

# Appendix B

NOTES AND LIMITATIONS



## REPORT LIMITATIONS - GROUND RISK AND REMEDIATION

### GENERAL

1. WSP UK Limited has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed and outlined in the body of the report.
2. Unless explicitly agreed otherwise, in writing, this report has been prepared under WSP UK Limited standard Terms and Conditions as included within our proposal to the Client.
3. Project specific appointment documents may be agreed at our discretion and a charge may be levied for both the time to review and finalise appointments documents and also for associated changes to the appointment terms. WSP UK Limited reserves the right to amend the fee should any changes to the appointment terms create an increase risk to WSP UK Limited.
4. The report needs to be considered in the light of the WSP UK Limited proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

### PHASE 1 GEO ENVIRONMENTAL AND PRELIMINARY RISK ASSESSMENTS

**Coverage:** *This section covers reports with the following titles or combination of titles: phase 1; desk top study; geo environmental assessment; development appraisal; preliminary environmental risk assessment; constraints report; due diligence report; geotechnical development review; environmental statement; environmental chapter; project scope summary report (PSSR), program environmental impact report (PEIR), geotechnical development risk register; and, baseline environmental assessment.*

5. The works undertaken to prepare this report comprised a study of available and easily documented information from a variety of sources (including the Client), together with (where appropriate) a brief walk over inspection of the Site and correspondence with relevant authorities and other interested parties. Due to the short timescales associated with these projects responses may not have been received from all parties. WSP UK Limited cannot be held responsible for any disclosures that are provided post production of our report and will not automatically update our report.
6. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only for the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, WSP UK Limited reserves the right to review such information and, if warranted, to modify the opinions accordingly.
7. It should be noted that any risks identified in this report are perceived risks based on the information reviewed. Actual risks can only be assessed following intrusive investigations of the site.
8. WSP UK Limited does not warrant work / data undertaken / provided by others.



## REPORT LIMITATIONS - GROUND RISK AND REMEDIATION

### INTRUSIVE INVESTIGATION REPORTS

**Coverage:** *The following report titles (or combination) may cover this category of work: geo environmental site investigation; geotechnical assessment; GIR (Ground Investigation reports); preliminary environmental and geotechnical risk assessment; and, geotechnical risk register.*

9. The investigation has been undertaken to provide information concerning either:
  - i. The type and degree of contamination present at the site in order to allow a generic quantitative risk assessment to be undertaken; or
  - ii. Information on the soil properties present at the site to allow for geotechnical development constraints to be considered.
10. The scope of the investigation was selected on the basis of the specific development and land use scenario proposed by the Client and may be inappropriate to another form of development or scheme. If the development layout was not known at the time of the investigation the report findings may need revisiting once the development layout is confirmed.
11. For contamination purposes, the objectives of the investigation are limited to establishing the risks associated with potential contamination sources with the potential to cause harm to human health, building materials, the environment (including adjacent land), or controlled waters.
12. For geotechnical investigations the purpose is to broadly consider potential development constraints associated with the physical property of the soils underlying the site within the context of the proposed future or continued use of the site, as stated within the report.
13. The amount of exploratory work, soil property testing and chemical testing undertaken has necessarily been restricted by various factors which may include accessibility, the presence of services; existing buildings; current site usage or short timescales. The exploratory holes completed assess only a small percentage of the area in relation to the overall size of the Site, and as such can only provide a general indication of conditions.
14. The number of sampling points and the methods of sampling and testing do not preclude the possible existence of contamination where concentrations may be significantly higher than those actually encountered or ground conditions that vary from those identified. In addition, there may be exceptional ground conditions elsewhere on the site which have not been disclosed by this investigation and which have therefore not been taken into account in this report.
15. The inspection, testing and monitoring records relate specifically to the investigation points and the timeframe that the works were undertaken. They will also be limited by the techniques employed. As part of this assessment, WSP UK Limited has used reasonable skill and care to extrapolate conditions between these points based upon assumptions to develop our interpretation and conclusions. The assumption made in forming our conclusions is that the ground and groundwater conditions (both chemically and physically) are the same as have been encountered during the works undertaken at the specific points of investigation. Conditions can change between investigation points and these interpretations should be considered indicative.
16. The risk assessment and opinions provided are based on currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values. Specific assumptions associated



## REPORT LIMITATIONS - GROUND RISK AND REMEDIATION

with the WSP UK Limited risk assessment process have been outlined within the body or associated appendix of the report.

17. Additional investigations may be required in order to satisfy relevant planning conditions or to resolve any engineering and environmental issues.
18. Where soil contamination concentrations recorded as part of this investigation are used for commentary on potential waste classification of soils for disposal purposes, these should be classed as indicative only. Due consideration should be given to the variability of contaminant concentrations taken from targeted samples versus bulk excavated soils and the potential variability of contaminant concentrations between sampling locations. Where major waste disposal operations are considered, targeted waste classification investigations should be designed.
19. The results of the asbestos testing are factually reported and interpretation given as to how this relates to the previous use of the site, the types of ground encountered and site conceptualisation. This does not however constitute a formal asbestos assessment. These results should be treated cautiously and should not be relied upon to provide detailed and representative information on the delineation, type and extent of bulk ACMs and / or trace loose asbestos fibres within the soil matrix at the site.
20. If costs have been included in relation to additional site works, and / or site remediation works these must be considered as indicative only and must be confirmed by a qualified quantity surveyor.

## EUROCODE 7: GEOTECHNICAL DESIGN

21. On 1st April 2010, BS EN 1997-1:2004 (Eurocode 7: Geotechnical Design – Part 1) became the mandatory baseline standard for geotechnical ground investigations.
22. In terms of geotechnical design for foundations, slopes, retaining walls and earthworks, EC7 sets guidance on design procedures including specific guidance on the numbers and spacings of boreholes for geotechnical design, there are limits to methods of ground investigation and the quality of data obtained and there are also prescriptive methods of assessing soil strengths and methods of design. Unless otherwise explicitly stated, the work has not been undertaken in accordance with EC7. A standard geotechnical interpretative report will not meet the requirements of the Geotechnical Design Report (GDR) under Eurocode 7. The GDR can only be prepared following confirmation of all structural loads and serviceability requirements. The report is likely to represent a Ground Investigation Report (GIR) under the Eurocode 7 guidance.

## DETAILED QUANTITATIVE RISK ASSESSMENTS AND REMEDIAL STRATEGY REPORTS

23. These reports build upon previous report versions and associated notes. The scope of the investigation, further testing and monitoring and associated risk assessments were selected on the basis of the specific development and land use scenario proposed by the Client and may not be appropriate to another form of development or scheme layout. The risk assessment and opinions provided are based on currently available approaches in the generation of Site Specific Assessment Criteria relating to contamination concentrations and are not considered to represent a risk in a specific land use scenario to a specific receptor. No liability can be accepted for the retrospective effects of any future changes or amendments to these values, associated models or associated guidance.



## REPORT LIMITATIONS - GROUND RISK AND REMEDIATION

24. The outputs of the Detailed Quantitative Risk Assessments are based upon WSP UK Limited manipulation of standard risk assessment models. These are our interpretation of the risk assessment criteria.
25. Prior to adoption on site they will need discussing and agreeing with the Regulatory Authorities prior to adoption on site. The regulatory discussion and engagement process may result in an alternative interpretation being determined and agreed. The process and timescales associated with the Regulatory Authority engagement are not within the control of WSP UK Limited. All costs and programmes presented as a result of this process should be validated by a quantity surveyor and should be presumed to be indicative.

### **GEOTECHNICAL DESIGN REPORT (GDR)**

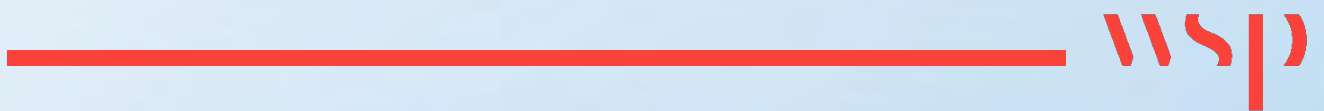
26. The GDR can only be prepared following confirmation of all structural loads and serviceability requirements. All the relevant information needs to be provided to allow for a GDR to be produced.

### **MONITORING (INCLUDING REMEDIATION MONITORING REPORTS)**

27. These reports are factual in nature and comprise monitoring, normally groundwater and ground gas and data provided by contractors as part of an earthworks or remedial works.
28. The data is presented and will be compared with assessment criteria.

# Appendix C

SITE WALKOVER PHOTOS





Photograph 1: Access to Parcel 1 off A642. Looking north.



Photograph 2: Photograph of Parcel 1 from the eastern boundary, looking west.



Photograph 3: Japanese knotweed present in the northeast corner of Parcel 1.



Photograph 4: Photograph of Parcel 1 in the west, looking southwest.



Photograph 5: Parcel 2 from the northern boundary, looking west.



Photograph 6: Japanese knotweed present in northwest corner of Parcel 2.



Photograph 7: Parcel 3 from the centre of the site, looking north.



Photograph 8: Parcel 3 from the centre of the site, looking southwest.



Photograph 9: Made Ground materials (slag) present from ground level in northwest of Parcel 3.



Photograph 10: Parcel 4 from the northeast of the site, looking west.



Photograph 11: Japanese knotweed present in southwest of Parcel 4, on boundary of woodland.



Photograph 12: Parcel 5 from the northern boundary, looking south.



Photograph 13: Parcel 6 from the west of the site looking east. Made Ground visible at ground level across whole site.



Photograph 14: Parcel 7 from the north of the site, looking south.



Photograph 15: Parcel 8 from the southwest corner looking north. Mudstone and sandstone present from ground level.



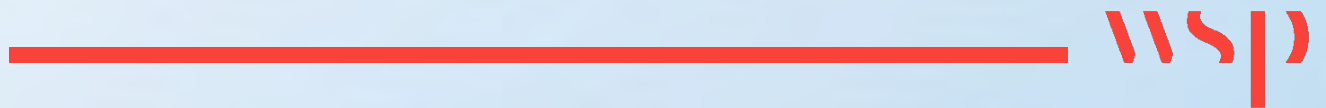
Photograph 16: Parcel 9 from the south of the site, looking north.



Photograph 17: Historical mine entry at the National Coal Mining Museum, ca. 30m northeast of Parcel 9.

# Appendix D

GROUNDSURE REPORTS



# Appendix D.1

PARCEL 1



423569, 415888

## Professional opinion

## Site plan



## Search results

### In a radon affected area

The property is in a radon affected area. This could mean that inhabitants are at risk from the harmful effects of radon.

The percentage of homes estimated to be affected by radon in your local area is between 1% and 3%.

Please see **page 3**

## Useful contacts

### Public Health England / UKRadon

Public information access office, Public Health England, Wellington House, 133-155 Waterloo Road, London, SE1 8UG

<https://www.ukradon.org/>

### UK Radon Association

<http://www.radonassociation.co.uk/>

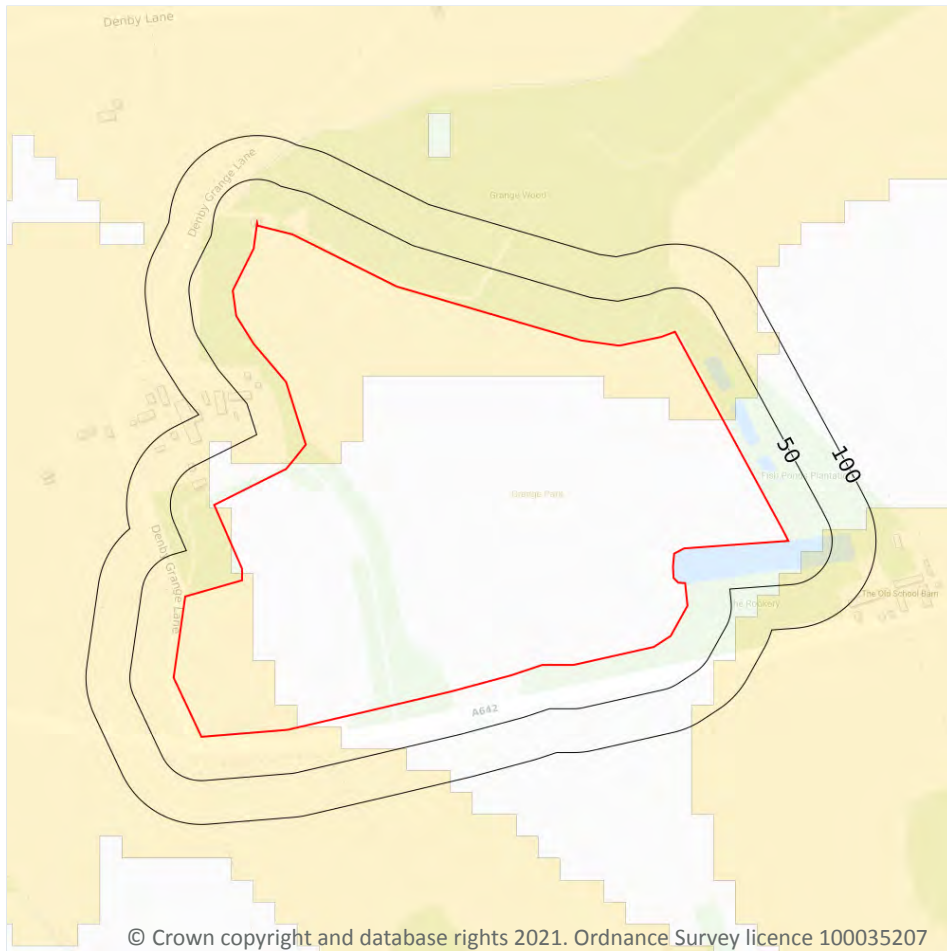
## Overview of findings and recommendations

### Radon

The property is in an area where elevated radon levels are expected to be found in 1-3% of properties. Key recommended next steps:

- if the property is a new build, you can check compliance on radon protection with the developer
- if you are buying a currently occupied property, ask the present owner whether radon levels have been measured and, if so, whether the results were above the radon Action Level. If they were, ask what remedial measures were installed, were radon levels re-tested and did the re-testing confirm the measures have been effective
- if testing has not been carried out, it would be a sensible precaution to arrange for the property to be tested with radon detectors. If initial short-term radon screening tests are inconclusive, or the purchaser would prefer to carry out a full three-month test, it may be possible to arrange a 'radon bond'
- high levels of radon can be reduced through carrying out remedial works to the property
- No radon protection measures will be required to be installed in the event that any new buildings or extensions are added to the property.
- See <http://www.radonassociation.co.uk/guide-to-radon/information-for-house-buyers-and-sellers/> for further information

## Radon



— Site Outline  
Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

The property is in a radon affected area, meaning there is an increased risk that properties will contain elevated levels of radon.

In order to determine if there is a problem at your property, a radon measurement in the building must be taken. Access to a testing service and further information on radon is available from Public Health England (PHE) or [www.ukradon.org](http://www.ukradon.org).

Radon is a colourless, odourless radioactive gas present in all areas of the United Kingdom, usually at levels that pose a negligible risk. However, the property is situated in an area where levels of radon can be much higher and pose a health risk. High levels of radon can cause lung cancer, particularly for smokers and ex-smokers. The higher the level and the longer the period of exposure, the greater the risk.

Please see **page 2** for further advice.

This data is sourced from the British Geological Survey/Public Health England.

## Conveyancing Information Executive and our terms & conditions

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- Conveyancing Information Executive Members will promote the benefits of and deliver the Search to the agreed standards and in the best interests of the customer and associated parties.

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- normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
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If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: [admin@tpos.co.uk](mailto:admin@tpos.co.uk) We will co-operate fully with the Ombudsman during an investigation and comply with their final decision.

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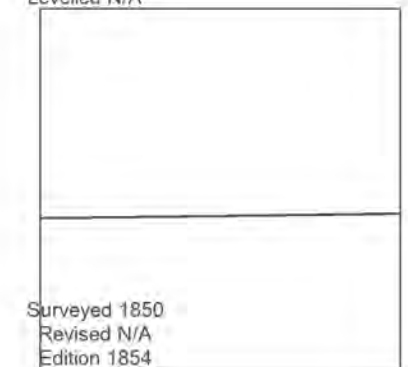
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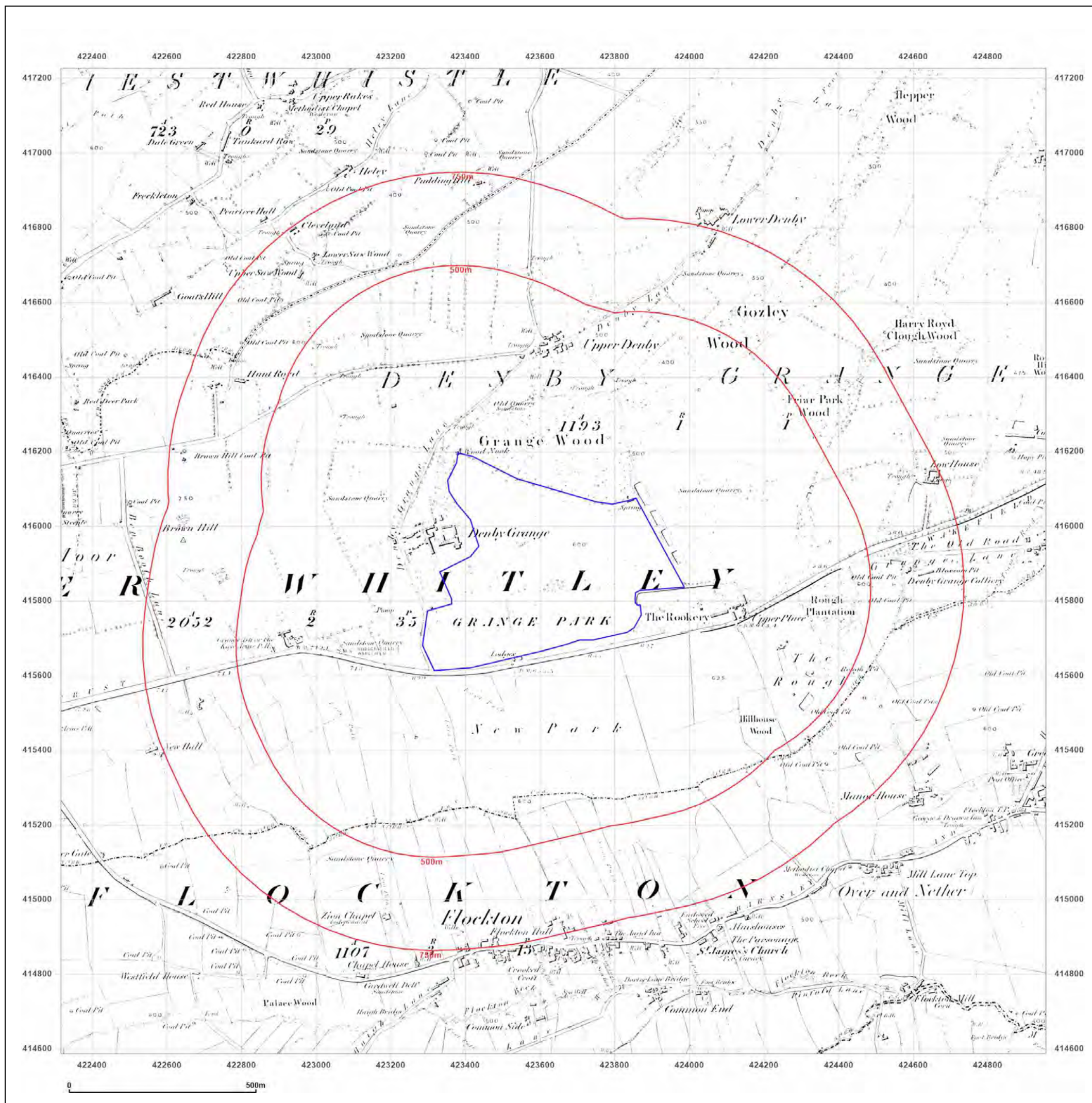
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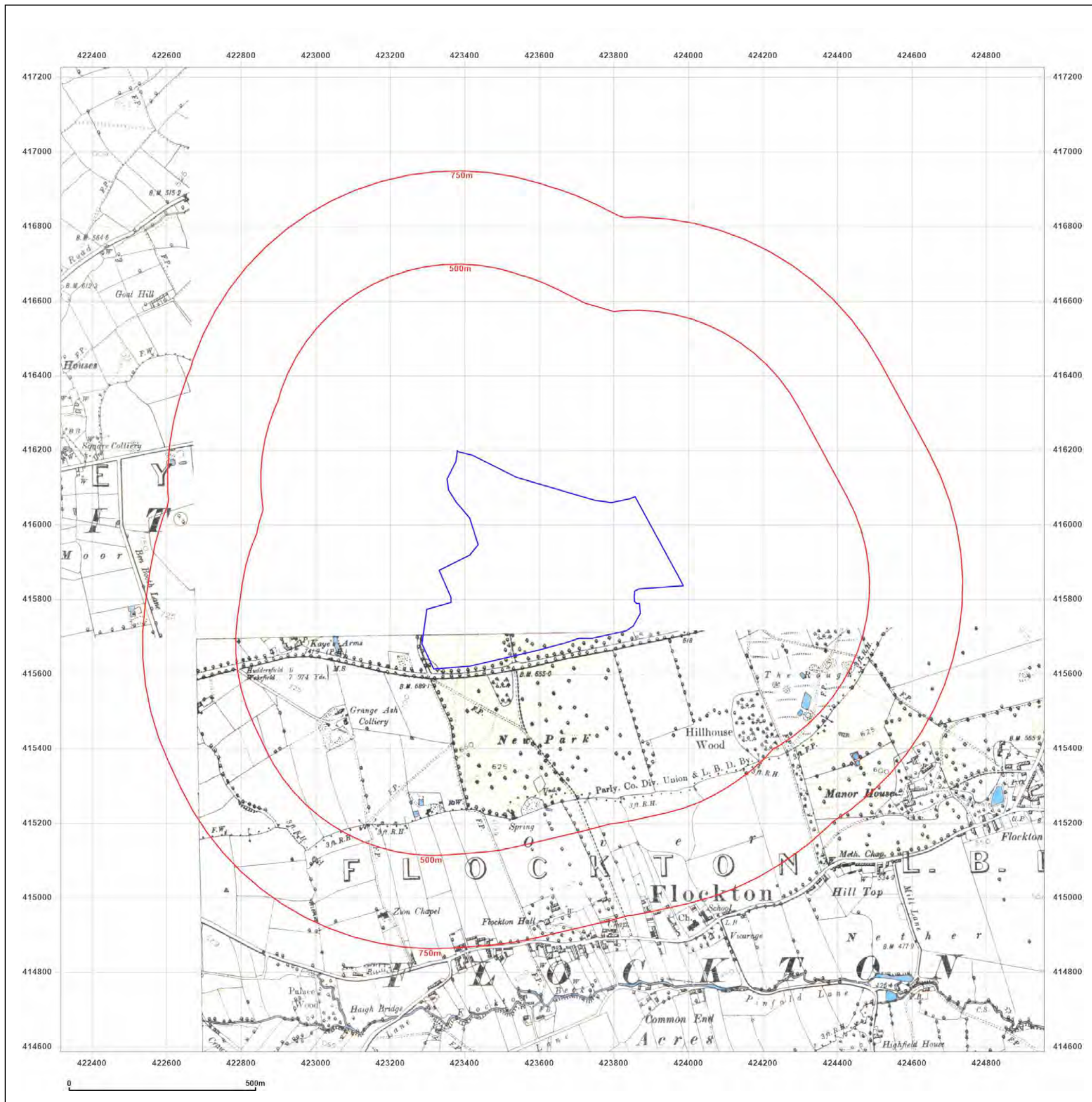


