

ENVIRONMENTAL DESK STUDY
AND
PRELIMINARY
RISK ASSESSMENT

Sparrow Farm
Newgate Street Village
Newgate Street
Hertford
SG13 8RG



August 2019

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Contact information

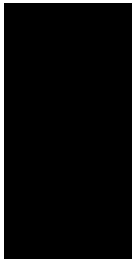
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1 Introduction and objectives

1.1 Introduction

Apple Environmental Limited has been appointed to provide a Phase I environmental desk study report in support of a prior approval to erect a dwelling following the demolition of an agricultural building, with associated access, landscaping and car parking.

1.2 Aim

The principal aim of a Phase I environmental report is to gather the information needed in order to be in a position to assess the presence and/or significance of any land contamination on this site. The resultant information then enables a preliminary risk assessment to be carried out to conclusions in which an acceptable degree of confidence can be placed. These conclusions form the basis of the conceptual site model (CSM), which therefore highlight any potential pollutant linkages at the site based on current and historical use of the land and its immediate surroundings, and if appropriate, proposes further investigation. Any such further investigation will focus on areas currently and previously used for purposes that may give rise to contamination and will take account of land use in the proposed future development, one of the principal goals being the reduction of any uncertainty in the CSM (BSI 10175:2011+A2:2017).

1.3 Objectives

The broad objectives of this report are to obtain information in order to:

- provide information from which likely contaminant-pathway-receptor relationships can be identified;
- evaluate the environmental setting of the site and to identify sensitive receptors;
- assess the likelihood of finding contamination on site, its nature and extent; and
- determine the need or requirements for further investigation, by means of generic or detailed risk assessment.

2 Site history

2.1 Introduction

The site is located in Hertford, the county town of Hertfordshire.

2.2 Historical maps

Historical mapping and other archive material has been consulted to ascertain the past use of the site.

1879 - 1880

The site is currently unoccupied and stretches across two fields and surrounded by open land.

A river or stream is present along the southeastern boundary, running in a northeast to southwest direction. An old gravel pit is located 180m south of the site.

1882 - 1913

No significant changes visible within 250m of the site.

1916

The construction of the start of a railway line labelled Enfield & Stevenage Loop Line is now present 50m to the northeast of the site.

1935

The railway now extends in a southerly direction, 20m to the northeast of the site. The old gravel pit 180m to the south appears to have been infilled.

1938 - 1960

No significant changes visible within 250m of the site.

1970 - 1971

The aforementioned stream along the southeastern boundary is now labelled as Cuffley Brook.

1988 - 1993

No significant changes visible within 250m of the site.

1993

A structure is now present upon the site, which appears to be a barn or similar.

2006

No significant changes visible within 250m of the site.

2019

The site is accessed via Newgate Street Village road. Sparrow Farm, comprising one dwelling, is now present 50m to the northwest, whilst a large structure is present 50m to the north.

2.3 Historical and archaeological records

Hertford is the county town of Hertfordshire, with history dating back to Saxon times. Following the Norman Conquest, a castle with a priory and mill was established in the 11th Century. The castle was a Royal residence for the next 300 years.

In the late 18th Century, the River Lea navigation was cut through the town which provided access to London's corn markets. The town could not expand outwards due to the surrounding agricultural estates. It was therefore expanded upwards with storeys being added to existing buildings. Outward expansion of the town occurred during the late 19th Century when the railway was developed.

A significant amount of building development occurred at this same time, as transport links to London improved. Industry grew with the introduction of electricity and gas.

Hertford now serves as a commuter town which is still expanding.

2.4 Identified historical commercial/industrial sites

Through reference to historical data, there do not appear to be any highlighted potentially contaminative past land-use features within 200m of the site.

There are no recorded historical tanks which have been located within 200m of the site; nor are there any historical petrol or fuel sites.

More recent activities within the area are discussed below in Section 3.

3 Current setting

3.1 General

The subject site is accessed via Newgate Street Village and exists as a large agricultural barn surrounded by soft landscaping; albeit with large gravelly soil. A small block and timber outbuilding is also present on the eastern section of the site.

The barn is constructed from timber and block with some cement-render walls and steel-panelled roofing. The southwestern section of the barn is used for the storage of hay, whilst the northern section of the barn contains lamb pens. The outer-lying land has seen previous use as a paddock.

Building materials including brick and concrete are currently being stored on the western section of the site. These appear to be unused materials from the recent construction of the dwelling at Sparrow Farm.

The site is surrounded by fields, whilst Cuffley Brook runs along the southeastern boundary of the site. A railway line is present to the east of the lying approximately 6m higher than the site itself.

Photographs 1 to 10 below show some of the features described above.

Photograph 1 Showing the entrance onto the site



Photograph 2 Showing the barn from the north



Photograph 3 Showing the barn from the south



Photograph 4 Showing the southwestern section of the barn



Photograph 5 Showing the lamb pens in the northwestern section of the barn



Photograph 6 Showing the stored building materials on the western section



Photograph 7 Showing the outbuilding on the eastern section of the site



Photograph 8 Showing Cuffley Brook to the immediate southeast



Photograph 9 Showing the dwelling at Sparrow Farm



Photograph 10 Showing Newgate Street Village road and the railway line



3.2 Development surrounding the site

Through reference to environmental datasheets, no commercial or industrial activities currently exist within 200m of the site.

There are no recorded petrol or fuel sites located within 200m of the site.

There are no underground high pressure oil or gas pipes recorded within 500m of the site, nor are there any underground electricity transmission cables within this same distance.

4 Environmental setting

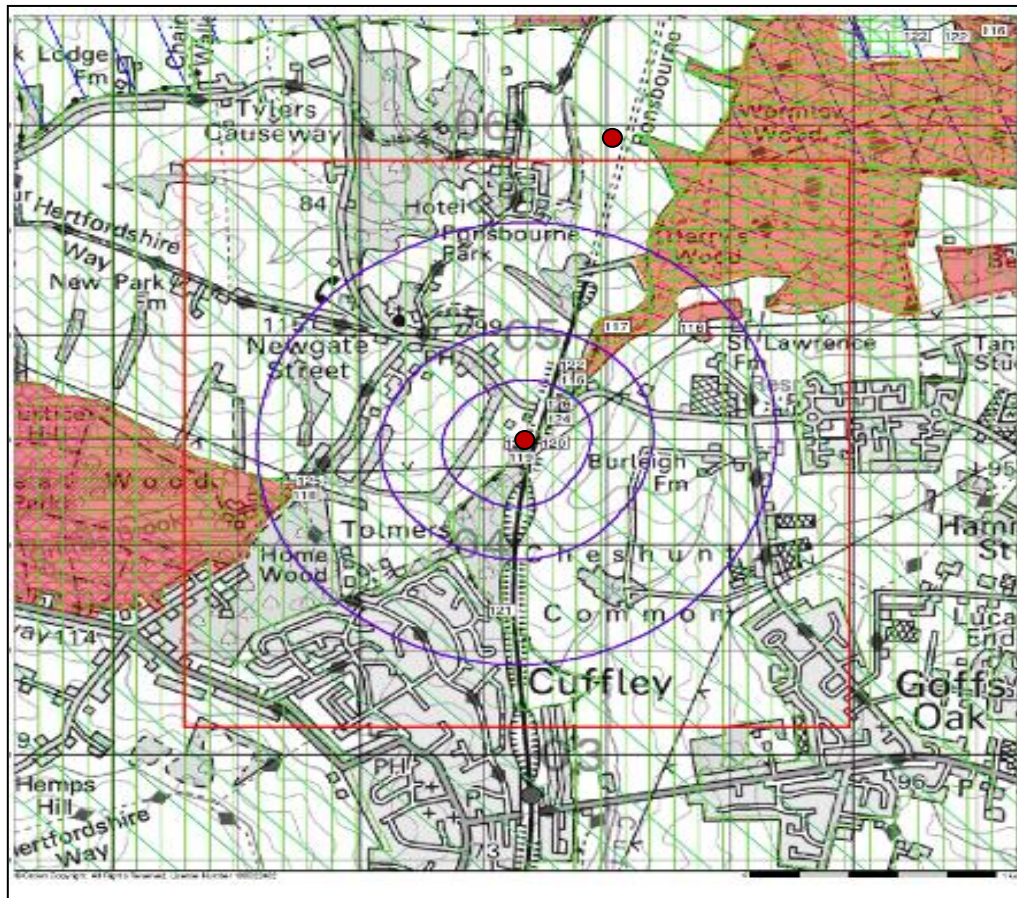
Ordnance Survey maps were used in conjunction with the MAGIC website (formerly English Nature's Nature on the Map) in order to ascertain the location of sensitive habitat areas and other places of special or scientific interest.

The site itself does not lie within a designated habitat-related environmentally sensitive area; although Broxbourne Woods National Nature Reserve is located 312m to the northeast of the site.

There are two Sites of Special Scientific Interest (SSSI) located within 2km of the site, the nearest of which is Wormley-Hoddesdonpark Wood located 188m to the northeast. This wood is also considered to be a Special Area of Conservation (SAC).

Figure 1 below shows the proximity of these highlighted areas.

Figure 1 Location of nearest environmentally sensitive areas



(Reference: Natural England (MAGIC))

5 Geology

5.1 Bedrock

Geological data states that the underlying geology of the specific area upon which this site lies consists of the Lambeth Group - clay, silt and sand. This sedimentary bedrock was formed approximately 58 to 59 million years ago in the Palaeogene Period when the local environment was dominated by swamps, estuaries and deltas.

The thickness of the bedrock at the subject site has not been confirmed but is understood to be up to 39m in depth in this general area.

5.2 Superficial deposits

The far eastern section of the site is reported to be overlain by glacial deposits comprising clay, silt sand and gravel. There are no superficial deposits overlaying the remainder of the site.

5.3 Artificial deposits

BGS mapping does not record any artificial deposits overlying the geological deposits at this site location; however considering the characteristics of the site it is quite possible that there could be some localised made-ground or at least hardcore present beneath the surface of the barn and outbuilding.

5.4 Borehole data

British Geological Survey (BGS) borehole data has been consulted for this study. Two boreholes have been selected as they are expected to share similar geological strata to that which is present beneath the site surface or are within close proximity of the site.

TL30 SW21 refers to a borehole at Burleigh Farm, 974m to the northeast, which continued to a depth of 14m.

The log details 0.3m of made-ground underlain by 12.5m of boulder clay. From here to the base of the borehole 1.2m of stiff clay which changed from brown to grey blue with depth was present. Groundwater was not recorded.

http://scans.bgs.ac.uk/sobi_scans/boreholes/537440/images/12142080.html

TL30 NW37 refers to a borehole at Ponsbourne Park, 1.1km to the north, which continued to a depth of 58.36m.

The log details 2.44m of clay and stones underlain by 0.61m of red sand and 3.05m of gravel. This was subsequently underlain by 32m of blue clay and 10.34m of sand and clay. For the next 1.83m light coloured sand was present, underlain by 1.07m of sand and pebbles with another layer of light coloured sand for 3.35m. This was subsequently underlain by 0.61m of sand and pebbles and 2.44m of sand. From here to the base of the borehole flints were present. Groundwater was not recorded.

http://scans.bgs.ac.uk/sobi_scans/boreholes/537087/images/14900245.html

5.5 Soil chemistry

Through reference to available data, the soil in the local area is expected to have an arsenic concentration of 15-25mg/kg, a cadmium concentration of less than 1.8mg/kg, a chromium concentration of 60-90mg/kg, a nickel concentration of 15-30mg/kg and a lead concentration of less than 100mg/kg.

5.6 Radon affected areas

According to the Health Protection Agency (HPA) mapping, the site is not located within a radon affected area, as less than 1% of properties are expected to be above the 'Action Level'.

Through reference to BR211, radon protective measures are not deemed necessary for any new residential development in this area.

5.7 Non-coal mining

According to the Coal Authority the site is not located within an identified mining area.

6 Hydrology

6.1 Groundwater

The expected geology for the specific area of the site is bedrock of the Lambeth Group.

According to the Environment Agency this bedrock has been classified as a 'secondary A' aquifer, with medium permeability status. This refers to rock with permeability that is capable of supporting water supplies on a local, rather than strategic scale.

Through reference to the BGS borehole data detailed above it was noted that groundwater was not detectable within the local area at that time, however as a brook runs along the southeastern boundary of the site, along with the belief that the subject site is lower-lying than these borehole locations, it is quite possible that groundwater may be present in the immediate vicinity of the site at a vulnerable depth.

It is however noted that the site does not lie within an Environment Agency designated Groundwater Source Protection Zone, with the nearest being 1.8km to the northeast. This may suggest that groundwater is not active in the vicinity of the site.

6.2 Surface water

There is one surface water feature within 200m of the site. This is the aforementioned brook (Cuffley Brook) located to the immediate southeast of the site.

With regards to the movement of surface run-off at the site, as much of the outer-lying land is soft landscaped, it is expected for water to percolate directly into the ground within such areas.

