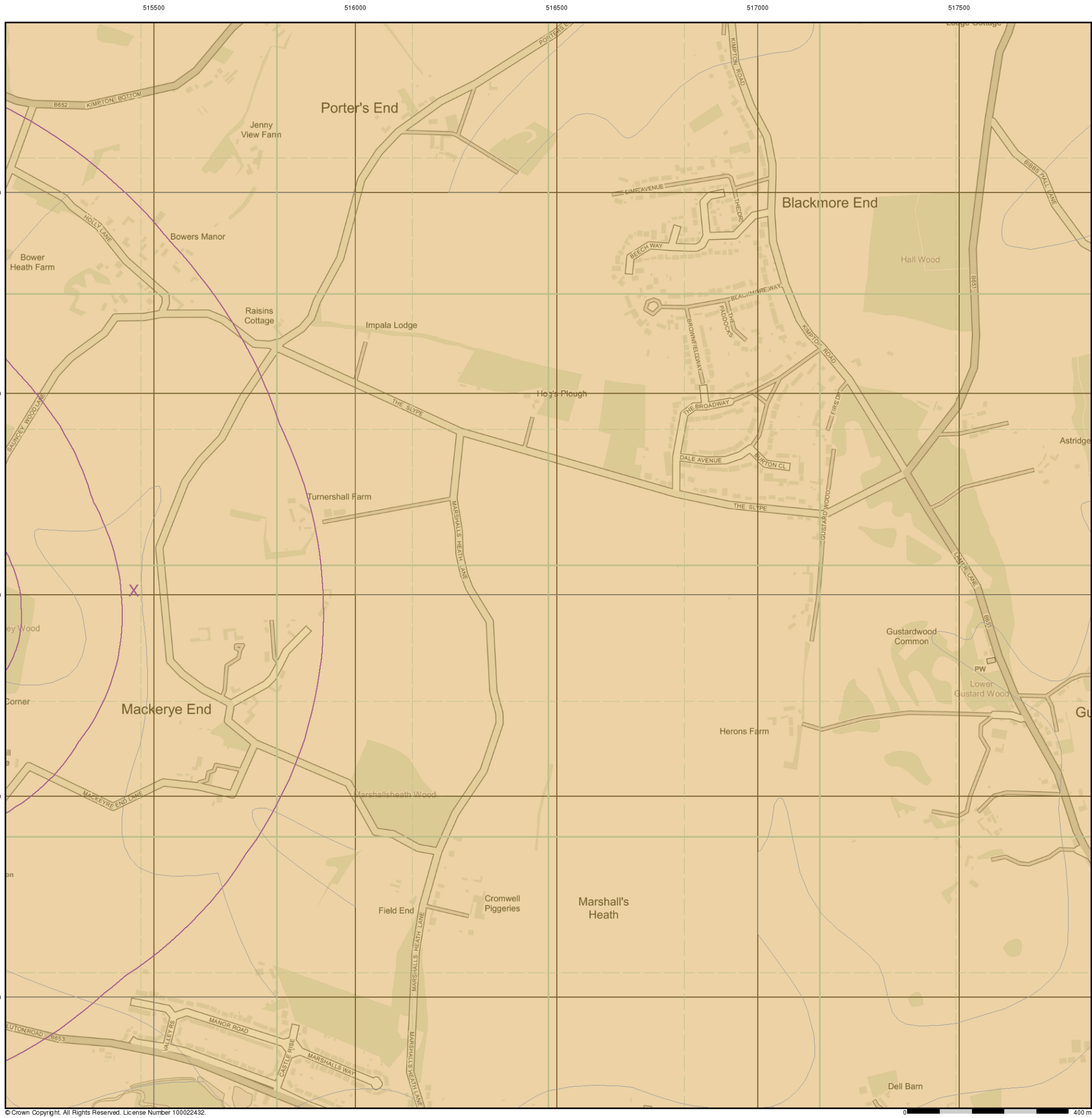


Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

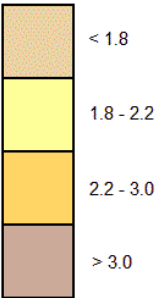


General

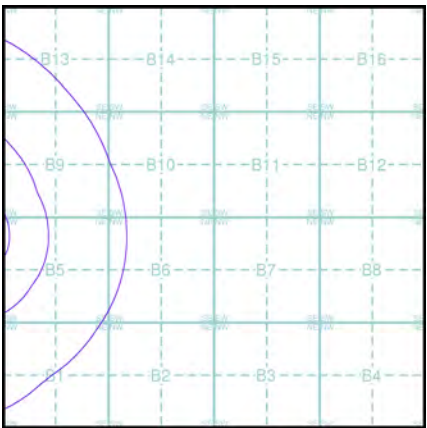
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice B



Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



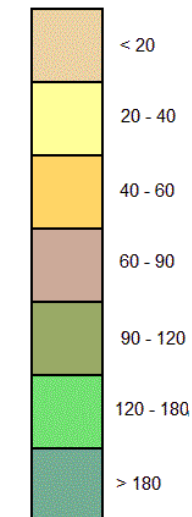
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

General

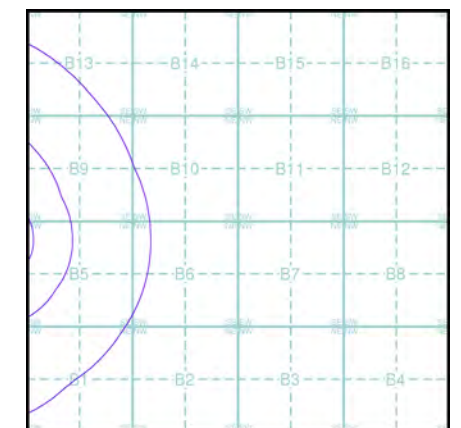
 Specified Site  Specified Buffer(s)  Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice B

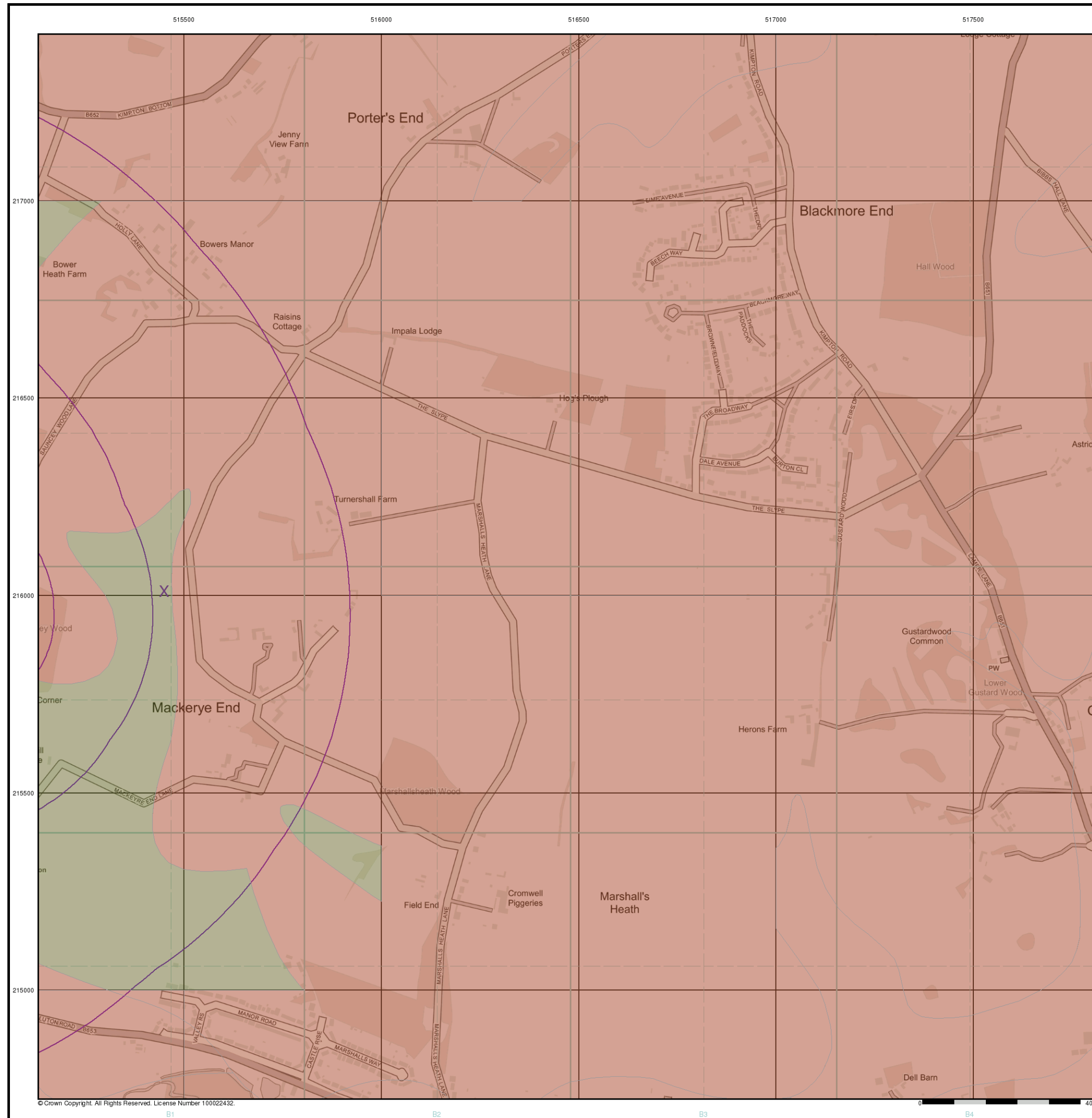


Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

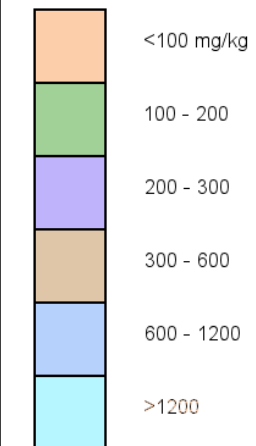


General

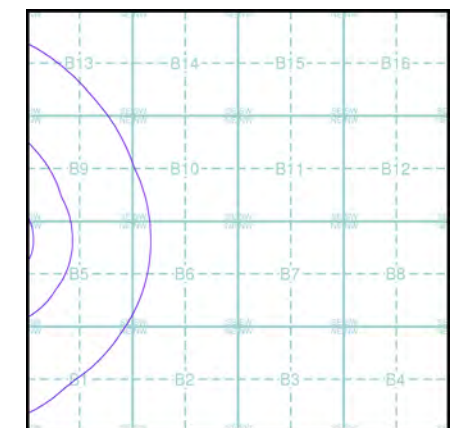
 Specified Site  Specified Buffer(s)  Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice B



Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

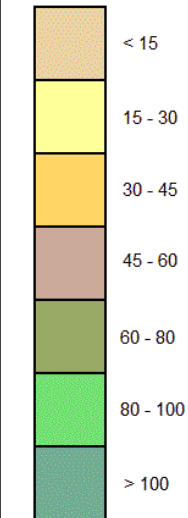
Lower Luton Road, Harpenden

General

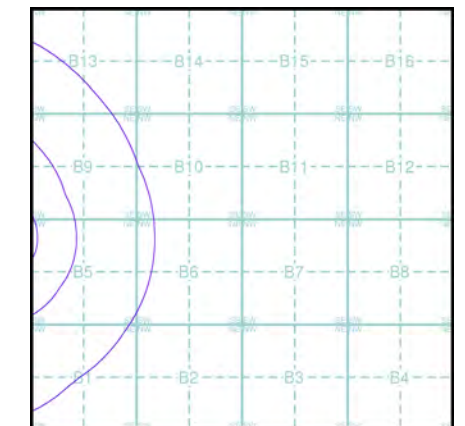
 Specified Site  Specified Buffer(s)  Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice B

