



Advance
Consulting Engineers Ltd

Tregwheal, Landulph Cross

Phase 1 Desk Study Report

for

Mr Mike Kitney

January 2024

DOCUMENT CONTROL SHEET

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EXECUTIVE SUMMARY

THE SITE	
Project	C23214 Tregwheal, Landulph Cross.
Location	The site is located in the hamlet of Landulph, Cornwall, PL12 6QQ and centred at National Grid Reference 242633E 062520N.
Proposals	It is proposed to develop the site for residential use.
Site history	Earliest available mapping of 1882 shows the site as undeveloped open land likely used for agriculture. The site remained undeveloped until circa 2001 when the Tregwheal residence was constructed. The site has remained in this configuration to the present day.
Site geology	The Groundsure report indicates the site is underlain by mudstone and siltstone of the Torpoint Formation. No superficial deposits are recorded within 250m of the site. No Made Ground or artificial ground is recorded within 500m of the site.
Hydrogeology	The Groundsure report indicates that the bedrock beneath the site is classified as a Secondary A Aquifer. The site does not fall within a Source Protection Zone (SPZ) and no SPZ's are located in the immediate vicinity of the site. There are three recorded active groundwater abstraction points 300m northeast of the site for 'general farming & domestic' and 'spray irrigation' purposes. There are no recorded groundwater discharges within 500m of the site.
Hydrology	There are four surface water features recorded within 250m of the site. The nearest two features are an unnamed 'inland river', and a 'lake, loch or reservoir' situated 46m and 47m to the north of the site respectively. Groundwater and topographical data is limited; however, the inland river may be hydraulically down gradient of the site. The site lies approximately 950m west of the River Tamar and estuary.
Flooding	The site is not reported to lie within an area subject to surface water flooding. The site is reported to have negligible risk with regards to groundwater flooding.
Waste	There are no records for historical, active, or recent landfill sites within 500m of the site and ground gas (methane and carbon dioxide) associated with infilled ground is not considered to pose a significant risk to the site.
Natural soil chemistry	However, there is a plausible risk of elevated concentrations of metals in natural soils, notably arsenic, and further assessment is required.
Mining and ground workings	The potential for mining and ground workings features affecting the development is considered to be low and no further consideration is necessary.
Natural ground subsidence	Natural ground subsidence is not considered to pose a significant risk to the development.
Radon	The development site lies in an area where between 5% and 10% of properties are affected and basic radon protective measures are required.
Unexploded Ordnance	The site lies in area of low UXO risk.
FINDINGS OF THE PRELIMINARY RISK ASSESSMENT	
<p>The potential pollutant linkages identified at the site with a moderate or greater risk that require further consideration are summarised as follows:</p> <ul style="list-style-type: none"> Elevated concentrations of naturally occurring metals may be present in shallow soils and pose a potential moderate to low risk to human health. 	



- Radon poses a potential **high** risk to human health and basic radon protective measures are required in new structures.

GEOTECHNICAL HAZARDS

Following assessment of available data, the following plausible geotechnical risks have been identified.

- Plasticity of cohesive soils leading to foundation failure.
- Attack on concrete foundations by sulphates leading to degradation of subsurface concrete.
- Groundwater. There is potential for shallow groundwater conditions at the site.
- Unexpected ground conditions.

These plausible risks should be considered as part of the design process.

RECOMENDATIONS AND FURTHER WORK

To confirm and develop the initial Conceptual Site Model (CSM presented in this report the following is recommended:

- Sampling of shallow soils for chemical assessment.
- Updating of the initial CSM and ground model.
- Updating of the preliminary risk assessment.

In addition, the following is recommended

- Geotechnical assessment of soils to inform development design.
- Undertaking of in-situ infiltration testing to inform the surface water drainage strategy.

The contents of this Executive Summary should be read in conjunction with the report presented below.



1. TERMS OF REFERENCE

1.1 Introduction

- 1.1.1 Advance Consulting Engineers Ltd has been commissioned by Mr Mike Kitney (the Client), to undertake a Phase 1 Desk Study report at Tregwheal, Landulph Cross, Cornwall, PL12 6QQ.
- 1.1.2 It is proposed to develop the site for residential use.
- 1.1.3 The commission was undertaken in January 2024 and was designed to include a site walkover and production of a Phase 1 Desk Study Report.

1.2 Objective

- 1.2.1 The objective of the Phase 1 report is to produce an initial Conceptual Site Model (CSM) for the site and identify potential geoenvironmental and geotechnical risks that may affect the development.

1.3 Scope

- 1.3.1 The scope of the report is:
- The undertaking of a walkover to visually assess the site and environs for its condition, use, potential sources of contamination and geotechnical risk.
 - The commission and review of a third-party environmental data report and historical mapping to assess historical, geological, and environmental aspects of the site.
 - The review of other topographical and geological information and previous reports (if available).
 - The development of an initial CSM and assessment of geoenvironmental and geotechnical risks identified at the site.
 - Provision of preliminary guidance on any remediation, investigation and further works considered necessary at the site.

1.4 Regulatory Guidance

- 1.4.1 The report has been produced in general accordance with the Land Contamination Risk Management (2023)¹ guidance published by the Environment Agency.
- 1.4.2 The qualitative assessment of geoenvironmental risk has been undertaken using the ‘source-pathway-receptor’ concept to assess whether identified contamination sources pose a potential risk to receptors at the site. Where a potential source-pathway-receptor pollutant linkage is identified further work to assess or break the pollutant linkage may be required to prevent potentially unacceptable risk of harm. Further information on the risk assessment process is presented in **Section 4.6**.
- 1.4.3 With regards to geotechnical risks, professional judgement has been used to evaluate available information and to provide recommendations towards the proposed development.