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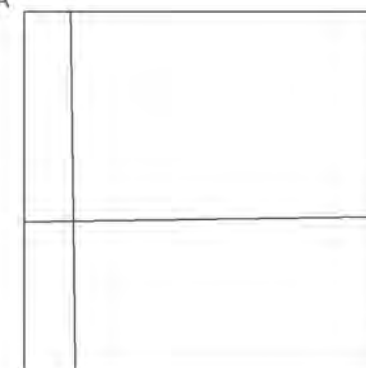
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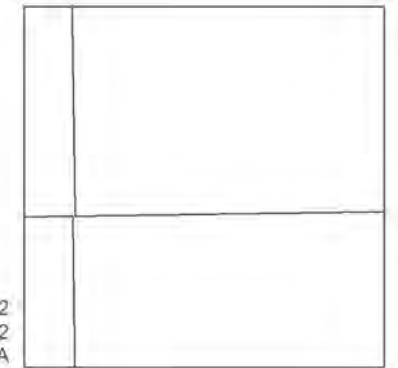
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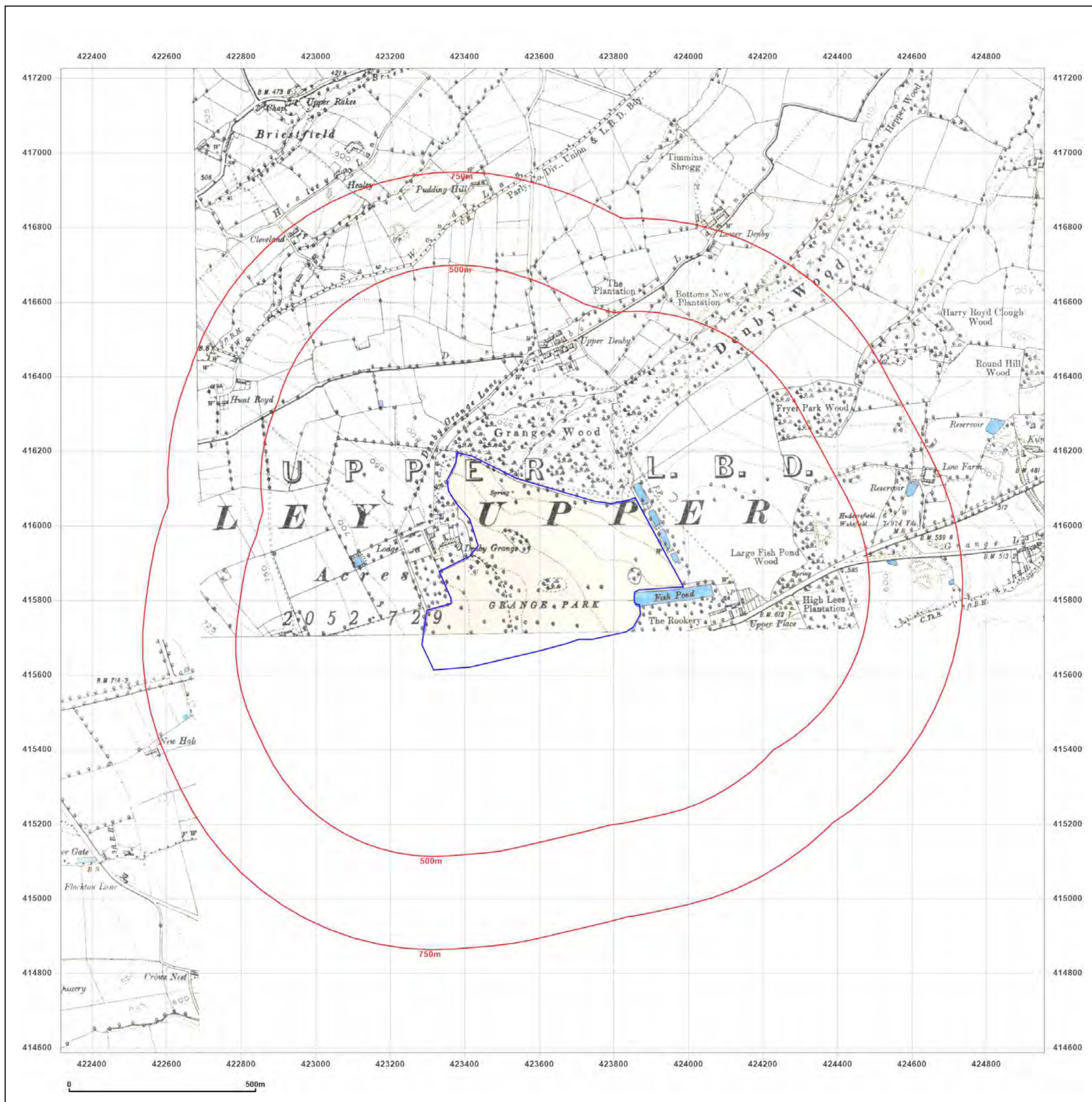
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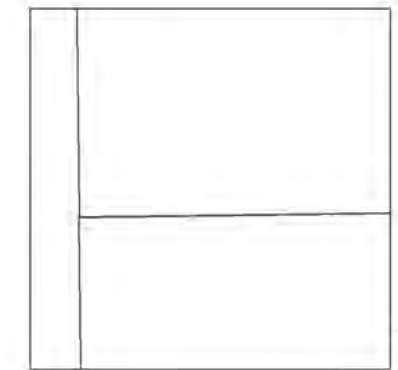
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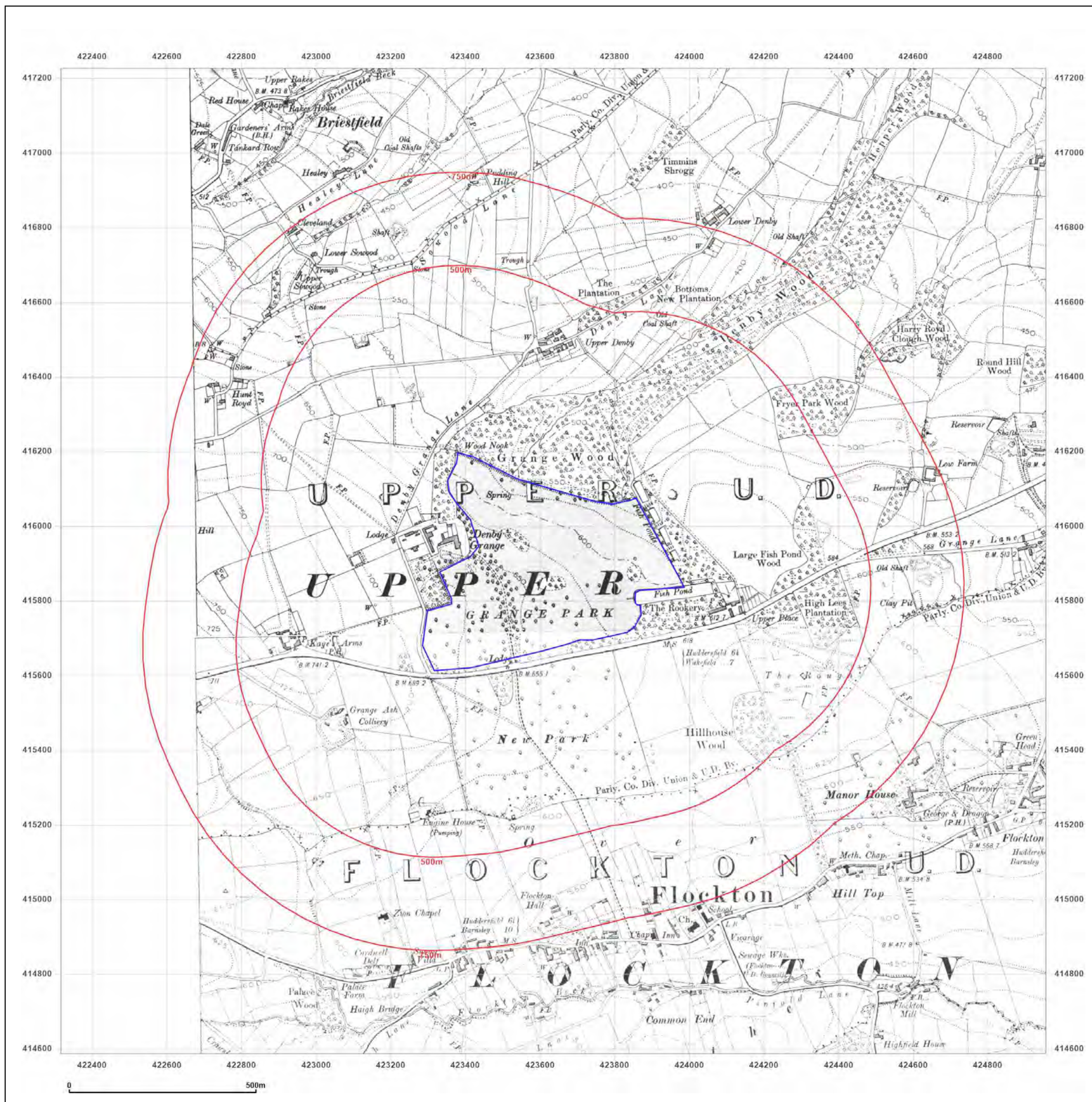
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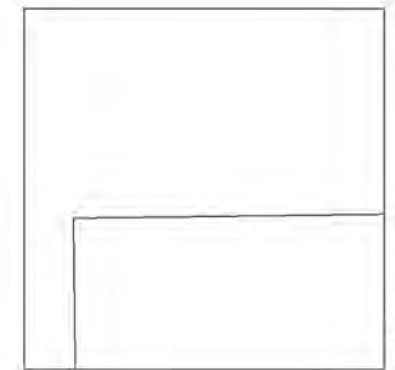
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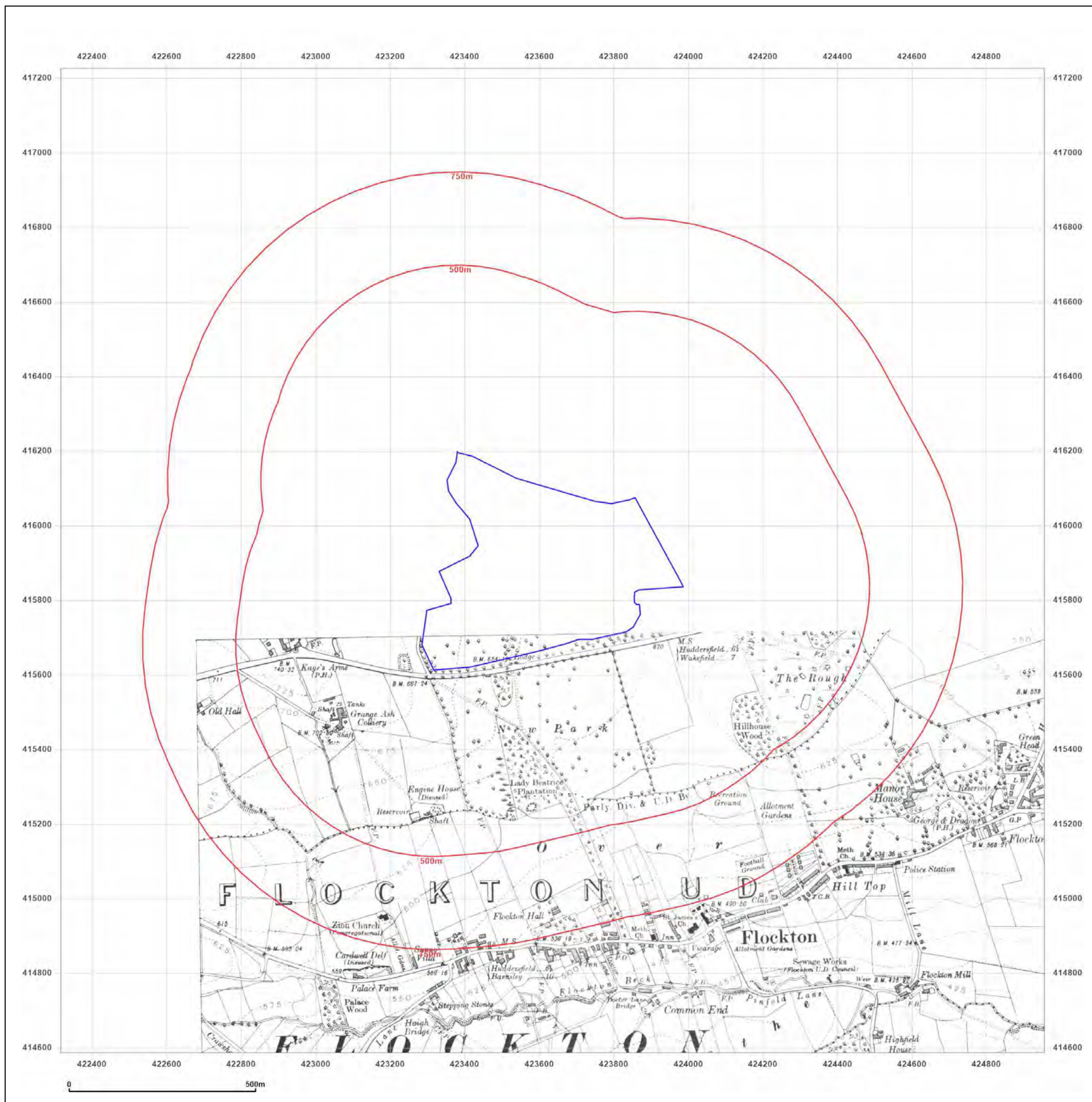
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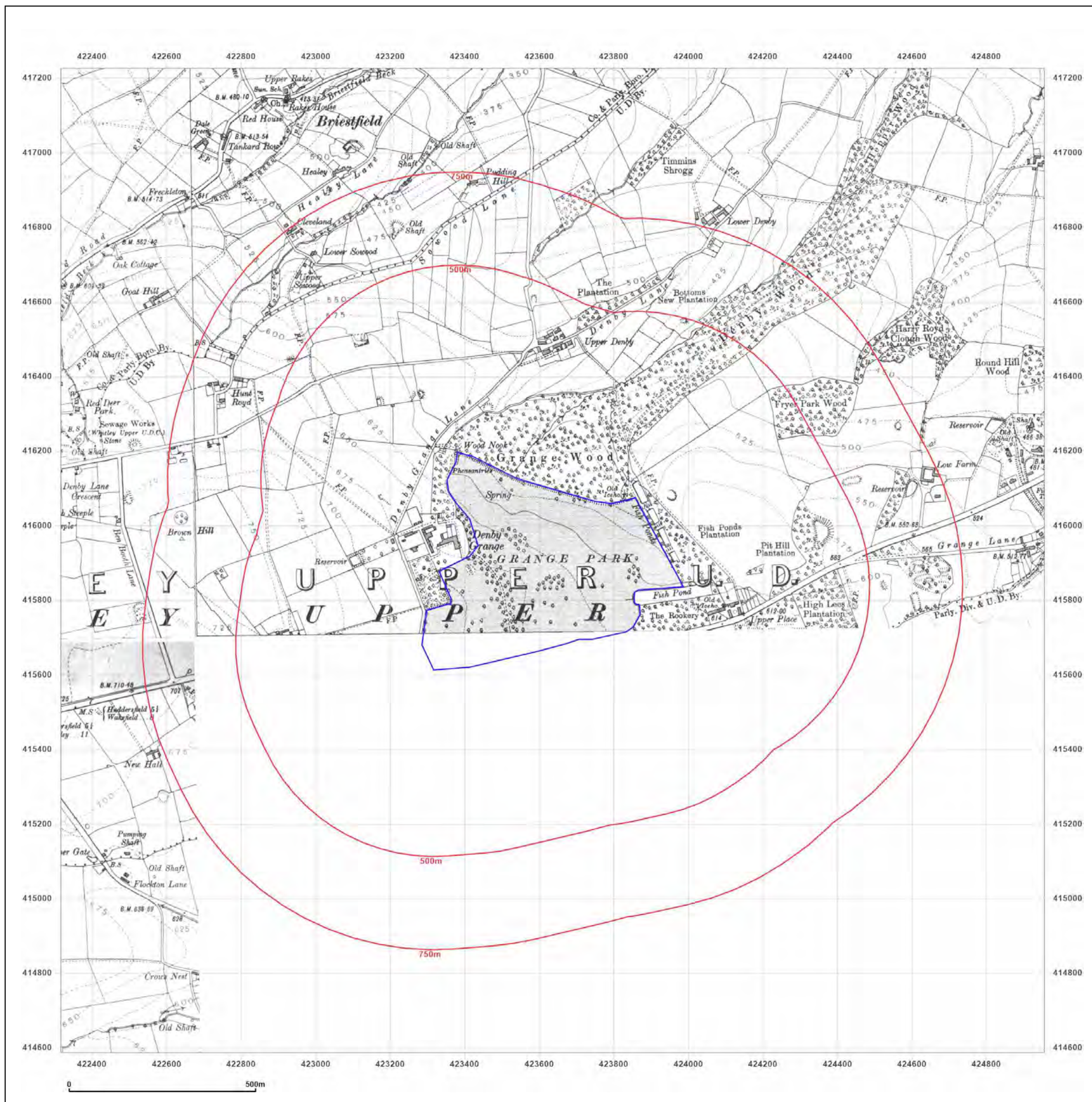
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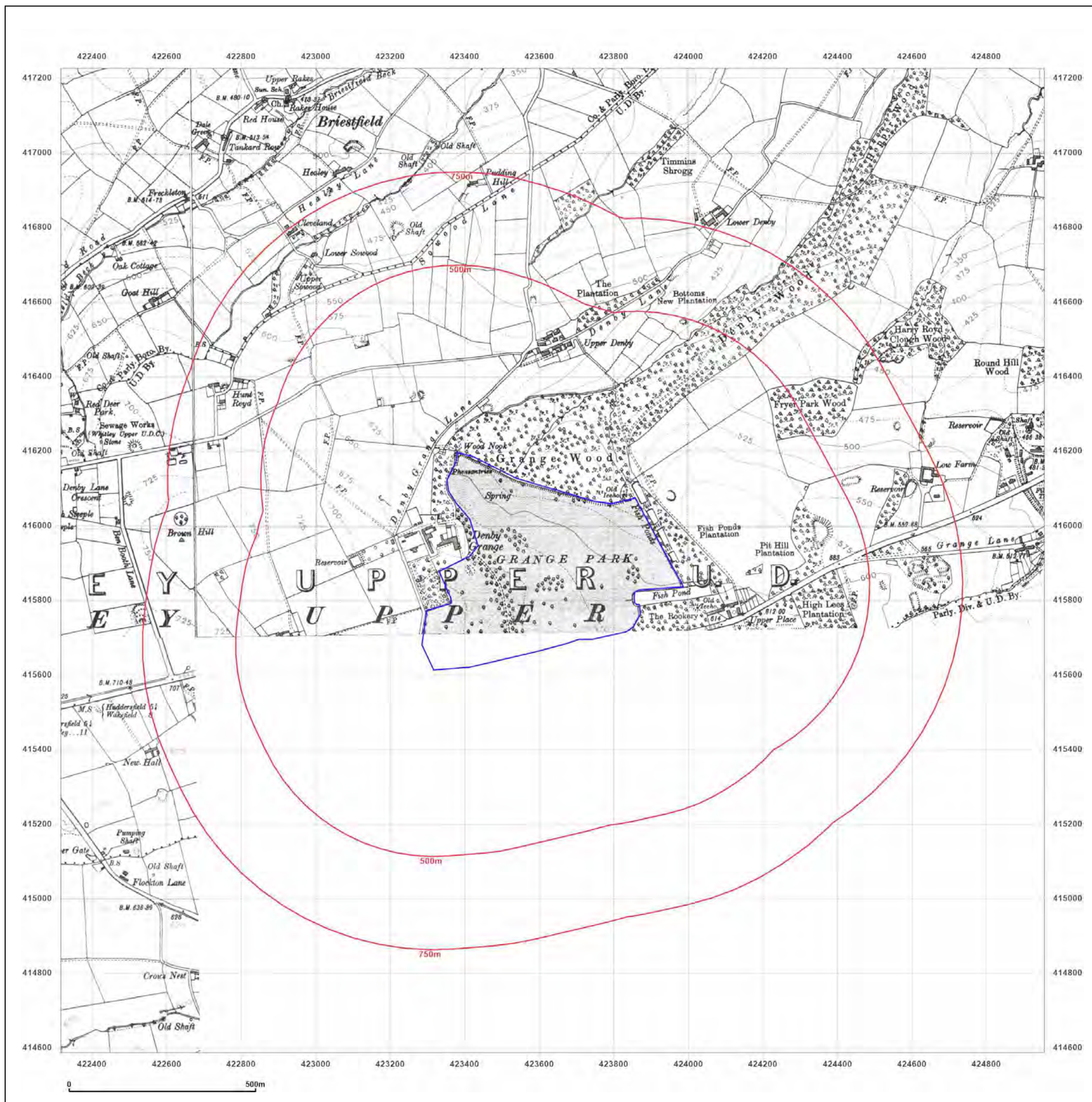
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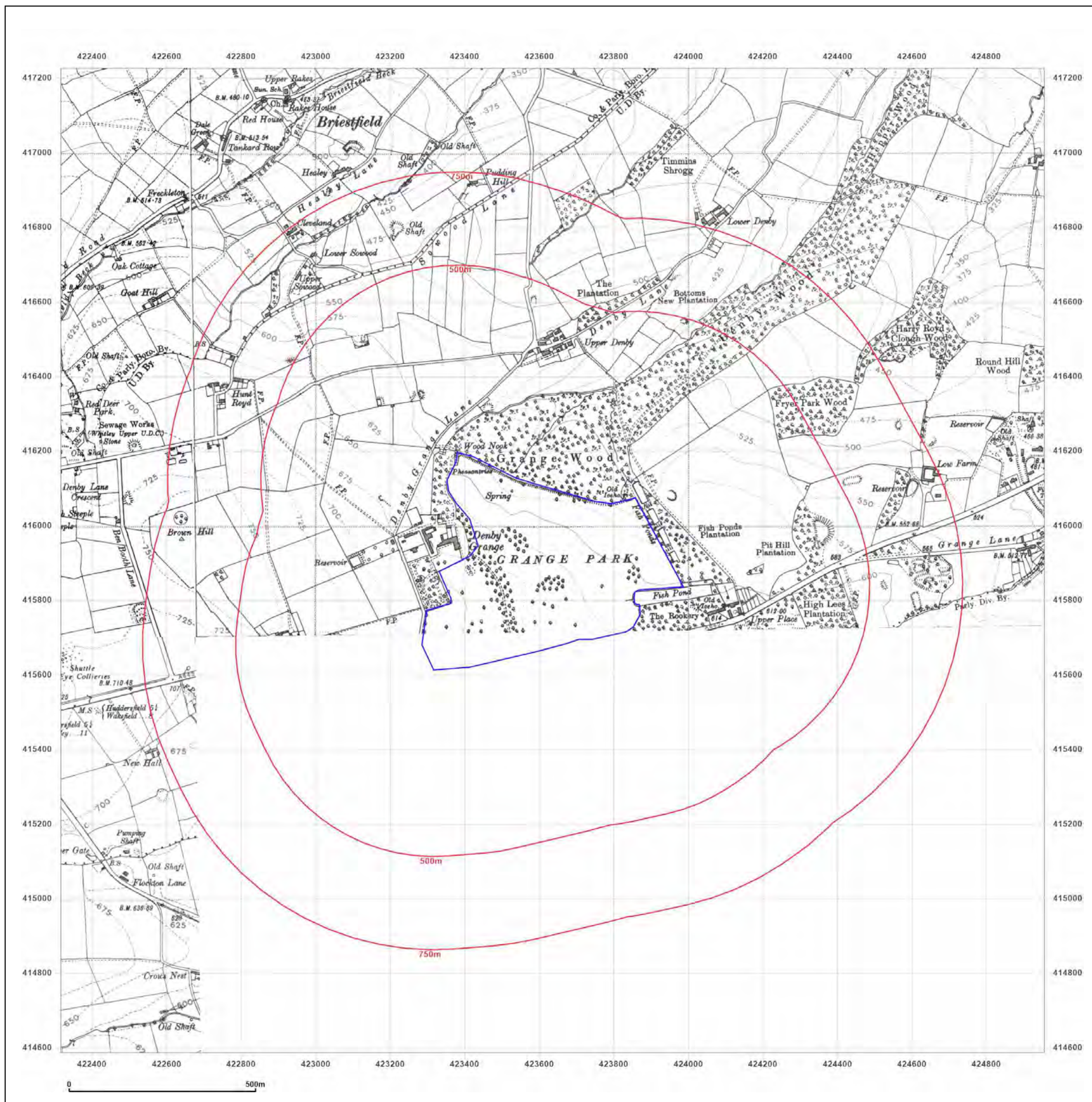
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**Grid Ref:** 423635, 415906