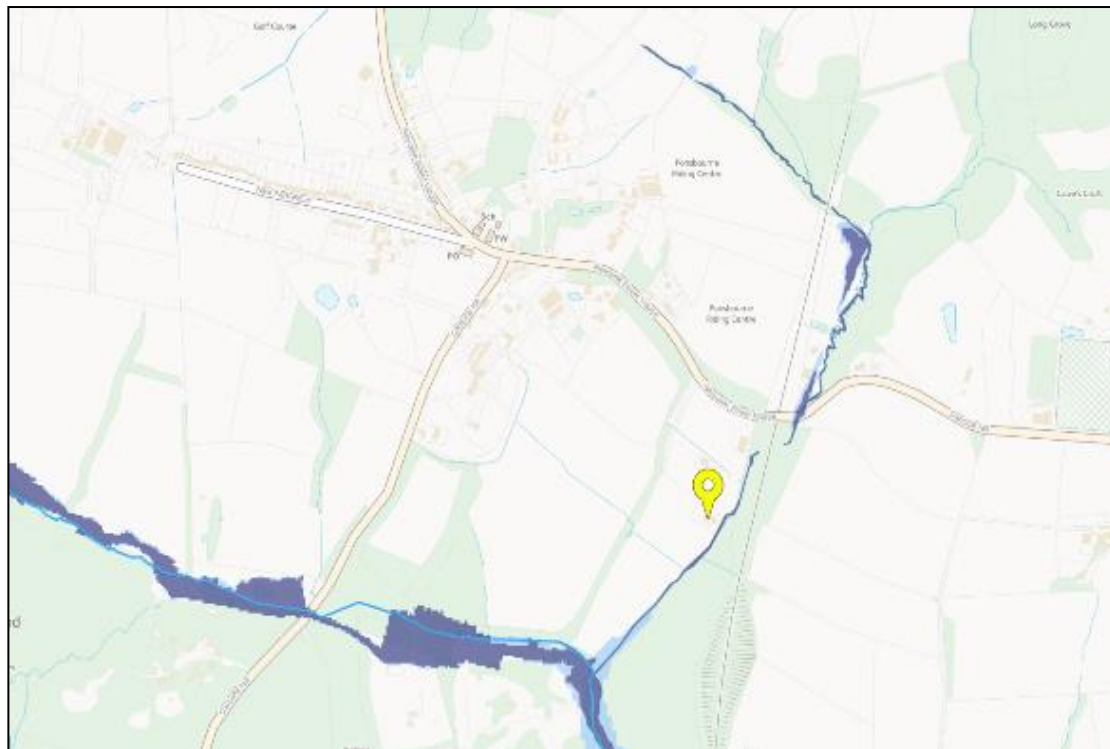
6.3 Flooding

Through reference to Environment Agency flood data the site falls within a designated Flood Zone 1, hence the annual probability of flooding from rivers here overall is deemed to be 'low'.

Figure 2 below shows the presence of the nearest Flood Zones 2 and 3 located approximately 60m to the southeast and 55m to the south respectively.

These have been designated due to possible flooding of the aforementioned Cuffley Brook.

Figure 2 Showing the nearest flood risk areas to the site



Proposed development site

© Crown copyright

— Flood Zone 2

— Flood Zone 3

7 Waste and other infilled land

7.1 Landfill

Environment Agency data, environmental datasheets and historical maps referenced during the compiling of the report indicate that there have been two historic landfill sites within 1500m of the site.

The closest of these was located at Tyersley Farm 1.7km to the northwest of the site. The operational details relating to this facility are not known; including the types of waste that were accepted and the dates of operation.

7.2 Infill

Records indicate that land infilling may have occurred within the surrounding area, with one feature reported within 250m of the site according to the referenced environmental datasheets.

This refers to an unknown feature which is likely to be an infilled pit or quarry located 130m southeast of the site; dated 1988.

7.3 Other waste facilities

There have been no other recorded waste facilities within 250m of the site.

8 Available contaminated land information

8.1 Statutory contaminated land

Environmental datasheets state that there are no sites determined as Contaminated Land under Part 2A of the EPA 1990 within 500m of the site.

8.2 Planning search

Previous planning applications have been referred to for this area of Hertfordshire in order to determine whether or not land contamination had been a material consideration in any corresponding decision notice, and if so, to consider any effect that these sites may have had on the subject site.

Through reference to Hertfordshire County Council planning records there appear to have been no requests for contaminated land investigations within the vicinity of the site; hence no other reports were consulted during the compiling of this current report.

8.3 Environmental incidents

Environmental datasheets state that there have been no recorded pollution incidents within 250m of the site.

8.4 Discharge consents

There are no recorded discharge consents within 250m of the site.

9 Conceptual site model

9.1 Sources

This report has identified that the site appears to have existed as an open field until the late 1990s when the current agricultural building was constructed here.

It is apparent that this barn has been designed for animal containment, and therefore unlikely to have contained any significant quantities of potentially hazardous materials.

It is recognised however that the storage of animals itself can on occasions adversely affect the soil and result in unacceptable conditions for residential development, although the presence of concrete flooring is expected to have largely protected the underlying ground in this instance.

It is expected also that all associated animal waste would have been disposed of elsewhere on the outer-lying farm site in order to utilise any nutrient potential, and not in the immediate vicinity of the barn.

This report has also highlighted the potential for localised made-ground and hardcore to possibly be present beneath the structure. In this instance it is not expected to be of any great depth, and therefore unlikely to generate harmful quantities of ground gases. Furthermore, on the basis that the underlying material is not overly disturbed during the development then it is not expected for this to be a significant concern.

It has been noted that the land outside of the barn curtilage does not appear to be characterised by made-ground.

With regards to off-site sources, a railway line is present to the east of the site. Although contamination associated with the railway line is possible, it is thought that due to its distance from the subject site there would be no significant impact to consider.

Overall therefore, in view of these highlighted activities and features, there does not appear to be any significant on or off-site sources of contamination to consider.

9.2 Receptors

The receptors that would need to be considered in this instance are:

- construction workers;
- future site occupiers; and
- buildings, structures and associated services.

The depth and vulnerability of groundwater beneath the site is not known, however considering the information made available for this report, there is little to suggest that groundwater or other off-site media should be at risk from contamination in this location. This is therefore not considered to be a viable receptor or pathway in this instance.

9.3 Pathways

It has been highlighted above that there are unlikely to be any significant sources of contamination affecting the proposed redevelopment and re-use of this barn. Consideration also has to be given to the fact that the existing structure has concrete flooring, which would have largely protected the underlying ground.

It is presumed that the proposed dwelling will retain this concrete flooring, and therefore the contamination pathways would appear to be limited in this instance, to include the following only:

- direct dermal contact with soil during construction;
- the indirect ingestion of soil during construction;
- the inhalation and/or ignition of gases and/or vapours during construction and the occupation of the dwelling; and
- direct inhalation of soil dust during construction.

Despite the possible presence of these pathways, as there has been no identifiable chemical contamination source for this site, there are also limited pollutant linkages from source to receptor to consider in this instance.

9.4 Assumptions and uncertainties

9.4.1 Site history

It has been assumed that all uses of the site have been identified. Where there is any uncertainty a precautionary approach will generally have been made.

9.4.2 Geology, surface water and groundwater

It has been assumed that the geological map is representative of the site; however any unexpected variation could affect the risk to groundwater beneath the site (if present). In addition to this, the nature and presence of groundwater beneath the site is similarly not known. This includes the possible rest level and flow direction; although this report has concluded that the groundwater is likely to be a vulnerable receptor or viable pathway in this instance.

9.4.3 Contaminants

Although the presence of several contaminants is possible, their nature, location, concentration and mobility are not known.

9.4.4 Pathways

The absence of preferential flow paths such as pipe work, drains and service runs has not been confirmed.

9.4.5 Future site use

The likelihood or details of any future alteration or redevelopment of the site is not known, hence risk can only be ascertained with regard to the proposed layout and use.

9.5 Assessment of risk

The perceived risk associated with identified linkages has been assessed below in Table 1. The risk algorithm used has been shown below in Figure 3.

Risk has been assessed on the understanding that the site will be in residential use with a soft landscaped garden.

Figure 3 Risk assessment algorithm

Potential severity	Risk rating						Severity of hazard	Probability of hazard	Overall risk
	5	5	10	15	20	25	5 = Fatality	1 = Improbable	1 - 6 Low
	4	4	8	12	16	20	4 = Major	2 = Remote	8 - 12 Moderate
	3	3	6	9	12	15	3 = Minor	3 = Possible	15 - 25 High
	2	2	4	6	8	10	2 = Negligible	4 = Probable	
	1	1	2	3	4	5	1 = None	5 = Certainty	
		1	2	3	4	5			
Probability						Severity of hazard x probability = risk rating			

Table 1 Perceived risk to receptors

Source(s) identified	Identified pathways	Overall risk	Comments
None	Direct ingestion of soil and soil-dust	4	In the absence of any expected chemical soil contamination or significant sources, the risk from ingestion is expected to be low.
	Dermal contact with soil and soil-dust	4	In the absence of any expected chemical soil contamination or significant sources, the risk from skin contact is expected to be low.
	Inhalation of soil-dust	4	In the absence of any expected chemical soil contamination or significant sources, the risk from inhalation is expected to be low
	Ingestion of vegetables	3	In the absence of any expected chemical soil contamination or significant sources, the risk from vegetable uptake is expected to be low.
	Inhalation and/or ignition of gases	4	In the absence of any significant infilling or made-ground, the risk from ground gas inhalation or ignition is expected to be low.
	Contact with groundwater	2	In the absence of any expected chemical soil contamination or significant sources, the risk to groundwater is expected to be low.
	Direct contact with buildings and main services	2	In the absence of any expected chemical soil contamination or significant sources, the risk to building fabric and underground services is expected to be low.

10 Summary and recommendations

10.1 Summary

This report has highlighted the fact that the subject site does not appear to have had any identifiable use until the late 1990s, whereupon it became the site of a barn for the presumed association with animal husbandry.

In considering this site history, there is little to suggest that the previous uses of this building would have had any significant adverse effect on the underlying ground.

With specific regard to off-site activities, then once again there is little to suggest that the buildings and its occupants would be at risk considering the proposal to redevelop this building for residential purposes.

10.2 Recommendations

In view of the above conclusion, there would appear to be little that would be gained from undertaking any intrusive investigation with soil analysis.

It is however recommended that should any groundworks be undertaken then an informal observation strategy should be put in place to fully investigate any soils or groundwater, which may be suspected by sight, odour or suspicion, to be contaminated.

In the event of any discovery of potentially contaminated soils or groundwater, the location, type and quantity should be recorded, and the contaminated land officer at Hertfordshire County Council notified immediately. Approval should be sought prior to continuing groundworks or implementing any mitigation.

11 Limitations

The results, comments and recommendations within this report are based upon the information made available at the time of undertaking this work, and relate to this specific work only. They must not be used to assess similar concerns at any other time, or at any other location.

Furthermore it should be pointed out that Apple Environmental Limited has been contracted to provide an objective preliminary risk assessment only, and as such has made every effort to achieve this aim.

Apple Environmental Limited will not be held responsible for the accuracy of information quoted from third party sources, and furthermore will not be held responsible for any subsequent outcomes arising from the implementation of recommendations herein based on this information.

12 References and other sources of information

1. Investigation of potentially contaminated sites - code of practice (BSI 10175:2011+A2:2017)
2. Groundsure EnviroInsight - historical mapping and environmental data report.
3. Natural England Nature on the map:
<http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>.
4. British Geological Survey website: <http://www.bgs.ac.uk>.
5. Environment Agency website:
<http://apps.environment-agency.gov.uk/wiyby/default.aspx>.
6. <https://en.wikipedia.org/wiki/Hertford>
7. <https://hertford.net/history/history.php>

APPENDIX I

Historical maps

Hertfordshire

Published 1879 - 1880

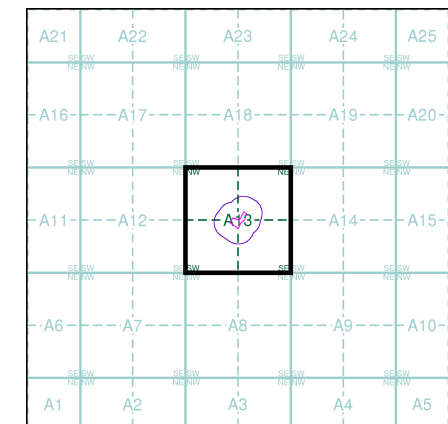
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below 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.