¹ <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>



2. THE SITE

2.1 Site Location and Boundaries

- 2.1.1 The site is located in the hamlet of Landulph, Cornwall, PL12 6QQ and centred at National Grid Reference 242633E 062520N.
- 2.1.2 The 0.19 hectare site comprises a roughly square plot of land and is occupied by a residential property (Tregwheal) and associated garden. It is proposed to redevelop the garden for residential use.
- 2.1.3 The site is bound by residential properties to the north and south, by a road (unnamed) to the west, and by open fields to the east.
- 2.1.4 A Site Location Plan (drawing ref. 5083 001) is presented in **Appendix A**.

2.2 Site Walkover and Description

- 2.2.1 A site walkover was undertaken on 5 January 2024 to identify key site features and any potential sources of contamination. Access was via an unnamed road on the site's western boundary.
- 2.2.2 The development area (the garden of Tregwheal) lies directly northwest of the Tregwheal residence and generally slopes from the east/southeast to the north. The northern most corner of the garden is occupied by a polytunnel, greenhouse and vegetable growing beds. A shed and two intermediate bulk containers (IBCs) are present on the southwestern boundary of the site. Anecdotal evidence indicates the IBCs collect rainwater from the shed roof. A number of small trees are present across the site. A small grassed depression is present in the southeastern extents of the garden. Anecdotal evidence indicates that this is an area of cut that was intended to be used as a patio area. Open fields were noted directly west of the site boundary.
- 2.2.3 No significant barriers to access were observed, and no significant evidence, or sources of potential contamination were identified on site during the walkover.
- 2.2.4 No topographical data is available for the site. Based on site observations, existing ground levels appeared to be generally in line with those expected with natural ground levels.
- 2.2.5 Photographs taken during the walkover are presented in **Appendix B**.



3. DESK STUDY

3.1 Introduction

3.1.1 A third-party Groundsure environmental data report (report ref: GS-S65-SZB-HYG-TVX dated 5 January 2024 and referred to herein as ‘the Groundsure report’) and historical mapping has been obtained and reviewed for the site.

3.1.2 The Groundsure report and historical mapping is presented in **Appendix C**.

3.2 Site History

3.2.1 Historical Ordnance Survey maps and recent aerial imagery of the site, provided in the Groundsure report, have been reviewed to determine the recorded history of the site. The key points are listed in **Table 3.1** below.

Table 3.1: Summary of Recorded Site History

Date	On-Site Observations	Off-Site Observations
1882 (1:10,560) 1883 (1:2,500)	The site is shown as part of an undeveloped, open field. No features are recorded on-site.	An unnamed road is shown on the site’s southwestern boundary with open fields beyond. A residential property is shown directly southeast of the site with Landulph Cross beyond. The site is bound to the north and east by open land with ‘Grove Cottage’ and a ‘School’ shown approximately 50m northwest of the site. A ‘Smithy’ and a ‘Well’ are shown approximately 25m and 50m to the south respectively.
1907 (1:2,500) 1907 (1:10,560)	No significant changes are shown to the site.	No significant changes are shown to the area surrounding the site.
1914 (1:2,500)	No significant changes are shown to the site.	No significant changes are shown to the area surrounding the site.
1951 (1:2,500) 1954 (1:10,560)	No significant changes are shown to the site.	‘Springs’, ‘Sinks’ and ‘Issues’ are shown approximately 60m to the north of the site. A ‘School’ has been constructed approximately 30 south of the site.
1987 (1:2,500) 1991 (1:10,000)	No significant changes are shown to the site.	The former smithy is shown as a residential property called ‘The Old Smithy’. A number of new residential properties are shown across the wider area.
1993 (1:2,500)	No significant changes are shown to the site.	No significant changes are shown to the area surrounding the site.
2001 (1:10,000) 2003 (1:1,250)	The Tregwheal residential property is shown on site.	A residential property is shown directly northwest of the site.
2024 (1:10,000)	No significant changes are shown to the site.	No significant changes are shown to the area surrounding the site.

3.2.2 The Groundsure report records fourteen historical industrial land use records within 500m of the site. The nearest is recorded 7m to the southeast and recorded as ‘Smithy’ and dated 1882. Although close to the site, this feature is unlikely to pose a significant risk to the development. All remaining records are greater than 150m from the site and considered unlikely to pose a potential risk to the site.

3.2.3 The Groundsure report records six historical tanks within 500m of the site. None are recorded on site and the nearest is located 247m to the southwest. Due to distance, historical tanks are not considered to pose a significant risk to the site.



3.2.4 In summary, earliest available mapping of 1882 shows the site as undeveloped open land likely used for agriculture. The site remained undeveloped until circa 2001 when the Tregwheal residence was constructed. The site has remained in this configuration to the present day.