**Map Name:** County Series

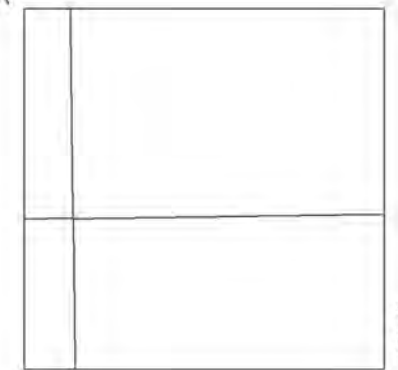
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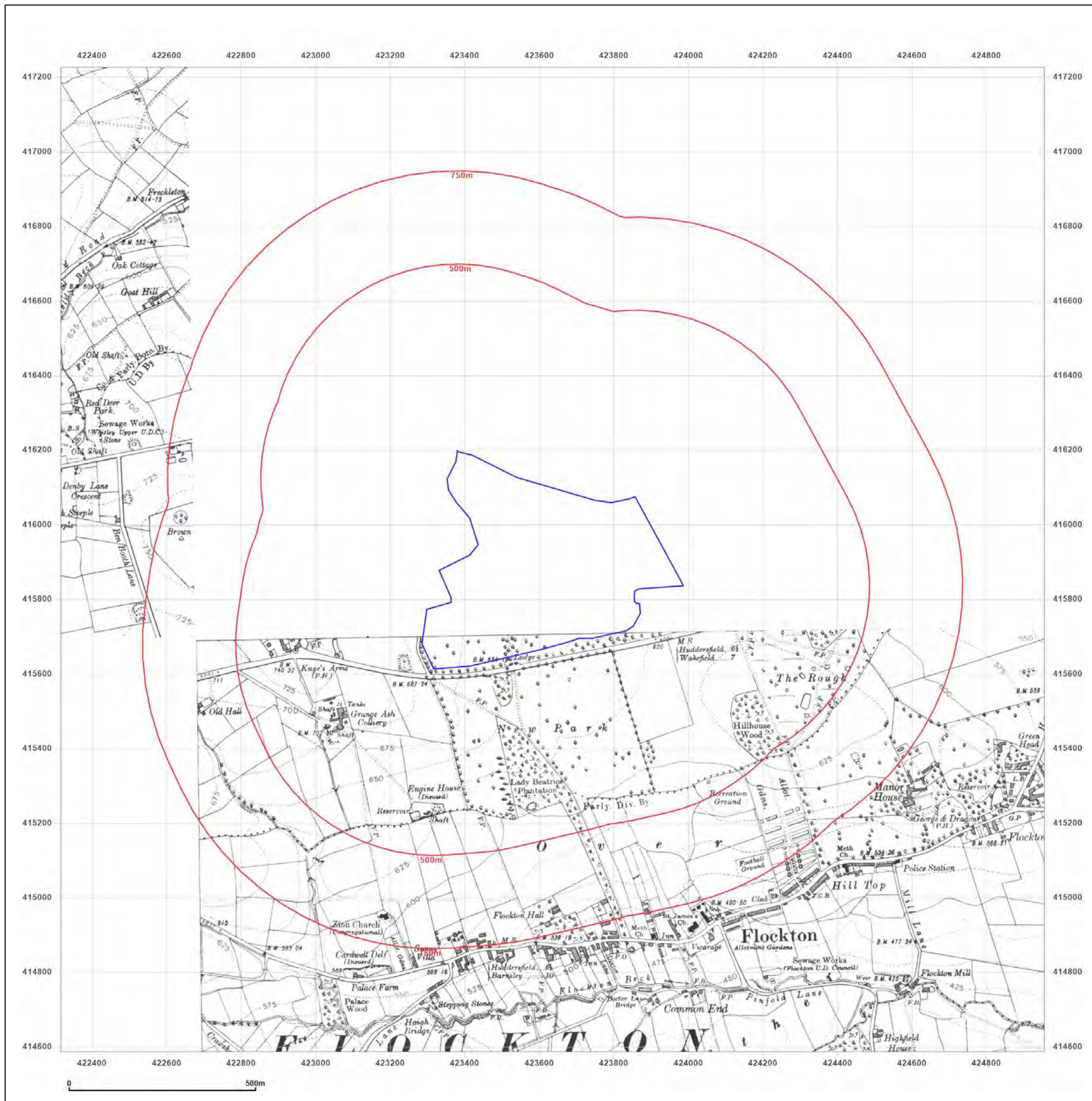
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**Site Details:**

423569, 415888

**Client Ref:** 70078523-S01\_-\_PO\_20127710

**Report Ref:** WSP-7874474

**Grid Ref:** 423635, 415906

**Map Name:** Provisional

**Map date:** 1951-1955

**Scale:** 1:10,560

**Printed at:** 1:10,560



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Revised 1955  
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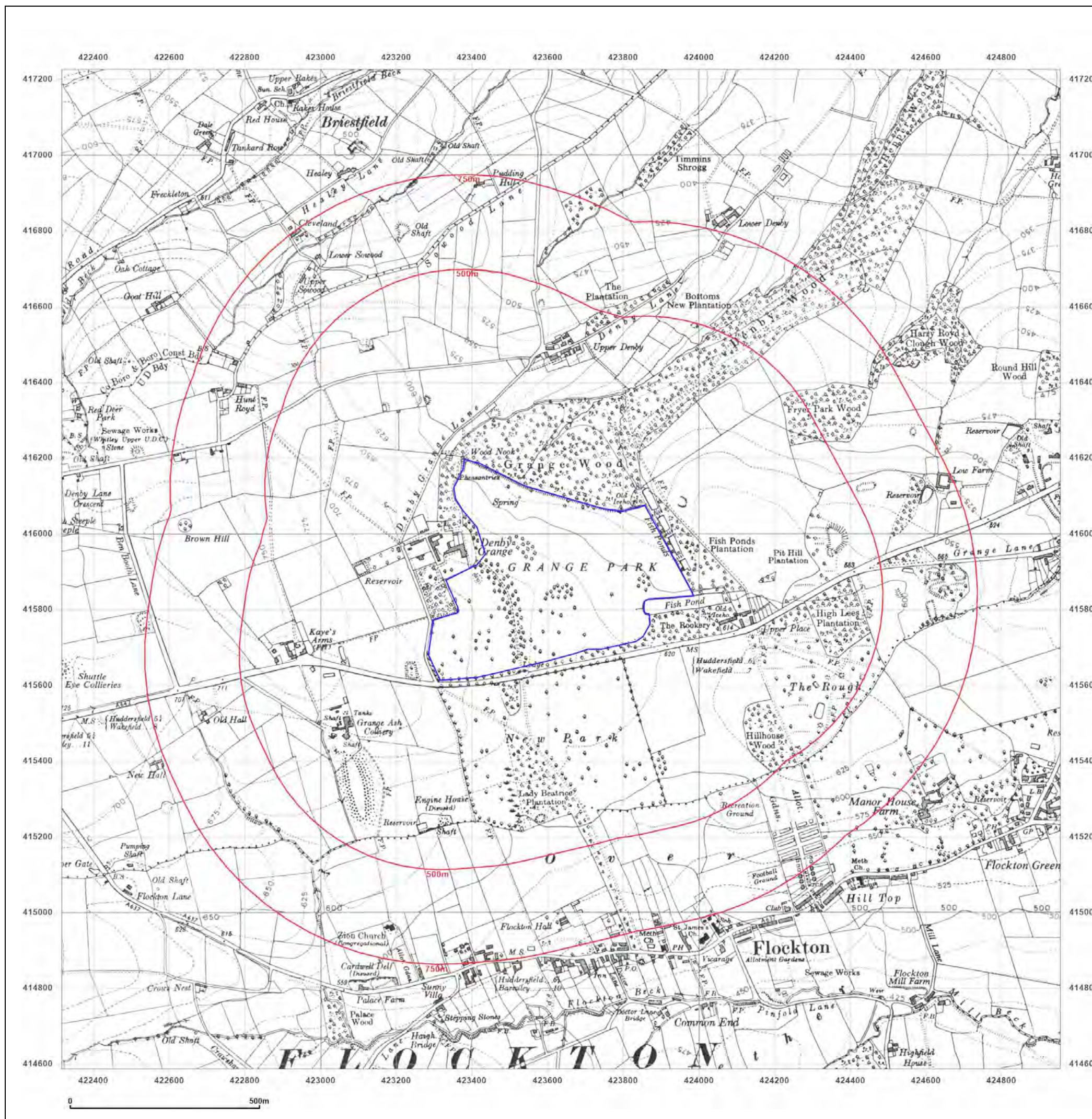
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**Site Details:**

423569, 415888

**Client Ref:** 70078523-S01\_-\_PO\_20127710  
**Report Ref:** WSP-7874474  
**Grid Ref:** 423635, 415906

**Map Name:** Provisional

**Map date:** 1966-1967

**Scale:** 1:10,560

**Printed at:** 1:10,560



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Revised 1967  
Edition N/A  
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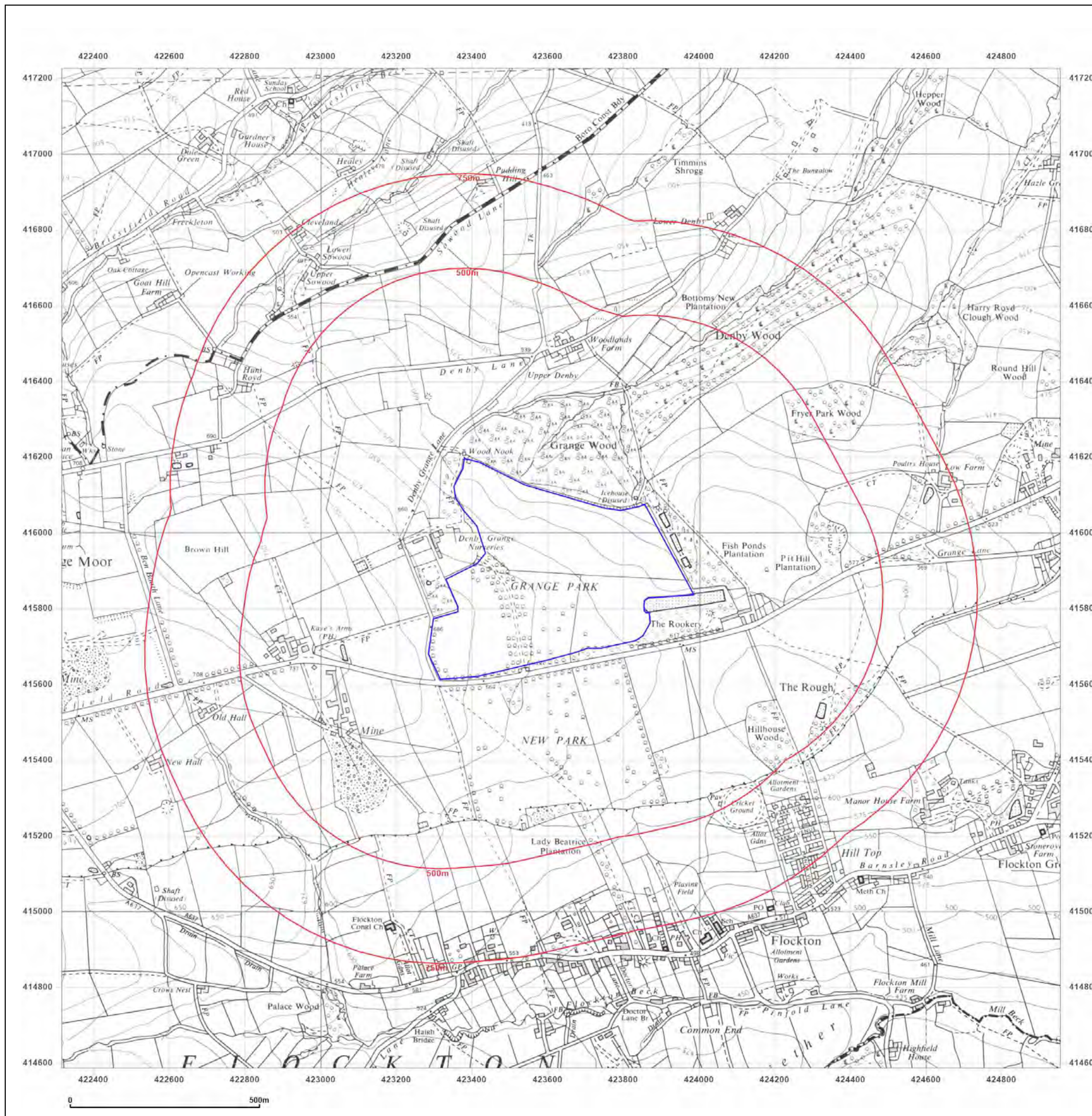
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**Site Details:**