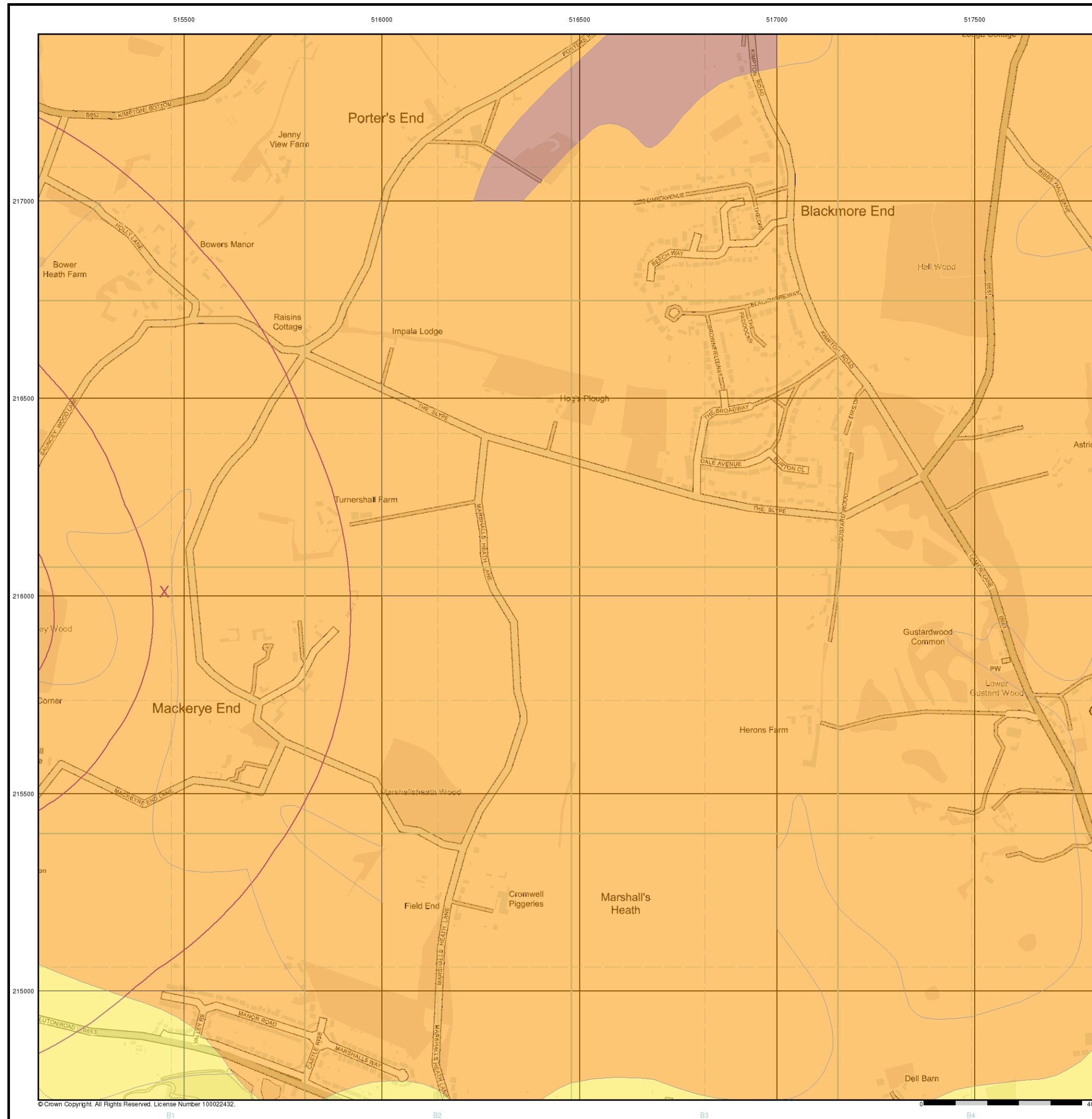


Order Details

Order Details: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

357545593_1_1

Customer Reference:

JN1933

National Grid Reference:

514180, 216090

Slice:

A

Site Area (Ha):

32.6

Search Buffer (m):

1000

Site Details:

Lower Luton Road
Harpenden

Client Details:

Ms R Parkes
ST Consult
Twigden Barns
Brixworth Road
Creaton
Northampton
NN6 8NN

Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected. For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).	
Mining and Natural Cavities Data	1
The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.	
Historical Land Use Information (1:2,500)	4
The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.	
Historical Land Use Information (1:10,000)	5
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.	
Ground Stability Data (1:50,000)	6
The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.	
Historical Map List	8
The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.	
Data Currency	10
Data Suppliers	11
Useful Contacts	12

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1		4		6
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities	pg 2		1		
Mining Instability	pg 2	Yes	n/a	n/a	n/a
Natural Cavities	pg 2				1
Non Coal Mining Areas of Great Britain	pg 2	Yes	Yes	n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)	pg 4		1	n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)				n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying					
Heap, unknown constituents					
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits	pg 5			4	1
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 5			4	
Potentially Infilled Land (Water)					
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 7	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 7	Yes	Yes	n/a	n/a
Salt Mining Related Features					

Report Version v53.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	BGS Recorded Mineral Sites Site Name: Batford Chalk Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262299 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8NE (E)	30	1	514847 215885
2	BGS Recorded Mineral Sites Site Name: Bower Heath Lane Pit Location: Cold Harbour, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262525 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Lewes Nodular Chalk Formation And Seaford Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A11NE (N)	44	1	514246 216428
3	BGS Recorded Mineral Sites Site Name: Sauncy Wood Chalk Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262298 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8NE (E)	121	1	514985 215825
4	BGS Recorded Mineral Sites Site Name: Batford Common Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 220962 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8SE (SE)	224	1	514851 215882
5	BGS Recorded Mineral Sites Site Name: Westfield Common Shaft Location: Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262523 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Lewes Nodular Chalk Formation And Seaford Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A10SE (W)	547	1	513448 216126
6	BGS Recorded Mineral Sites Site Name: Westfield Wood Pit Location: Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262524 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Lewes Nodular Chalk Formation And Seaford Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A6NW (W)	648	1	513343 215973

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	BGS Recorded Mineral Sites Site Name: Batford Smithy Gravel Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262301 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Kesgrave Catchment Subgroup Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	773	1	515010 215037
8	BGS Recorded Mineral Sites Site Name: Great Cutts Farm Chalk Pit Location: East Hyde, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 194837 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A14SE (NW)	859	1	513620 217039
9	BGS Recorded Mineral Sites Site Name: Batford Smithy Gravel Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262302 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Kesgrave Catchment Subgroup Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	956	1	515050 214855
10	BGS Recorded Mineral Sites Site Name: Batford Smithy Gravel Pit Location: Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262303 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Kesgrave Catchment Subgroup Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	974	1	515127 214870
	Coal Mining Affected Areas In an area which may not be affected by coal mining				
	Man Made Mining Cavities Cavity Type: Chalkwell Commodity: Chalk Solid Geology Detail: Chalk Group Superficial Geology: NONE RECORDED Detail:	A8SE (SE)	178	2	514800 215600
	Mining Instability Mining Evidence: Conclusive Rock Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A7NE (S)	0	3	514183 216000
	Natural Cavities Cavity Type: Solution Pipe x 3 Solid Geology Detail: Chalk Group Superficial Geology: Glacial Sand & Gravel Detail:	A4SW (S)	830	2	514570 214920
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Non Coal Mining Areas of Great Britain Risk: Unlikely Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	80	1	515000 216000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	86	1	515000 216088
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
	Non Coal Mining Areas of Great Britain Risk: Likely Source: British Geological Survey, National Geoscience Information Service	A8SW (SE)	124	1	514774 215646
	Non Coal Mining Areas of Great Britain Risk: Highly Likely Source: British Geological Survey, National Geoscience Information Service	A8SE (SE)	174	1	514813 215615

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	Extractive Industries or Potential Excavations from 1893-1915 Use: Limekiln First Map Published 1898 Date: Last Map Published 1901 Date:	A7NE (S)	44	-	514263 215806

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1938	A6NE (W)	295	-	513709 215940
13	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1938	A6NE (W)	315	-	513677 215986
14	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1938	A10SE (W)	350	-	513639 216075
15	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1938	A10SE (W)	414	-	513577 216092
16	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1889 - 1901	A14SE (NW)	867	-	513617 217047
17	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A6NE (W)	295	-	513709 215940
18	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A6NE (W)	315	-	513677 215986
19	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A10SE (W)	350	-	513639 216075
20	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A10SE (W)	414	-	513577 216092

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
21	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
22	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
23	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
24	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
25	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	1	514416 216068
26	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SW (NE)	0	1	514649 216320
27	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
28	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216080
29	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	120	1	515000 216088
30	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	127	1	515000 215839
31	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	150	1	513924 215877
32	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (N)	207	1	514223 216612
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NE (S)	26	1	514188 215994
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SW (W)	73	1	513967 216155
33	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	1	514416 216068

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
35	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	127	1	515000 215839
36	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
37	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	1	514416 216068
38	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	14	1	514062 215948
39	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	80	1	515000 216088
40	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	166	1	513948 215847
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	1	514183 216088
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (SW)	115	1	513965 215885
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	127	1	515000 215839

The following mapping has been analysed for Historical Land Use Information (1:2,500):

1:2,500	Mapsheet	Published Date
Hertfordshire	027_07	1879
Hertfordshire	027_07	1879
Hertfordshire	027_08	1879
Hertfordshire	027_03	1881
Hertfordshire	027_03	1881
Hertfordshire	027_03	1881
Hertfordshire	027_03	1881
Hertfordshire	027_04	1881
Hertfordshire	027_04	1881
Bedfordshire	035_03	1881
Bedfordshire	035_03	1881
Bedfordshire	035_03	1881
Bedfordshire	035_03	1881
Hertfordshire	027_03	1898
Hertfordshire	027_03	1898
Hertfordshire	027_03	1898
Hertfordshire	027_03	1898
Hertfordshire	027_04	1898
Hertfordshire	027_04	1898
Hertfordshire	027_07	1898
Hertfordshire	027_07	1898
Hertfordshire	027_08	1898
Bedfordshire	035_03	1901
Bedfordshire	035_03	1901
Bedfordshire	035_03	1901
Bedfordshire	035_03	1901
Hertfordshire	027_04	1924
Hertfordshire	027_04	1924
Hertfordshire	027_07	1924
Hertfordshire	027_07	1924
Hertfordshire	027_08	1924
Bedfordshire	035_03	1924
Bedfordshire	035_03	1924
Bedfordshire	035_03	1924
Bedfordshire	035_03	1924
Ordnance Survey Plan	TL1316	1972
Ordnance Survey Plan	TL1316	1972
Ordnance Survey Plan	TL1416	1972

1:2,500	Mapsheets	Published Date
Ordnance Survey Plan	TL1416	1972
Ordnance Survey Plan	TL1416	1972
Ordnance Survey Plan	TL1416	1972
Ordnance Survey Plan	TL1516	1972
Ordnance Survey Plan	TL1516	1972
Ordnance Survey Plan	TL1515	1973

The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheets	Published Date
Hertfordshire	019_00	1884
Hertfordshire	027_00	1884
Bedfordshire	033_SE	1889
Bedfordshire	035_NE	1890
Hertfordshire	019_SE	1901
Hertfordshire	027_NE	1901
Bedfordshire	033_SE	1901
Bedfordshire	035_NE	1901
Hertfordshire	019_SE	1925
Bedfordshire	033_SE	1925
Bedfordshire	035_NE	1925
Hertfordshire	027_NE	1938
Bedfordshire	035_NE	1938
Bedfordshire	033_SE	1947
Ordnance Survey Plan	TL11NE	1960
Ordnance Survey Plan	TL11NW	1960
Ordnance Survey Plan	TL11SE	1960
Ordnance Survey Plan	TL11SW	1960
1:10,000	Mapsheets	Published Date
Ordnance Survey Plan	TL11NW	1974
Ordnance Survey Plan	TL11NE	1975
Ordnance Survey Plan	TL11SE	1981
Ordnance Survey Plan	TL11SW	1993