3.3 Published Geology

3.3.1 The Groundsure report indicates the site is underlain by mudstone and siltstone of the Torpoint Formation.

3.3.2 No superficial deposits are recorded within 250m of the site.

3.3.3 No Made Ground or artificial ground is recorded within 500m of the site.

3.4 Historical Boreholes

3.4.1 There is one record for a British Geological Survey (BGS) historical borehole within 500m of the site located 134m to the west. The borehole is associated with 'Grove Nurseries' and was drilled to 76 metres below ground level (m bgl) for water supply borehole. Geological data is limited but groundwater is detailed as resting at 1.64m bgl on completion.

3.5 Hydrogeology

Aquifer designation

3.5.1 The Groundsure report indicates that the bedrock beneath the site is classified as a Secondary A Aquifer.

Source Protection Zones and vulnerability

3.5.2 The site does not fall within a Source Protection Zone (SPZ) and no SPZ's are located in the immediate vicinity of the site.

3.5.3 Bedrock geology is classified as 'high vulnerability' with respect to transmission of pollutants.

Groundwater abstractions and discharges

3.5.4 There are three recorded active groundwater abstraction points within 500m of the site. All three relate to the same licence for 'Highcroft Nurseries' 300m northeast of the site for 'general farming & domestic' and 'spray irrigation' purposes.

3.5.5 There are no recorded groundwater discharges within 500m of the site.

Groundwater

3.5.6 Groundwater data is limited; however, the historical borehole detailed in **Section 3.4** indicates a shallow local groundwater table may be present in the vicinity the site (>2m). A number of springs, issues and sinks are shown on mapping approximately 60m north of the site again suggesting a shallow local water table may be present at the site.

3.6 Hydrology

Surface waters

3.6.1 The site lies within a coastal catchment area and is not part of a Water Framework Directive catchment area.



3.6.2 There are four surface water features recorded within 250m of the site. The nearest two features are an unnamed 'inland river', and a 'lake, loch or reservoir' situated 46m and 47m to the north of the site respectively. Groundwater and topographical data is limited; however, the inland river may be hydraulically down gradient of the site.

3.6.3 The site lies approximately 950m west of the River Tamar and estuary.

Surface water abstractions and discharges

3.6.4 There are no recorded surface water abstraction points, including potable, within 500m of the site.

3.6.5 There is one record for surface water discharges within 500m of the site. The entry is recorded 448m northwest of the site associated with sewage discharge to a soakaway at 'Land Adjacent to St Anns, Landulph'. Due to its distance this feature is not considered to pose a significant risk to the site.

3.7 Flooding

3.7.1 The site is not reported to lie within an area subject to surface water flooding.

3.7.2 The site is reported to have negligible risk with regards to groundwater flooding.

3.8 Waste

3.8.1 There are no records for historical, active, or recent landfill sites within 500m of the site and ground gas (methane and carbon dioxide) associated with infilled ground is not considered to pose a significant risk to the site.

3.9 Pollution

Pollution incidents

3.9.1 There are no recorded pollution incidents recorded within 500m of the site.

Industrial land uses

3.9.2 There are no records for recent industrial land use within 250m of the site.

3.10 Estimated Soil Chemistry

3.10.1 The Groundsure report gives estimations of concentrations of naturally occurring metals of potential concern in shallow soils. The data is summarised in **Table 3.2**.

Table 3.2: Estimated Soil Chemistry

Metal	Estimate Concentration in Soil (mg/mg)
Arsenic	45 – 60 (bioaccessible 7 – 9)
Cadmium	<1.8
Chromium	90 -120
Lead	100 -200 (bioaccessible 60 – 120)
Nickel	30 - 45



3.10.2 The data summarised in **Table 3.2** indicates that naturally occurring elevations of arsenic may be present above the current Generic Assessment Criteria (GAC) of 37mg/kg used in generic risk assessment for residential development. The Groundsure report indicates that bioaccessible levels are lower and with reference to the British Geological Society GeoIndex², the natural background concentration (NBC) for arsenic in the vicinity of the site is in the range of 33.4 to 74.4 mg/kg. This suggests that even though local concentrations may exceed relevant GAC, they may fall within an acceptable range. However, there is a plausible risk of elevated concentrations and further assessment is required.

3.11 Sensitive Land Uses

3.11.1 The site is not reported to lie within any significant areas of sensitive environmental designation.

3.12 Mining and Ground Workings

3.12.1 The Groundsure report provides three records for surface ground workings within 250m northeast of the site. None are recorded on site. Then nearest two are located 162m and 164m northeast of the site and detailed as 'unspecified heap' and 'unspecified pit' respectively. Due to the distance of the features, they are not considered to pose potential risks to the site.

3.12.2 The Groundsure report indicates 'non-coal mining' on site; however, this is considered to be generalised and is also recorded across the wider surrounding area.

3.12.3 Based on the information provided in the Groundsure report, the potential for mining and ground workings features affecting the development is considered to be low and no further consideration is necessary.

3.13 Natural Ground Subsidence

3.13.1 The Groundsure report provides hazard ratings for natural ground subsidence hazards at the site as summarised in **Table 3.3**.

Table 3.3: Summary of Potential Geological Hazards

Potential Geological Hazard	Hazard Level (within 50m)
Shrink/swell clays	Negligible
Running sands	Negligible
Compressible deposits	Negligible
Collapsible deposits	Very low
Landslides	Very low
Ground dissolution of soluble rocks	Negligible

3.13.2 Based on the information in **Table 3.5**, natural ground subsidence is not considered to pose a significant risk to the development.