423569, 415888

**Client Ref:** 70078523-S01\_-\_PO\_20127710  
**Report Ref:** WSP-7874474  
**Grid Ref:** 423635, 415906

**Map Name:** National Grid

**Map date:** 1979-1982

**Scale:** 1:10,000

**Printed at:** 1:10,000



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Edition N/A  
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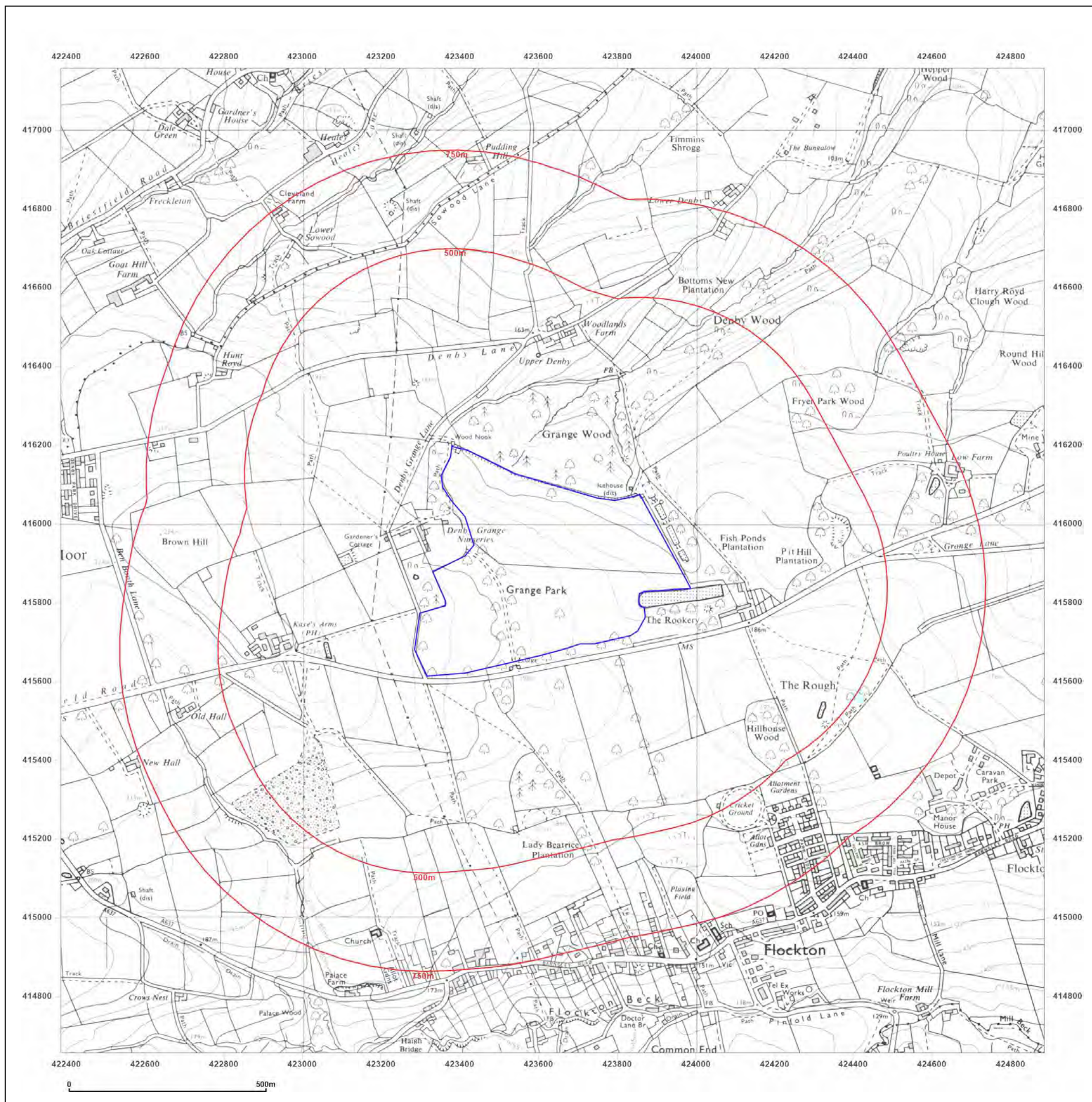
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**Site Details:**

423569, 415888

**Client Ref:** 70078523-S01\_-\_PO\_20127710  
**Report Ref:** WSP-7874474  
**Grid Ref:** 423635, 415906

**Map Name:** National Grid

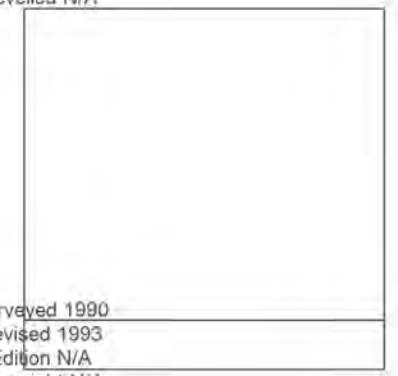
**Map date:** 1993

**Scale:** 1:10,000

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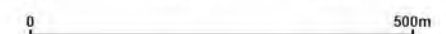
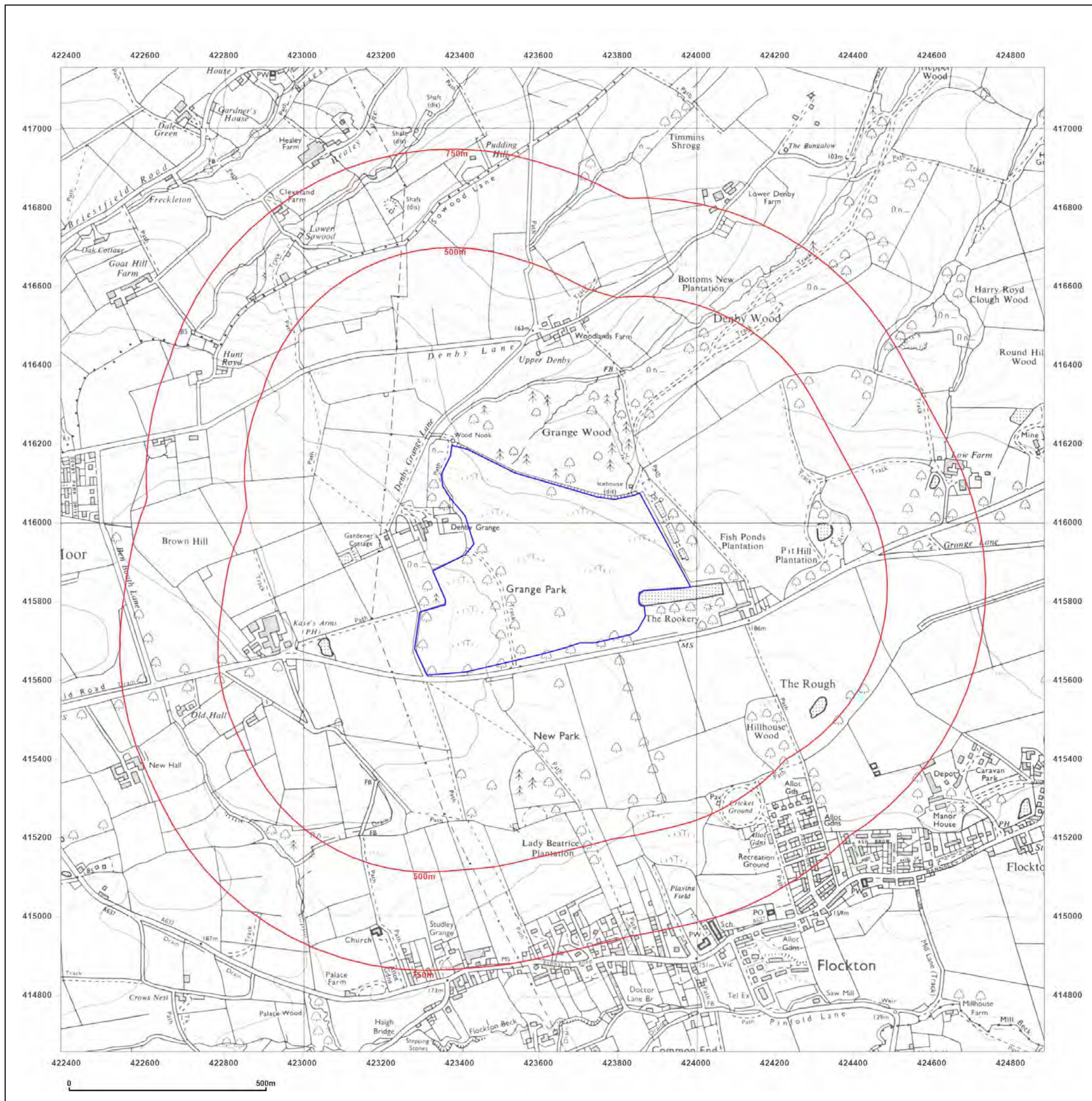
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**Site Details:**

423569, 415888

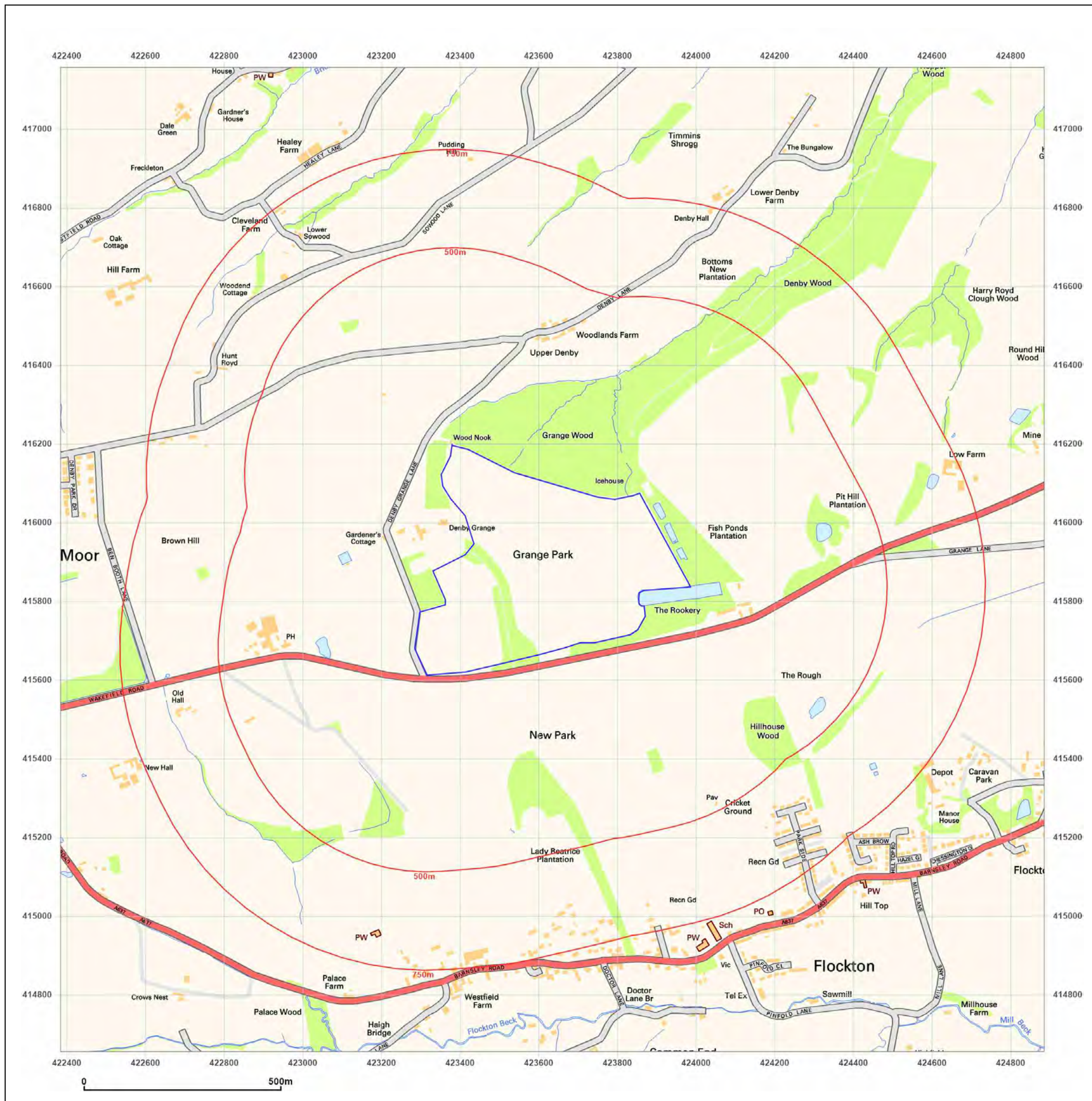
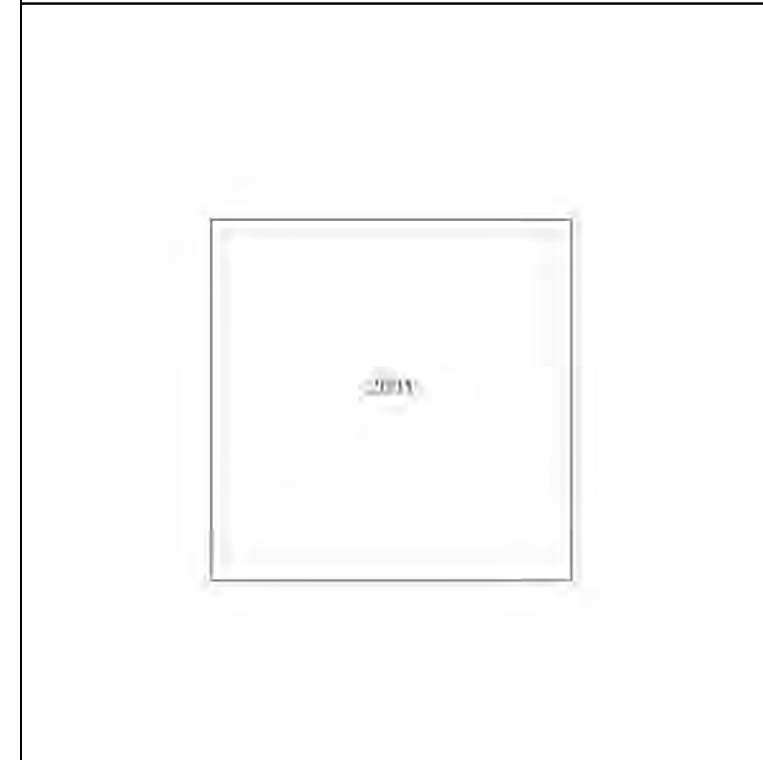
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**Report Ref:** WSP-7874474  
**Grid Ref:** 423635, 415906

**Map Name:** National Grid

**Map date:** 2001

**Scale:** 1:10,000

**Printed at:** 1:10,000



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**Site Details:**

423569, 415888

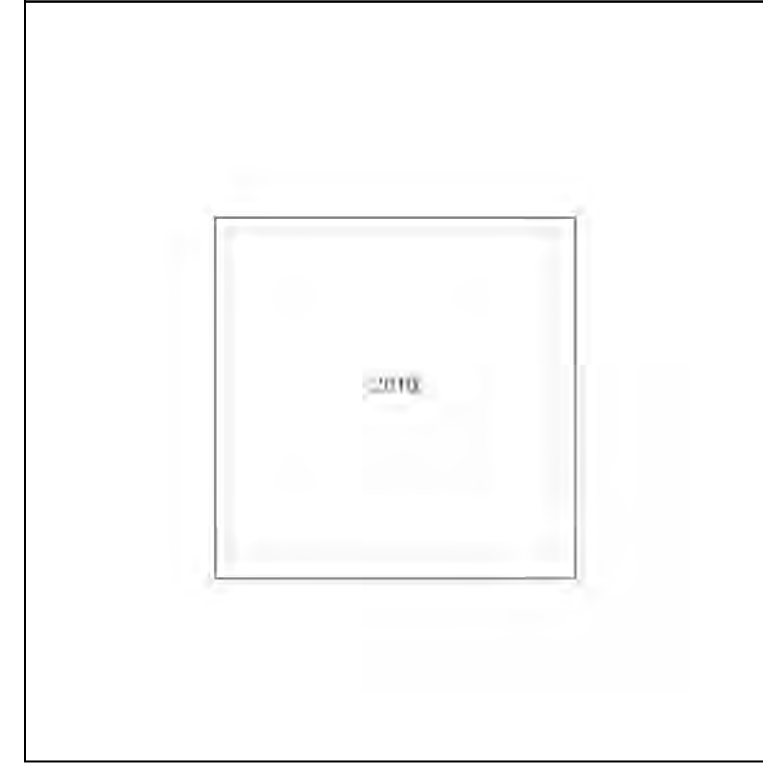
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**Report Ref:** WSP-7874474  
**Grid Ref:** 423635, 415906

**Map Name:** National Grid

**Map date:** 2010

**Scale:** 1:10,000

**Printed at:** 1:10,000



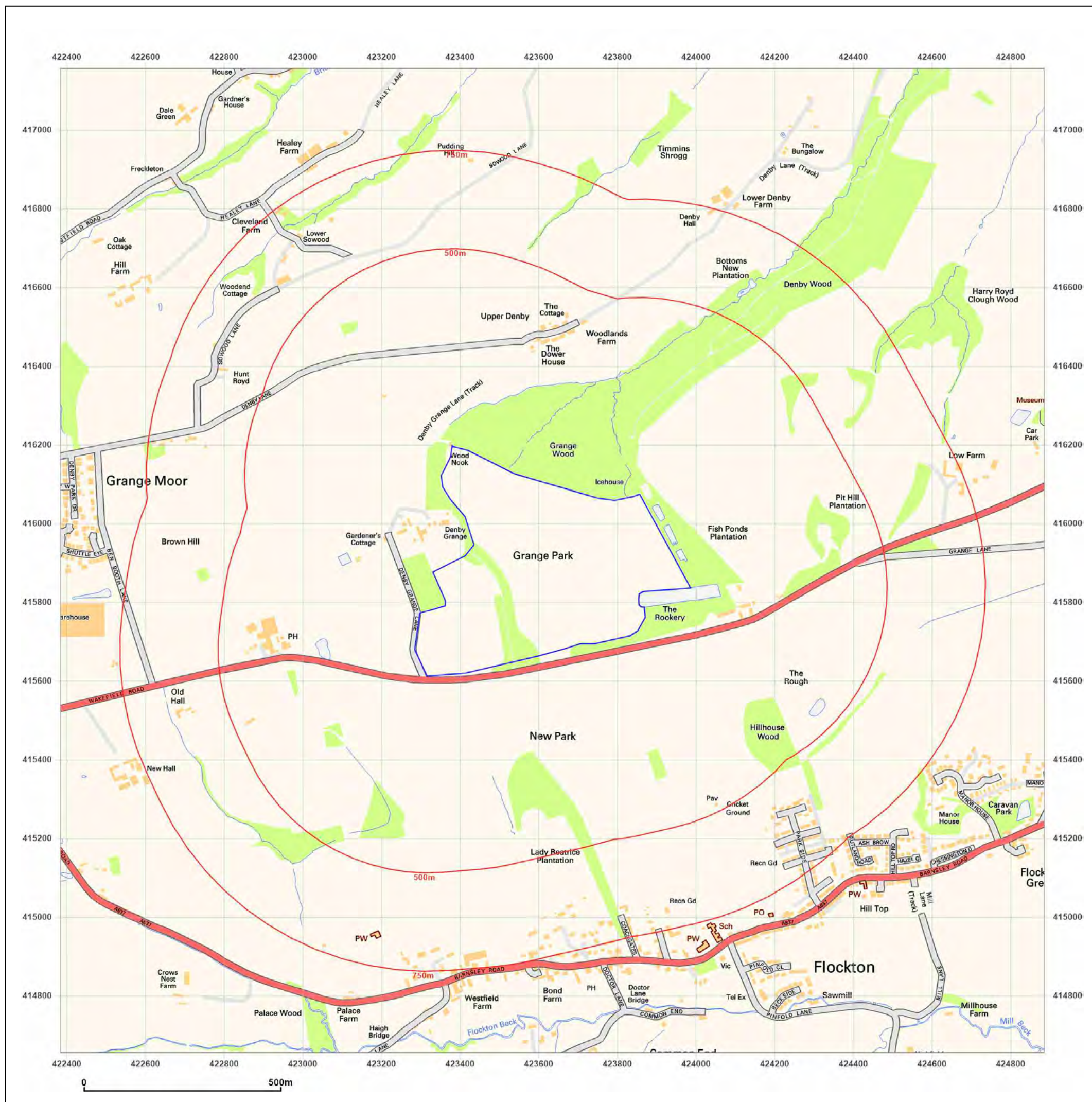
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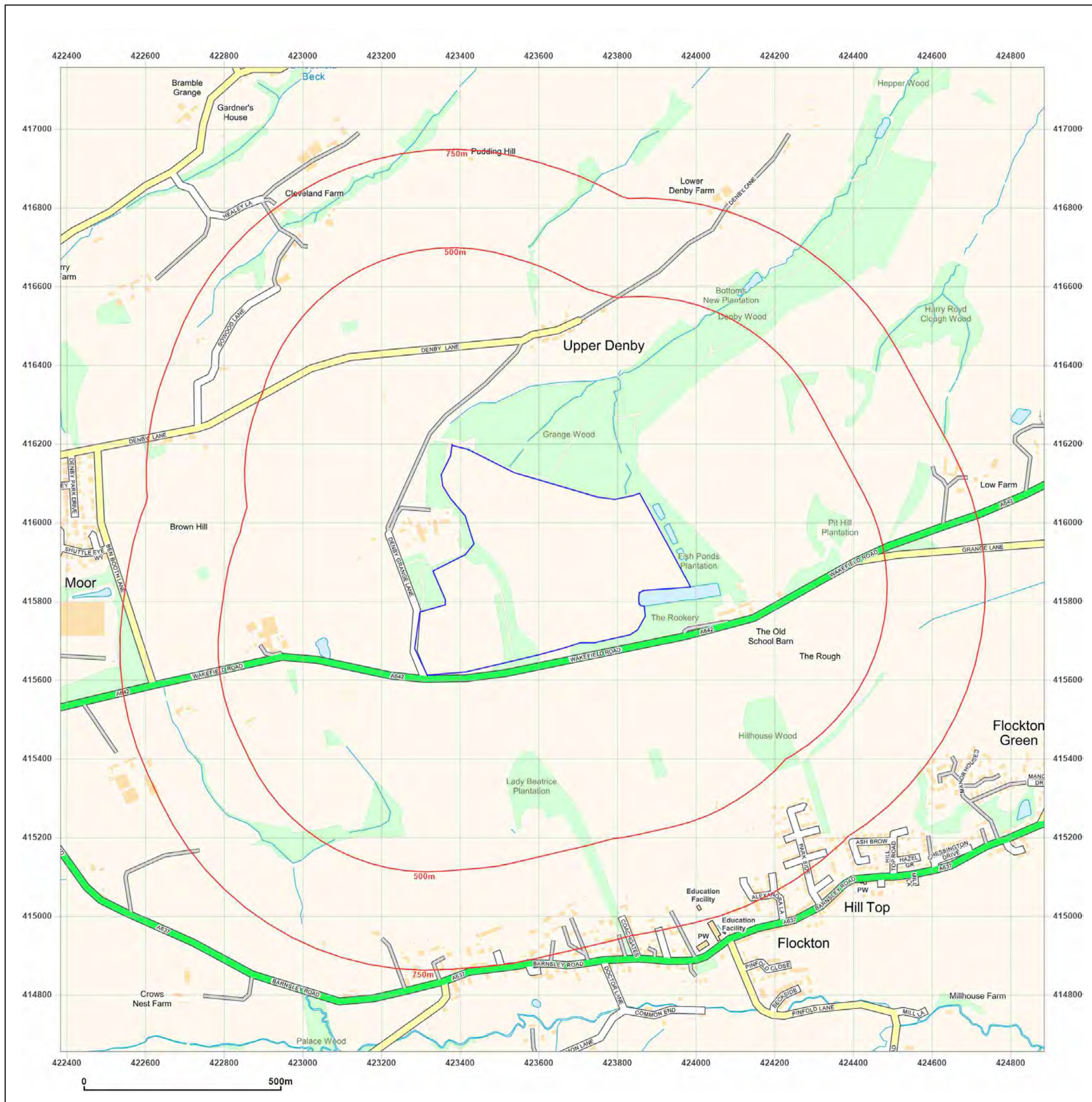