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	January 2024	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Man Made Mining Cavities Stantec UK Ltd	December 2023	Bi-Annually
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Natural Cavities Stantec UK Ltd	December 2023	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	July 2023	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Brine Subsidence Solution Area Johnson Poole & Bloomer	December 2020	

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
The Coal Authority	
Ove Arup	
Stantec UK Ltd	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Stantec UK Ltd Caversham Bridge House, Waterman Place, Reading, RG1 8DN	Telephone: 0118 950 0761 Email: pba.reading@stantec.com Website: www.stantec.com
3	Ove Arup & Partners Central Square, Forth Street, Newcastle upon Tyne, Tyne and Wear, NE1 3PL	Telephone: 0191 261 6080 Fax: 0191 261 7879
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Historical Land Use Information (1:2,500)

General

- Specified Site Specified Buffer(s) Bearing Reference Point Map ID
Several of Type at Location

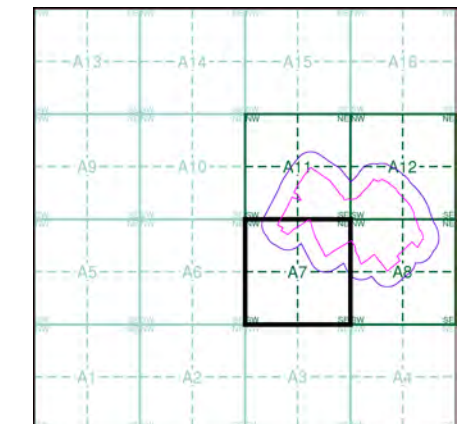
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	---	■

Mining and Ground Stability - Segment A7



Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Plot Buffer (m): 100

Site Details

Lower Luton Road, Harpenden

Historical Land Use Information (1:2,500)

General

-  Specified Site  Specified Buffer(s)  Bearing Reference Point  Map ID
 Several of Type at Location

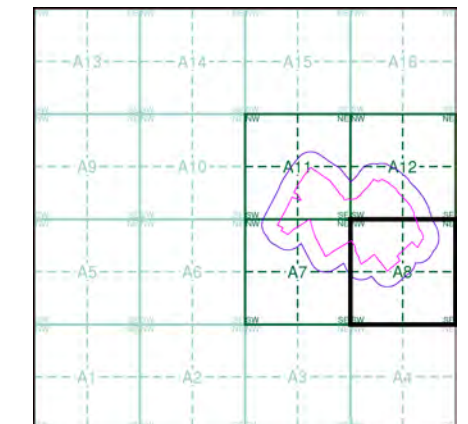
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909			
Extractive Industries Activity from 1893 - 1915			
Extractive Industries Activity from 1906 - 1937			
Extractive Industries Activity from 1924 - 1949			
Extractive Industries Activity from 1950 - 1980			

Subterranean Features

	Point	Line	Polygon
Subterranean Features			

Mining and Ground Stability - Segment A8

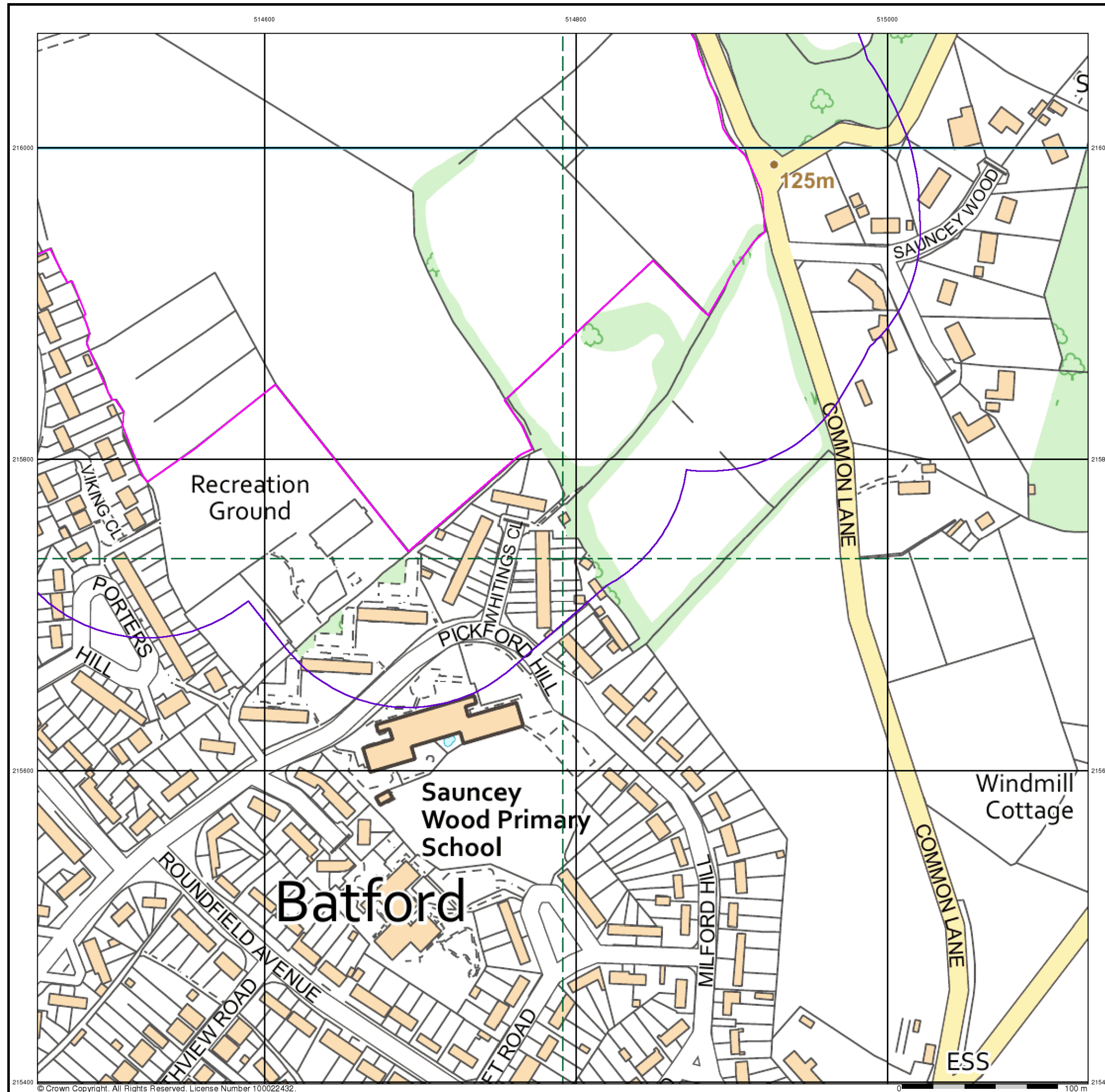


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Plot Buffer (m): 100

Site Details

Lower Luton Road, Harpenden



Historical Land Use Information (1:2,500)

General

- Specified Site Specified Buffer(s) Bearing Reference Point Map ID
Several of Type at Location

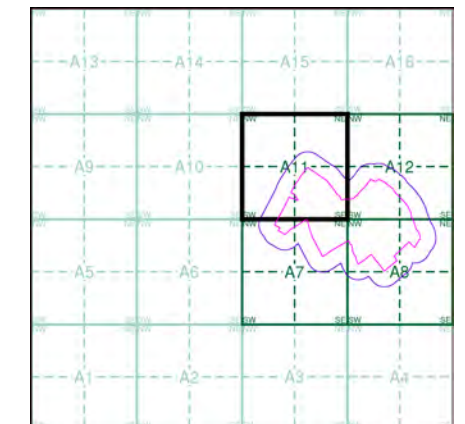
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1960	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	---	■

Mining and Ground Stability - Segment A11

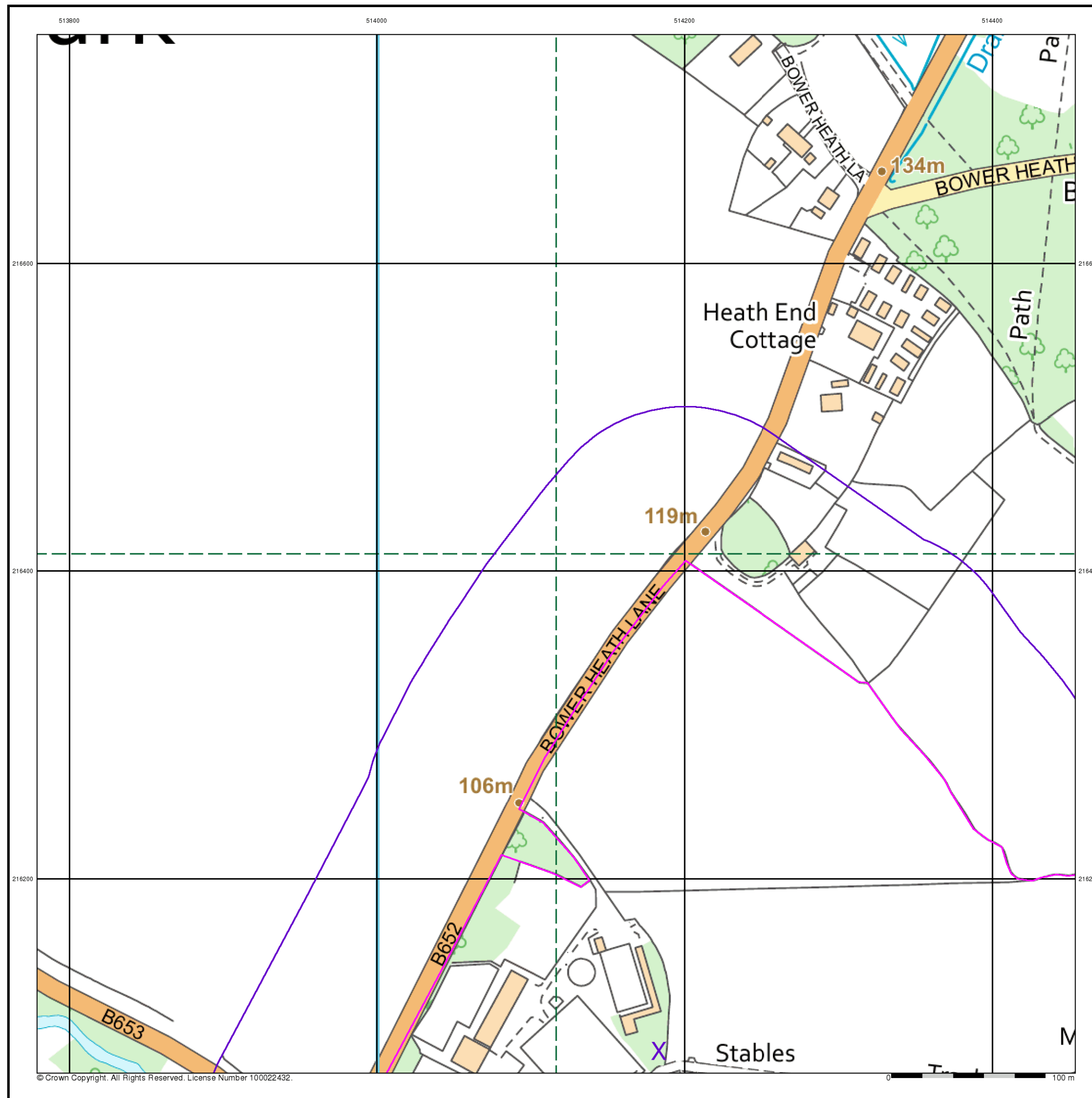


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Plot Buffer (m): 100

Site Details

Lower Luton Road, Harpenden



Historical Land Use Information (1:2,500)

General

-  Specified Site  Specified Buffer(s)  Bearing Reference Point  Map ID
 Several of Type at Location