² https://mapapps2.bgs.ac.uk/geoindex/home.html?_ga=2.62797989.82366406.1704904157-43393619.1704904157



3.14 Radon

3.14.1 The Groundsure report indicates that the site lies in an area where between 5% and 10% of properties are affected by radon and basic radon protection measures are required in new structures at the site. However, with reference to UK Radon guidance online³ the site is reported to lie in an area where the maximum radon potential is between 10% and 30% and full protective measures may be required.

3.14.2 To clarify the uncertainty, under the instruction of the client, Advance have commissioned a bespoke BGS Radon Report for the site (report ref.BGS_336587/51361). The report has been reviewed and confirms that the development site lies in an area where between 5% and 10% of properties are affected and basic radon protective measures are required.

The BGS radon report is presented within **Appendix D**.

3.15 Unexploded Ordnance (UXO)

3.15.1 Zetica UXO risk mapping available online⁴ indicates the site lies in area of low UXO risk and no further consideration is required.

³ <https://www.ukradon.org/information/ukmaps>

⁴ <https://zeticauxo.com/downloads-and-resources/risk-maps/>



4. CONCEPTUAL SITE MODEL AND PRELIMINARY RISK ASSESSMENT

4.1.1 A Conceptual Site Model is a simplified representation of how a real system is believed to behave and is based on the identification of potential sources of contamination, the potential sensitive receptors including human health, controlled waters, ecology and property and the potential exposure pathways which may be present. It considers the ground conditions, site history and the proposed use of the site. A viable contaminant linkage requires all the components of source-pathway-receptor model to be present. If only one or two are present, there is no linkage and no further assessment is required.

4.1.2 Following observations made during the site walkover, and assessment of available data, the following potential on-site and off-site sources, pathways, and receptors have been identified.

4.2 Potential Sources of Contamination

On-site

- Elevated concentrations of naturally occurring metals (notably arsenic) in shallow soils.
- Radon.

Off-site

- No off-site sources of contamination identified.

4.3 Potential Pathways

- Ingestion, direct contact, inhalation of contaminated soils and dust by end-users.
- Migration of contaminants via leachate migration into the underlying aquifer and down gradient surface waters via groundwater base flow.
- Inhalation of radon gas by end-users within structures.

4.4 Potential Receptors

- End users of the development (human health).
- Controlled Waters:
 - » Groundwater of the underlying Torpoint Formation, a Secondary 'A' Aquifer.
 - » Surface waters: 'inland river', and a 'lake, loch or reservoir' situated 46m and 47m to the north of the site respectively that may be hydraulically down gradient of the site.
- Ecology. The surface waters may be an ecological habitat.

4.5 Preliminary Ground Gas Risk Assessment

4.5.1 The desk study information indicates that:

- Radon protection measures are required at the site.
- No potential sources of ground gas (carbon dioxide and methane) associated with infilled ground, landfills or superficial soils have been identified within 250m of the site and no further consideration is required.

4.5.2 Based on the assessment to date, radon gas is considered to pose a potential risk to the site and remedial measures are required.



4.6 Risk Evaluation

Risk assessment

- 4.6.1 Following the assessment of plausible source – pathway – receptor linkages at the site, a probability of exposure assessment has been undertaken, in accordance with LCRM, with classification of risk being assessed using guidance published in Annex 4 of 'Guidance for the Safe Development of Housing on Land Affected by Contamination' (R&D Publication 66: 2008). This document supersedes CIRIA Report C552 (Rudland *et al* 2001) and the classification of risk is summarised in **Table 4.1** below.

Table 4.1: Classification of Risk

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High likelihood	Very high risk	High risk	Moderate risk	Low risk
	Likely	High risk	Moderate risk	Moderate/low risk	Low risk
	Low likelihood	Moderate risk	Moderate/low risk	Low risk	Very low risk
	Unlikely	Moderate/low risk	Low risk	Very low risk	Very low risk

- 4.6.2 The potential contaminant linkages identified in this assessment are presented in **Table 4.2**.



Table 4.2: Conceptual Site Model and Preliminary Risk Assessment

Source	Pathway	Receptor	Probability	Consequence	Risk level	Details
Elevated concentrations of naturally occurring metals (notably arsenic) in shallow soils.	Ingestion, direct contact, inhalation of contaminated soils and dust by end-users.	End users of the development (human health).	Low likelihood	Medium	Moderate/low	The data indicates that naturally occurring elevations of arsenic may be present above current guideline values; however, site values may fall within background levels. There is a plausible risk of elevated concentrations and further consideration is required.
	Migration of contaminants via leachate migration and groundwater base flow.	Controlled waters. Groundwater of the Torpoint Formation; and surface waters: 'inland river', and a 'lake, loch or reservoir' situated 46m and 47m to the north of the site. Ecology. The surface water features may be ecological habitats.	Low likelihood	Mild	Low	Contaminants have the potential to be mobilised via infiltration into groundwater; however, significant contamination is not anticipated, there are no active abstractions within 250m of the site, and the distance to the offsite surface waters means contaminants would likely be diluted sufficiently to have no effect. The overall risk is considered low.
Radon	Inhalation of radon gas by end-users within structures.	End users of the development (human health).	Likely	Severe	High	A bespoke radon report commissioned for the site confirms that the development site lies in an area where between 5% and 10% of properties are affected and basic radon protective measures are required in proposed structures.