Map Name(s) and Date(s)

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041_02	1879	1:2,500

Historical Map - Segment A13

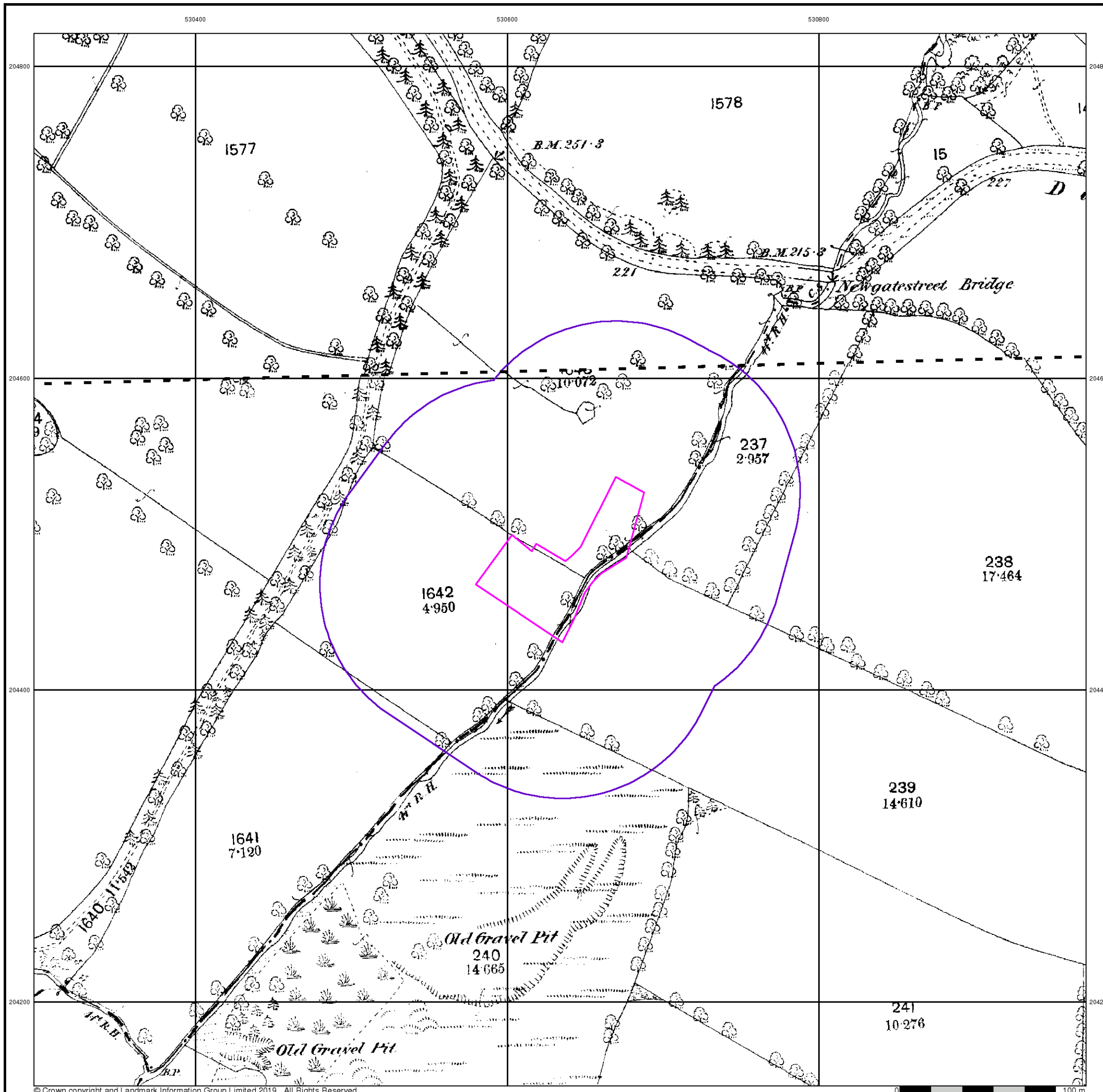


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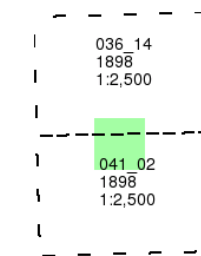
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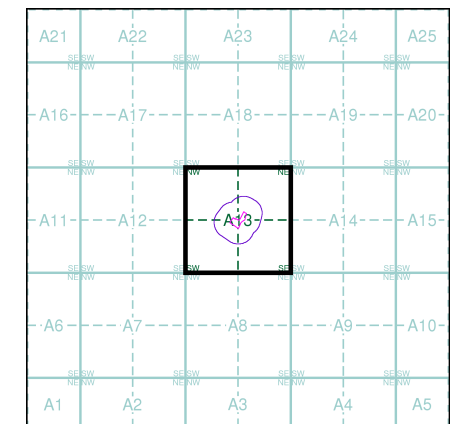


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Historical Map - Segment A13

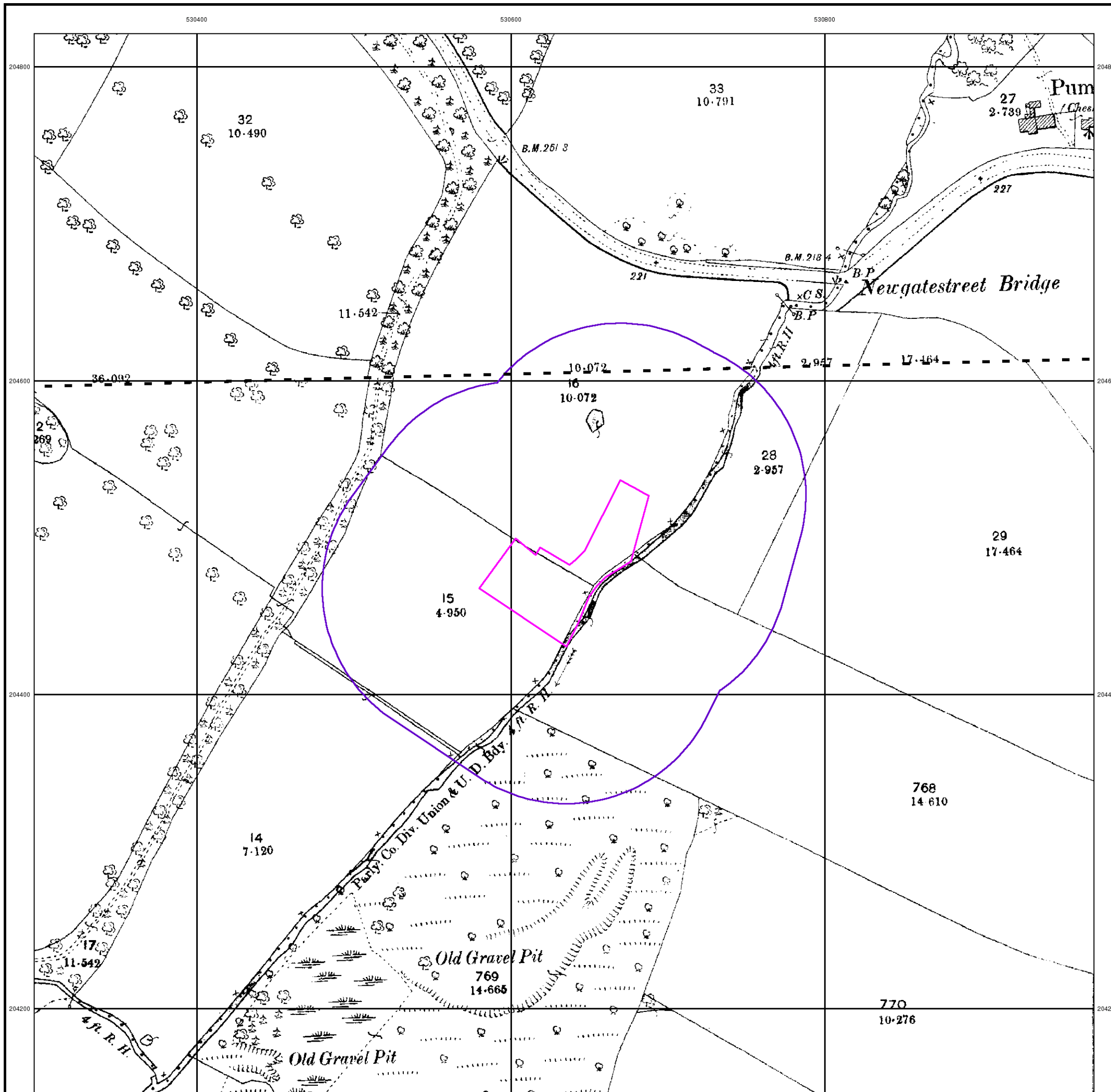


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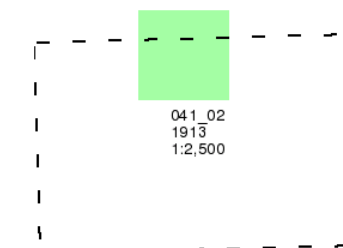
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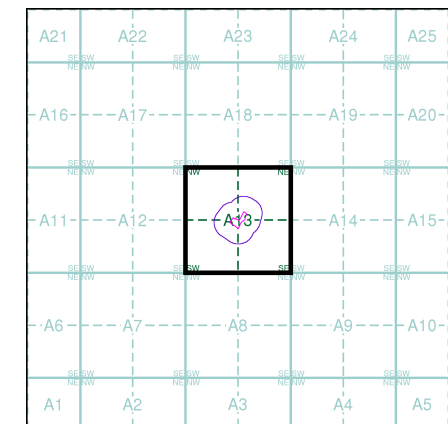


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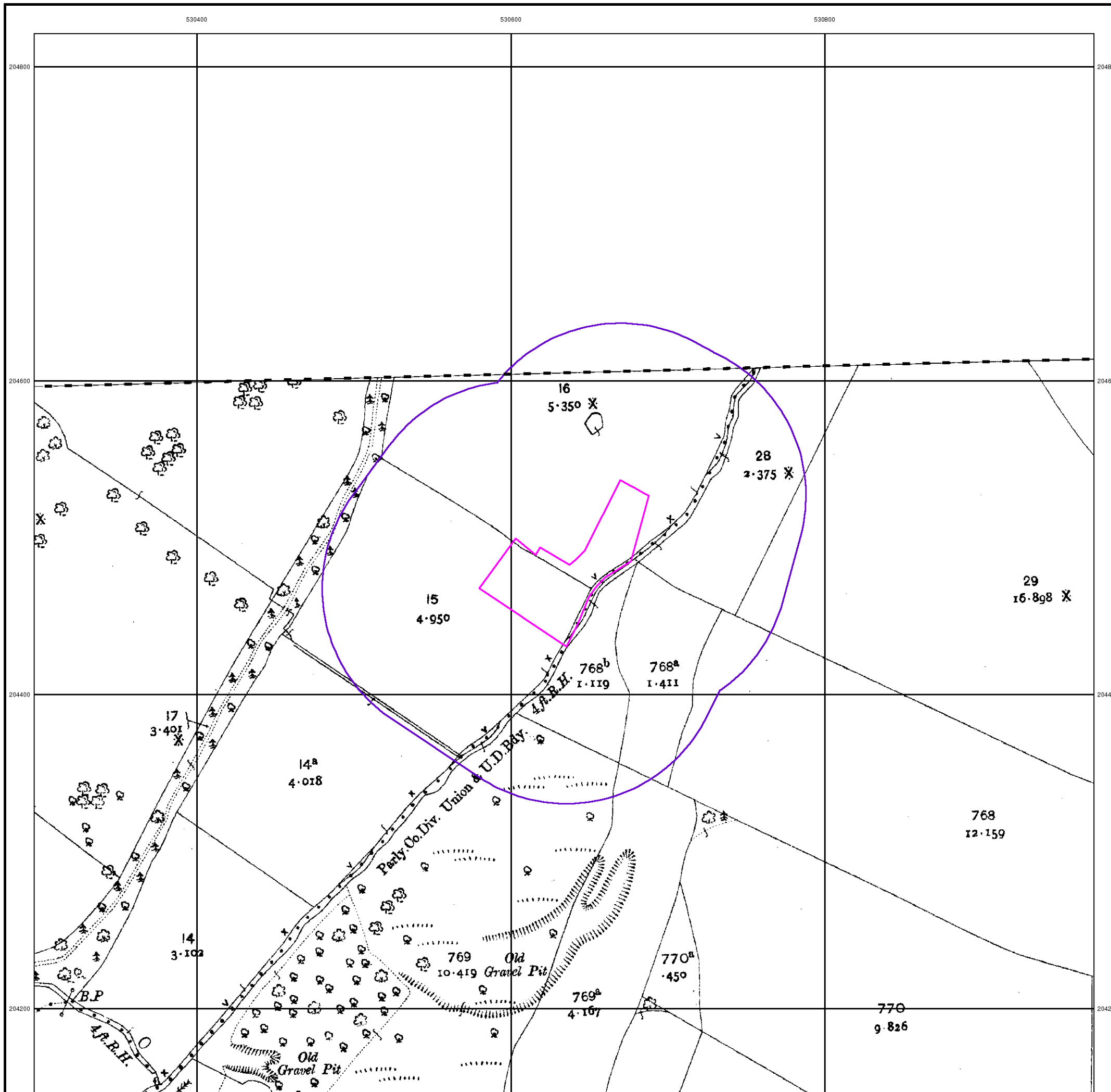


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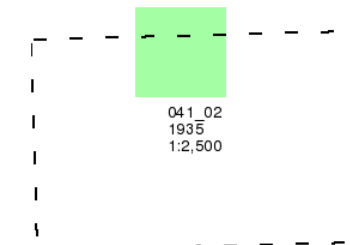
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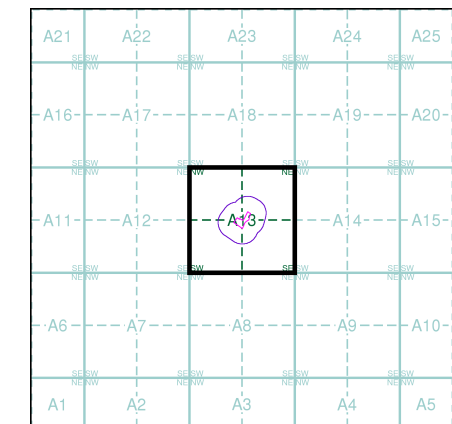


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Map Name(s) and Date(s)