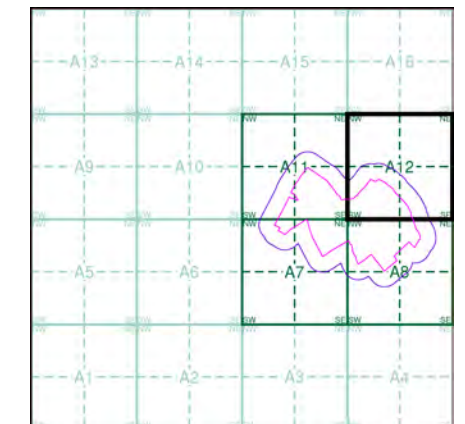
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909			
Extractive Industries Activity from 1893 - 1915			
Extractive Industries Activity from 1906 - 1937			
Extractive Industries Activity from 1924 - 1949			
Extractive Industries Activity from 1950 - 1980			

Subterranean Features

	Point	Line	Polygon
Subterranean Features			

Mining and Ground Stability - Segment A12

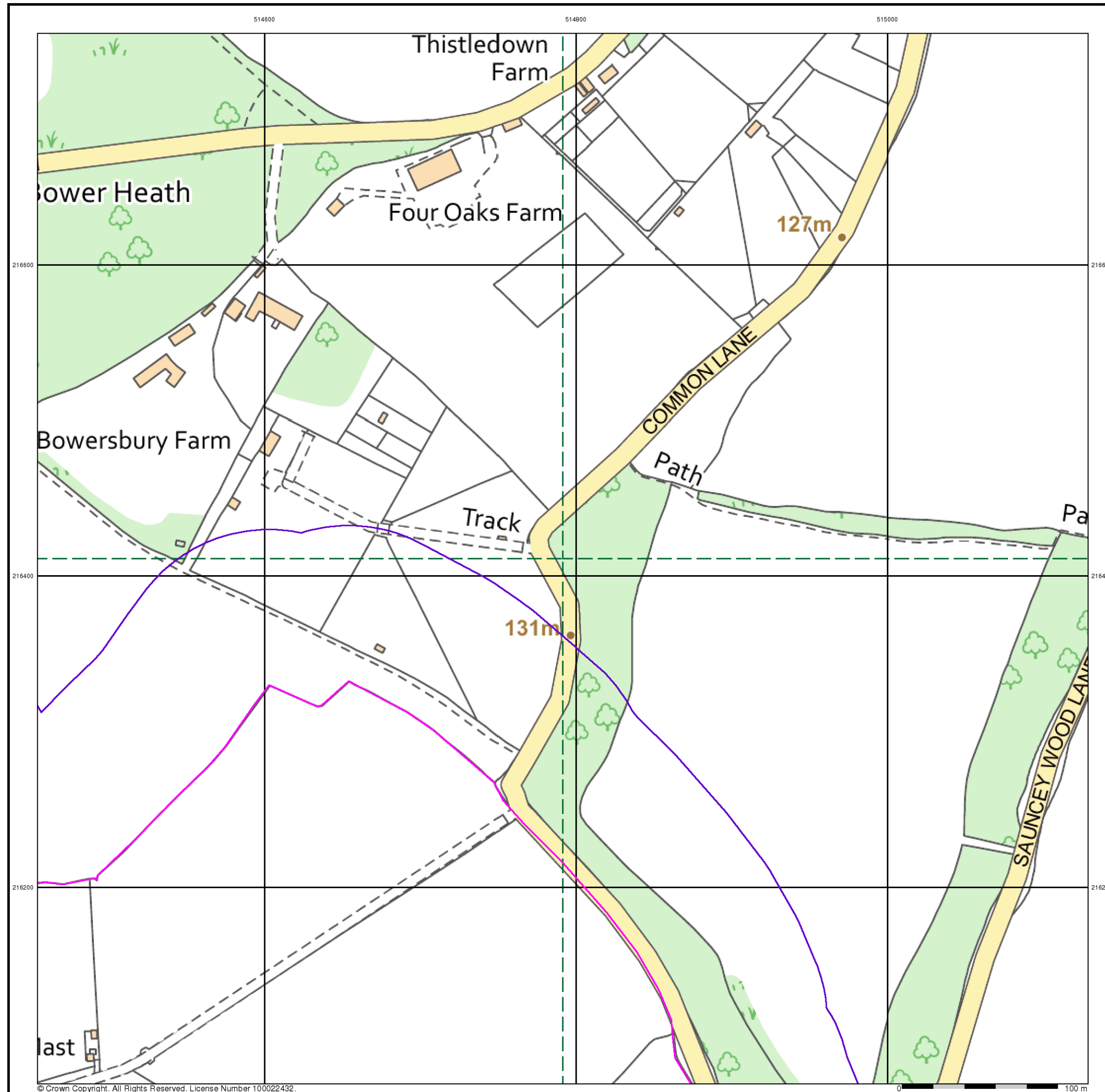


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Plot Buffer (m): 100

Site Details

Lower Luton Road, Harpenden



Historical Land Use Information (1:10,000)

General

- Specified Site Specified Buffer(s) Bearing Reference Point Map ID
Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts			
Disturbed Ground			
General Quarrying			
Heap, unknown constituents			
Mineral Railway			
Mining and Quarrying General			
Mining of Coal & Lignite			
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits			

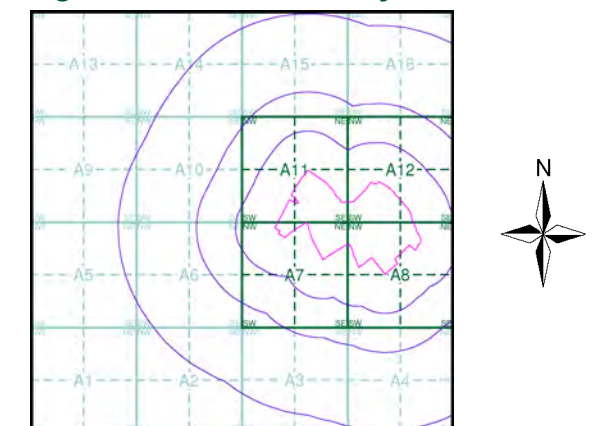
Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)			
Potentially Infilled Land (Water)			
Former Marsh			

Mining Data

- Potential Mining Area
BGS Recorded Mineral Site

Mining and Ground Stability - Slice A

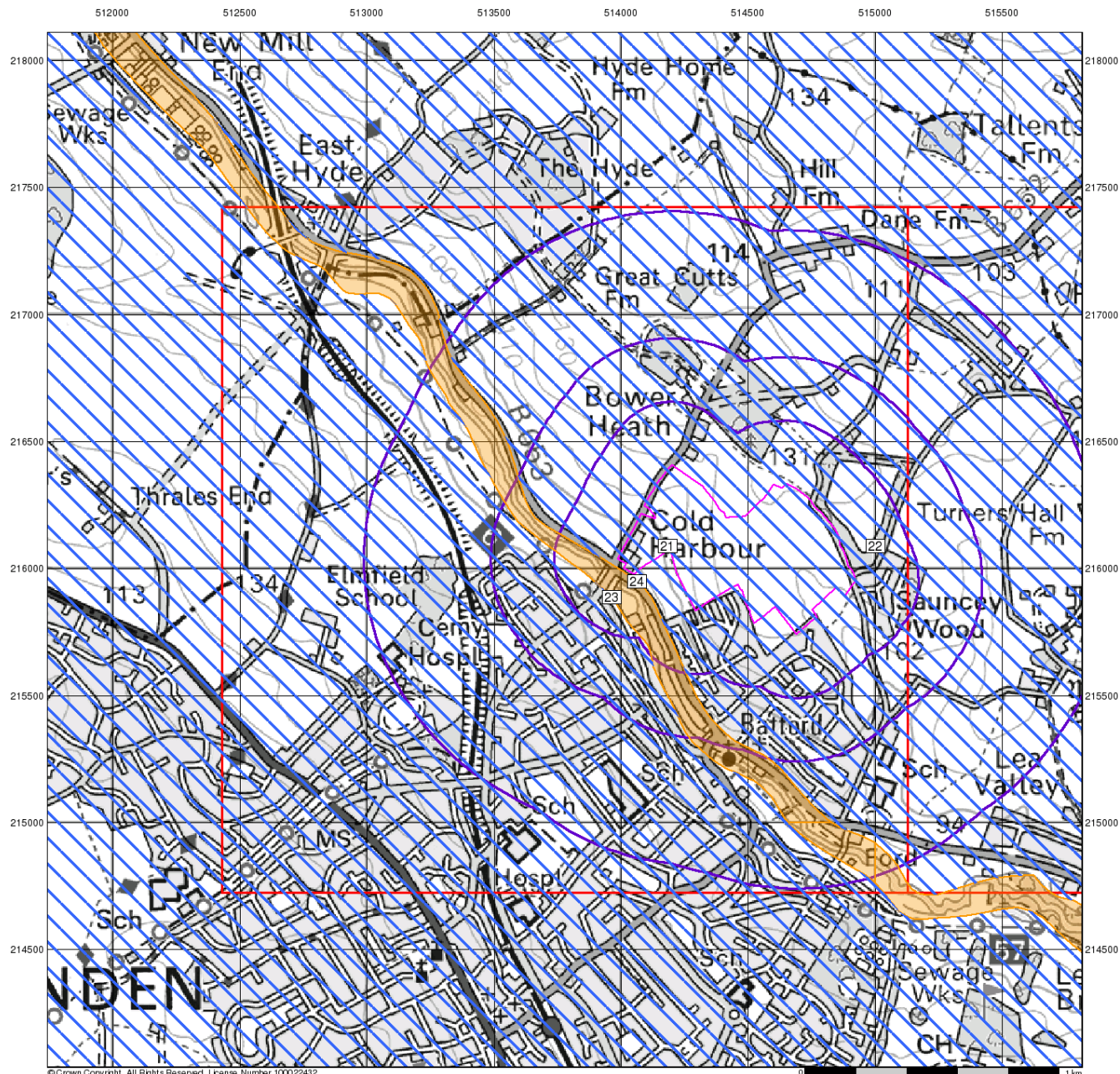


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Potential for Compressible Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Collapsible Ground Stability Hazards