Conclusions of the risk assessment

- 4.6.3 The potential pollutant linkages identified at the site with a moderate or greater risk to the site are summarised as follows:
- Elevated concentrations of naturally occurring metals may be present in shallow soils and pose a potential **moderate to low** risk to human health.
 - Radon poses a potential **high** risk to human health and basic radon protective measures are required in new structures.



5. GEOTECHNICAL RISK

5.1.1 Following assessment of available data, the following plausible geotechnical risks have been identified.

- Plasticity of cohesive soils leading to foundation failure. The Groundsure report indicates a 'negligible risk of shrink/swell soils; however, ground investigation is recommended to determine if cohesive soils are present.
- Attack on concrete foundations by sulphates leading to degradation of subsurface concrete. The potential for elevated sulphates in soils is considered to be low; however, appropriate testing is recommended to confirm this.
- Groundwater. Limited evidence is available; however, there is potential for shallow groundwater conditions that may impact excavations during construction and ground investigation is recommended to confirm the local groundwater regime.
- Unexpected ground conditions. A bespoke ground investigation is recommended to confirm ground conditions at the site.

5.1.2 These plausible risks should be considered as part of the design process.



6. RECOMMENDATIONS AND FURTHER WORKS

6.1.1 To confirm and develop the initial CSM presented in this report the following is recommended:

- Sampling of shallow soils for chemical assessment.
- Updating of the initial CSM and ground model.
- Updating of the preliminary risk assessment.

6.1.2 In addition, the following is recommended

- Geotechnical assessment of soils to inform development design.
- Undertaking of in-situ infiltration testing to inform the surface water drainage strategy.



7. GENERAL COMMENTS

- 7.1.1 This report details the assessment for the site carried out in January 2024. Professional judgement and has been used in the interpretation of a third-party environmental data report and historical mapping. The information obtained has been taken at face value; however, not all constraints or liabilities associated with the site may have been identified.
- 7.1.2 This report has been prepared by Advance Consulting Engineers Limited under instruction from the Client for the sole use of the Client for the specified site. Third parties who use the contents do so at their own risk.
- 7.1.3 The work has been undertaken in general accordance with recognised guidance and best practice. The contents and findings do not offer any specific warranty or guarantee for the site.
- 7.1.4 The site walkover undertaken as part of the commission does not constitute a formal survey for environmental or geotechnical constraints and has been used entirely for a preliminary visual assessment of the site only.
- 7.1.5 It should be noted that whilst the risk assessment process undertaken in this report may identify potential risks to construction workers, consideration of occupational health and safety issues is beyond the scope of this report and needs to be considered separately.



8. REFERENCES

British Standards Institution (BS 10175:2011+A2:2017). Investigation of Potentially Contaminated Sites - Code of practice.

CIRIA C552. Contaminated Land Risk Management – A Guide to Good Practice. D J Rudland. R M Lancefield. P N Mayell. 2021.

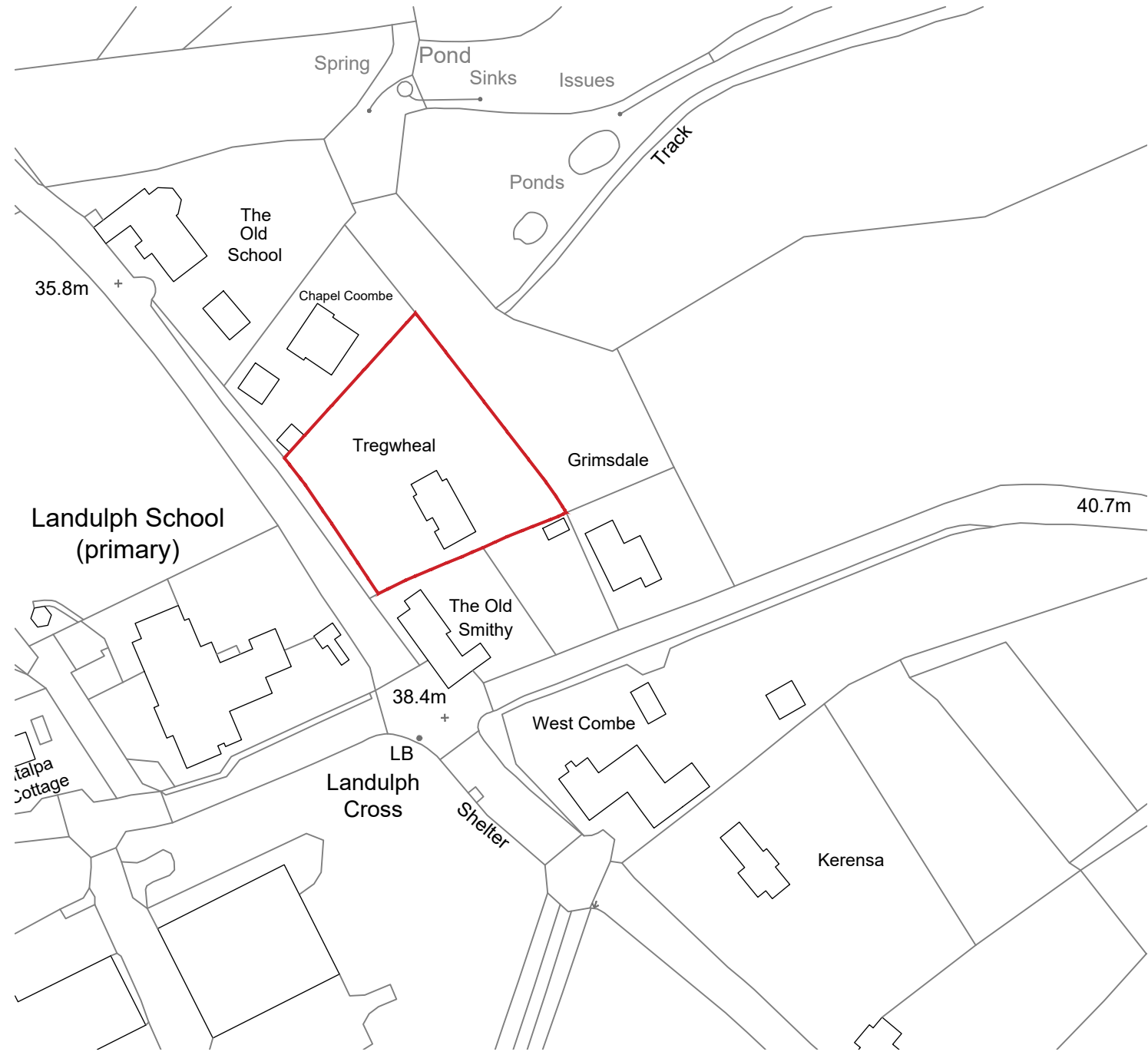
Environment Agency (2023). Land Contamination Risk Management (LCRM). Available online [Land contamination risk management \(LCRM\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/land-contamination-risk-management-lcrm)