Historical Map - Segment A13

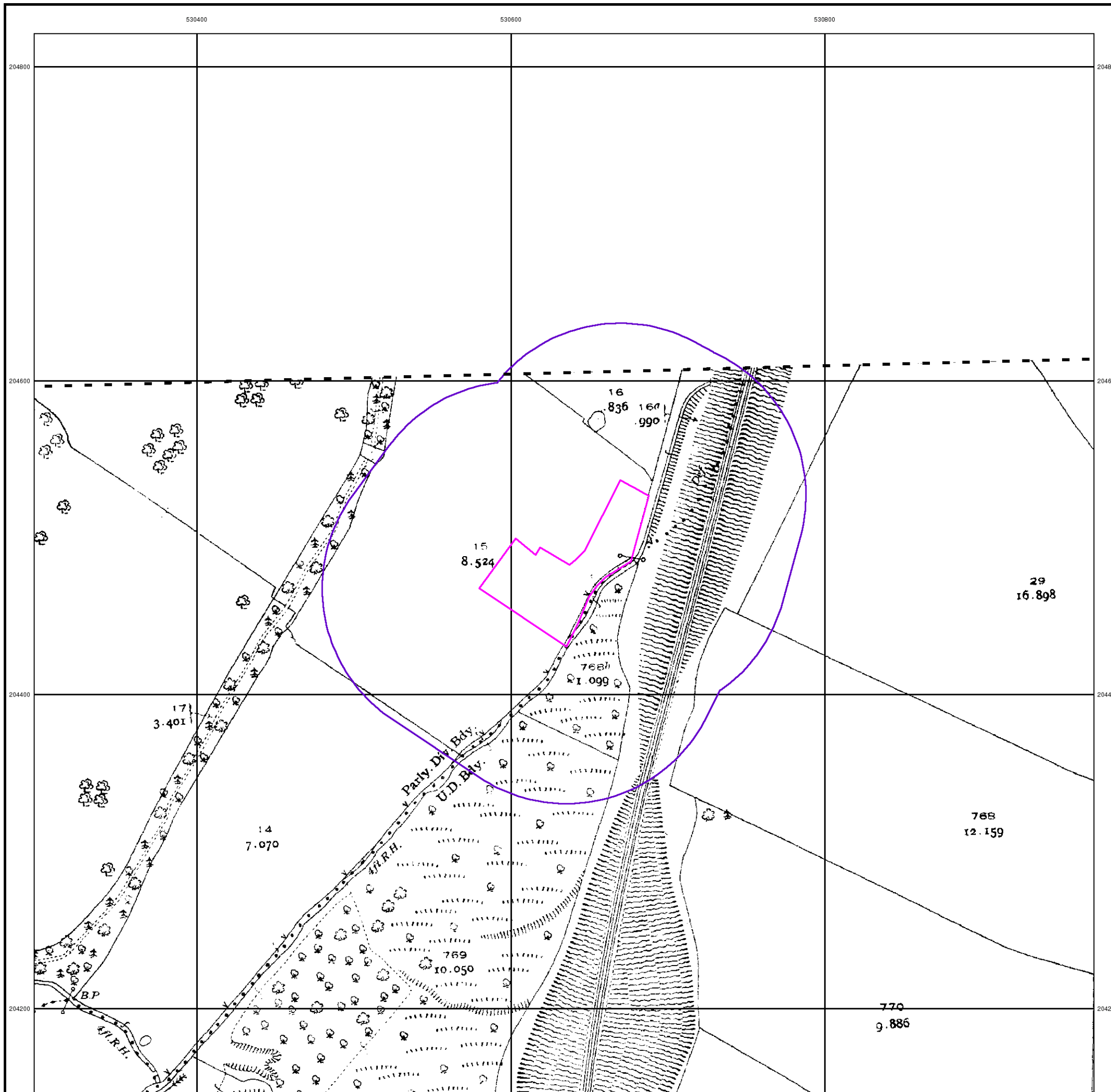


Order Details

Order Number: 210911117_1_1
 Customer Ref: Sparrow Farm
 National Grid Reference: 530640, 204490
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 100

Site Details

Sparrow Farm, Newgate Street Village, HERTFORD, SG13 8QR



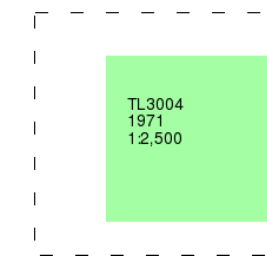
Ordnance Survey Plan

Published 1971

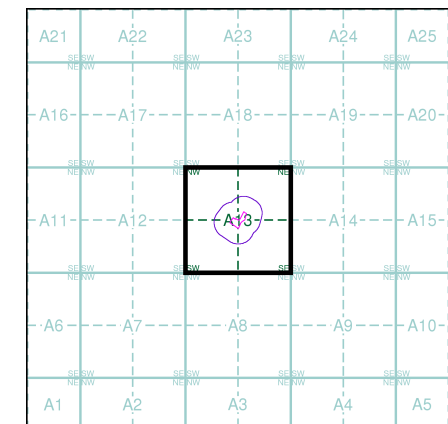
Source map scale - 1:2,500

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 and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below 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.

Map Name(s) and Date(s)



Historical Map - Segment A13

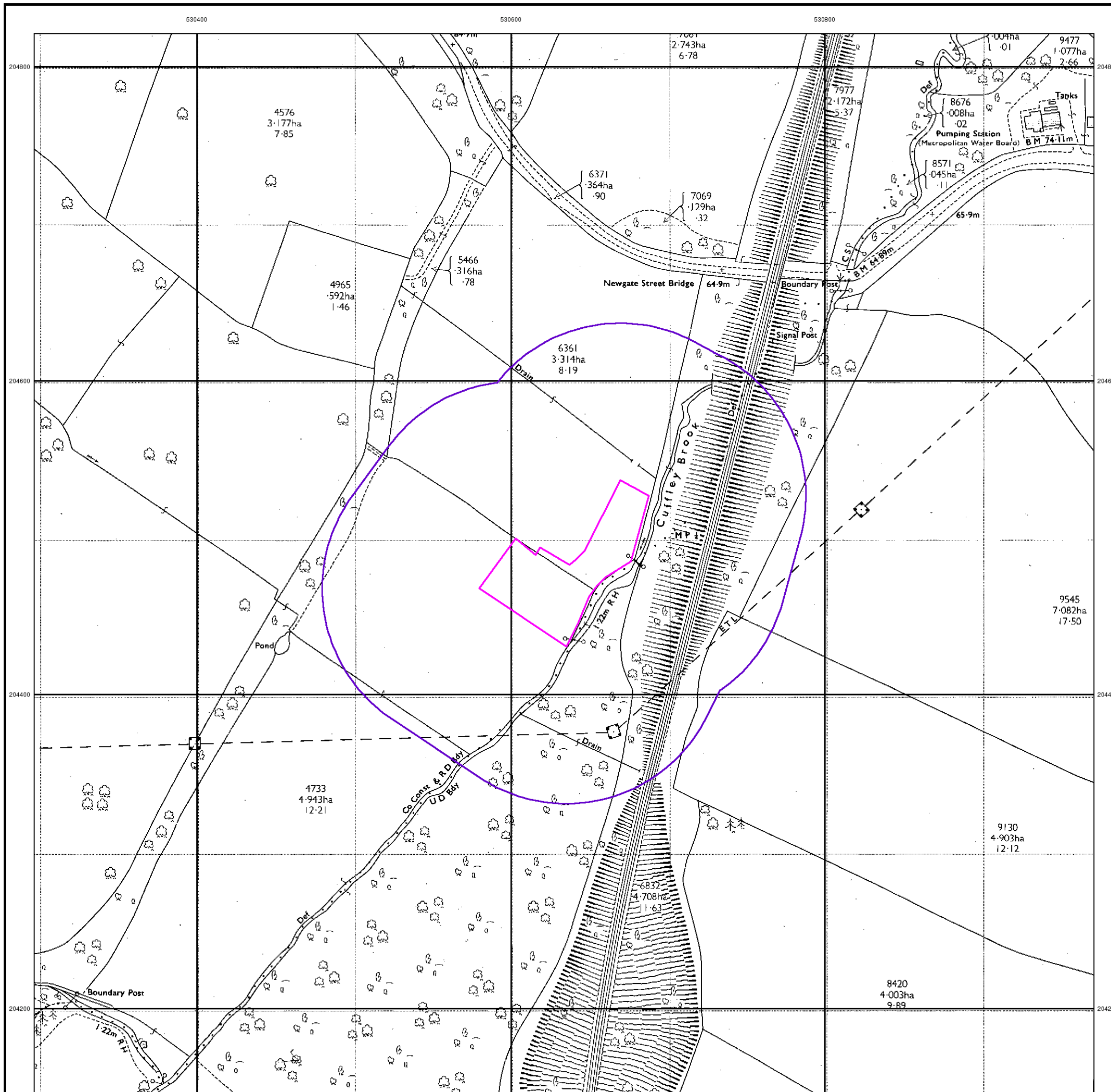


Order Details

Order Number: 210911117_1_1
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 Slice: A
 Site Area (Ha): 0.43
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Site Details

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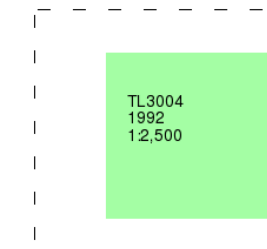
Large-Scale National Grid Data

Published 1992

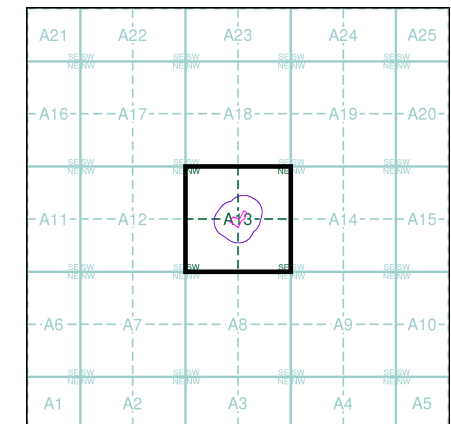
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 210911117_1_1
 Customer Ref: Sparrow Farm
 National Grid Reference: 530640, 204490
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 100

Site Details

Sparrow Farm, Newgate Street Village, HERTFORD, SG13 8QR



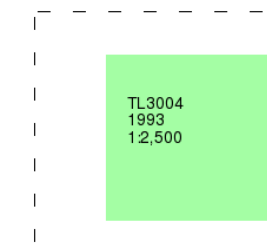
Large-Scale National Grid Data

Published 1993

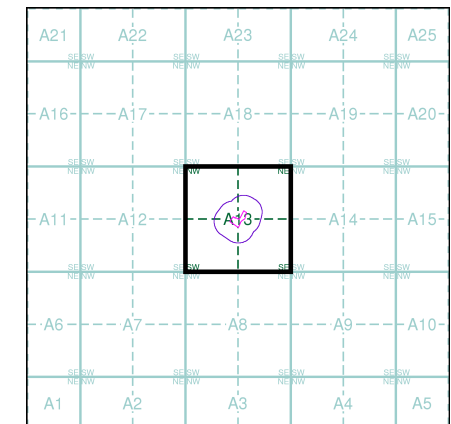
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13

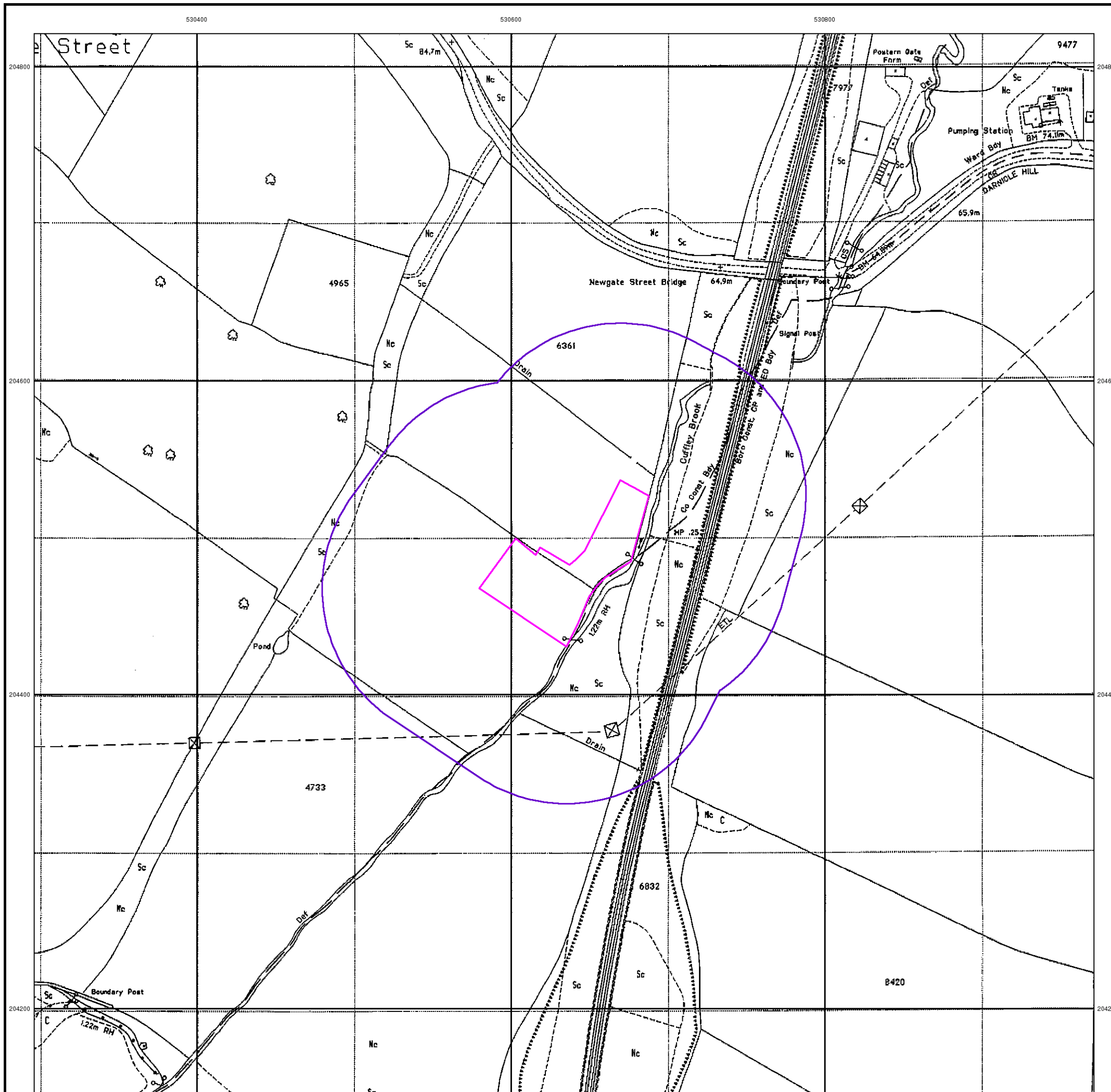


Order Details

Order Number: 210911117_1_1
 Customer Ref: Sparrow Farm
 National Grid Reference: 530640, 204490
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 100