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**Site Details:**

423569, 415888

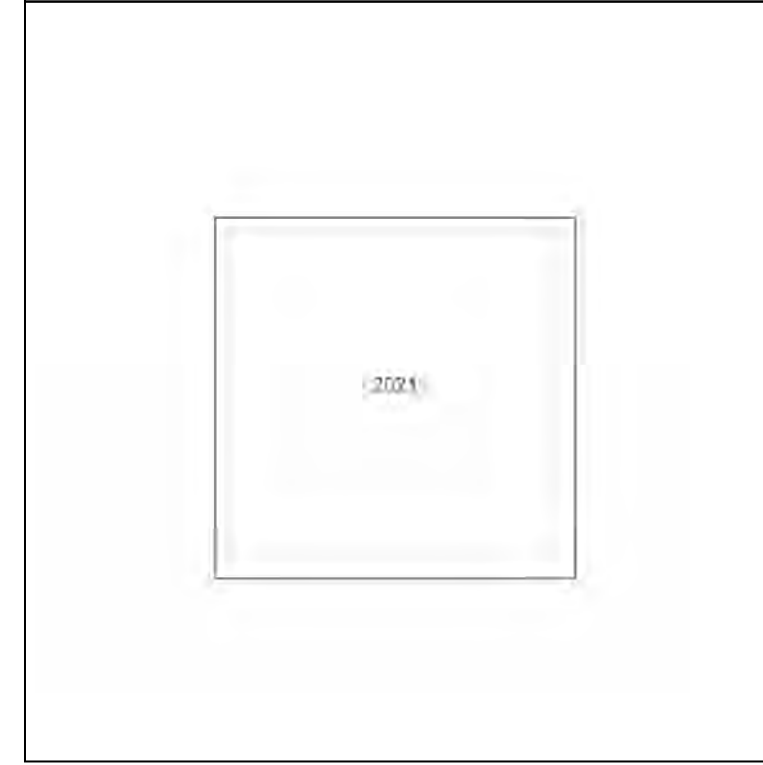
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**Report Ref:** WSP-7874474  
**Grid Ref:** 423635, 415906

**Map Name:** National Grid

**Map date:** 2021

**Scale:** 1:10,000

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423569, 415888

## Order Details

**Date:** 19/05/2021  
**Your ref:** 70078523-S01\_-\_PO\_20127710  
**Our Ref:** WSP-7874476  
**Client:** WSP UK LIMITED

## Site Details

**Location:** 423582 415871  
**Area:** 24.21 ha  
**Authority:** [Kirklees Council](#)



**Summary of findings**

p. 2

**Aerial image**

p. 8

**OS MasterMap site plan**

N/A: >10ha

[groundsure.com/insightuserguide](https://groundsure.com/insightuserguide)

## Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
<b>11</b>	<b>1.1</b>	<b><u>Historical industrial land uses</u></b>	1	5	19	64	-
<b>15</b>	<b>1.2</b>	<b><u>Historical tanks</u></b>	0	5	0	7	-
16	1.3	Historical energy features	0	0	0	0	-
16	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	Historical garages	0	0	0	0	-
16	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
<b>17</b>	<b>2.1</b>	<b><u>Historical industrial land uses</u></b>	2	7	27	83	-
<b>22</b>	<b>2.2</b>	<b><u>Historical tanks</u></b>	0	9	0	7	-
23	2.3	Historical energy features	0	0	0	0	-
23	2.4	Historical petrol stations	0	0	0	0	-
23	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
24	3.1	Active or recent landfill	0	0	0	0	-
24	3.2	Historical landfill (BGS records)	0	0	0	0	-
25	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
25	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
25	3.5	Historical waste sites	0	0	0	0	-
<b>25</b>	<b>3.6</b>	<b><u>Licensed waste sites</u></b>	0	3	0	0	-
<b>26</b>	<b>3.7</b>	<b><u>Waste exemptions</u></b>	0	0	0	29	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
30	4.1	Recent industrial land uses	0	0	0	-	-
30	4.2	Current or recent petrol stations	0	0	0	0	-
31	4.3	Electricity cables	0	0	0	0	-
31	4.4	Gas pipelines	0	0	0	0	-
31	4.5	Sites determined as Contaminated Land	0	0	0	0	-



31	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
31	4.7	Regulated explosive sites	0	0	0	0	-
32	4.8	Hazardous substance storage/usage	0	0	0	0	-
32	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
32	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
32	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
32	4.12	Radioactive Substance Authorisations	0	0	0	0	-
<b>33</b>	<b>4.13</b>	<b><u>Licensed Discharges to controlled waters</u></b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>-</b>
34	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
34	4.15	Pollutant release to public sewer	0	0	0	0	-
34	4.16	List 1 Dangerous Substances	0	0	0	0	-
34	4.17	List 2 Dangerous Substances	0	0	0	0	-
<b>34</b>	<b>4.18</b>	<b><u>Pollution Incidents (EA/NRW)</u></b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>-</b>
35	4.19	Pollution inventory substances	0	0	0	0	-
35	4.20	Pollution inventory waste transfers	0	0	0	0	-
35	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
36	5.1	Superficial aquifer	None (within 500m)				
<b>37</b>	<b>5.2</b>	<b><u>Bedrock aquifer</u></b>	Identified (within 500m)				
<b>38</b>	<b>5.3</b>	<b><u>Groundwater vulnerability</u></b>	Identified (within 50m)				
39	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
39	5.5	Groundwater vulnerability- local information	None (within 0m)				
40	5.6	Groundwater abstractions	0	0	0	0	0
<b>41</b>	<b>5.7</b>	<b><u>Surface water abstractions</u></b>	0	0	0	0	<b>1</b>
41	5.8	Potable abstractions	0	0	0	0	0
41	5.9	Source Protection Zones	0	0	0	0	-
42	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
<b>43</b>	<b>6.1</b>	<b><u>Water Network (OS MasterMap)</u></b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>-</b>



<b>44</b>	<b>6.2</b>	<b><u>Surface water features</u></b>	1	5	4	-	-
<b>44</b>	<b>6.3</b>	<b><u>WFD Surface water body catchments</u></b>	1	-	-	-	-
<b>45</b>	<b>6.4</b>	<b><u>WFD Surface water bodies</u></b>	0	0	0	-	-
<b>45</b>	<b>6.5</b>	<b><u>WFD Groundwater bodies</u></b>	2	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
46	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
<b>47</b>	<b>7.2</b>	<b><u>Historical Flood Events</u></b>	1	1	0	-	-
47	7.3	Flood Defences	0	0	0	-	-
47	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
47	7.5	Flood Storage Areas	0	0	0	-	-
49	7.6	Flood Zone 2	None (within 50m)				
49	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
<b>50</b>	<b>8.1</b>	<b><u>Surface water flooding</u></b>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
<b>52</b>	<b>9.1</b>	<b><u>Groundwater flooding</u></b>	Negligible (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
53	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
54	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
54	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
54	10.4	Special Protection Areas (SPA)	0	0	0	0	0
54	10.5	National Nature Reserves (NNR)	0	0	0	0	0
55	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
<b>55</b>	<b>10.7</b>	<b><u>Designated Ancient Woodland</u></b>	1	0	0	0	4
55	10.8	Biosphere Reserves	0	0	0	0	0
56	10.9	Forest Parks	0	0	0	0	0
56	10.10	Marine Conservation Zones	0	0	0	0	0
<b>56</b>	<b>10.11</b>	<b><u>Green Belt</u></b>	1	0	0	0	1
56	10.12	Proposed Ramsar sites	0	0	0	0	0



57	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
57	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
57	10.15	Nitrate Sensitive Areas	0	0	0	0	0
<b>57</b>	<b>10.16</b>	<b><u>Nitrate Vulnerable Zones</u></b>	0	1	0	1	1
<b>59</b>	<b>10.17</b>	<b><u>SSSI Impact Risk Zones</u></b>	2	-	-	-	-
60	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
61	11.1	World Heritage Sites	0	0	0	-	-
62	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
62	11.3	National Parks	0	0	0	-	-
<b>62</b>	<b>11.4</b>	<b><u>Listed Buildings</u></b>	0	0	2	-	-
63	11.5	Conservation Areas	0	0	0	-	-
63	11.6	Scheduled Ancient Monuments	0	0	0	-	-
63	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
<b>64</b>	<b>12.1</b>	<b><u>Agricultural Land Classification</u></b>	Grade 4 (within 250m)				
65	12.2	Open Access Land	0	0	0	-	-
<b>65</b>	<b>12.3</b>	<b><u>Tree Felling Licences</u></b>	0	1	2	-	-
65	12.4	Environmental Stewardship Schemes	0	0	0	-	-
<b>66</b>	<b>12.5</b>	<b><u>Countryside Stewardship Schemes</u></b>	1	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
<b>67</b>	<b>13.1</b>	<b><u>Priority Habitat Inventory</u></b>	6	3	2	-	-
68	13.2	Habitat Networks	0	0	0	-	-
68	13.3	Open Mosaic Habitat	0	0	0	-	-
68	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
<b>70</b>	<b>14.1</b>	<b><u>10k Availability</u></b>	Identified (within 500m)				
<b>71</b>	<b>14.2</b>	<b><u>Artificial and made ground (10k)</u></b>	4	1	9	15	-
73	14.3	Superficial geology (10k)	0	0	0	0	-



<b>73</b>	<b>14.4</b>	<b><u>Landslip (10k)</u></b>	0	0	0	1	-
<b>75</b>	<b>14.5</b>	<b><u>Bedrock geology (10k)</u></b>	6	1	8	8	-
<b>77</b>	<b>14.6</b>	<b><u>Bedrock faults and other linear features (10k)</u></b>	9	2	18	17	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
<b>79</b>	<b>15.1</b>	<b><u>50k Availability</u></b>	Identified (within 500m)				
<b>80</b>	<b>15.2</b>	<b><u>Artificial and made ground (50k)</u></b>	1	0	4	3	-
<b>81</b>	<b>15.3</b>	<b><u>Artificial ground permeability (50k)</u></b>	1	0	-	-	-
82	15.4	Superficial geology (50k)	0	0	0	0	-
82	15.5	Superficial permeability (50k)	None (within 50m)				
82	15.6	Landslip (50k)	0	0	0	0	-
82	15.7	Landslip permeability (50k)	None (within 50m)				
<b>83</b>	<b>15.8</b>	<b><u>Bedrock geology (50k)</u></b>	4	2	9	7	-
<b>85</b>	<b>15.9</b>	<b><u>Bedrock permeability (50k)</u></b>	Identified (within 50m)				
<b>85</b>	<b>15.10</b>	<b><u>Bedrock faults and other linear features (50k)</u></b>	7	1	15	11	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
87	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence					
<b>88</b>	<b>17.1</b>	<b><u>Shrink swell clays</u></b>	Very low (within 50m)				
<b>90</b>	<b>17.2</b>	<b><u>Running sands</u></b>	Very low (within 50m)				
<b>92</b>	<b>17.3</b>	<b><u>Compressible deposits</u></b>	Moderate (within 50m)				
<b>94</b>	<b>17.4</b>	<b><u>Collapsible deposits</u></b>	Very low (within 50m)				
<b>95</b>	<b>17.5</b>	<b><u>Landslides</u></b>	Moderate (within 50m)				
<b>97</b>	<b>17.6</b>	<b><u>Ground dissolution of soluble rocks</u></b>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
99	18.1	Natural cavities	0	0	0	0	-
<b>100</b>	<b>18.2</b>	<b><u>BritPits</u></b>	0	0	5	8	-
<b>102</b>	<b>18.3</b>	<b><u>Surface ground workings</u></b>	8	15	39	-	-
<b>105</b>	<b>18.4</b>	<b><u>Underground workings</u></b>	0	0	2	8	52
107	18.5	Historical Mineral Planning Areas	0	0	0	0	-



108	18.6	Non-coal mining	0	0	0	0	0
108	18.7	Mining cavities	0	0	0	0	0
108	18.8	JPB mining areas	None (within 0m)				
<b>108</b>	<b>18.9</b>	<b>Coal mining</b>	<b>Identified (within 0m)</b>				
109	18.10	Brine areas	None (within 0m)				
109	18.11	Gypsum areas	None (within 0m)				
109	18.12	Tin mining	None (within 0m)				
109	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
<b>110</b>	<b>19.1</b>	<b>Radon</b>	<b>Between 1% and 3% (within 0m)</b>				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
<b>112</b>	<b>20.1</b>	<b>BGS Estimated Background Soil Chemistry</b>	13	4	-	-	-
113	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
113	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
114	21.1	Underground railways (London)	0	0	0	-	-
114	21.2	Underground railways (Non-London)	0	0	0	-	-
114	21.3	Railway tunnels	0	0	0	-	-
114	21.4	Historical railway and tunnel features	0	0	0	-	-
114	21.5	Royal Mail tunnels	0	0	0	-	-
115	21.6	Historical railways	0	0	0	-	-
115	21.7	Railways	0	0	0	-	-
115	21.8	Crossrail 1	0	0	0	0	-
115	21.9	Crossrail 2	0	0	0	0	-
115	21.10	HS2	0	0	0	0	-

## Recent aerial photograph



Capture Date: 01/07/2018

Site Area: 24.21ha



Contact us with any questions at:

[info@groundsure.com](mailto:info@groundsure.com)

08444 159 000

Date: 19 May 2021



## Recent site history - 2012 aerial photograph



Capture Date: 26/03/2012

Site Area: 24.21ha



## Recent site history - 1999 aerial photograph

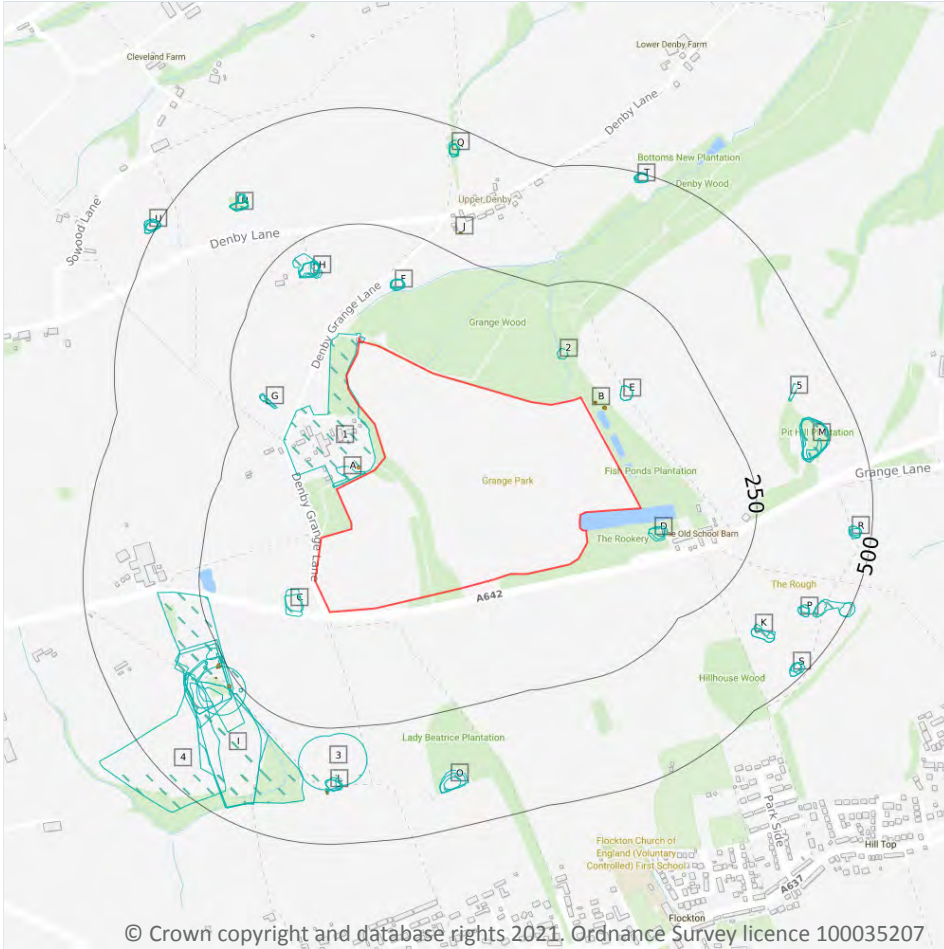


Capture Date: 10/07/1999

Site Area: 24.21ha



# 1 Past land use



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

## 1.1 Historical industrial land uses

**Records within 500m** **89**

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

Features are displayed on the Past land use map on **page 11**

ID	Location	Land use	Dates present	Group ID
1	On site	Nurseries	1966 - 1982	1481295