National House Building Council / Environment Agency / Chartered Institute of Environmental Health. Annex 4 of 'Guidance for the Safe Development of Housing on Land Affected by Contamination' (R&D Publication 66. 2008.



Appendix A Drawings

GENERAL NOTES
 This drawing has been prepared for the purpose of obtaining Planning / Building Regulation Approval only. All details are to be to the satisfaction of the area Building Control Officer (BCO) or Approved Inspector.
 This drawing must not be acted upon until it has been approved by the Local Authority. Should the client commence work without the necessary Local Authority approval in place, they do so at their own risk.
 This drawing is to read in conjunction with any General Notes, Construction Notes and / or Building Regulations Notes prepared for the project.
 All dimensions to be checked on site prior to ordering or erecting materials.
 Any discrepancies to be reported to the supervising officer.



LAHDESIGN Ltd		
<small>M 0798 364 367 E info@lahdesign.co.uk</small>		
Client: Mr M Kinley		
Project Ref: 5083		
Project Name: Tregwheal, Landulph Cross Cornwall, PL12 6QQ		
Drawing Title: Location Plan		
Drawn: LAH	Check: Nov 23	Scale: 1:1250 @ A4
Status: Planning	Drawing No: 5083 001	Revision:



Appendix B Site Walkover Photographs



Plate 1: Overview of development area looking northwest.



Plate 2: Overview of development area looking north.



Plate 3: Looking northwest across area containing vegetable beds, polytunnel and a greenhouse.



Plate 4: Looking northwest across field on site's northern boundary.



Plate 5: Looking south across development area showing depression in lawn.



Plate 6: Looking southwest towards shed and IBC's on sites southern boundary.



Appendix C Groundsure Report & Historical Mapping

Tregwheal, Landulph Cross, Saltash, PL12 6QQ

Order Details

Date: 05/01/2024
Your ref: C23214_Landulph
Our Ref: GS-S65-SZB-HYG-TVX

Site Details

Location: 242633 062520
Area: 0.19 ha
Authority: [Cornwall Council \(Unitary\)](#) ↗



[Summary of findings](#)

[p. 2 >](#)

[Aerial image](#)

[p. 9 >](#)

[OS MasterMap site plan](#)

[p.14 >](#)

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Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	1	5	8	-
16 >	1.2 >	Historical tanks >	0	0	1	5	-
17	1.3	Historical energy features	0	0	0	0	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
18	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
19 >	2.1 >	Historical industrial land uses >	0	1	5	12	-
20 >	2.2 >	Historical tanks >	0	0	1	5	-
21	2.3	Historical energy features	0	0	0	0	-
21	2.4	Historical petrol stations	0	0	0	0	-
21	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
22	3.1	Active or recent landfill	0	0	0	0	-
22	3.2	Historical landfill (BGS records)	0	0	0	0	-
23	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
23	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
23	3.5	Historical waste sites	0	0	0	0	-
23	3.6	Licensed waste sites	0	0	0	0	-
23 >	3.7 >	Waste exemptions >	0	1	21	40	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
29	4.1	Recent industrial land uses	0	0	0	-	-
29	4.2	Current or recent petrol stations	0	0	0	0	-
30	4.3	Electricity cables	0	0	0	0	-
30	4.4	Gas pipelines	0	0	0	0	-
30	4.5	Sites determined as Contaminated Land	0	0	0	0	-



30	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
30	4.7	Regulated explosive sites	0	0	0	0	-
31	4.8	Hazardous substance storage/usage	0	0	0	0	-
31	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
31	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
31	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
31	4.12	Radioactive Substance Authorisations	0	0	0	0	-
32 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	0	1	-
32	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
32	4.15	Pollutant release to public sewer	0	0	0	0	-
32	4.16	List 1 Dangerous Substances	0	0	0	0	-
33	4.17	List 2 Dangerous Substances	0	0	0	0	-
33	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
33	4.19	Pollution inventory substances	0	0	0	0	-
33	4.20	Pollution inventory waste transfers	0	0	0	0	-
33	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
34 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
35 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
36 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
37	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
37	5.5	Groundwater vulnerability- local information	None (within 0m)				
38 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	10	9
42	5.7	Surface water abstractions	0	0	0	0	0
43	5.8	Potable abstractions	0	0	0	0	0
43	5.9	Source Protection Zones	0	0	0	0	-
43	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
44 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	2	1	-	-