Site Details

Sparrow Farm, Newgate Street Village, HERTFORD, SG13 8QR



APPENDIX II

Environmental datasheets

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

210911117_1_1

Customer Reference:

Sparrow Farm

National Grid Reference:

530640, 204490

Slice:

A

Site Area (Ha):

0.43

Search Buffer (m):

1000

Site Details:

Sparrow Farm, Newgate Street Village

HERTFORD

SG13 8QR

Client Details:

Dr A Whittle

Apple Environmental Ltd

Unit 3, Estevan Farm

Stoney Lane

Meadstead

Alton

Hampshire

GU34 5EL

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	17
Hazardous Substances	-
Geological	18
Industrial Land Use	23
Sensitive Land Use	25
Data Currency	27
Data Suppliers	33
Useful Contacts	34

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 2			6	4
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	pg 4			2	2
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 5			1	1 (*9)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 8	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk	pg 8	1	n/a	n/a	n/a
Groundwater Vulnerability - Local Information		1	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 8	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 8	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 8	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 9	Yes	Yes	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 9		10	20	40

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 17	3	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 17				1
Potentially Infilled Land (Non-Water)	pg 17		1	1	4
Potentially Infilled Land (Water)	pg 17			1	3
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 18	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 18	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 20		1	1	5
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					
Natural Cavities	pg 21				1
Non Coal Mining Areas of Great Britain	pg 21	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 21	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 21	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 22	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 22	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 22	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 22	Yes		n/a	n/a
Radon Potential - Radon Affected Areas	pg 22	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 23				6
Fuel Station Entries	pg 23				1
Points of Interest - Commercial Services	pg 23				1
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 23			3	8
Points of Interest - Public Infrastructure	pg 24				2
Points of Interest - Recreational and Environmental	pg 24				2
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 25			1	2
Areas of Adopted Green Belt	pg 25	2			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	pg 25			1	
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 25	1			
Ramsar Sites					
Sites of Special Scientific Interest	pg 25		1		1
Special Areas of Conservation	pg 26		1		
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	A13NE (E)	0	1	530650 204486
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (S)	0	1	530638 204450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	27	1	530700 204550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (SW)	46	1	530600 204400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (SW)	115	1	530550 204350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	138	1	530750 204650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (SW)	184	1	530500 204300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	207	1	530800 204700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	226	1	530500 204250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	262	1	530900 204350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	268	1	530500 204200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	295	1	530450 204200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	318	1	530850 204800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	337	1	530450 204150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	357	1	530350 204750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	380	1	530450 204100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	387	1	530900 204850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SE (NE)	430	1	530900 204900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (N)	479	1	530550 205000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (NE)	498	1	530950 204950

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p>Discharge Consents</p> <p>Operator: Mrs. M.E. Froggitt Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Postern Gate Farm, Newgate Street Village, Near Hertford, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cntm.1319 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: Gravel Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m</p>	A13NE (NE)	294	2	530800 204800
1	<p>Discharge Consents</p> <p>Operator: Mrs. M.E. Froggitt Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Postern Gate Farm, Newgate Street Village, Near Hertford, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CNTM.1319 Permit Version: 1 Effective Date: 4th March 1994 Issued Date: 4th March 1994 Revocation Date: 25th October 2006 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Onto Land Environment: Receiving Water: Gravel Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m</p>	A13NE (NE)	294	2	530800 204800
2	<p>Discharge Consents</p> <p>Operator: Mr Koentopp Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Location: Ppumping Station Cottage Darnicle Hill Cheshunt Hertfordshire En7 5td Authority: Environment Agency, Thames Region Catchment Area: Lee-Stort / Thames Reference: Canm.0129 Permit Version: 1 Effective Date: 26th April 2000 Issued Date: 13th June 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Lea 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</p>	A13NE (NE)	379	2	530950 204800
3	<p>Discharge Consents</p> <p>Operator: The Occupier Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Coach House, Land East Of Carbone Hill, Newgate St Village, Herts Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctwc.1331 Permit Version: 1 Effective Date: 25th November 1986 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: Pebble Gravel / London Clay Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m</p>	A12NE (W)	403	2	530200 204600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	<p>Discharge Consents</p> <p>Operator: Mr. L. A. Dingemans Property Type: FARMS (NOT HOUSE)/CROP + ANIMAL REARING/PLANT NURSERY Location: Dingemans Nursery, Darnicle Hill, Goffs Oak, Cheshunt, Hertfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CNTM.0111 Permit Version: 1 Effective Date: 26th February 1992 Issued Date: 26th February 1992 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Ofthe Cuffeybrook Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 10m</p>	A14NW (E)	488	2	531160 204650
4	<p>Discharge Consents</p> <p>Operator: L.A. Dingemans Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Darnicle Hill, Goffs Oak, Cheshunt, Herts Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Clcr.0260 Permit Version: 1 Effective Date: 7th June 1978 Issued Date: 7th June 1978 Revocation Date: 25th February 1992 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Cuffley Brook Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m</p>	A14NW (E)	488	2	531160 204650
5	<p>Discharge Consents</p> <p>Operator: Mr G Tempany Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: 2 Rose Cottages Darnicle Hill Herts En7 5tb Authority: Environment Agency, Thames Region Catchment Area: Lee-Stort / Thames Reference: Canm.1321 Permit Version: 1 Effective Date: 4th October 2007 Issued Date: 4th October 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Ditch Trib.Of Darnicle Hill Di 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</p>	A14NE (E)	863	2	531545 204623
6	<p>Discharge Consents</p> <p>Operator: Mrs. S.M. Conte Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Calves Croft Farm, Darnicle Hill, Goffs Oak, Cheshunt, Herts, En7 5ta Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Cntw.0703 Permit Version: 1 Effective Date: 17th September 1990 Issued Date: 17th September 1990 Revocation Date: 1st October 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Ofturnford Brook Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m</p>	A19SE (NE)	946	2	531500 205010

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	<p>Discharge Consents</p> <p>Operator: A. Newman Property Type: HOLIDAY ACCOM/CAMP SITE/CARAVAN SITE/HOTEL/HOSTEL Location: Ponsbourne Park Hotel, Newgate Street, Herts Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctr.0228 Permit Version: 1 Effective Date: 14th August 1974 Issued Date: 14th August 1974 Revocation Date: 1st August 1990 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Cuffley Brook Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m</p>	A23SE (N)	967	2	530750 205500
8	<p>Discharge Consents</p> <p>Operator: Mrs. S.M. Conte Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Darnicle Hill Goffs Oak Cheshunt Herts En7 5ta Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CATM.3361 Permit Version: 1 Effective Date: 14th September 1998 Issued Date: 24th March 1999 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of The Cuffley Brook Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m</p>	A19SE (NE)	991	2	531510 205080
	<p>Nearest Surface Water Feature</p>	A13SE (S)	0	-	530635 204431
9	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: CUFFLEY Authority: Environment Agency, Thames Region Pollutant: Storm Sewage Note: Not Supplied Incident Date: 9th October 1998 Incident Reference: THNE1998040830 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</p>	A13SW (SW)	327	2	530300 204300
10	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Tolmers Street, CUFFLEY Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 24th August 1991 Incident Reference: NE910427 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</p>	A8NW (SW)	406	2	530400 204100
11	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Tolmers Road, CUFFLEY Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 11th February 1993 Incident Reference: NE930111 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</p>	A7SE (SW)	905	2	530100 203700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: CUFFLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: NE890057 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</p>	A7SW (SW)	975	2	529920 203750
13	<p>Water Abstractions</p> <p>Operator: Thames Water Utilities Ltd Licence Number: 29/38/08/0172 Permit Version: 100 Location: Darnicle Hill 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): 2273 Yearly Rate (m3): 663716 Details: Chalk (Undifferentiated) Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th September 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A13NE (NE)	274	2	530900 204700
14	<p>Water Abstractions</p> <p>Operator: Millbrook Golf Licence Number: 29/38/08/0263 Permit Version: 1 Location: Millbrook Golf-Borehole Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Millbrook Golf Club, Carbone Hill, Newgate Street Village, Hertfordshire. Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A17SW (NW)	892	2	529800 204900
	<p>Water Abstractions</p> <p>Operator: Harinbrook Properties Limited Licence Number: 29/38/08/0251 Permit Version: Not Supplied Location: Forest Hills Golf Course, FOREST HILLS , Hertfordshire Authority: Environment Agency, Thames Region Abstraction: Club Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 327 Yearly Rate (m3): 6570 Details: Additional Purpose - Club (6570). Chalk (Undifferentiated) 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</p>	A22SW (NW)	1284	2	529800 205500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: Mr B Comer Licence Number: 29/38/08/0255 Permit Version: 2 Location: Forest Hills Golf Course, Newgate Street- Borehole A Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Forest Hills Golf Course, Newgate Street Village Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 2nd September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A22SW (NW)	1342	2	529850 205610
	<p>Water Abstractions</p> <p>Operator: Mr B Comer Licence Number: 29/38/08/0255 Permit Version: 2 Location: Forest Hills Golf Course, Newgate Street- Borehole A Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Forest Hills Golf Course, Newgate Street Village Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 2nd September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A22SW (NW)	1342	2	529850 205610
	<p>Water Abstractions</p> <p>Operator: Harinbrook Properties Limited Licence Number: 29/38/08/0255 Permit Version: 1 Location: Borehole At Forest Hills Golf Course Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Forest Hills Golf Course, Newgate Street Village Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 19th June 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A22SW (NW)	1342	2	529850 205610
	<p>Water Abstractions</p> <p>Operator: Harinbrook Properties Limited Licence Number: 29/38/08/0255 Permit Version: 1 Location: Borehole At Forest Hills Golf Course Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Forest Hills Golf Course, Newgate Street Village Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 19th June 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A22SW (NW)	1342	2	529850 205610

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: Mr B Comer Licence Number: Th/038/0008/010/R01 Permit Version: 1 Location: Forest Hills Golf Course, Newgate Street- Borehole A Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Forest Hills Golf Course, Newgate Street Village Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2019 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A22SW (NW)	1349	2	529855 205621
	<p>Water Abstractions</p> <p>Operator: Mr B Comer Licence Number: Th/038/0008/010 Permit Version: 1 Location: Forest Hills Golf Course, Newgate Street- Borehole A Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Forest Hills Golf Course, Newgate Street Village Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A22SW (NW)	1349	2	529855 205621
	<p>Water Abstractions</p> <p>Operator: Mr B Comer Licence Number: 29/38/08/0255 Permit Version: 3 Location: Forest Hills Golf Course, Newgate Street- Borehole A Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Forest Hills Golf Course, Newgate Street Village Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 19th February 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A22SW (NW)	1349	2	529855 205621
	<p>Water Abstractions</p> <p>Operator: Mr & Mrs N & E Bellini Licence Number: 29/38/08/0129 Permit Version: 100 Location: Springfield Nursery, Cheshunt Authority: Environment Agency, Thames Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 68 Yearly Rate (m3): 4546 Details: Springfield Nursery, Goff'S Oak, Cheshunt 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 100m</p>	A10SE (SE)	1732	2	532100 203500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Mixed Dilution: 300-550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A13SE (SE)	0	3	530642 204482
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Mixed Dilution: 300-550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A13NE (NW)	0	3	530638 204486
	Groundwater Vulnerability - Soluble Rock Risk Classification: Very Significant Risk - High Possibility	A13NE (NW)	0	3	530638 204486
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (NW)	0	3	530638 204486
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SE (SE)	0	3	530642 204482
	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	A13SE (SE)	0	2	530655 204472
	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	A13NE (NE)	125	2	530780 204611
	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	A13SW (SW)	185	2	530510 204292
	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	A13SW (SW)	185	2	530510 204293
	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	A13SW (SW)	187	2	530506 204293
	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	A13SW (SW)	197	2	530501 204283
	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	A13SW (SW)	198	2	530501 204283

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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	A13SE (SE)	0	2	530655 204472
	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	A13NE (NE)	125	2	530780 204611
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
15	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 178.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A13SE (SE)	2	4	530659 204466
16	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 203.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A13NE (NE)	10	4	530681 204544
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A13NE (NE)	10	4	530690 204537
18	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 72.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A13NE (NE)	11	4	530695 204535
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A13SW (S)	54	4	530604 204388
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 84.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A13SW (S)	54	4	530604 204388
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A13NE (NE)	79	4	530726 204595