ID	Location	Land use	Dates present	Group ID
A	3m NW	Unspecified Ground Workings	1905	1412248
C	41m SW	Unspecified Heap	1948 - 1951	1511250
C	46m SW	Refuse Heap	1891	1436633
D	49m SE	Unspecified Heap	1938	1488712
D	50m SE	Unspecified Heap	1948 - 1951	1532741
D	53m SE	Unspecified Heap	1966 - 1993	1526099
E	75m NE	Unspecified Quarry	1905	1467591
E	75m NE	Unspecified Quarry	1948	1470041
2	90m N	Unspecified Heap	1966 - 1993	1527780
F	124m N	Unspecified Pit	1948	1470186
F	124m N	Unspecified Pit	1905	1523834
F	127m N	Unspecified Pit	1938	1553481
F	129m N	Unspecified Pit	1951	1460816
G	158m W	Unspecified Ground Workings	1948	1412250
H	160m NW	Refuse Heap	1892	1436634
G	161m W	Unspecified Quarry	1938	1428010
H	163m NW	Unspecified Heaps	1948	1500132
H	167m NW	Unspecified Heaps	1938	1459459
H	168m NW	Unspecified Heaps	1951	1534367
H	170m NW	Unspecified Heaps	1905	1549295
H	175m NW	Unspecified Heap	1966 - 1982	1537435
I	233m W	Unspecified Mine	1966	1455568
I	236m SW	Unspecified Shaft	1951	1548570
I	245m SW	Colliery	1951	1527948
I	251m SW	Unspecified Shaft	1948	1541065
I	252m SW	Colliery	1948	1502108
I	253m SW	Unspecified Tanks	1948 - 1951	1462615
I	254m SW	Refuse Heap	1948 - 1951	1522990



ID	Location	Land use	Dates present	Group ID
I	256m SW	Colliery	1891	1488371
3	262m S	Disused Engine House	1948 - 1951	1542178
I	267m SW	Refuse Heap	1951 - 1966	1546052
I	272m SW	Railway Sidings	1966	1409303
I	285m SW	Unspecified Shaft	1951	1425230
I	286m SW	Refuse Heap	1891	1460496
I	290m SW	Unspecified Shaft	1948	1425290
I	319m SW	Refuse Heap	1948	1459096
4	321m SW	Refuse Heap	1982	1507558
K	353m SE	Refuse Heap	1951	1436632
K	354m SE	Refuse Heaps	1948	1506789
K	354m SE	Refuse Heaps	1891	1547491
L	356m S	Refuse Heap	1951	1554814
L	358m S	Unspecified Heap	1966	1415174
L	361m S	Refuse Heap	1948	1511022
L	361m S	Refuse Heap	1891	1550271
M	365m E	Unspecified Heap	1938	1481329
M	367m E	Unspecified Heap	1948	1499235
M	367m E	Refuse Heap	1892 - 1905	1515064
M	368m E	Unspecified Heap	1951 - 1982	1526595
N	374m NW	Unspecified Quarry	1948	1527634
N	374m NW	Unspecified Quarry	1905	1556134
N	375m NW	Unspecified Ground Workings	1951	1412251
M	376m E	Unspecified Ground Workings	1993	1412249
O	376m S	Refuse Heap	1951 - 1966	1468404
N	377m NW	Unspecified Quarry	1938	1469183
L	381m S	Unspecified Shaft	1951	1493826
O	383m S	Refuse Heap	1891	1550606



ID	Location	Land use	Dates present	Group ID
K	386m SE	Refuse Heap	1951	1436631
L	386m S	Unspecified Shaft	1948	1496588
N	386m NW	Unspecified Pit	1948	1534472
N	386m NW	Unspecified Pit	1905	1535916
5	390m NE	Brick and China Clay Works	1892	1435520
O	392m S	Refuse Heap	1948	1527662
P	401m SE	Refuse Heap	1948	1503736
P	401m SE	Refuse Heap	1891	1525682
P	403m SE	Refuse Heap	1951	1489266
P	433m SE	Refuse Heap	1948 - 1951	1536863
P	433m SE	Refuse Heaps	1891	1419319
Q	437m N	Refuse Heap	1905	1436645
Q	437m N	Unspecified Heap	1948	1516658
Q	442m N	Unspecified Heap	1938	1519262
Q	443m N	Unspecified Heap	1951	1469630
R	450m E	Refuse Heap	1938 - 1951	1536993
R	450m E	Refuse Heap	1905	1550461
R	453m E	Refuse Heap	1892	1544030
S	469m SE	Refuse Heap	1951	1525120
S	471m SE	Refuse Heap	1891	1472842
S	471m SE	Refuse Heap	1948	1501447
S	472m SE	Unspecified Heap	1966 - 1982	1475299
T	478m N	Refuse Heap	1905	1436644
T	481m N	Unspecified Heap	1948 - 1951	1554542
P	481m SE	Refuse Heap	1948 - 1951	1552755
T	482m N	Unspecified Heaps	1938	1468335
T	484m N	Old Coal Shaft	1905	1411683
U	493m NW	Refuse Heap	1951	1483800



ID	Location	Land use	Dates present	Group ID
U	495m NW	Refuse Heap	1938	1462666
U	498m NW	Unspecified Heap	1966	1485837
U	498m NW	Unspecified Heap	1948	1473456
U	498m NW	Refuse Heap	1905	1524820

This data is sourced from Ordnance Survey / Groundsure.

## 1.2 Historical tanks

<b>Records within 500m</b>	<b>12</b>
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Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 11**

ID	Location	Land use	Dates present	Group ID
A	18m NW	Unspecified Tank	1960	223532
B	20m NE	Unspecified Tank	1960 - 1993	241516
B	21m NE	Unspecified Tank	-	222556
B	31m NE	Unspecified Tank	1960 - 1993	241885
B	32m NE	Unspecified Tank	-	222776
I	262m SW	Tanks	1913	230486
I	266m SW	Unspecified Tank	1960	223531
I	282m SW	Unspecified Tank	1960	223529
J	295m NE	Unspecified Tank	1990	242859
J	296m NE	Unspecified Tank	-	222628
J	296m NE	Unspecified Tank	1993	247515
L	385m S	Unspecified Tank	1913	223530

This data is sourced from Ordnance Survey / Groundsure.



### 1.3 Historical energy features

Records within 500m

0

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

*This data is sourced from Ordnance Survey / Groundsure.*

### 1.4 Historical petrol stations

Records within 500m

0

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

*This data is sourced from Ordnance Survey / Groundsure.*

### 1.5 Historical garages

Records within 500m

0

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

*This data is sourced from Ordnance Survey / Groundsure.*

### 1.6 Historical military land

Records within 500m

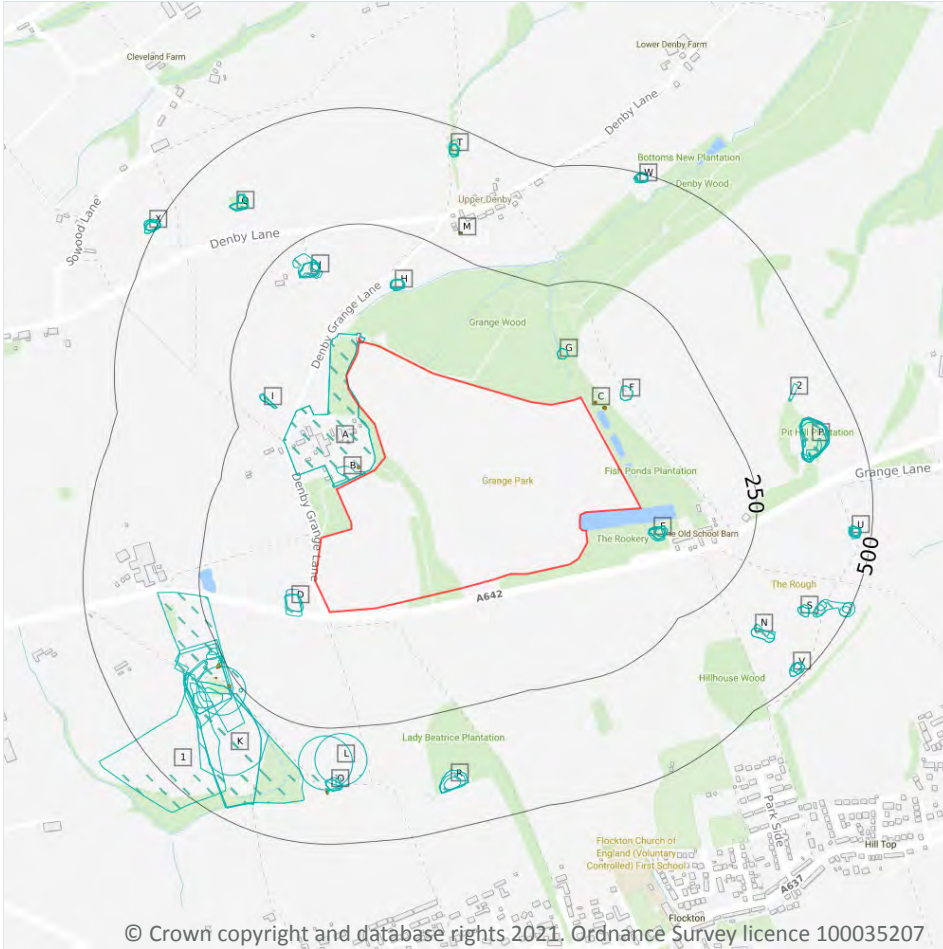
0

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

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



## 2 Past land use - un-grouped



**— Site Outline**

**Search buffers in metres (m)**

- Historical industrial land uses
- Historical tanks

### 2.1 Historical industrial land uses

**Records within 500m** **119**

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

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
A	On site	Nurseries	1982	1481295
A	On site	Nurseries	1966	1481295
B	3m NW	Unspecified Ground Workings	1905	1412248



ID	Location	Land Use	Date	Group ID
D	41m SW	Unspecified Heap	1951	1511250
D	46m SW	Refuse Heap	1891	1436633
D	48m SW	Unspecified Heap	1948	1511250
E	49m SE	Unspecified Heap	1938	1488712
E	49m SE	Unspecified Heap	1938	1488712
E	50m SE	Unspecified Heap	1948	1532741
E	52m SE	Unspecified Heap	1951	1532741
E	53m SE	Unspecified Heap	1993	1526099
E	53m SE	Unspecified Heap	1982	1526099
E	53m SE	Unspecified Heap	1966	1526099
F	75m NE	Unspecified Quarry	1905	1467591
F	75m NE	Unspecified Quarry	1948	1470041
G	90m N	Unspecified Heap	1993	1527780
G	90m N	Unspecified Heap	1982	1527780
G	90m N	Unspecified Heap	1966	1527780
H	124m N	Unspecified Pit	1905	1523834
H	124m N	Unspecified Pit	1948	1470186
H	127m N	Unspecified Pit	1938	1553481
H	127m N	Unspecified Pit	1938	1553481
H	129m N	Unspecified Pit	1951	1460816
I	158m W	Unspecified Ground Workings	1948	1412250
J	160m NW	Refuse Heap	1892	1436634
I	161m W	Unspecified Quarry	1938	1428010
J	163m NW	Unspecified Heaps	1948	1500132
J	167m NW	Unspecified Heaps	1938	1459459
J	167m NW	Unspecified Heaps	1938	1459459
J	168m NW	Unspecified Heaps	1951	1534367
J	170m NW	Unspecified Heaps	1905	1549295



ID	Location	Land Use	Date	Group ID
J	175m NW	Unspecified Heap	1982	1537435
J	175m NW	Unspecified Heap	1966	1537435
K	233m W	Unspecified Mine	1966	1455568
K	236m SW	Unspecified Shaft	1951	1548570
K	245m SW	Colliery	1951	1527948
K	251m SW	Unspecified Shaft	1948	1541065
K	252m SW	Colliery	1948	1502108
K	253m SW	Unspecified Tanks	1951	1462615
K	254m SW	Refuse Heap	1951	1522990
K	256m SW	Colliery	1891	1488371
K	257m SW	Unspecified Tanks	1948	1462615
K	259m SW	Refuse Heap	1948	1522990
L	262m S	Disused Engine House	1951	1542178
L	267m S	Disused Engine House	1948	1542178
K	267m SW	Refuse Heap	1951	1546052
K	272m SW	Railway Sidings	1966	1409303
K	272m SW	Refuse Heap	1966	1546052
K	285m SW	Unspecified Shaft	1951	1425230
K	286m SW	Refuse Heap	1891	1460496
K	290m SW	Unspecified Shaft	1948	1425290
K	319m SW	Refuse Heap	1948	1459096
1	321m SW	Refuse Heap	1982	1507558
N	353m SE	Refuse Heap	1951	1436632
N	354m SE	Refuse Heaps	1948	1506789
N	354m SE	Refuse Heaps	1891	1547491
O	356m S	Refuse Heap	1951	1554814
O	358m S	Unspecified Heap	1966	1415174
O	361m S	Refuse Heap	1948	1511022



ID	Location	Land Use	Date	Group ID
O	361m S	Refuse Heap	1891	1550271
P	365m E	Unspecified Heap	1938	1481329
P	365m E	Unspecified Heap	1938	1481329
P	367m E	Refuse Heap	1905	1515064
P	367m E	Unspecified Heap	1948	1499235
P	368m E	Unspecified Heap	1982	1526595
P	368m E	Unspecified Heap	1966	1526595
P	368m E	Unspecified Heap	1951	1526595
P	369m E	Refuse Heap	1892	1515064
Q	374m NW	Unspecified Quarry	1905	1556134
Q	374m NW	Unspecified Quarry	1948	1527634
Q	375m NW	Unspecified Ground Workings	1951	1412251
P	376m E	Unspecified Ground Workings	1993	1412249
R	376m S	Refuse Heap	1966	1468404
R	376m S	Refuse Heap	1951	1468404
Q	377m NW	Unspecified Quarry	1938	1469183
O	381m S	Unspecified Shaft	1951	1493826
R	383m S	Refuse Heap	1891	1550606
N	386m SE	Refuse Heap	1951	1436631
O	386m S	Unspecified Shaft	1948	1496588
Q	386m NW	Unspecified Pit	1905	1535916
Q	386m NW	Unspecified Pit	1948	1534472
2	390m NE	Brick and China Clay Works	1892	1435520
R	392m S	Refuse Heap	1948	1527662
S	401m SE	Refuse Heap	1948	1503736
S	401m SE	Refuse Heap	1891	1525682
S	403m SE	Refuse Heap	1951	1489266
S	433m SE	Refuse Heap	1951	1536863



ID	Location	Land Use	Date	Group ID
S	433m SE	Refuse Heaps	1891	1419319
S	435m SE	Refuse Heap	1948	1536863
T	437m N	Refuse Heap	1905	1436645
T	437m N	Unspecified Heap	1948	1516658
T	442m N	Unspecified Heap	1938	1519262
T	442m N	Unspecified Heap	1938	1519262
T	443m N	Unspecified Heap	1951	1469630
U	450m E	Refuse Heap	1905	1550461
U	450m E	Refuse Heap	1948	1536993
U	451m E	Refuse Heap	1938	1536993
U	451m E	Refuse Heap	1938	1536993
U	453m E	Refuse Heap	1892	1544030
U	455m E	Refuse Heap	1951	1536993
V	469m SE	Refuse Heap	1951	1525120
V	471m SE	Refuse Heap	1948	1501447
V	471m SE	Refuse Heap	1891	1472842
V	472m SE	Unspecified Heap	1982	1475299
V	472m SE	Unspecified Heap	1966	1475299
W	478m N	Refuse Heap	1905	1436644
W	481m N	Unspecified Heap	1948	1554542
S	481m SE	Refuse Heap	1948	1552755
W	482m N	Unspecified Heaps	1938	1468335
W	482m N	Unspecified Heaps	1938	1468335
W	484m N	Old Coal Shaft	1905	1411683
W	484m N	Unspecified Heap	1951	1554542
S	484m SE	Refuse Heap	1951	1552755
X	493m NW	Refuse Heap	1951	1483800
X	495m NW	Refuse Heap	1938	1462666



ID	Location	Land Use	Date	Group ID
X	495m NW	Refuse Heap	1938	1462666
X	498m NW	Unspecified Heap	1966	1485837
X	498m NW	Refuse Heap	1905	1524820
X	498m NW	Unspecified Heap	1948	1473456

This data is sourced from Ordnance Survey / Groundsure.

## 2.2 Historical tanks

**Records within 500m**

**16**

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

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
B	18m NW	Unspecified Tank	1960	223532
C	20m NE	Unspecified Tank	1990	241516
C	21m NE	Unspecified Tank	1960	241516
C	21m NE	Unspecified Tank	1993	241516
C	21m NE	Unspecified Tank	-	222556
C	31m NE	Unspecified Tank	1990	241885
C	32m NE	Unspecified Tank	1960	241885
C	32m NE	Unspecified Tank	1993	241885
C	32m NE	Unspecified Tank	-	222776
K	262m SW	Tanks	1913	230486
K	266m SW	Unspecified Tank	1960	223531
K	282m SW	Unspecified Tank	1960	223529
M	295m NE	Unspecified Tank	1990	242859
M	296m NE	Unspecified Tank	1993	247515
M	296m NE	Unspecified Tank	-	222628
O	385m S	Unspecified Tank	1913	223530



*This data is sourced from Ordnance Survey / Groundsure.*

## 2.3 Historical energy features

**Records within 500m**

**0**

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

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.4 Historical petrol stations

**Records within 500m**

**0**

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

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.5 Historical garages

**Records within 500m**

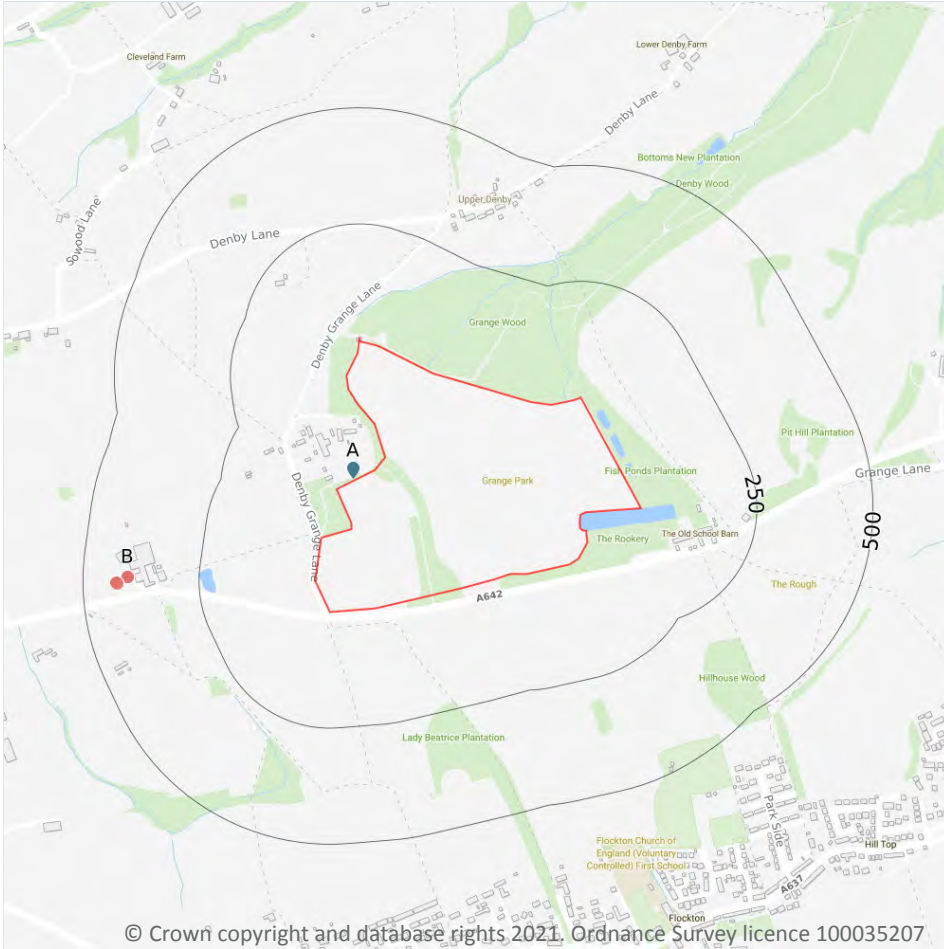
**0**

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

*This data is sourced from Ordnance Survey / Groundsure.*



### 3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Licensed waste sites
- Waste exemptions

#### 3.1 Active or recent landfill

**Records within 500m** **0**

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

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

#### 3.2 Historical landfill (BGS records)

**Records within 500m** **0**

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

*This data is sourced from the British Geological Survey.*

### 3.3 Historical landfill (LA/mapping records)

Records within 500m

0

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

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

### 3.4 Historical landfill (EA/NRW records)

Records within 500m

0

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

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

### 3.5 Historical waste sites

Records within 500m

0

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

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

### 3.6 Licensed waste sites

Records within 500m

3

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

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Details		
A	20m NW	Site Name: H & G Developments Site Address: The Cottage, Denby Grange Lane, Flockton, Wakefield, West Yorkshire, WF4 4BE Correspondence Address: The Cottage, Denby Grange Lane, Flockton, Wakefield, West Yorkshire, WF4 4BE	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HGD001 EPR reference: - Operator: Robin Hine & Lorraine Gilbert Waste Management licence No: 100172 Annual Tonnage: 0	Issue Date: 31/01/2008 Effective Date: - Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
A	20m NW	Site Name: H & G Developments Site Address: The Cottage, Denby Grange Lane, Flockton, Wakefield, West Yorkshire, WF4 4BE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PPS001 EPR reference: EP3296LY/T001 Operator: P P Skips Ltd Waste Management licence No: 100172 Annual Tonnage: 0	Issue Date: 31/01/2008 Effective Date: 09/11/2009 Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred
A	20m NW	Site Name: P P Recycling Ltd Site Address: The Stone Yard, Denby Grange Lane, Flockton, Wakefield, West Yorkshire, WF4 4BE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PPS001 EPR reference: EA/EPR/EP3296LY/T001 Operator: P P Recycling Ltd Waste Management licence No: 100172 Annual Tonnage: 4999	Issue Date: 31/01/2008 Effective Date: 09/11/2009 Modified:: - Surrendered Date: - Expiry Date: 03/01/2017 Cancelled Date: - Status: Expired