45 >	6.2 >	Surface water features >	0	1	3	-	-
45 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
46	6.4	WFD Surface water bodies	0	0	0	-	-
46 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
47	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
47	7.2	Historical Flood Events	0	0	0	-	-
47	7.3	Flood Defences	0	0	0	-	-
48	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
48	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					
50	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding >					
51 >	9.1 >	Groundwater flooding >	Negligible (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
52 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	5
53	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
53 >	10.3 >	Special Areas of Conservation (SAC) >	0	0	0	0	2
54 >	10.4 >	Special Protection Areas (SPA) >	0	0	0	0	3
54	10.5	National Nature Reserves (NNR)	0	0	0	0	0
55	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
55 >	10.7 >	Designated Ancient Woodland >	0	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	55
58	10.11	Green Belt	0	0	0	0	0
58	10.12	Proposed Ramsar sites	0	0	0	0	0



58	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
59	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
59	10.15	Nitrate Sensitive Areas	0	0	0	0	0
59	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
60 >	10.17 >	<u>SSSI Impact Risk Zones ></u>	1	-	-	-	-
61 >	10.18 >	<u>SSSI Units ></u>	0	0	0	0	8
Page	Section	<u>Visual and cultural designations ></u>	On site	0-50m	50-250m	250-500m	500-2000m
65	11.1	World Heritage Sites	0	0	0	-	-
66 >	11.2 >	<u>Area of Outstanding Natural Beauty ></u>	1	0	0	-	-
66	11.3	National Parks	0	0	0	-	-
66 >	11.4 >	<u>Listed Buildings ></u>	0	0	1	-	-
67	11.5	Conservation Areas	0	0	0	-	-
67	11.6	Scheduled Ancient Monuments	0	0	0	-	-
67	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	<u>Agricultural designations ></u>	On site	0-50m	50-250m	250-500m	500-2000m
68 >	12.1 >	<u>Agricultural Land Classification ></u>	Grade 3 (within 250m)				
69	12.2	Open Access Land	0	0	0	-	-
69	12.3	Tree Felling Licences	0	0	0	-	-
69	12.4	Environmental Stewardship Schemes	0	0	0	-	-
70 >	12.5 >	<u>Countryside Stewardship Schemes ></u>	0	0	3	-	-
Page	Section	<u>Habitat designations ></u>	On site	0-50m	50-250m	250-500m	500-2000m
71 >	13.1 >	<u>Priority Habitat Inventory ></u>	1	3	0	-	-
72	13.2	Habitat Networks	0	0	0	-	-
72	13.3	Open Mosaic Habitat	0	0	0	-	-
72	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<u>Geology 1:10,000 scale ></u>	On site	0-50m	50-250m	250-500m	500-2000m
73 >	14.1 >	<u>10k Availability ></u>	Identified (within 500m)				
74	14.2	Artificial and made ground (10k)	0	0	0	0	-
75	14.3	Superficial geology (10k)	0	0	0	0	-

75	14.4	Landslip (10k)	0	0	0	0	-
76	14.5	Bedrock geology (10k)	0	0	0	0	-
76	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
77 >	15.1 >	50k Availability >	Identified (within 500m)				
78	15.2	Artificial and made ground (50k)	0	0	0	0	-
78	15.3	Artificial ground permeability (50k)	0	0	-	-	-
79 >	15.4 >	Superficial geology (50k) >	0	0	1	1	-
80	15.5	Superficial permeability (50k)	None (within 50m)				
80	15.6	Landslip (50k)	0	0	0	0	-
80	15.7	Landslip permeability (50k)	None (within 50m)				
81 >	15.8 >	Bedrock geology (50k) >	1	0	0	2	-
82 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
82 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	1	0	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
83 >	16.1 >	BGS Boreholes >	0	0	1	-	-
Page	Section	Natural ground subsidence >					
84 >	17.1 >	Shrink swell clays >	Negligible (within 50m)				
85 >	17.2 >	Running sands >	Negligible (within 50m)				
86 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
87 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
88 >	17.5 >	Landslides >	Very low (within 50m)				
89 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
91	18.1	BritPits	0	0	0	0	-
92 >	18.2 >	Surface ground workings >	0	0	3	-	-
92 >	18.3 >	Underground workings >	0	0	0	0	4
92	18.4	Underground mining extents	0	0	0	0	-
93	18.5	Historical Mineral Planning Areas	0	0	0	0	-