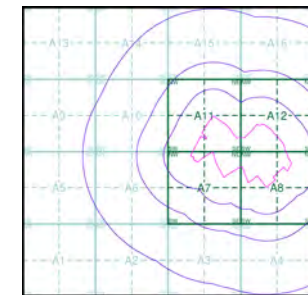
- High
- Moderate
- Low
- Very Low

Brine Pumping and Salt Mining

- Brine Pumping Related Feature
- Salt Mining Related Feature

- | Point | Polygon |
|-------|---------|
| | |
| | |

Mining and Ground Stability - Slice A

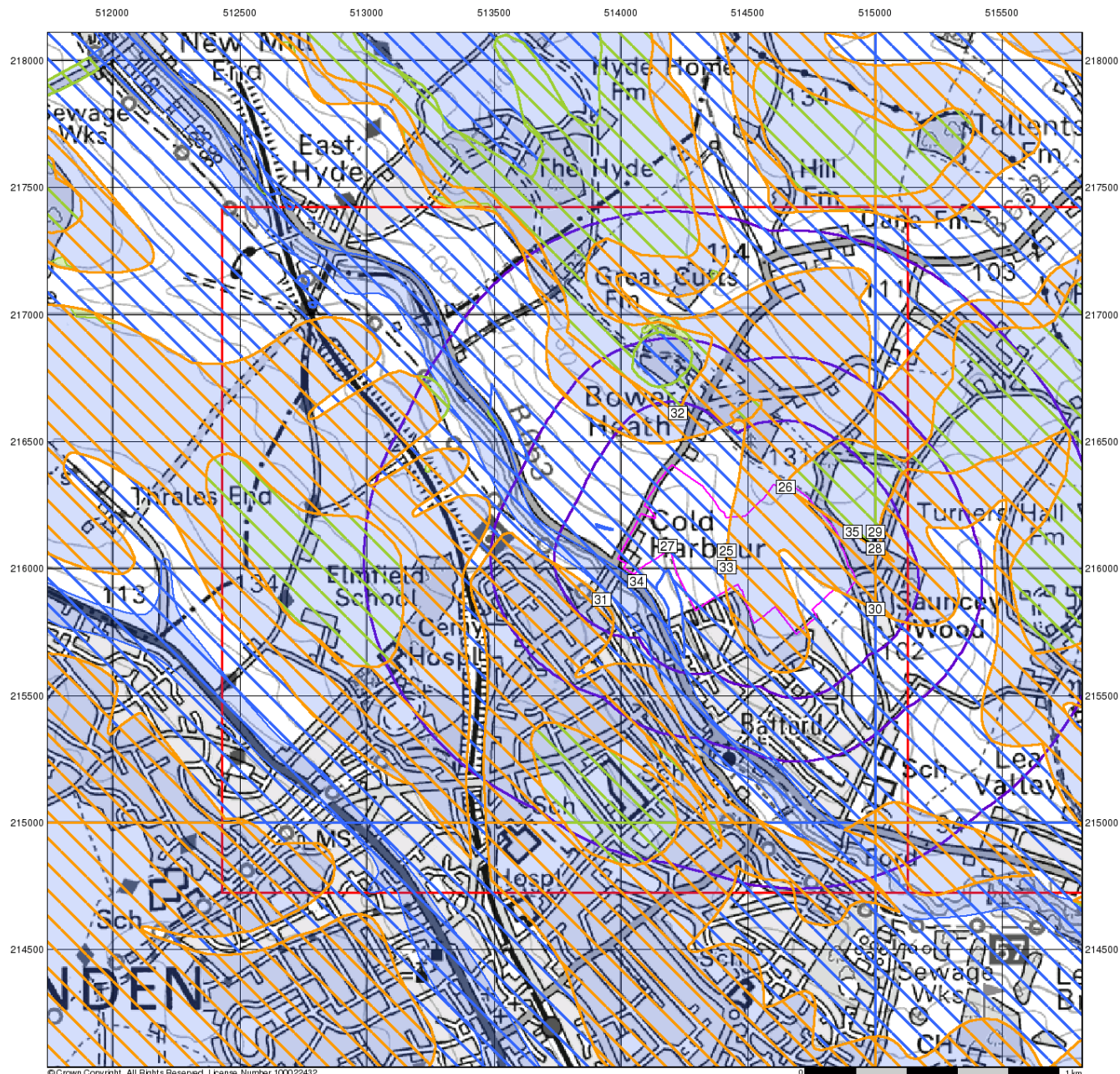


Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 514180, 216090
Slice: A
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

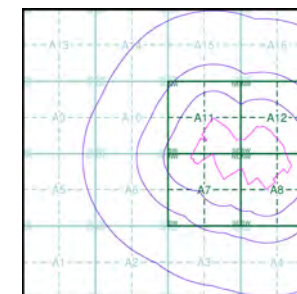
Potential for Landslide Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice A



Order Details

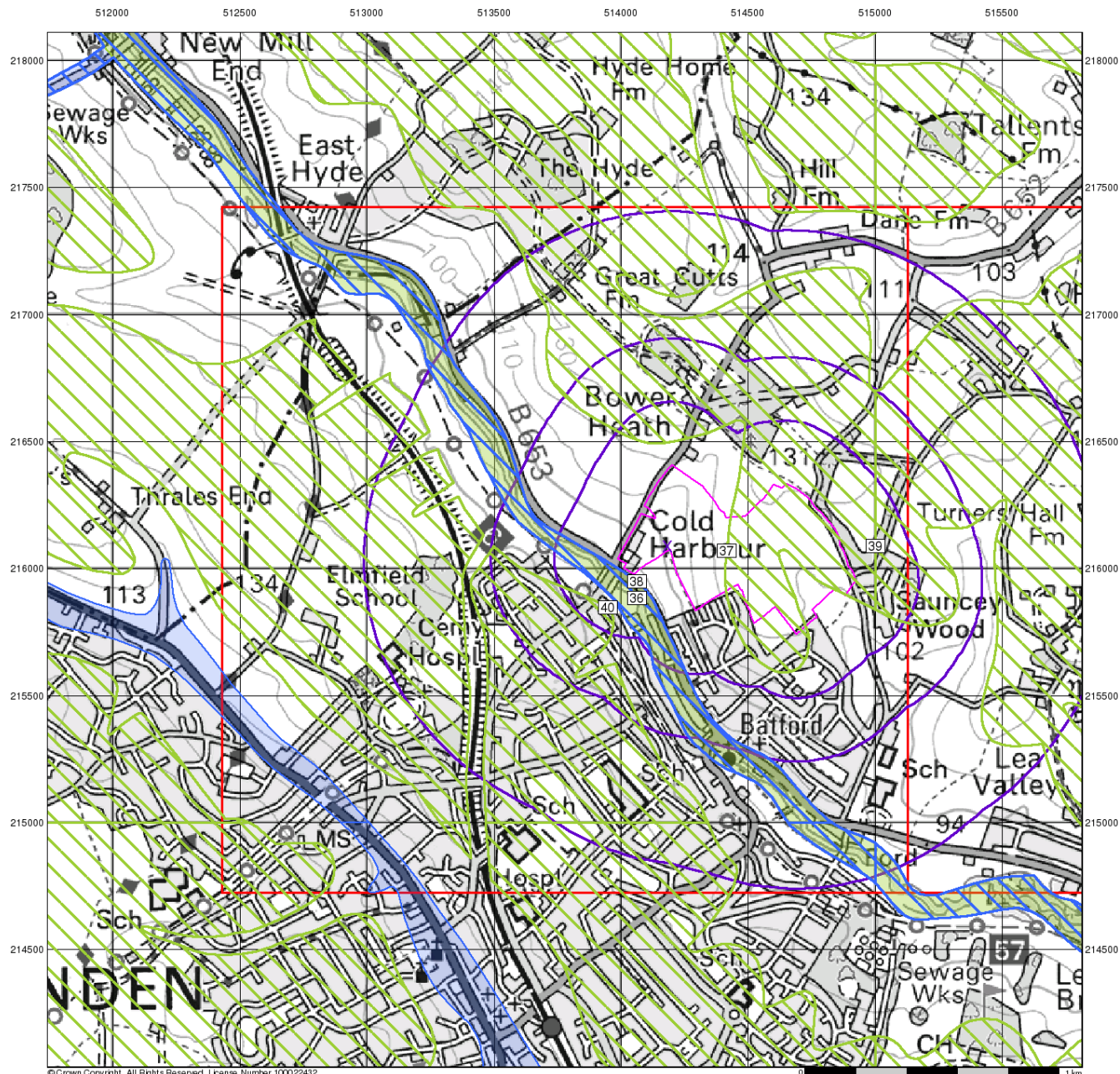
Order Number: 357545593_1_1
 Customer Ref: JN1933
 National Grid Reference: 514180, 216090
 Slice: A
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

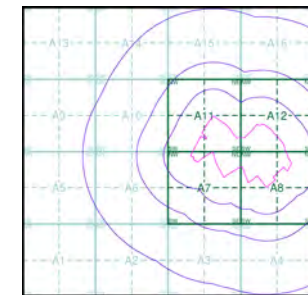
Potential for Running Sand Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice A



Order Details

Order Number: 357545593_1_1
 Customer Ref: JN1933
 National Grid Reference: 514180, 216090
 Slice: A
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

357545593_1_1

Customer Reference:

JN1933

National Grid Reference:

515450, 216010

Slice:

B

Site Area (Ha):

32.6

Search Buffer (m):

1000

Site Details:

Lower Luton Road
Harpenden

Client Details:

Ms R Parkes
ST Consult
Twigden Barns
Brixworth Road
Creaton
Northampton
NN6 8NN

Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected. For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).	
Mining and Natural Cavities Data	1
The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.	
Historical Land Use Information (1:2,500)	-
The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.	
Historical Land Use Information (1:10,000)	2
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.	
Ground Stability Data (1:50,000)	3
The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.	
Historical Map List	5
The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.	
Data Currency	6
Data Suppliers	7
Useful Contacts	8

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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1				2
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities	pg 1				1
Mining Instability			n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 1		Yes	n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)				n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying					
Heap, unknown constituents					
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits	pg 2				1
Former Marshes					
Potentially Infilled Land (Non-Water)					
Potentially Infilled Land (Water)					
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 4	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 4	Yes	Yes	n/a	n/a
Salt Mining Related Features					

Report Version v53.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	BGS Recorded Mineral Sites Site Name: Makeyre End Chalk Pit Location: Mackeyre End, Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 262300 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	B5NW (NW)	518	1	515435 216022
2	BGS Recorded Mineral Sites Site Name: Mackeyre End Chalk Pit Location: Mackeyre End, Batford, Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 168849 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	B5SW (S)	646	1	515392 215494
	Coal Mining Affected Areas In an area which may not be affected by coal mining				
	Man Made Mining Cavities Cavity Type: Chalkwell Commodity: Chalk Solid Geology Detail: Chalk Group Superficial Geology Detail: Clay-with-Flints	B5SE (S)	763	2	515600 215600
	Non Coal Mining Areas of Great Britain Risk: Unlikely Source: British Geological Survey, National Geoscience Information Service	B5NW (S)	80	1	515450 216000
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	86	1	515450 216012

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1901	B5SW (S)	652	-	515398 215491

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
4	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 216012
5	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	80	1	515450 216012
6	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(SW)	115	1	514567 215128
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(SW)	14	1	514629 215211
7	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	(SW)	14	1	514629 215211
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 216012
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	80	1	515450 216012
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(SW)	115	1	514567 215128
8	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 216012
9	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 216080
10	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 215839
11	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	B5NE (E)	80	1	515469 216012
12	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	B5NE (E)	120	1	515533 215999
13	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	127	1	515450 216012
14	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	(SW)	150	1	514558 215000
15	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 216012
16	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(SW)	14	1	514629 215211
17	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NE (E)	80	1	515469 216012
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 215839

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	127	1	515450 216012
18	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	(SW)	14	1	514629 215211
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 216012
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	80	1	515450 216012
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(SW)	115	1	514567 215128
19	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 216012
20	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(SW)	14	1	514629 215211
21	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	B5NE (E)	80	1	515469 216012
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(W)	0	1	515000 215839
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(SW)	115	1	514567 215128
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NW (NW)	127	1	515450 216012

No Historical Land Use information available.