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

### 3.7 Waste exemptions

#### Records within 500m

29

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

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Site	Reference	Category	Sub-Category	Description
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Using waste exemption	On a Farm	Use of waste in construction
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Using waste exemption	On a Farm	Burning of waste as a fuel in a small appliance



ID	Location	Site	Reference	Category	Sub-Category	Description
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Using waste exemption	On a Farm	Use of waste for a specified purpose
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Using waste exemption	On a Farm	Use of waste to manufacture finished goods
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Using waste exemption	On a Farm	Spreading waste on agricultural land to confer benefit
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Using waste exemption	On a Farm	Incorporation of ash into soil
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Treating waste exemption	On a Farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Treating waste exemption	On a Farm	Aerobic composting and associated prior treatment
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Disposing of waste exemption	On a Farm	Deposit of waste from dredging of inland waters
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Disposing of waste exemption	On a Farm	Deposit of waste from a portable sanitary convenience
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Disposing of waste exemption	On a Farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
B	405m W	Grange Ash Farm No. 25, Grange Moor, Wakefield Road, Wakefield, WF44BG	WEX194981	Disposing of waste exemption	On a Farm	Burning waste in the open
B	405m W	Grange Ash Farm, Wakefield Road, Grange Moor, Wakefield, WF4 4BG	WEX260545	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
B	405m W	Grange Ash Farm, Wakefield Road, Grange Moor, Wakefield, WF4 4BG	WEX260545	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	405m W	Grange Ash Farm, Wakefield Road, Grange Moor, Wakefield, WF4 4BG	WEX260545	Using waste exemption	On a farm	Use of mulch



ID	Location	Site	Reference	Category	Sub-Category	Description
B	405m W	Grange Ash Farm, Wakefield road, Grange Moor, Wakefield, Wf44bg	WEX260609	Using waste exemption	On a farm	Use of waste for a specified purpose
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Disposing of waste exemption	On a farm	Deposit of waste from a portable sanitary convenience
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Disposing of waste exemption	On a farm	Burning waste in the open
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Using waste exemption	On a farm	Use of waste in construction
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Using waste exemption	On a farm	Incorporation of ash into soil

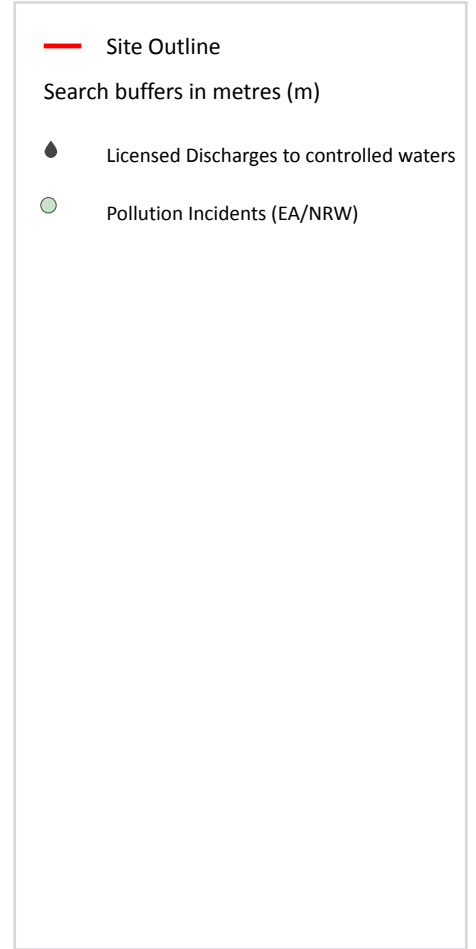
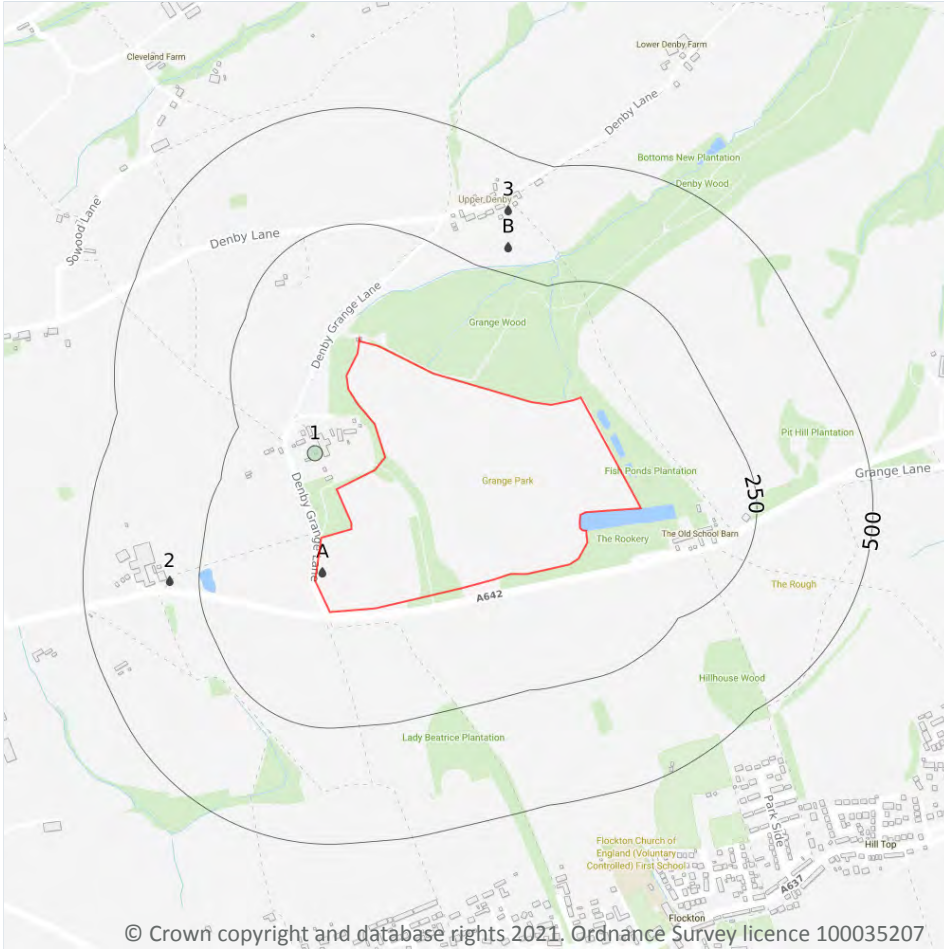


ID	Location	Site	Reference	Category	Sub-Category	Description
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Using waste exemption	On a farm	Use of waste for a specified purpose
B	427m W	GRANGE ASH FARM, WAKEFIELD ROAD, GRANGE MOOR, WAKEFIELD, WF4 4BG	WEX037161	Using waste exemption	On a farm	Use of waste to manufacture finished goods
B	429m W	Grange Ash Farm, Wakefield road, Grange Moor, Wakefield, Wf44bg	WEX118044	Using waste exemption	On a farm	Use of waste for a specified purpose

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



## 4 Current industrial land use



### 4.1 Recent industrial land uses

Records within 250m

0

Current potentially contaminative industrial sites.

*This data is sourced from Ordnance Survey.*

### 4.2 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

*This data is sourced from Experian.*

### 4.3 Electricity cables

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

High voltage underground electricity transmission cables.

*This data is sourced from National Grid.*

### 4.4 Gas pipelines

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

High pressure underground gas transmission pipelines.

*This data is sourced from National Grid.*

### 4.5 Sites determined as Contaminated Land

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

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

*This data is sourced from Local Authority records.*

### 4.6 Control of Major Accident Hazards (COMAH)

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

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

*This data is sourced from the Health and Safety Executive.*

### 4.7 Regulated explosive sites

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

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

*This data is sourced from the Health and Safety Executive.*



## 4.8 Hazardous substance storage/usage

Records within 500m

0

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

*This data is sourced from Local Authority records.*

## 4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

## 4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

0

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

*This data is sourced from Local Authority records.*

## 4.12 Radioactive Substance Authorisations

Records within 500m

0

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

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



## 4.13 Licensed Discharges to controlled waters

Records within 500m

6

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

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Address	Details	
A	On site	KAYE ARMS, 29 WAKEFIELD ROAD, GRANGE MOOR, FLOCKTON, WEST YORKSHIRE, WF4 4BG	Effluent Type: SEWAGE & TRADE COMBINED - UNSPECIFIED Permit Number: 3660 Permit Version: 1 Receiving Water: TRIB OF FLOCKTON BECK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 01/12/1982 Effective Date: 01/12/1982 Revocation Date: 02/06/1993
A	On site	KAYE ARMS, 29 WAKEFIELD ROAD, GRANGE MOOR, FLOCKTON, WEST YORKSHIRE, WF4 4BG	Effluent Type: SEWAGE & TRADE COMBINED - UNSPECIFIED Permit Number: 3660 Permit Version: 3 Receiving Water: TRIB OF FLOCKTON BECK	Status: REVISED CONSENT, BY NOTICE (SECTION 37(1)) Issue date: 03/06/1993 Effective Date: 03/06/1993 Revocation Date: 02/10/2007
B	307m N	WOODLANDS FARM, DENBY LANE, FLOCKTON	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: C4693 Permit Version: 1 Receiving Water: LAND ADJ TO WOODLANDS FARM	Status: TRANSFERRED FROM COPA 1974 Issue date: 10/07/1987 Effective Date: 10/07/1987 Revocation Date: 25/07/2012
B	307m N	WOODLANDS FARM, DENBY LANE, FLOCKTON	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: C4693 Permit Version: 2 Receiving Water: LAND ADJ TO WOODLANDS FARM	Status: TRANSFERRED FROM COPA 1974 Issue date: 26/07/2012 Effective Date: 26/07/2012 Revocation Date: -
2	314m W	KAYE ARMS, 29 WAKEFIELD ROAD, GRANGE MOOR, FLOCKTON, WEST YORKSHIRE, WF4 4BG	Effluent Type: SEWAGE & TRADE COMBINED - UNSPECIFIED Permit Number: 3660 Permit Version: 4 Receiving Water: TRIB OF FLOCKTON BECK	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/06/1993 Effective Date: 03/10/2007 Revocation Date: 20/03/2018
3	383m N	STABLE COTTAGE, DENBY LANE, FLOCKTON, WAKEFIELD, WEST YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: WRA8836 Permit Version: 1 Receiving Water: GROUNDWATER VIA SOAKAWAY	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/07/2005 Effective Date: 12/07/2005 Revocation Date: 12/07/2017



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

#### 4.14 Pollutant release to surface waters (Red List)

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

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

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

#### 4.15 Pollutant release to public sewer

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

Discharges of Special Category Effluents to the public sewer.

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

#### 4.16 List 1 Dangerous Substances

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

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

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

#### 4.17 List 2 Dangerous Substances

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

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

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

#### 4.18 Pollution Incidents (EA/NRW)

Records within 500m	1
---------------------	---

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

Features are displayed on the Current industrial land use map on **page 30**



ID	Location	Details	
1	89m NW	Incident Date: 02/08/2007 Incident Identification: 519610 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)

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

## 4.19 Pollution inventory substances

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

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

## 4.20 Pollution inventory waste transfers

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

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

## 4.21 Pollution inventory radioactive waste

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

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

## 5 Hydrogeology - Superficial aquifer

### 5.1 Superficial aquifer

Records within 500m

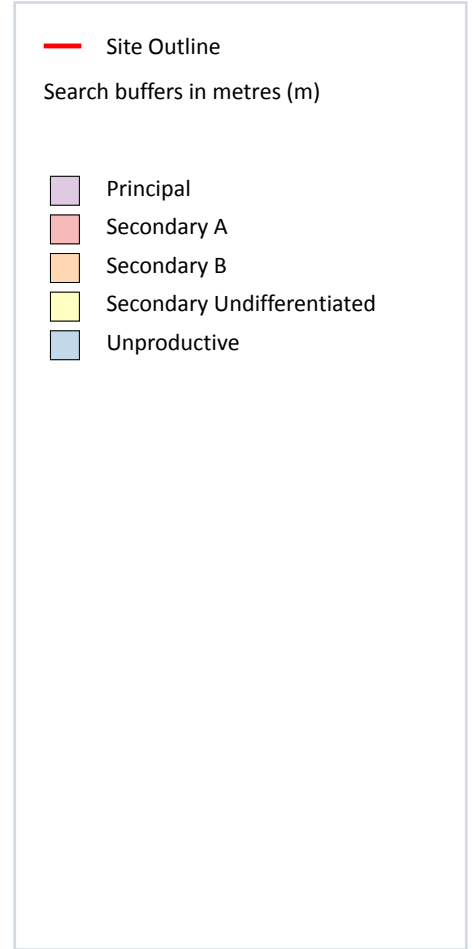
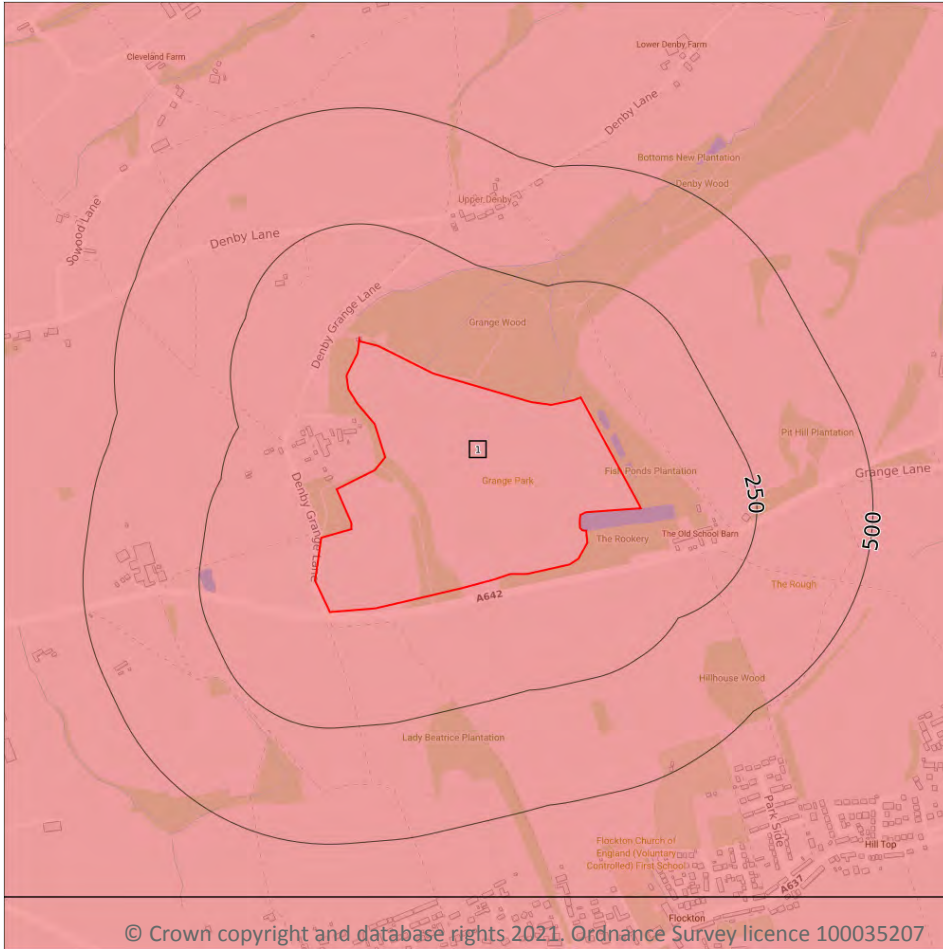
0

Aquifer status of groundwater held within superficial geology.

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



## Bedrock aquifer



### 5.2 Bedrock aquifer

Records within 500m

1

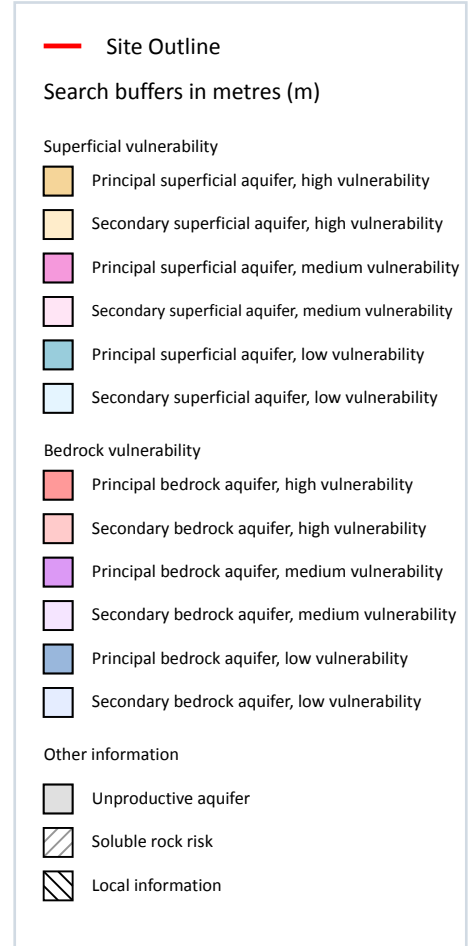
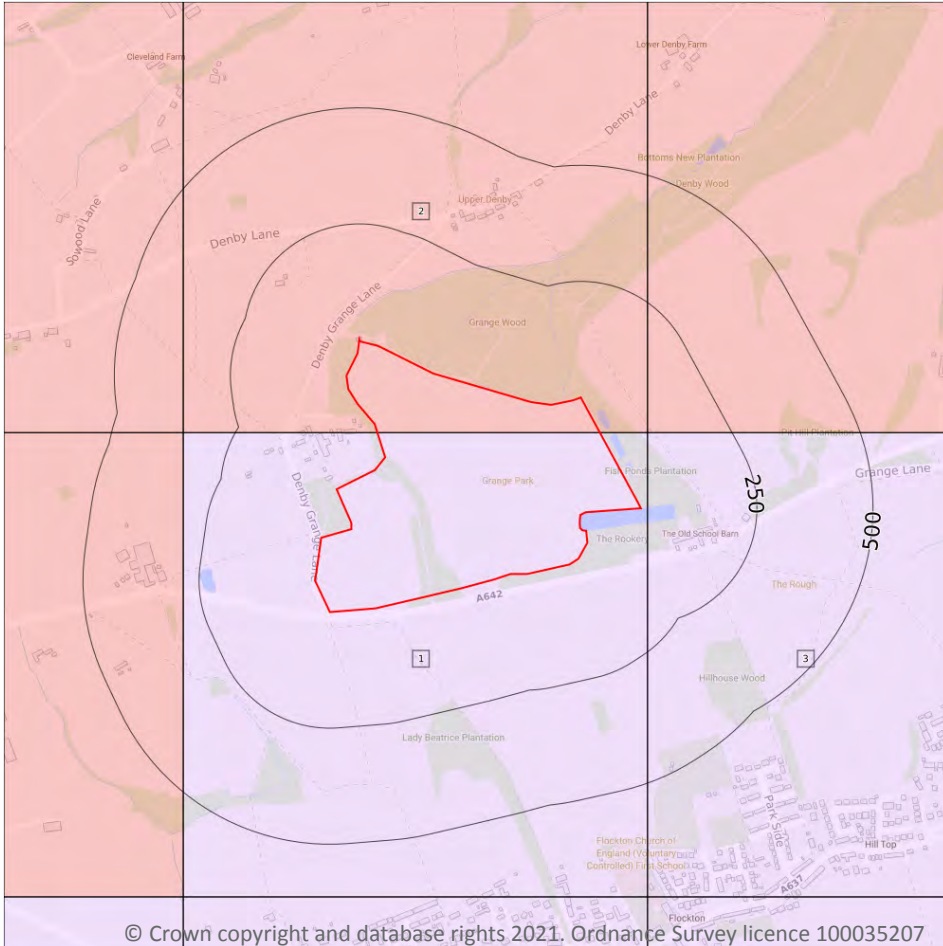
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 37**

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

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

## Groundwater vulnerability



### 5.3 Groundwater vulnerability

Records within 50m

3

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid.