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 488.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A13SW (SW)	93	4	530559 204370
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 262.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A13SW (SW)	94	4	530573 204360
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 561.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A13NE (NE)	125	4	530779 204612
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A13SW (SW)	349	4	530394 204171
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SE (NE)	350	4	530798 204862
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A13SW (SW)	351	4	530396 204169
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SE (NE)	352	4	530821 204854
29	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 8.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SE (NE)	353	4	530858 204836
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A13SW (SW)	355	4	530346 204202

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 2	A13SW (SW)	357	4	530358 204188
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 93.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 2	A13SW (SW)	361	4	530354 204187
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A13SW (SW)	368	4	530314 204214
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 2	A13SW (SW)	369	4	530376 204161
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 147.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A13SW (SW)	372	4	530305 204217
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A13SW (SW)	374	4	530379 204153
37	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 18.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (SW)	396	4	530395 204115
38	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 11.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A8NW (SW)	407	4	530373 204118
39	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 49.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A8NW (SW)	408	4	530376 204114

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 245.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12NE (W)	413	4	530212 204657
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 126.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12NE (NW)	415	4	530217 204668
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 231.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (W)	446	4	530144 204376
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 290.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A8NW (SW)	449	4	530372 204068
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 296.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A12SE (SW)	489	4	530158 204222
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 174.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SE (NE)	564	4	530955 205023
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 197.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SE (NE)	564	4	530955 205023
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 182.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SE (N)	619	4	530827 205135
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SE (N)	620	4	530832 205135

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 230.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A8NW (S)	640	4	530474 203812
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 477.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (S)	640	4	530474 203812
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 399.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NE (N)	659	4	530823 205177
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SW (NE)	679	4	531149 205024
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 301.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NW (N)	702	4	530370 205171
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SW (NE)	711	4	531110 205099
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: Underground Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A12SW (W)	723	4	529879 204294
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 155.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NE (N)	724	4	530714 205259
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 197.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NE (N)	724	4	530714 205259

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 106.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A12SW (W)	729	4	529873 204292
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SW (NE)	749	4	531142 205122
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 122.8 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NW (N)	756	4	530489 205270
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 620.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12NW (W)	767	4	529827 204612
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 262.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SW (NE)	779	4	531161 205145
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 314.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SW (NE)	779	4	531161 205145
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 106.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	783	4	531097 203799
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 238.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	783	4	531097 203799
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 437.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A14SE (E)	784	4	531412 204209

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	797	4	531016 203730
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 85.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A8SW (S)	801	4	530599 203631
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 160.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	807	4	531004 203714
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NW (N)	810	4	530588 205342
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A12SW (W)	827	4	529775 204279
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 135.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A12SW (W)	831	4	529771 204280
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 267.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cuffley Brook Catchment Name: Thames Primacy: 1	A8SE (S)	834	4	530677 203598
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9NE (SE)	853	4	531314 203914
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9NE (SE)	853	4	531316 203918

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 183.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9NW (SE)	854	4	531304 203901
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 205.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8SE (S)	886	4	530907 203588
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 200.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NW (N)	896	4	530479 205411
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 216.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18NW (N)	896	4	530479 205411
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 137.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	902	4	529997 203780
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 118.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grimes Brook Catchment Name: Thames Primacy: 1	A12SW (W)	957	4	529638 204304
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19NW (NE)	974	4	531181 205366
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 180.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19NW (NE)	974	4	531181 205366
84	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 88.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A23SE (N)	1000	4	530823 205524

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	7	530638 204486
	Local Authority Landfill Coverage Name: Broxbourne Borough Council - Has supplied landfill data		0	5	530654 204468
	Local Authority Landfill Coverage Name: Welwyn Hatfield Council - Has no landfill data to supply		0	6	530638 204486
85	Local Authority Recorded Landfill Sites Location: Darnicle Hill, Newgate Street Reference: 420 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 10m Boundary Quality: Not Applicable	A14NW (E)	656	7	531302 204757
86	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A13SE (S)	130	-	530679 204309
87	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A8NW (SW)	351	-	530436 204142
88	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A12SW (W)	783	-	529843 204205
89	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1978	A17SE (NW)	802	-	530044 205073
90	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A8SE (S)	881	-	530859 203579
91	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A12SW (W)	902	-	529710 204231
92	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1960	A12SE (W)	466	-	530114 204467
93	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1883	A17SE (NW)	542	-	530176 204832
94	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1899	A17SE (NW)	655	-	530200 205016
95	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1960	A19SE (NE)	878	-	531465 204934

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lambeth Group	A13NE (NW)	0	1	530638 204486
	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	A13NE (NW)	0	1	530638 204486
	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	A13SE (SE)	0	1	530642 204482
	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	A13SE (SE)	12	1	530675 204461
	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: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (SE)	81	1	530739 204431
	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: 40 - 60 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	198	1	530512 204276
	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	A13SE (SE)	283	1	530861 204259

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 15 - 30 mg/kg Concentration:	A18SE (NE)	462	1	530963 204897
	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 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SE (NE)	520	1	530904 205000
	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 40 - 60 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (W)	610	1	530000 204279
	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 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7NE (SW)	629	1	530137 204021
	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:	A14SE (E)	630	1	531315 204474
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NE (SE)	956	1	531500 204000

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 15 - 30 mg/kg Concentration:	A19SE (NE)	973	1	531538 205000
96	BGS Recorded Mineral Sites Site Name: Burleigh Gravel Pit Location: Cuffley, Potters Bar, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 169752 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: River Terrace Deposits (Undifferentiated) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A13SW (S)	202	1	530605 204231
97	BGS Recorded Mineral Sites Site Name: Burleigh Gravel Pit Location: Cuffley, Potters Bar, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 169753 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: River Terrace Deposits (Undifferentiated) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A8NW (SW)	357	1	530431 204138
98	BGS Recorded Mineral Sites Site Name: Canbone Hill Gravel Pit Location: Cuffley, Potters Bar, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 169751 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A12SW (W)	787	1	529837 204208
99	BGS Recorded Mineral Sites Site Name: Newgate Street Gravel Pit Location: Newgate Street, Hertford, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 169596 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Sand And Gravel Of Uncertain Age And Origin Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	804	1	530041 205074
100	BGS Recorded Mineral Sites Site Name: Burleigh Gravel Pits Location: Cuffley, Potters Bar, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 169754 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A8SE (S)	908	1	530849 203549

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
100	BGS Recorded Mineral Sites Site Name: Burleigh Gravel Pits Location: Cuffley, Potters Bar, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 169755 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A8SE (S)	940	1	530863 203519
101	BGS Recorded Mineral Sites Site Name: Canbone Hill Gravel Pit Location: Cuffley, Potters Bar, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 169750 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A12SW (W)	948	1	529659 204243
	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				
	Natural Cavities Easting: 529900 Northing: 204300 Distance: 701 Quadrant Reference: A12 Quadrant Reference: SW Bearing Ref: W Cavity Type: Swallow Hole x 6 Solid Geology Detail: Chalk Group, Lambeth Group, London Clay Formation Superficial Geology: Alluvium, River Terrace Deposits Detail:	A12SW (W)	701	8	529900 204300
	Non Coal Mining Areas of Great Britain Risk: Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	530638 204486
	Non Coal Mining Areas of Great Britain Risk: Unlikely Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	12	1	530675 204461
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	530638 204486
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	530642 204482
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	12	1	530675 204461
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	530642 204482
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	530638 204486
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	12	1	530675 204461

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	530638 204486
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	33	1	530586 204529
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	530638 204486
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	87	1	530729 204405
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	221	1	530526 204239
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	530638 204486
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	530642 204482
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	12	1	530675 204461
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	530638 204486
	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	A13NE (NW)	0	1	530638 204486
	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	A13NE (NW)	0	1	530638 204486

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
102	Contemporary Trade Directory Entries Name: Calves Croft Agricultural Location: Darnicle Hill, Cheshunt, Waltham Cross, Hertfordshire, EN7 5TA Classification: Agricultural Machinery - Sales & Service Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A19SE (NE)	855	-	531464 204885
103	Contemporary Trade Directory Entries Name: Cuffley Cleaners Location: Homewood Avenue, Cuffley, Potters Bar, Hertfordshire, EN6 4QG Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A8SW (S)	856	-	530367 203618
104	Contemporary Trade Directory Entries Name: J W S Heating & Plumbing Location: Brookside Crescent, Cuffley, Potters Bar, Hertfordshire, EN6 4QN Classification: Boilers - Servicing, Replacements & Repairs Status: Active Positional Accuracy: Manually positioned within the geographical locality	A8SW (S)	874	-	530505 203567
105	Contemporary Trade Directory Entries Name: B B I S (Oil & Gas Fired) Ltd Location: 132, Tolmers Road, Cuffley, Potters Bar, Hertfordshire, EN6 4JR Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	932	-	530300 203562
106	Contemporary Trade Directory Entries Name: C E S Telecom Ltd Location: 15-17, Newgate Street Village, Hertford, SG13 8RA Classification: Telecommunications Equipment & Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	945	-	530007 205232
106	Contemporary Trade Directory Entries Name: Robinson Location: 15, Newgate Street Village, Hertford, Hertfordshire, SG13 8RA Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	945	-	530007 205232
107	Fuel Station Entries Name: Newgate Street Service Station Location: Newgate Street Village , , Hertford, Hertfordshire, SG13 8RA Brand: OBSOLETE Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the road within the address or location	A17SE (NW)	709	-	530121 205019
108	Points of Interest - Commercial Services Name: Robinson Location: 15 Newgate Street Village, Hertford, SG13 8RA Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A17NE (NW)	945	9	530007 205232
109	Points of Interest - Manufacturing and Production Name: Tank Location: EN7 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	355	9	530943 204773
109	Points of Interest - Manufacturing and Production Name: Tank Location: EN7 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	358	9	530944 204776
109	Points of Interest - Manufacturing and Production Name: Tanks Location: EN7 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	368	9	530951 204784
110	Points of Interest - Manufacturing and Production Name: Dove's Farms Location: Burleigh Farm, Newgatestreet Road, Goffs Oak, Waltham Cross, EN7 5RY Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A14SE (E)	766	9	531447 204426

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
110	Points of Interest - Manufacturing and Production Name: Dove's Farms Ltd Location: Burleigh Farm, Newgatestreet Road, Goffs Oak, Waltham Cross, EN7 5RY Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A14SE (E)	767	9	531448 204426
111	Points of Interest - Manufacturing and Production Name: Tank Location: EN7 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	841	9	531496 204758
111	Points of Interest - Manufacturing and Production Name: Tank Location: EN7 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	847	9	531501 204762
111	Points of Interest - Manufacturing and Production Name: Tank Location: EN7 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NE (E)	848	9	531503 204757
111	Points of Interest - Manufacturing and Production Name: Tanks Location: EN7 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	855	9	531508 204768
111	Points of Interest - Manufacturing and Production Name: Tank Location: EN7 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	873	9	531542 204705
112	Points of Interest - Manufacturing and Production Name: L A Dingemans & Co Ltd Location: 2 Rose Cottages, Darnicle Hill, Cheshunt, Waltham Cross, EN7 5TB Category: Farming Class Code: Arable Farming Positional Accuracy: Positioned to address or location	A14NE (E)	880	9	531561 204634
113	Points of Interest - Public Infrastructure Name: Robinson Skips Location: 34 Newgate Street Village, Hertford, SG13 8RB Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A17SE (NW)	608	9	530210 204962
114	Points of Interest - Public Infrastructure Name: Filter Bed Location: SG13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	888	9	530736 205422
115	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	A17SE (NW)	772	9	530034 205021
115	Points of Interest - Recreational and Environmental Name: Playground Location: New Park Road, SG13 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A17SE (NW)	772	9	530036 205023

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
116	Ancient Woodland Name: Box Wood Reference: 1116185 Area(m ²): 3137475.21 Type: Ancient and Semi-Natural Woodland	A13NE (NE)	313	10	530865 204785
117	Ancient Woodland Name: Box Wood Reference: 1116185 Area(m ²): 3375479.61 Type: Plantation on Ancient Woodland	A19SW (NE)	623	10	531042 205039
118	Ancient Woodland Name: Great/Broombarns Woods Reference: 1116041 Area(m ²): 1860287.69 Type: Ancient and Semi-Natural Woodland	A12SW (W)	825	10	529777 204279
119	Areas of Adopted Green Belt Authority: Broxbourne Borough Council Plan Name: Borough Of Broxbourne Local Plan Second Review 2001-2011 Status: Adopted Plan Date: 31st December 2005	A13SE (SE)	0	5	530654 204468
120	Areas of Adopted Green Belt Authority: Welwyn Hatfield District Council Plan Name: Welwyn Hatfield Local Plan Status: Adopted Plan Date: 15th April 2005	A13NE (NW)	0	11	530638 204486
121	Areas of Adopted Green Belt Authority: Welwyn Hatfield District Council Plan Name: Welwyn Hatfield Local Plan Status: Adopted Plan Date: 15th April 2005	A8SW (S)	744	11	530574 203690
122	National Nature Reserves Name: Broxbourne Woods Multiple Areas: Y Total Area (m2): 2390717.88 Source: Natural England Reference: 1005000 Designation Date: Not Supplied	A13NE (NE)	312	10	530862 204785
123	Nitrate Vulnerable Zones Name: Lee Nvz Description: Surface Water Source: Environment Agency, Head Office	A13NE (NW)	0	3	530638 204486
124	Sites of Special Scientific Interest Name: Wormley-Hoddesdonpark Wood South Multiple Areas: N Total Area (m2): 1963070.09 Source: Natural England Reference: 1000719 Designation Details: Nature Conservation Review Designation Date: 1st July 1984 Date Type: Notified Designation Details: National Nature Reserve Designation Date: 1st July 1984 Date Type: Notified Designation Details: Site Of Special Scientific Interest Designation Date: 1st July 1984 Date Type: Notified	A13NE (NE)	188	10	530808 204671
125	Sites of Special Scientific Interest Name: Northaw Great Wood Multiple Areas: Y Total Area (m2): 2243245.7199999997 Source: Natural England Reference: 1000830 Designation Details: Country Park Designation Date: 1st August 1985 Date Type: Notified Designation Details: Site Of Special Scientific Interest Designation Date: 1st August 1985 Date Type: Notified	A12SW (W)	802	10	529795 204304