The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheet	Published Date
Hertfordshire	019_00	1884
Hertfordshire	020_00	1884
Hertfordshire	027_00	1884
Hertfordshire	028_00	1884
Bedfordshire	033_SE	1889
Bedfordshire	035_NE	1890
Hertfordshire	020_SW	1899
Hertfordshire	028_NW	1899
Hertfordshire	019_SE	1901
Hertfordshire	027_NE	1901
Bedfordshire	033_SE	1901
Bedfordshire	035_NE	1901
Hertfordshire	019_SE	1925
Hertfordshire	020_SW	1925
Hertfordshire	028_NW	1925
Bedfordshire	033_SE	1925
Bedfordshire	035_NE	1925
Hertfordshire	027_NE	1938
Bedfordshire	035_NE	1938
Hertfordshire	028_NW	1946
Bedfordshire	033_SE	1947
Hertfordshire	020_SW	1950
Ordnance Survey Plan	TL11NE	1960
Ordnance Survey Plan	TL11SE	1960
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	TL11NE	1975
Ordnance Survey Plan	TL11SE	1981

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	January 2024	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Man Made Mining Cavities Stantec UK Ltd	December 2023	Bi-Annually
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Natural Cavities Stantec UK Ltd	December 2023	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	July 2023	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Brine Subsidence Solution Area Johnson Poole & Bloomer	December 2020	

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
The Coal Authority	
Ove Arup	
Stantec UK Ltd	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Stantec UK Ltd Caversham Bridge House, Waterman Place, Reading, RG1 8DN	Telephone: 0118 950 0761 Email: pba.reading@stantec.com Website: www.stantec.com
3	Ove Arup & Partners Central Square, Forth Street, Newcastle upon Tyne, Tyne and Wear, NE1 3PL	Telephone: 0191 261 6080 Fax: 0191 261 7879
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Historical Land Use Information (1:10,000)

General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Map ID
-  Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts			
Disturbed Ground			
General Quarrying			
Heap, unknown constituents			
Mineral Railway			
Mining and Quarrying General			
Mining of Coal & Lignite			
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits			

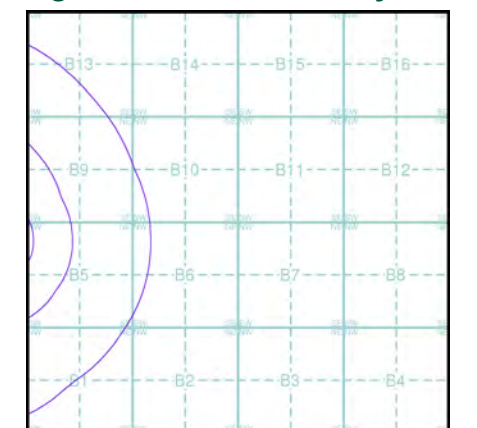
Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)			
Potentially Infilled Land (Water)			
Former Marsh			

Mining Data

-  Potential Mining Area
-  BGS Recorded Mineral Site

Mining and Ground Stability - Slice B



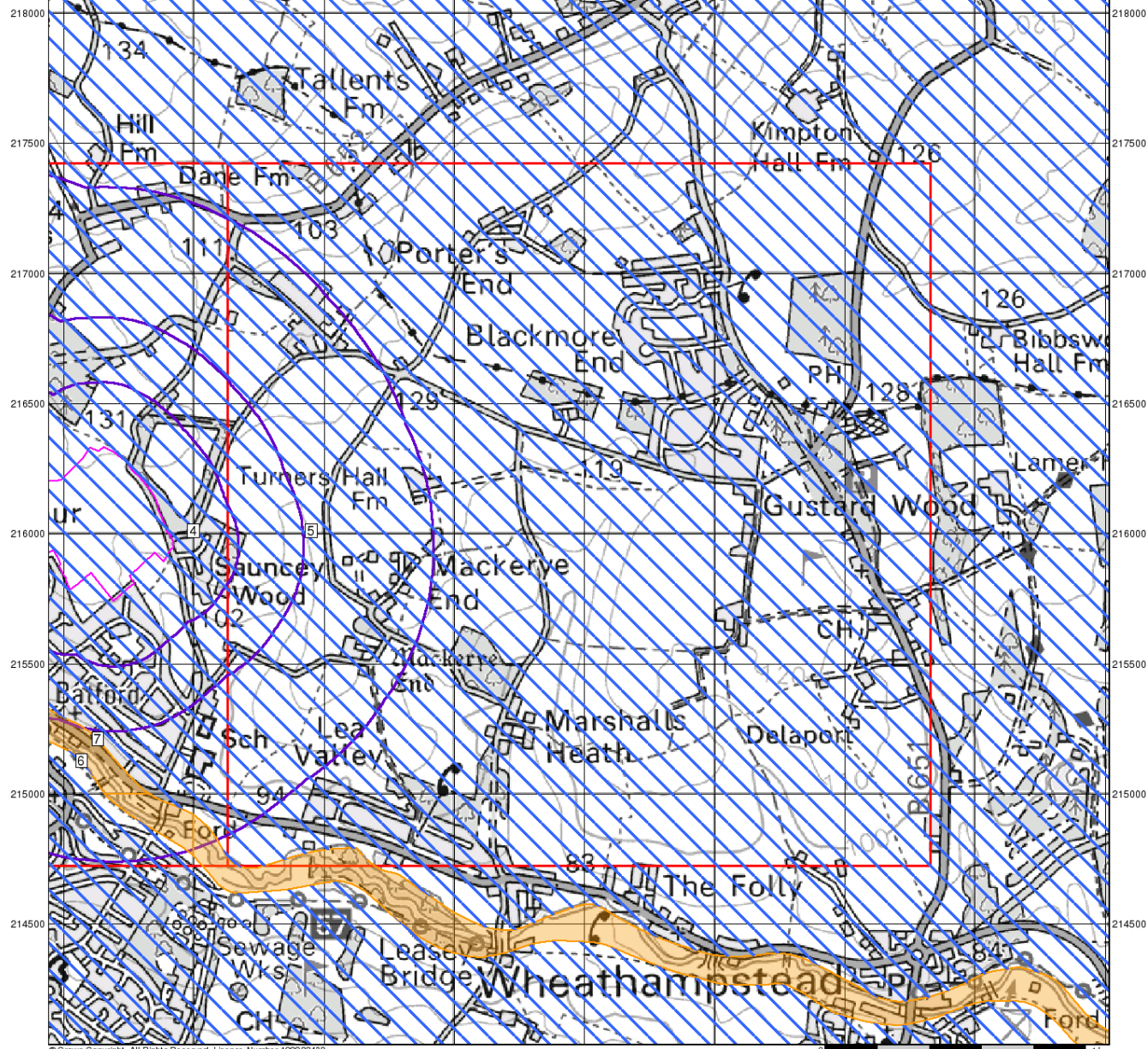
Order Details

Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden

514500 515000 515500 516000 516500 517000 517500 518000 518500



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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Potential for Compressible Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Collapsible Ground Stability Hazards

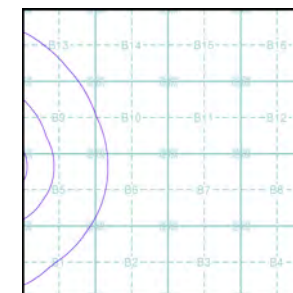
- High
- Moderate
- Low
- Very Low

Brine Pumping and Salt Mining

- Brine Pumping Related Feature
- Salt Mining Related Feature

- Point
- Polygon

Mining and Ground Stability - Slice B



Order Details

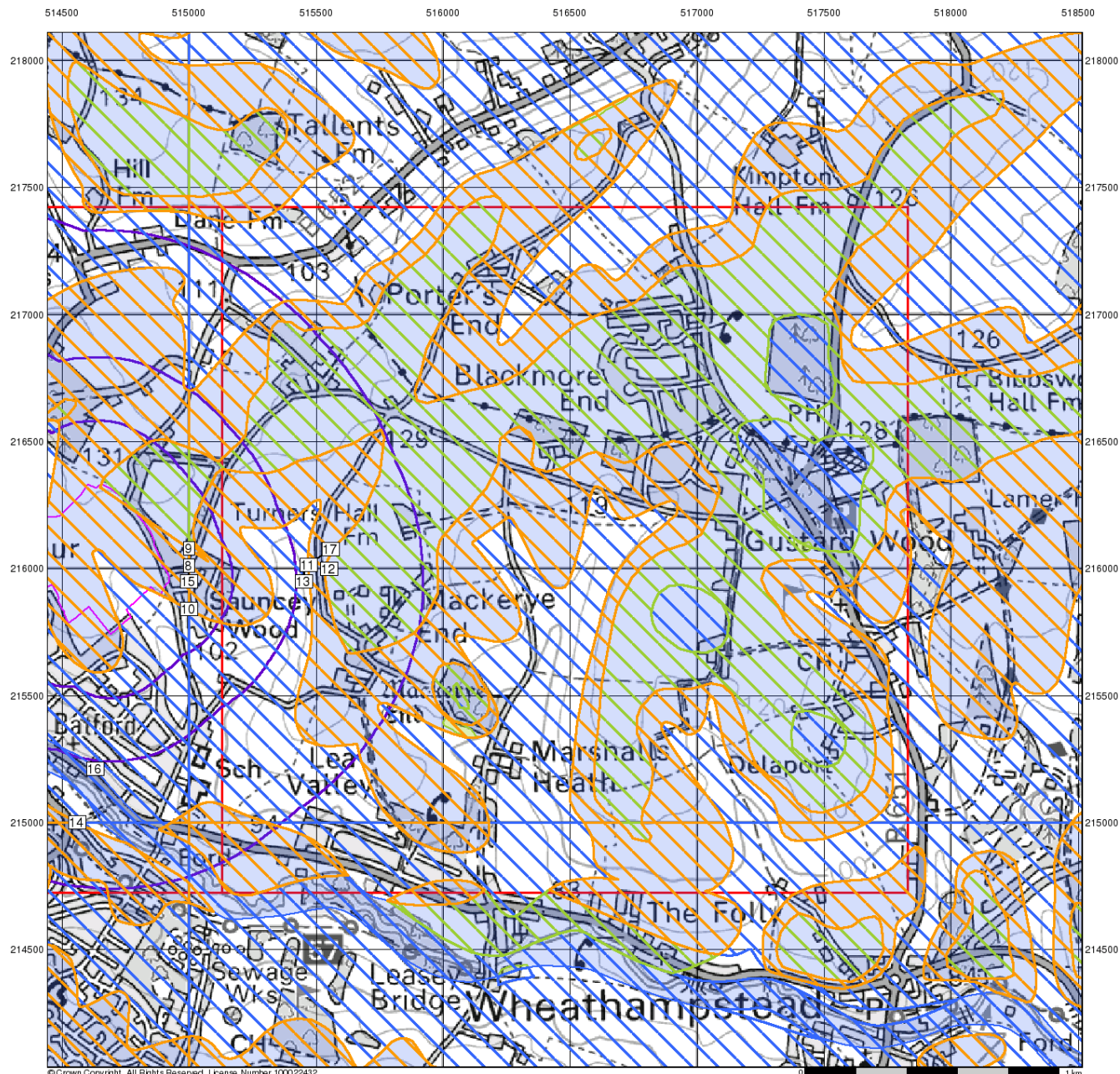
Order Number: 357545593_1_1
Customer Ref: JN1933
National Grid Reference: 515450, 216010
Slice: B
Site Area (Ha): 32.6
Search Buffer (m): 1000

Site Details

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Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

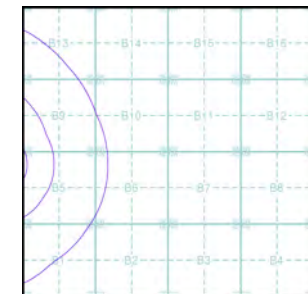
Potential for Landslide Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice B