Groundwater vulnerability is described as High, Medium or Low as follows:

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

Features are displayed on the Groundwater vulnerability map on **page 38**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	<b>Summary Classification:</b> Secondary bedrock aquifer - Medium Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, No Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> <40% <b>Dilution value:</b> 300- 550mm/year	<b>Vulnerability:</b> - <b>Aquifer type:</b> - <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> No Data	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> Well connected fractures
2	On site	<b>Summary Classification:</b> Secondary bedrock aquifer - High Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, No Superficial Aquifer	<b>Leaching class:</b> High <b>Infiltration value:</b> >70% <b>Dilution value:</b> 300- 550mm/year	<b>Vulnerability:</b> - <b>Aquifer type:</b> - <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> No Data	<b>Vulnerability:</b> High <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> Well connected fractures
3	14m E	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures

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

## 5.4 Groundwater vulnerability- soluble rock risk

### Records on site

0

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

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

## 5.5 Groundwater vulnerability- local information

### Records on site

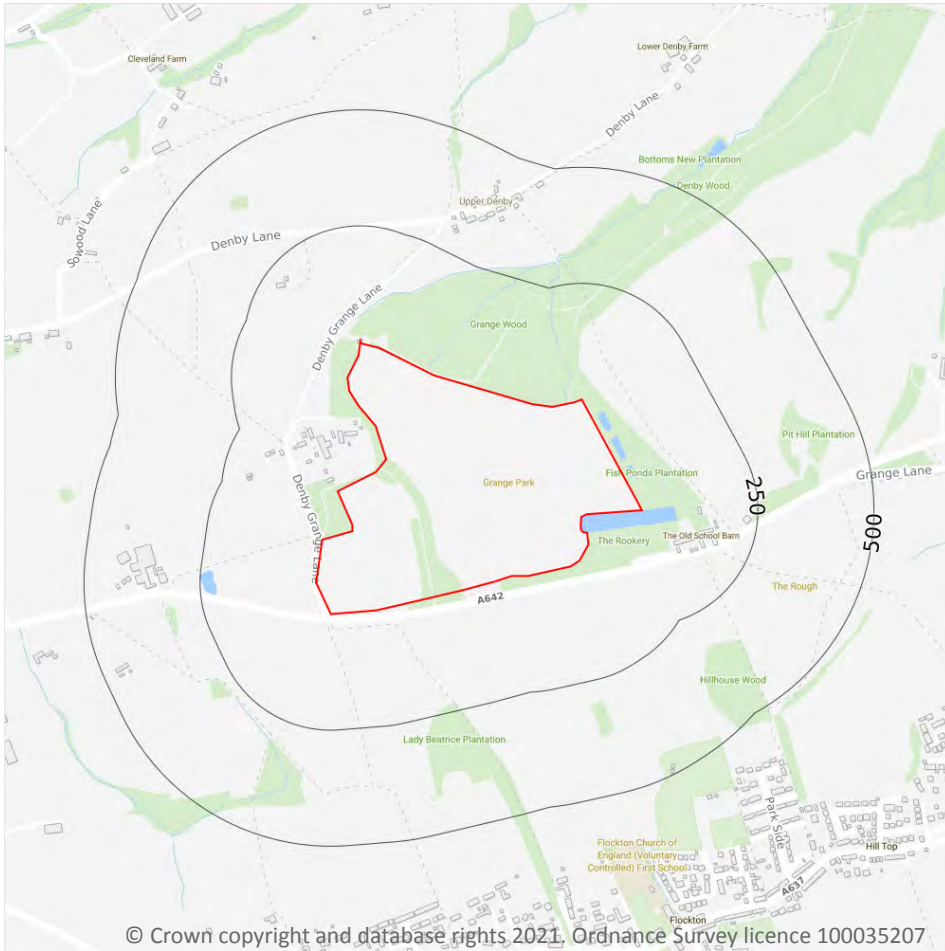
0

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

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



## Abstractions and Source Protection Zones



### 5.6 Groundwater abstractions

Records within 2000m

0

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

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

## 5.7 Surface water abstractions

Records within 2000m

1

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 40**

ID	Location	Details	
-	1922m S	Status: Historical Licence No: 2/27/08/024 Details: General Farming & Domestic Direct Source: SURFACE WATER Point: MOUSE HOUSE DYKE Data Type: Point Name: H LODGE & SONS Easting: 423500 Northing: 413700	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 14/12/1965 Version End Date: -

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

## 5.8 Potable abstractions

Records within 2000m

0

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

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

## 5.9 Source Protection Zones

Records within 500m

0

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

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



## 5.10 Source Protection Zones (confined aquifer)

Records within 500m

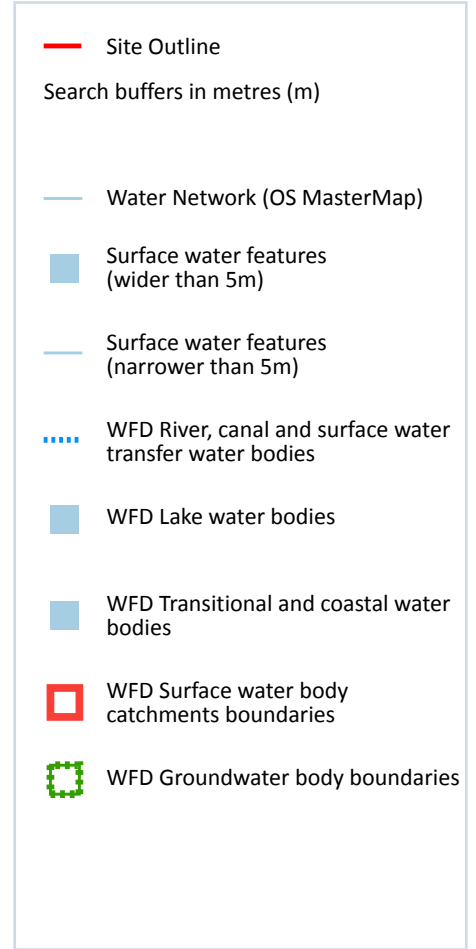
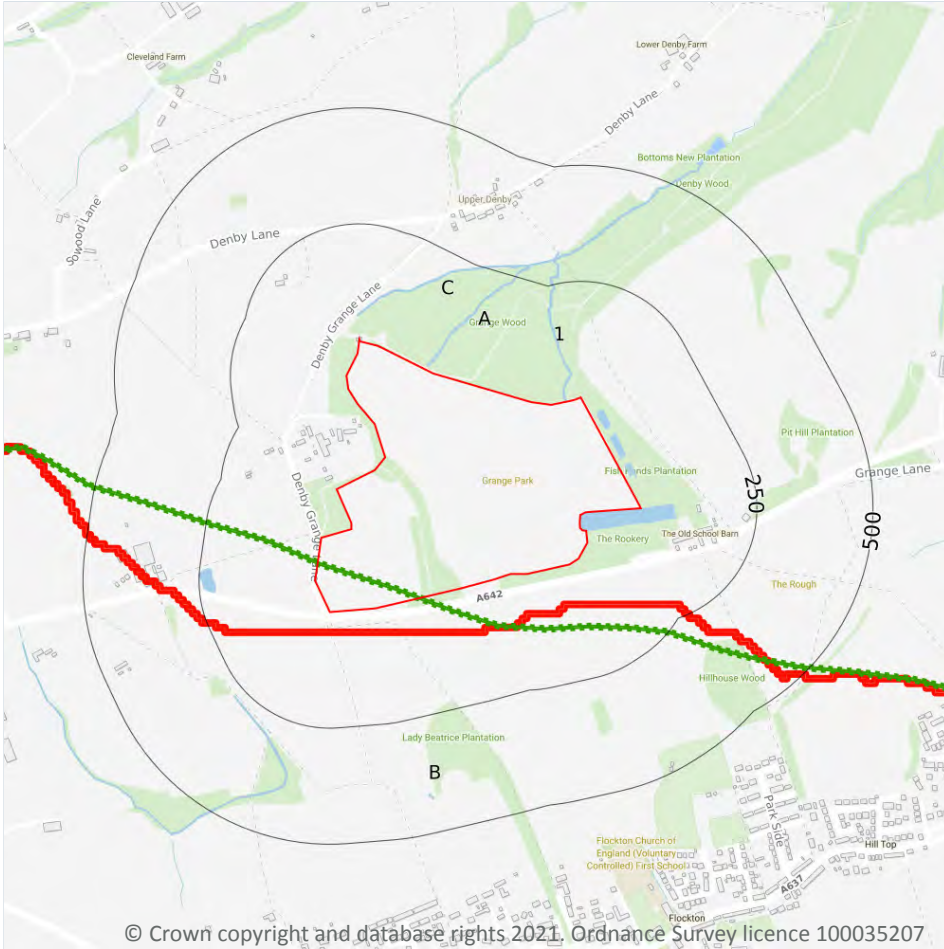
0

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

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



## 6 Hydrology



### 6.1 Water Network (OS MasterMap)

Records within 250m

3

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

Features are displayed on the Hydrology map on **page 43**

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

ID	Location	Type of water feature	Ground level	Permanence	Name
A	8m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	52m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

*This data is sourced from the Ordnance Survey.*

## 6.2 Surface water features

**Records within 250m**

**10**

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

Features are displayed on the Hydrology map on **page 43**

*This data is sourced from the Ordnance Survey.*

## 6.3 WFD Surface water body catchments

**Records on site**

**1**

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

Features are displayed on the Hydrology map on **page 43**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River WB catchment	Smithy Brook from Source to River Calder	GB104027062510	Lower Calder	Aire and Calder

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



## 6.4 WFD Surface water bodies

### Records identified

1

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

Features are displayed on the Hydrology map on **page 43**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	591m E	River	Smithy Brook from Source to River Calder	<a href="#">GB104027062510</a>	Moderate	Good	Moderate	2016

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

## 6.5 WFD Groundwater bodies

### Records on site

2

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

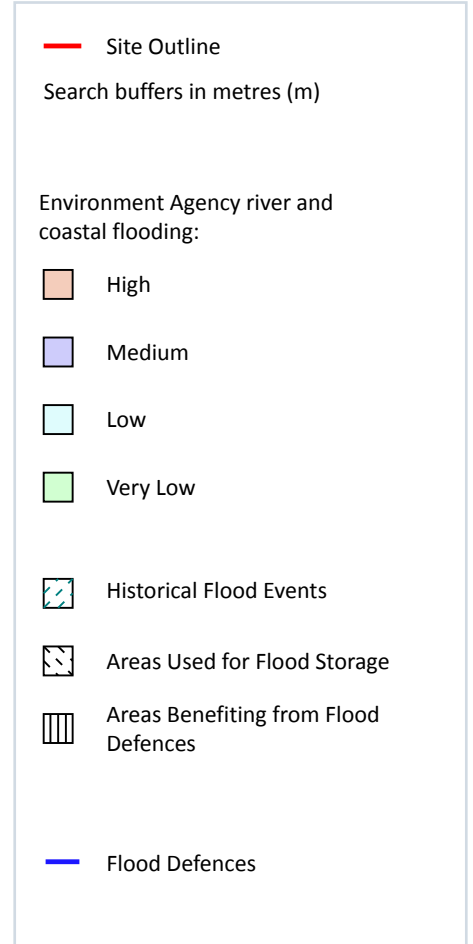
Features are displayed on the Hydrology map on **page 43**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Aire & Calder Carb Limestone / Millstone Grit / Coal Measures.	<a href="#">GB40402G700400</a>	Poor	Poor	Good	2015
B	On site	Don & Rother Millstone grit & Coal Measures	<a href="#">GB40402G992300</a>	Poor	Poor	Good	2015

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



## 7 River and coastal flooding



### 7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m

0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance).

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

## 7.2 Historical Flood Events

Records within 250m

2

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

Features are displayed on the River and coastal flooding map on **page 46**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
A	On site	Yorkshire	2015-12-29 2015-12-29	Unclassified	Unclassified	No data
A	15m W	Yorkshire	2015-12-29 2015-12-29	Unclassified	Unclassified	No data

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

## 7.3 Flood Defences

Records within 250m

0

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

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

## 7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

## 7.5 Flood Storage Areas

Records within 250m

0

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



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



## River and coastal flooding - Flood Zones

### 7.6 Flood Zone 2

Records within 50m

0

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

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

### 7.7 Flood Zone 3

Records within 50m

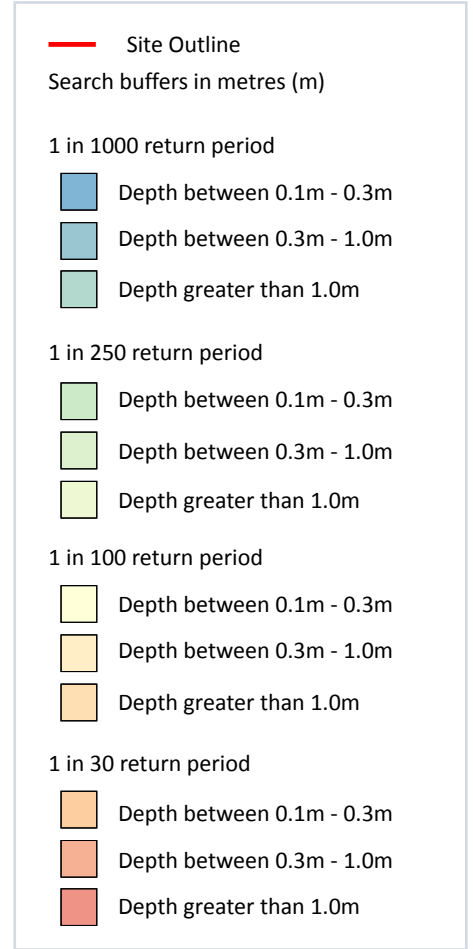
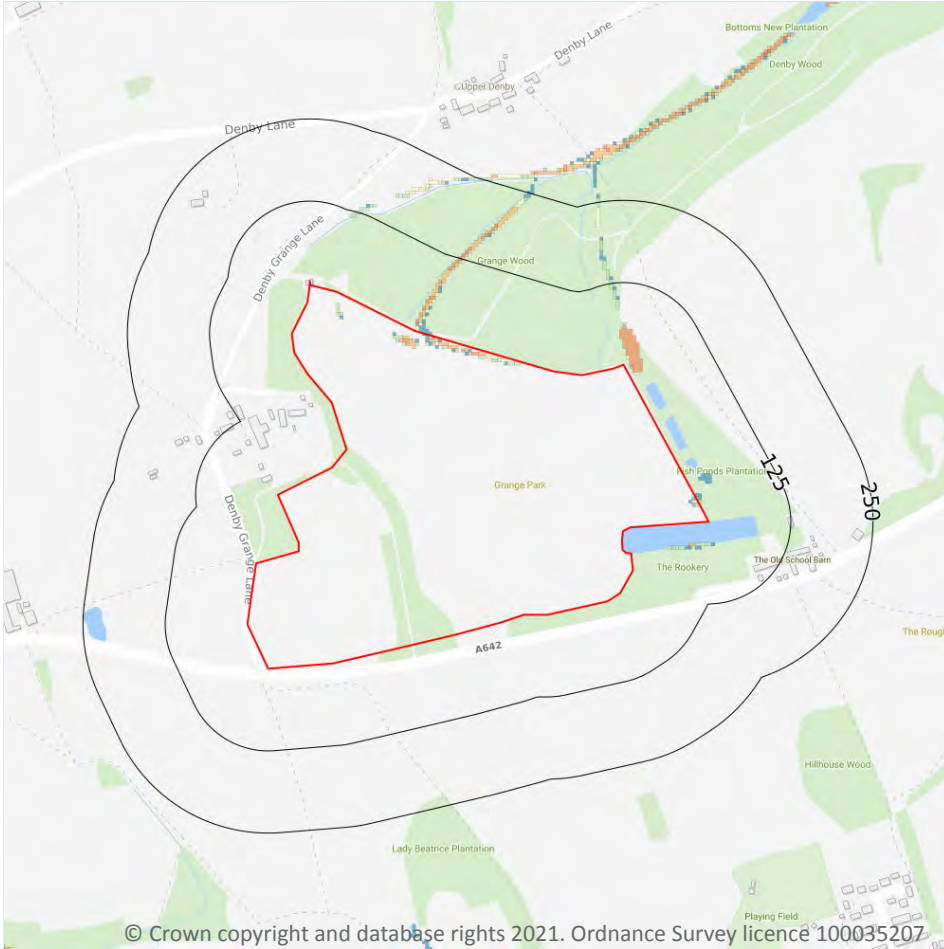
0

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

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



## 8 Surface water flooding



### 8.1 Surface water flooding

Highest risk on site

**1 in 30 year, 0.3m - 1.0m**

Highest risk within 50m

**1 in 30 year, 0.3m - 1.0m**

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

Features are displayed on the Surface water flooding map on **page 50**

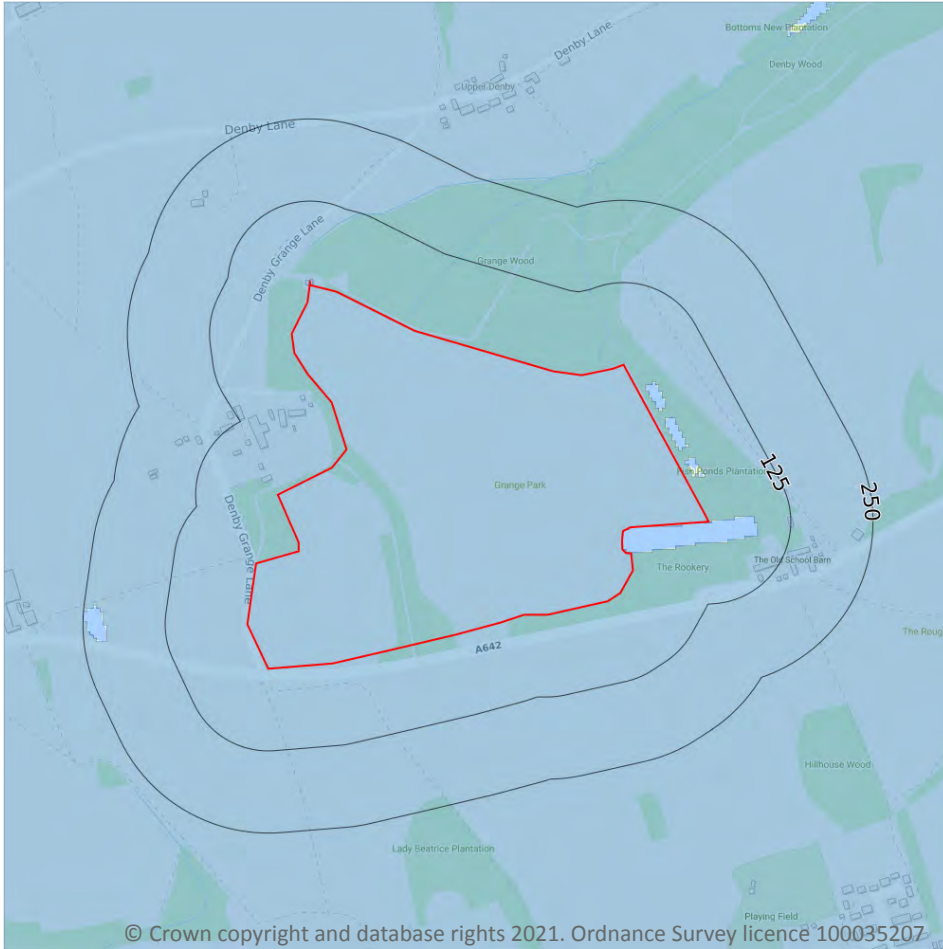
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on

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

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

*This data is sourced from Ambiental Risk Analytics.*

## 9 Groundwater flooding



### 9.1 Groundwater flooding

<b>Highest risk on site</b>	<b>Negligible</b>
<b>Highest risk within 50m</b>	<b>Negligible</b>

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

Features are displayed on the Groundwater flooding map on **page 52**

*This data is sourced from Ambiental Risk Analytics.*