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
126	<p>Special Areas of Conservation</p> <p>Name: Wormley-Hoddesdonpark Woods</p> <p>Multiple Areas: Y</p> <p>Total Area (m2): 3359889.5</p> <p>Source: Natural England</p> <p>Reference: UK0013696</p> <p>Status: Designated</p>	A13NE (NE)	188	10	530808 204671

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Welwyn Hatfield District Council - Environmental Health Department Broxbourne Borough Council - Environmental Health Department East Hertfordshire District Council - Environmental Health Department Epping Forest District Council - Environmental Health Department Hertsmere Borough Council - Environmental Health Department London Borough of Enfield - Environmental Services	August 2013 February 2014 January 2013 October 2014 September 2014 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Thames Region	April 2019	Quarterly
Enforcement and Prohibition Notices Environment Agency - Thames Region	March 2013	Annual Rolling Update
Integrated Pollution Controls Environment Agency - Thames Region	October 2008	Variable
Integrated Pollution Prevention And Control Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region	April 2019 April 2019	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control East Hertfordshire District Council - Environmental Health Department Hertsmere Borough Council - Environmental Health Department London Borough of Enfield - Environmental Health Department Broxbourne Borough Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department Epping Forest District Council - Environmental Health Department	January 2014 January 2015 January 2015 March 2015 May 2012 May 2016	Variable Variable Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls East Hertfordshire District Council - Environmental Health Department Hertsmere Borough Council - Environmental Health Department London Borough of Enfield - Environmental Health Department Broxbourne Borough Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department Epping Forest District Council - Environmental Health Department	January 2014 January 2015 January 2015 March 2015 May 2012 May 2016	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements East Hertfordshire District Council - Environmental Health Department Hertsmere Borough Council - Environmental Health Department London Borough of Enfield - Environmental Health Department Broxbourne Borough Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department Epping Forest District Council - Environmental Health Department	January 2014 January 2015 January 2015 March 2015 May 2012 May 2016	Variable Variable Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	January 2019	
Pollution Incidents to Controlled Waters Environment Agency - Thames Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Thames Region	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters Environment Agency - Thames Region	March 2013	Annual Rolling Update
Registered Radioactive Substances Environment Agency - Thames Region	June 2016	
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually

Agency & Hydrological	Version	Update Cycle
Substantiated Pollution Incident Register Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	April 2019 April 2019	Quarterly Quarterly
Water Abstractions Environment Agency - Thames Region	April 2019	Quarterly
Water Industry Act Referrals Environment Agency - Thames Region	October 2017	Quarterly
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	Annually
Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office	June 2018	Annually
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	July 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2019	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2019	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	May 2019	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	May 2019	Quarterly
Flood Defences Environment Agency - Head Office	May 2019	Quarterly
OS Water Network Lines Ordnance Survey	January 2019	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability Environment Agency - Head Office	October 2013	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	July 2018	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Thames Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	July 2018 July 2018	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	April 2019 April 2019	Quarterly Quarterly
Local Authority Landfill Coverage Broxbourne Borough Council East Hertfordshire District Council - Environmental Health Department Epping Forest District Council Essex County Council Hertfordshire County Council - Spatial Planning and Economy Unit Hertsmere Borough Council - Environmental Health Department London Borough of Enfield - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department	May 2000 May 2000 May 2000 May 2000 May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites London Borough of Enfield - Environmental Health Department Broxbourne Borough Council East Hertfordshire District Council - Environmental Health Department Epping Forest District Council Hertfordshire County Council - Spatial Planning and Economy Unit Hertsmere Borough Council - Environmental Health Department Welwyn Hatfield District Council - Environmental Health Department Essex County Council	February 2003 May 2000 May 2000 May 2000 May 2000 May 2000 May 2000 May 2000 November 2004	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Thames Region - North East Area	June 2015	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements East Hertfordshire District Council Broxbourne Borough Council Epping Forest District Council - Planning Services Essex County Council Hertfordshire County Council - Spatial Planning and Economy Unit Hertsmere Borough Council - Planning Department London Borough of Enfield - Planning Department Welwyn Hatfield District Council	April 2015 February 2016 February 2016 February 2016 February 2016 February 2016 February 2016 February 2016	Variable Variable Variable Variable Variable Variable Variable Variable
Planning Hazardous Substance Consents East Hertfordshire District Council Broxbourne Borough Council Epping Forest District Council - Planning Services Essex County Council Hertfordshire County Council - Spatial Planning and Economy Unit Hertsmere Borough Council - Planning Department London Borough of Enfield - Planning Department Welwyn Hatfield District Council	April 2015 February 2016 February 2016 February 2016 February 2016 February 2016 February 2016 February 2016	Variable Variable Variable Variable Variable Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2019	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	October 2000	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	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	April 2019	Quarterly
Fuel Station Entries Catalist Ltd - Experian	May 2019	Quarterly
Gas Pipelines National Grid	July 2014	
Points of Interest - Commercial Services PointX	July 2019	Quarterly
Points of Interest - Education and Health PointX	July 2019	Quarterly
Points of Interest - Manufacturing and Production PointX	July 2019	Quarterly
Points of Interest - Public Infrastructure PointX	July 2019	Quarterly
Points of Interest - Recreational and Environmental PointX	July 2019	Quarterly
Underground Electrical Cables National Grid	December 2015	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	August 2018	Bi-Annually
Areas of Adopted Green Belt Broxbourne Borough Council East Hertfordshire District Council Epping Forest District Council - Planning Services Hertsmere Borough Council - Planning Department London Borough of Enfield Welwyn Hatfield District Council	March 2019 March 2019 March 2019 March 2019 March 2019 March 2019	As notified As notified As notified As notified As notified As notified
Areas of Unadopted Green Belt Broxbourne Borough Council East Hertfordshire District Council Epping Forest District Council - Planning Services Hertsmere Borough Council - Planning Department London Borough of Enfield Welwyn Hatfield District Council	March 2019 March 2019 March 2019 March 2019 March 2019 March 2019	As notified As notified As notified As notified As notified As notified
Areas of Outstanding Natural Beauty Natural England	June 2019	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	March 2019	Bi-Annually
Marine Nature Reserves Natural England	January 2018	Bi-Annually
National Nature Reserves Natural England	July 2019	Bi-Annually
National Parks Natural England	April 2017	Bi-Annually
Nitrate Vulnerable Zones Environment Agency - Head Office Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December 2017 October 2015	Bi-Annually
Ramsar Sites Natural England	April 2019	Bi-Annually
Sites of Special Scientific Interest Natural England	March 2019	Bi-Annually
Special Areas of Conservation Natural England	June 2019	Bi-Annually
Special Protection Areas Natural England	April 2019	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 <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

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	Broxbourne Borough Council Bishop's College, Churchgate, Cheshunt, Waltham Cross, Hertfordshire, EN8 9XQ	Telephone: 01992 631921 Fax: 01992 639391 Website: www.broxbourne.gov.uk
6	Welwyn Hatfield District Council - Environmental Health Department Council Offices, Campus East, Welwyn Garden City, Hertfordshire, AL8 6AE	Telephone: 01707 357000 Fax: 01707 375490 Website: www.welhat.gov.uk
7	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
8	Peter Brett Associates Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN	Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk
9	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
10	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
11	Welwyn Hatfield District Council Council Offices, Campus East, Welwyn Garden City, Hertfordshire, AL8 6AE	Telephone: 01707 357000 Fax: 01707 375490 Website: www.welhat.gov.uk
12	East Hertfordshire District Council Wallfields, Pegs Lane, Hertford, Hertfordshire, SG13 8EQ	Telephone: 01279 655261 Fax: 01992 552280 Website: www.eastherts.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.

APPENDIX III




Geological datasheets

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
	LOFT	Lowestoft Formation	Diamicton	Not Supplied - Anglian
	DHGR	Dollis Hill Gravel Member	Sand and Gravel	Not Supplied - Cromerian
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Not Supplied - Quaternary
	SUPD	Superficial Deposits	Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LC	London Clay Formation	Clay, Silt and Sand	Not Supplied - Ypresian
	LMBE	Lambeth Group	Clay, Silt and Sand	Not Supplied - Thanetian
	LESE	Lewes Nodular Chalk Formation and Seaford Chalk Formation (Undifferentiated)	Chalk	Not Supplied - Turonian

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Geology 1:50,000 Maps

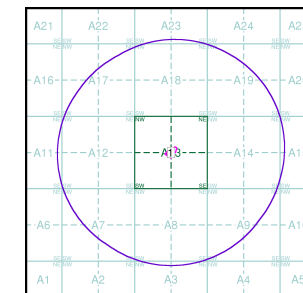
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published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

Order Number: 210911117_1_1
 Customer Reference: Sparrow Farm
 National Grid Reference: 530640, 204490
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

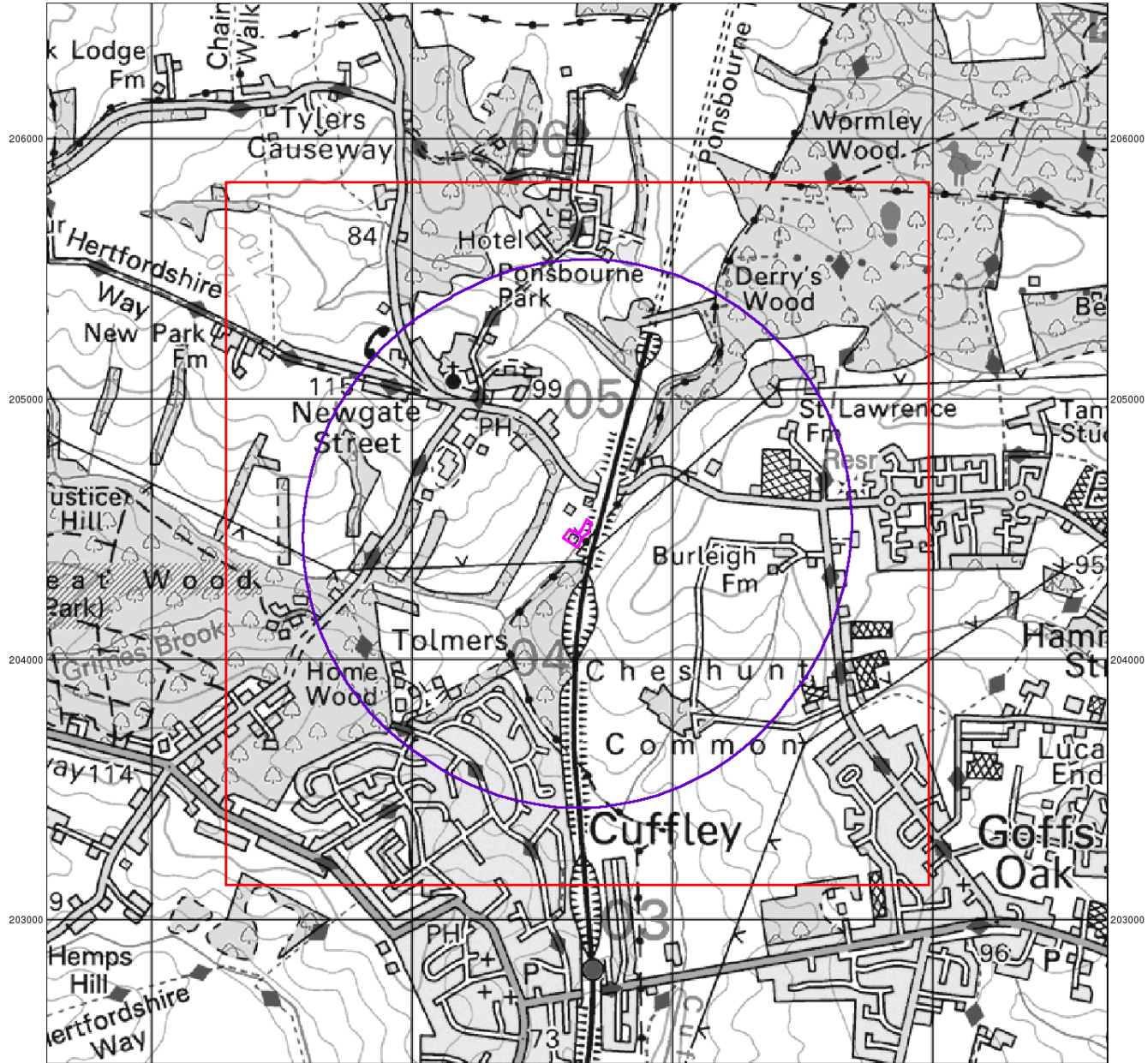
Site Details:

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Artificial Ground and Landslip

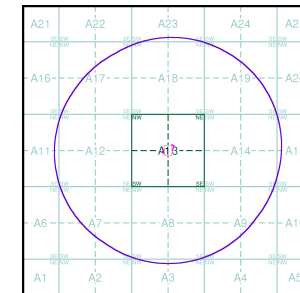
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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



Order Details:

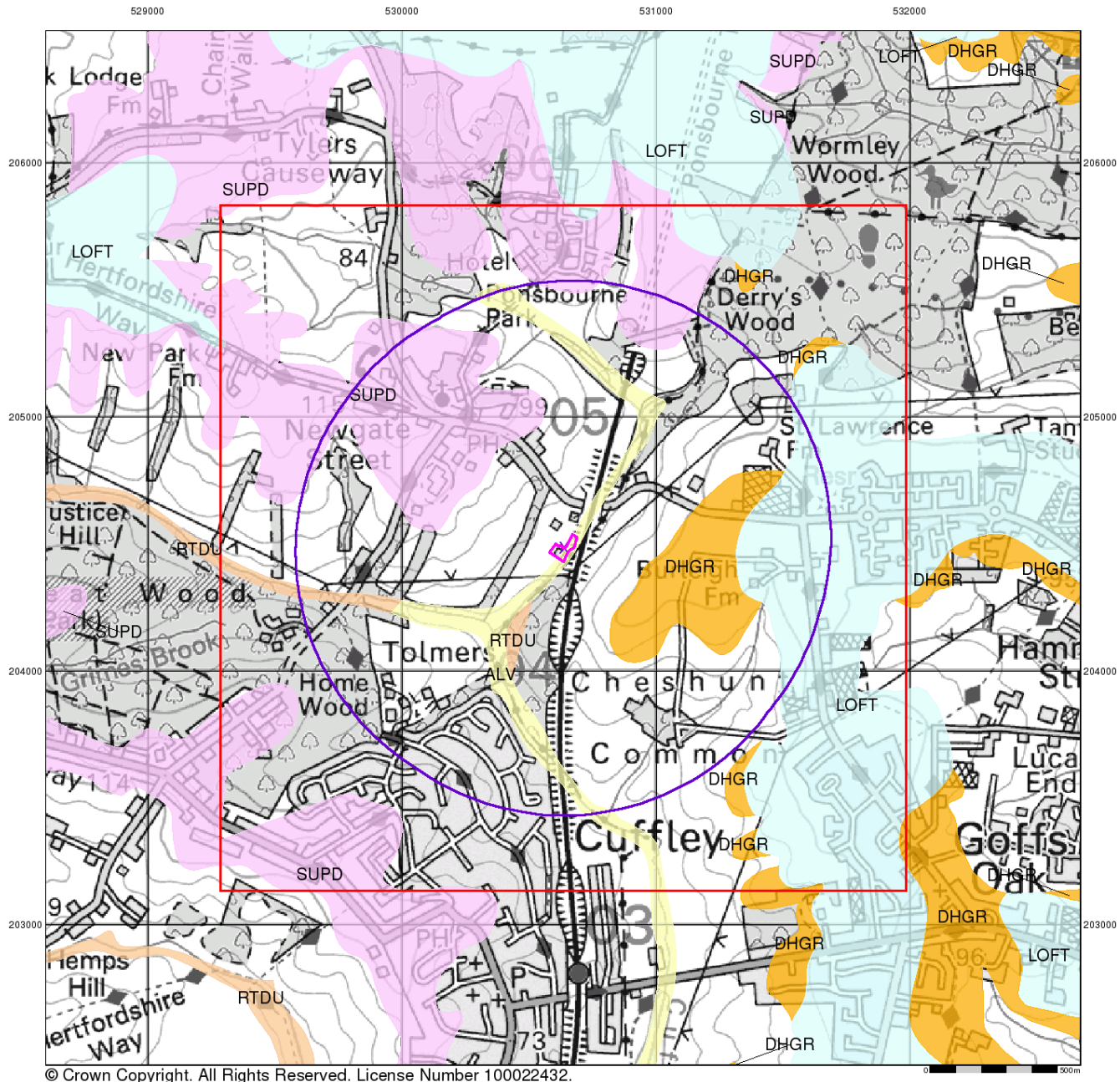
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 Customer Reference: Sparrow Farm
 National Grid Reference: 530640, 204490
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

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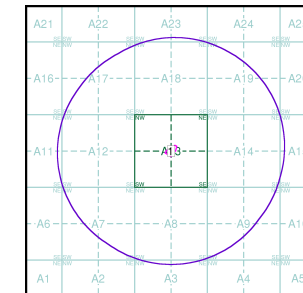
Superficial Geology

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: 21091117_1_1
 Customer Reference: Sparrow Farm
 National Grid Reference: 530640, 204490
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

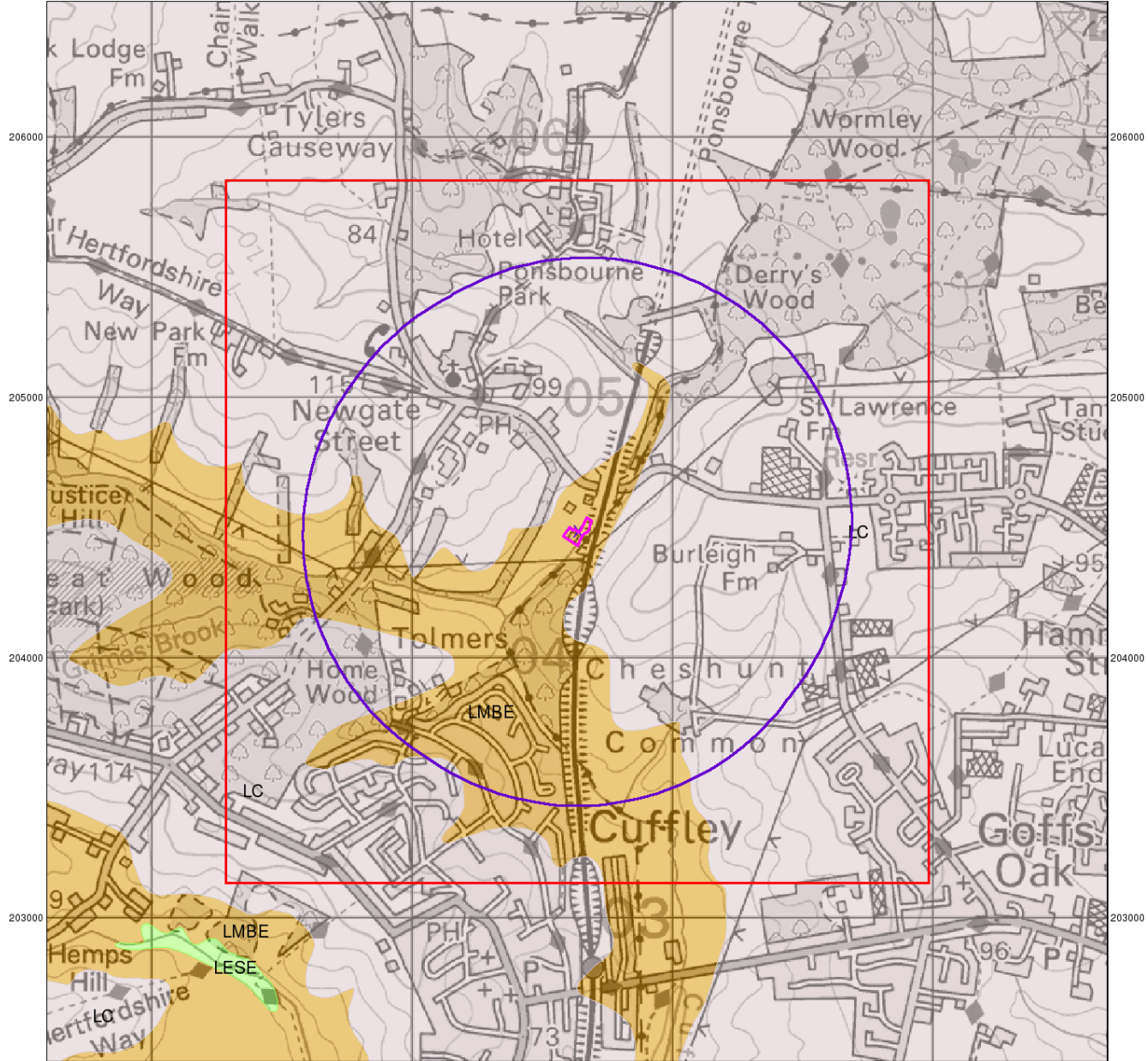
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Bedrock and Faults

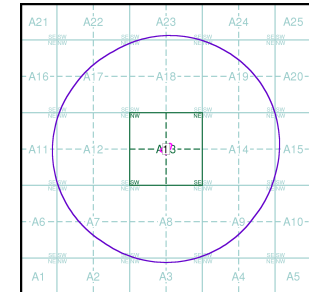
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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:

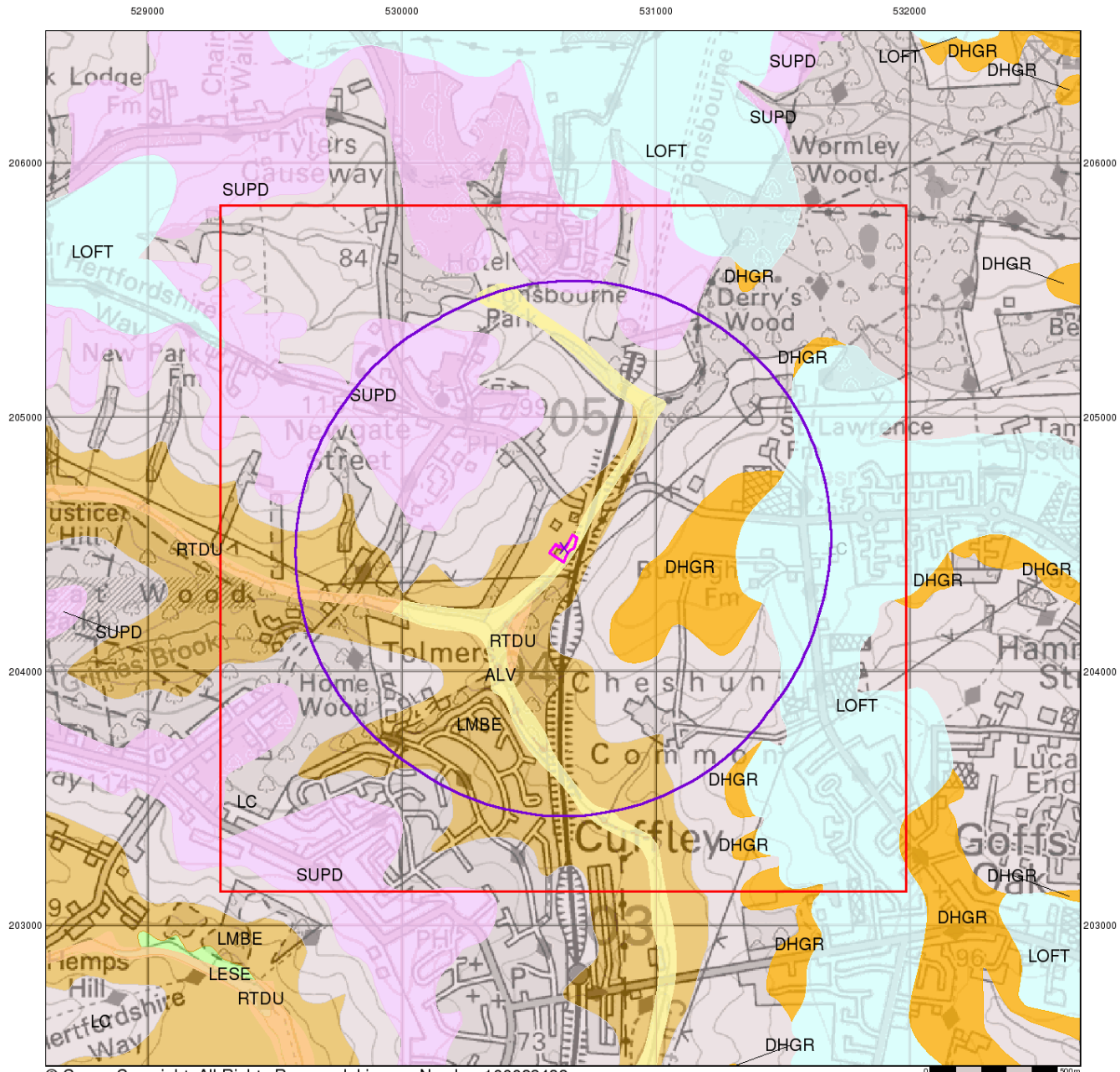
Order Number: 21091117_1_1
 Customer Reference: Sparrow Farm
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 Slice: A
 Site Area (Ha): 0.43
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Combined Surface Geology

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.

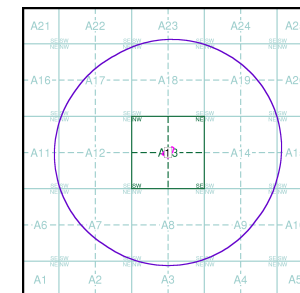
Additional Information

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 A



Order Details:

Order Number: 21091117_1_1
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