Order Details

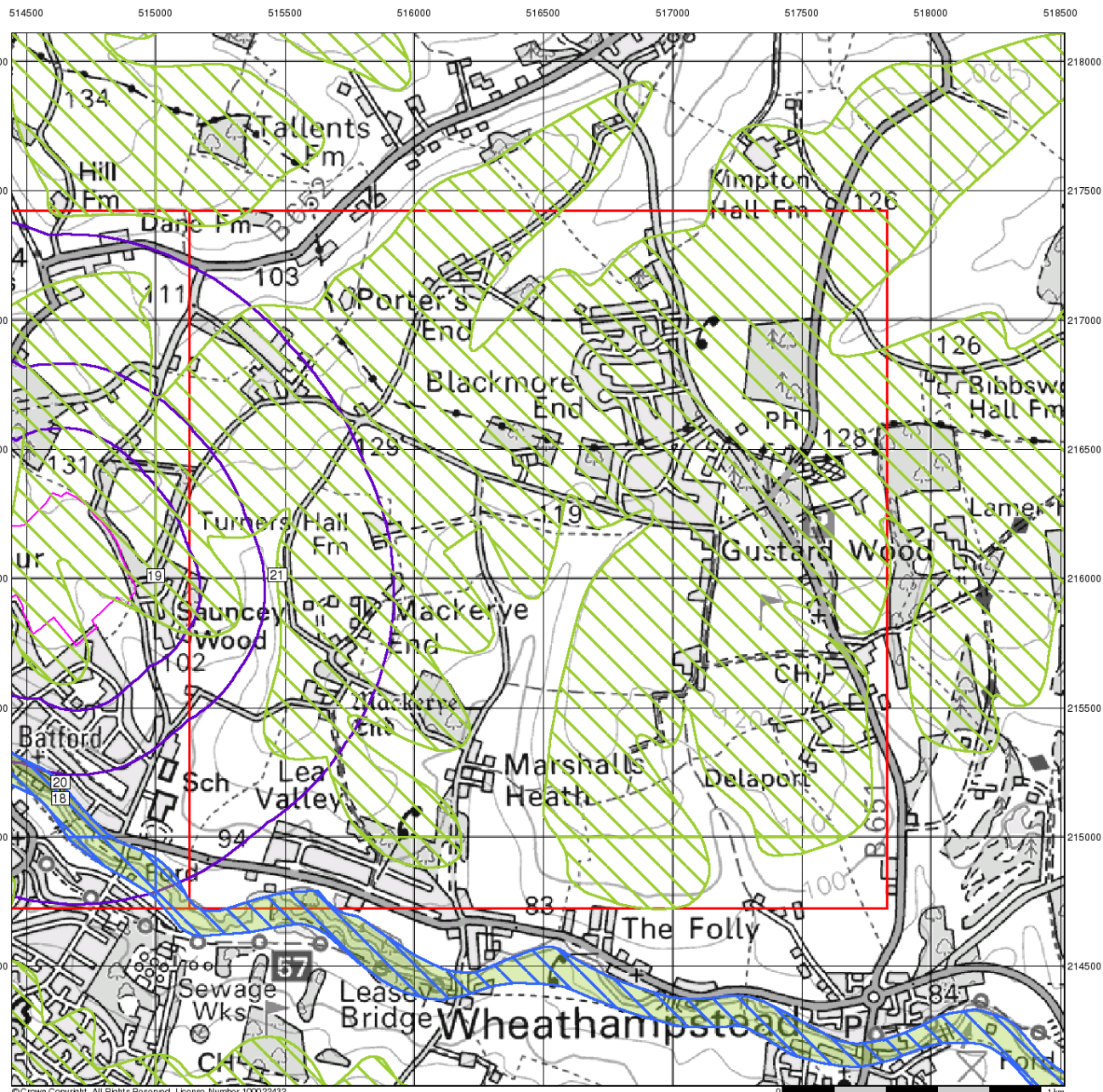
Order Number: 357545593_1_1
 Customer Ref: JN1933
 National Grid Reference: 515450, 216010
 Slice: B
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



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 Fax: 0844 844 9951
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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

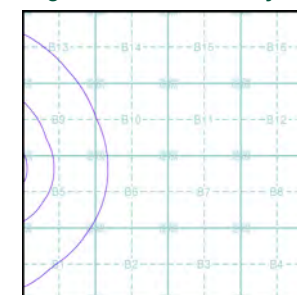
Potential for Running Sand Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice B



Order Details

Order Number: 357545593_1_1
 Customer Ref: JN1933
 National Grid Reference: 515450, 216010
 Slice: B
 Site Area (Ha): 32.6
 Search Buffer (m): 1000

Site Details

Lower Luton Road, Harpenden



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Appendix C Trial Pit Logs

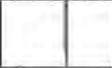
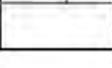


A TETRA TECH COMPANY
Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD
T: +44 (0)1908 669 898 E: rpsmk@rpsgroup.com

Trial Pit Log

Trial Pit ID
TP1

Project	LOWER LUTON ROAD, HARPENDEN	Co-ords	Ground Level	Date	27-02-2025
Job No.	CAS31270	Dimensions (m)	0.6 x 3.0m	Scale	
Client	CREST NICHOLSON			Logged	PA

Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.20		Grey brown sandy clayey TOPSOIL		
								
								
								
								
						Structureless CHALK composed of slightly sandy slightly gravelly CLAY.		
						Dm		
								
								
								
								
								
								
								
								
								
								
								
								
								
								
				3.00				

Remarks	Chalk excavates as soft to firm marl
Stability	Pit sides unstable.
Groundwater	None encountered.



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T: +44 (0)1908 569 898 E: rpsmk@rpsgroup.com

Trial Pit Log

Trial Pit ID

TP2

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

Water Backfill

Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.20		Grey brown very gravelly clayey TOPSOIL		
						Firm to stiff orange brown very sandy gravelly CLAY		
				1.30		Structureless CHALK composed of silty slightly gravelly CLAY. Gravel is very weak low density white chalk.		
						Dm		
				2.75				

Remarks

Stability Pit sides stable.

Groundwater None encountered.



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T: +44 (0)1908 669 898 E: rpsmk@rpsgroup.com

Trial Pit Log

Trial Pit ID
TP3

Project	LOWER LUTON ROAD, HARPENDEN	Co-ords	Ground Level	Date	27-02-2025
Job No.	CAS31270	Dimensions (m)	0.6 x 3.0m	Scale	
Client	CREST NICHOLSON			Logged	PA

Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.20		Dark grey brown sandy gravelly clayey TOPSOIL		
						Firm to stiff reddish brown very sandy gravelly CLAY Gravel is mainly of flint		
				1.20		Structureless CHALK composed of silty slightly gravelly CLAY. Gravel is very weak low density white chalk.		
						Dm		
				3.20				

Remarks

Stability Pit sides stable.

Groundwater None encountered.

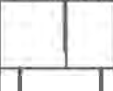


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T: +44 (0)1908 669 898 E: rpsmks@rpsgroup.com

Trial Pit Log

Trial Pit ID
TP4

Project	LOWER LUTON ROAD, HARPENDEN	Co-ords	Ground Level	Date	27-02-2025
Job No.	CAS31270	Dimensions (m)	0.6 x 3.0m	Scale	
Client	CREST NICHOLSON			Logged	PA

Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.20		Grey brown sandy gravelly clayey TOPSOIL		
								
								
								
						Structureless CHALK composed of silty sandy gravelly CLAY with occasional flint gravel.		
								
						Dm / Dc		
								
								
								
								
								
								
								
								
								

Remarks

Stability	Pit sides stable.
Groundwater	None encountered.



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T: +44 (0)1908 669 898 E: rpsmk@rpsgroup.com

Trial Pit Log

Trial Pit ID

TP5

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

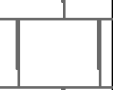
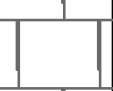
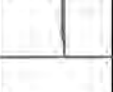
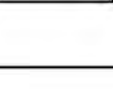
Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

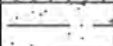
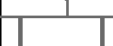
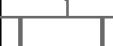
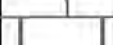
Water Backfill

Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description	Water	Backfill
				0.20		Grey brown sandy gravelly clayey TOPSOIL		
				0.40		Light brown gravelly CLAY		
1								
								
								
								
						Structureless CHALK composed of cream white and orange brown sandy gravel with occasional flint gravel and cobbles. Chalk gravel is very weak angular to sub-angular fine to coarse		
								
						Dm grading to Dc		
2								
								
								
								
								
				3.10				

Remarks

Stability Some local spalling of pit sides.

Groundwater None encountered.

 A TETRA TECH COMPANY Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD T: +44 (0)1908 669 898 E: rpsmks@rpsgroup.com		Trial Pit Log				Trial Pit ID TP6		
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level			Date 27-02-2025		
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m			Scale		
Client CREST NICHOLSON						Logged PA		
Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
1				0.20		Grey brown sandy gravelly clayey TOPSOIL		
				0.30		Firm reddish brown sandy gravelly CLAY		
								
								
								
								
								
								
								
								
2						Structureless CHALK composed of sandy gravelly CLAY. Gravel is weak low density sub-angular chalk. Occasional flint gravel. Dc		
								
								
								
								
								
								
								
								
								
Remarks								
Stability Pit sides stable.								
Groundwater None encountered.								



A TETRA TECH COMPANY

Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD
T: +44 (0)1908 669 898 E: rpsmk@rpsgroup.com

Trial Pit Log

Trial Pit ID

TP7

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

Client CREST NICHOLSON

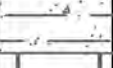
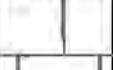
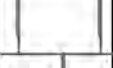
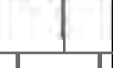
Logged
PA

Samples & Insitu Testing

Strata Details

Water

Backfill

Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.15		Grey brown sandy gravelly clayey TOPSOIL		
				0.25		Stiff reddish brown sandy very gravelly CLAY. Gravel of angular flint.		
								
								
								
								
								
								
								
						Structureless CHALK composed of silty sandy gravelly CLAY. Gravel is very weak and low density.		
						Dc		
								
								
								
								
								
								
								
								
				2.70				

Remarks

Stability Pit sides stable.

Groundwater None encountered.



A TETRA TECH COMPANY
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Trial Pit Log

Trial Pit ID

TP8

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

Water Backfill

Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description	Water	Backfill
				0.20		Grey brown sandy gravelly clayey TOPSOIL		
				0.50		Firm to stiff friable dark brown sandy CLAY		
						Firm to stiff dark reddish brown sandy gravelly CLAY Occasional flint cobbles.		
				2.00		Structureless CHALK composed of sandy gravelly CLAY. Gravel is very weak low density white chalk.		
						Dm		
		PI = 14		3.40				

Remarks Chalk excavates as soft putty

Stability Pit sides stable.

Groundwater None encountered.



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Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD
T: +44 (0)1908 669 898 E: rpsmkts@rpsgroup.com

Trial Pit Log

Trial Pit ID

TP9

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

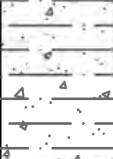
Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

Water Backfill

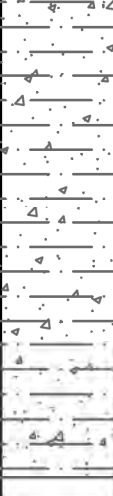
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description	Water	Backfill
		PI = 44		0.25		Gray brown sandy gravelly clayey TOPSOIL		
						Firm to stiff sandy very gravelly CLAY Gravel is sub-angular flint.		
						Gravelly clayey chalk present below 1.1m in face of pit. Dm		
		PI = 19		3.60				

Remarks Chalk excavates as soft putty

Stability Pit sides stable.

Groundwater None encountered.

 A TETRA TECH COMPANY Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD T: +44 (0)1908 669 898 E: rpsmks@rpsgroup.com		Trial Pit Log				Trial Pit ID TP10		
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level			Date 27-02-2025		
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m			Scale		
Client CREST NICHOLSON						Logged PA		
Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.20		Grey brown sandy gravelly clayey TOPSOIL		
						Stiff to very stiff orange brown sandy gravelly CLAY Gravel is coarse sub-angular flint.		
				2.90				
Remarks								
Stability Pit sides stable.								
Groundwater None encountered.								

 A TETRA TECH COMPANY Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD T: +44 (0)1908 669 898 E: rpsmks@rpsgroup.com		Trial Pit Log				Trial Pit ID TP11		
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level			Date 27-02-2025		
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m			Scale		
Client CREST NICHOLSON						Logged PA		
Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
1				0.25		Grey brown sandy gravelly clayey TOPSOIL		
				0.65		MADE GROUND. Clayey gravelly chalk.		
2						Firm to stiff dark orange brown sandy gravelly CLAY Gravel of flint.	1	
						One pit face showing structureless CHALK composed of sandy gravelly CLAY		
						Dm	2	
				3.70				
Remarks Trial pit located over surface depression feature								
Stability Pit sides stable.								
Groundwater None encountered.								

 A TETRA TECH COMPANY Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD T: +44 (0)1908 669 898 E: rpsmks@rpsgroup.com			Trial Pit Log				Trial Pit ID TP12	
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level			Date 27-02-2025		
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m			Scale		
Client CREST NICHOLSON						Logged PA		
Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.30		Grey brown sandy gravelly clayey TOPSOIL		
						Stiff to very stiff light orange brown very sandy gravelly CLAY Gravel of angular flint.		
				2.80				
Remarks								
Stability Pit sides stable.								
Groundwater None encountered.								



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T: +44 (0)1908 669 898 E: rpsmk@rpsgroup.com

Trial Pit Log

Trial Pit ID

TP13

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

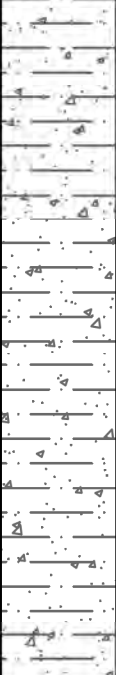
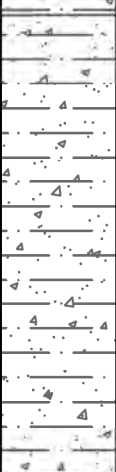
Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

Water Backfill

Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description	Water	Backfill
				0.30 - 0.60		MADE GROUND. Grey brown clayey topsoil with clayey chalk.		
						Firm reddish brown sandy gravelly CLAY. Gravel of sub-angular flint.		
				2.20		Soft very silty gravelly CLAY consisting of reworked chalk.		
				3.50				

Remarks Trial pit located over surface depression

Stability Pit sides stable.

Groundwater Seepage at 2.4 - 2.5m



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Trial Pit Log

Trial Pit ID

TP14

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

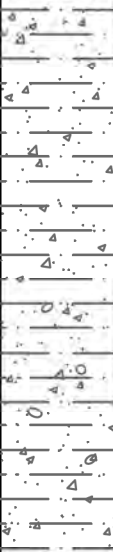
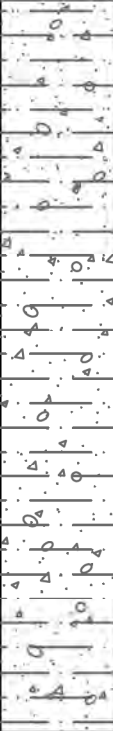
Water Backfill

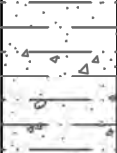
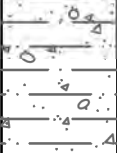
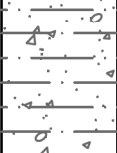
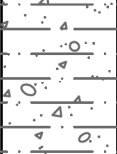
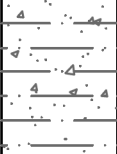
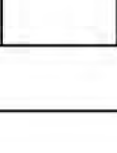
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description	Water	Backfill
				0.20		Grey brown sandy gravelly clayey TOPSOIL		
				1.70		Stiff orange brown sandy gravelly CLAY. Gravel is flint.		
		Pl = 11		3.30		Structureless CHALK composed of silty sandy gravelly CLAY. Dm grading to Dc		

Remarks

Stability Pit sides stable.

Groundwater None encountered.

 A TETRA TECH COMPANY Aurora House, Delfic Avenue, Rooksley, Milton Keynes MK13 8LD T: +44 (0)1908 569 898 E: rpsmk@rpsgroup.com		Trial Pit Log				Trial Pit ID TP15		
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level			Date 27-02-2025		
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m			Scale		
Client CREST NICHOLSON						Logged PA		
Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.20		Gray brown sandy gravelly clayey TOPSOIL		
				1.40		Firm grey brown very sandy gravelly CLAY with occasional flint cobbles.		
				3.00		Firm to stiff dark reddish brown sandy very gravelly CLAY with occasional large flint cobbles.		
Remarks Trial pit located in low point of a valley feature								
Stability Pit sides stable.								
Groundwater None encountered.								

 A TETRA TECH COMPANY Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD T: +44 (0)1908 669 898 E: rpsmk@rpsgroup.com		Trial Pit Log				Trial Pit ID TP16		
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level			Date 27-02-2025		
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m			Scale		
Client CREST NICHOLSON						Logged PA		
Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.30		Grey brown sandy gravelly clayey TOPSOIL		
				0.48		Firm to stiff very sandy gravelly CLAY. Gravel of flint.		
						Stiff to very stiff sandy gravelly CLAY with occasional flint cobbles. Gravel of flint.		
								
								
								
								
								
								
				2.80				
Remarks								
Stability Pit sides stable.								
Groundwater None encountered.								



A TETRA TECH COMPANY
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Trial Pit Log

Trial Pit ID

TP17

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

Water Backfill

Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description	Water	Backfill
				0.20		Grey brown sandy gravelly clayey TOPSOIL		
						Stiff reddish brown sandy gravelly CLAY. Gravel is flint.		
				1.20		Structureless CHALK composed of sandy very gravelly CLAY. Dm		
		PI = 25		3.00				

Remarks

Stability Pit sides stable.

Groundwater None encountered.



A TETRA TECH COMPANY
Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD
T: +44 (0)1908 669 898 E: rpsmk@rpsgroup.com

Trial Pit Log

Trial Pit ID

TP18

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

Water Backfill

Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description	Water	Backfill
				0.30		Grey brown sandy gravelly clayey TOPSOIL		
				0.75		MADE GROUND. Clayey gravelly reworked chalk.		
1						Firm to stiff (locally soft to firm) grey brown sandy gravelly CLAY. Gravel of flint.	1	
2		Pl = 34		3.20			2	

Remarks Trial pit located over shallow surface depression

Stability Pit sides stable.

Groundwater None encountered.



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Trial Pit Log

Trial Pit ID

TP19

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
13-03-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

Water Backfill

Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description	Water	Backfill
0.30						Grey brown sandy gravelly clayey TOPSOIL		
1						Soft to firm grey brown gravelly very sandy CLAY.. ... becoming stiff below 1.4m and very stiff below 2.0m Increasing gravel content with depth. Gravel is sub-angular flint.	1	
2							2	
3.00								

Remarks

Stability Pit sides stable.

Groundwater None encountered.

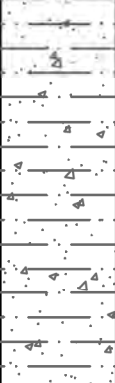
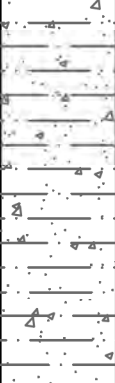
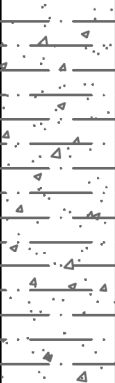


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Trial Pit Log

Trial Pit ID
TP20

Project	LOWER LUTON ROAD, HARPENDEN	Co-ords	Ground Level	Date	13-03-2025
Job No.	CAS31270	Dimensions (m)	0.6 x 3.0m	Scale	
Client	CREST NICHOLSON			Logged	PA

Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.15		Grey brown sandy gravelly clayey TOPSOIL		
1							1	
						Stiff to very stiff orange brown very sandy gravelly CLAY. Gravel is sub-angular flint.		
2							2	
				2.70				

Remarks

Stability Pit sides stable.

Groundwater None encountered.



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Trial Pit Log

Trial Pit ID

TP21

Project LOWER LUTON ROAD, HARPENDEN

Co-ords
Ground Level

Date
27-02-2025

Job No. CAS31270

Dimensions (m)
0.6 x 3.0m

Scale

Client CREST NICHOLSON

Logged
PA

Samples & Insitu Testing

Strata Details

Water Backfill

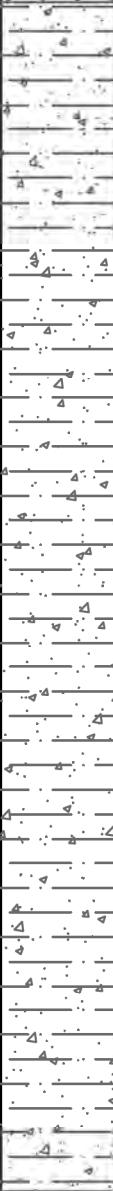
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description	Water	Backfill
				0.30		Grey brown sandy gravelly clayey TOPSOIL		
						Grey brown very sandy gravelly CLAY. Locally much flint gravel.		
				3.50				

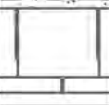
Remarks Trial pit located over shallow surface depression

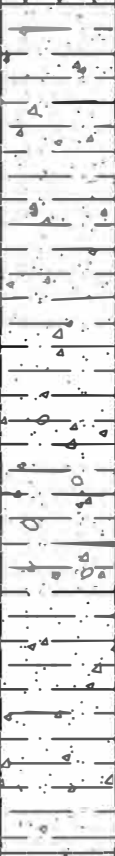
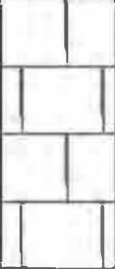
Stability Pit sides stable.

Groundwater None encountered.

 A TETRA TECH COMPANY Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD T: +44 (0)1908 669 898 E: rpsmk@rpsgroup.com		Trial Pit Log				Trial Pit ID TP22		
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level			Date 13-03-2025		
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m			Scale		
Client CREST NICHOLSON						Logged PA		
Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.28		Gray brown sandy gravelly clayey TOPSOIL		
				0.85		Firm to stiff reddish brown sandy gravelly CLAY. Gravel mainly of sub-angular flint.		
						Structureless CHALK composed of sandy very clayey GRAVEL. Gravel is weak and low density.		
						Dm / Dc		
				2.60				
Remarks								
Stability Pit sides stable.								
Groundwater None encountered.								

 A TETRA TECH COMPANY Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD T: +44 (0)1908 669 898 E: rpsmks@rpsgroup.com		Trial Pit Log				Trial Pit ID TP23		
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level			Date 13-03-2025		
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m			Scale		
Client CREST NICHOLSON						Logged PA		
Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.28		Gray brown sandy gravelly clayey TOPSOIL		
						Stiff to very stiff reddish brown sandy gravelly CLAY. Gravel of sub-angular flint.		
				2.80				
Remarks								
Stability Pit sides stable.								
Groundwater None encountered.								

 A TETRA TECH COMPANY Aurora House, Deltic Avenue, Rooksley, Milton Keynes MK13 8LD T: +44 (0)1908 669 898 E: rpsmks@rpsgroup.com		Trial Pit Log				Trial Pit ID TP24		
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level			Date 27-02-2025		
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m			Scale		
Client CREST NICHOLSON						Logged PA		
Samples & Insitu Testing			Strata Details				Water	Backfill
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
				0.30		Grey brown sandy gravelly clayey TOPSOIL		
1		PI = 25				Stiff to very stiff orange brown sandy gravelly CLAY. Gravel of flint.	1	
2							2	
2.4		PI = 48						
				2.90		Structureless CHALK composed of slightly gravelly very silty CLAY. Dm		
				3.10				
Remarks Chalk excavates as soft putty								
Stability Pit sides stable.								
Groundwater None encountered.								

 A TETRA TECH COMPANY Aurora House, Dettie Avenue, Rookslay, Milton Keynes MK13 8LD T: +44 (0)1908 669 898 E: rpsmk@rpsgroup.com		Trial Pit Log			Trial Pit ID TP25			
Project LOWER LUTON ROAD, HARPENDEN			Co-ords Ground Level		Date 27-02-2025			
Job No. CAS31270			Dimensions (m) 0.6 x 3.0m		Scale			
Client CREST NICHOLSON					Logged PA			
Samples & Insitu Testing			Strata Details			Water	Backfill	
Depth (m)	Type	Testing	Level	Depth	Legend	Strata Description		
						Grey brown sandy gravelly clayey TOPSOIL		
		PI = 36		0.40-0.70		Firm to stiff dark orange brown sandy very gravelly CLAY Gravel is sub-angular flint.		
		PI = 39				Structureless CHALK composed of sandy gravelly CLAY.		
				2.70				
						Dm		
				3.50				
Remarks								
Stability Pit sides stable.								
Groundwater None encountered.								