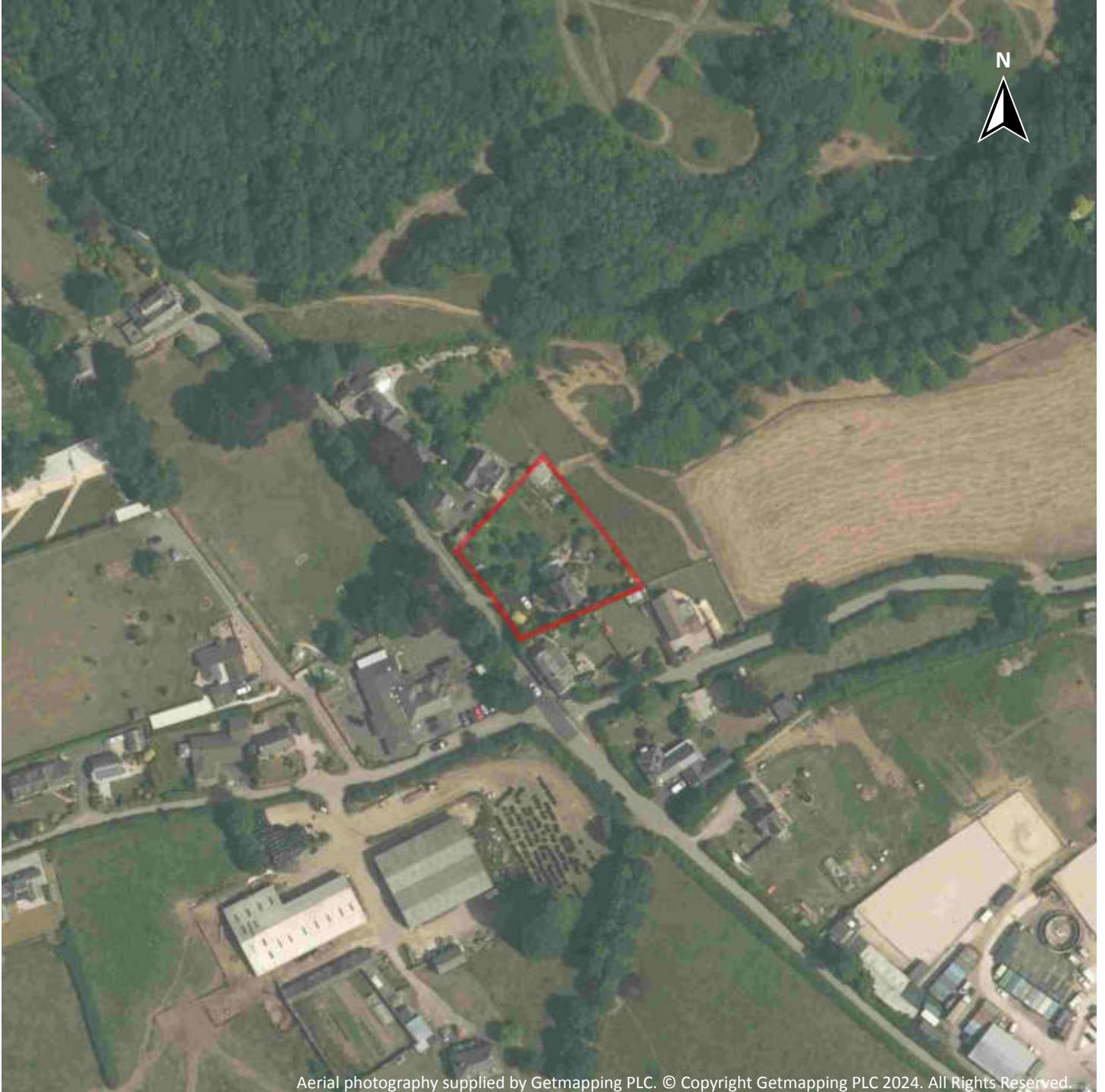
93 >	18.6 >	Non-coal mining >	1	0	0	1	0
93	18.7	JPB mining areas	None (within 0m)				
94	18.8	The Coal Authority non-coal mining	0	0	0	0	-
94	18.9	Researched mining	0	0	0	0	-
94	18.10	Mining record office plans	0	0	0	0	-
94	18.11	BGS mine plans	0	0	0	0	-
95	18.12	Coal mining	None (within 0m)				
95	18.13	Brine areas	None (within 0m)				
95	18.14	Gypsum areas	None (within 0m)				
95	18.15	Tin mining	None (within 0m)				
95	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes >	On site	0-50m	50-250m	250-500m	500-2000m
96	19.1	Natural cavities	0	0	0	0	-
97 >	19.2 >	Mining cavities >	0	0	0	0	1
97	19.3	Reported recent incidents	0	0	0	0	-
97	19.4	Historical incidents	0	0	0	0	-
98	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
99 >	20.1 >	Radon >	Between 5% and 10% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
101 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	0	-	-	-
101	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
101	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
102	22.1	Underground railways (London)	0	0	0	-	-
102	22.2	Underground railways (Non-London)	0	0	0	-	-
102	22.3	Railway tunnels	0	0	0	-	-
102	22.4	Historical railway and tunnel features	0	0	0	-	-
102	22.5	Royal Mail tunnels	0	0	0	-	-



103	22.6	Historical railways	0	0	0	-	-
103	22.7	Railways	0	0	0	-	-
103	22.8	Crossrail 1	0	0	0	0	-
103	22.9	Crossrail 2	0	0	0	0	-
103	22.10	HS2	0	0	0	0	-



Recent aerial photograph



Capture Date: 17/06/2022

Site Area: 0.19ha



Recent site history - 2016 aerial photograph



Capture Date: 15/05/2016

Site Area: 0.19ha



Recent site history - 2014 aerial photograph



Capture Date: 24/06/2014

Site Area: 0.19ha



Recent site history - 2010 aerial photograph

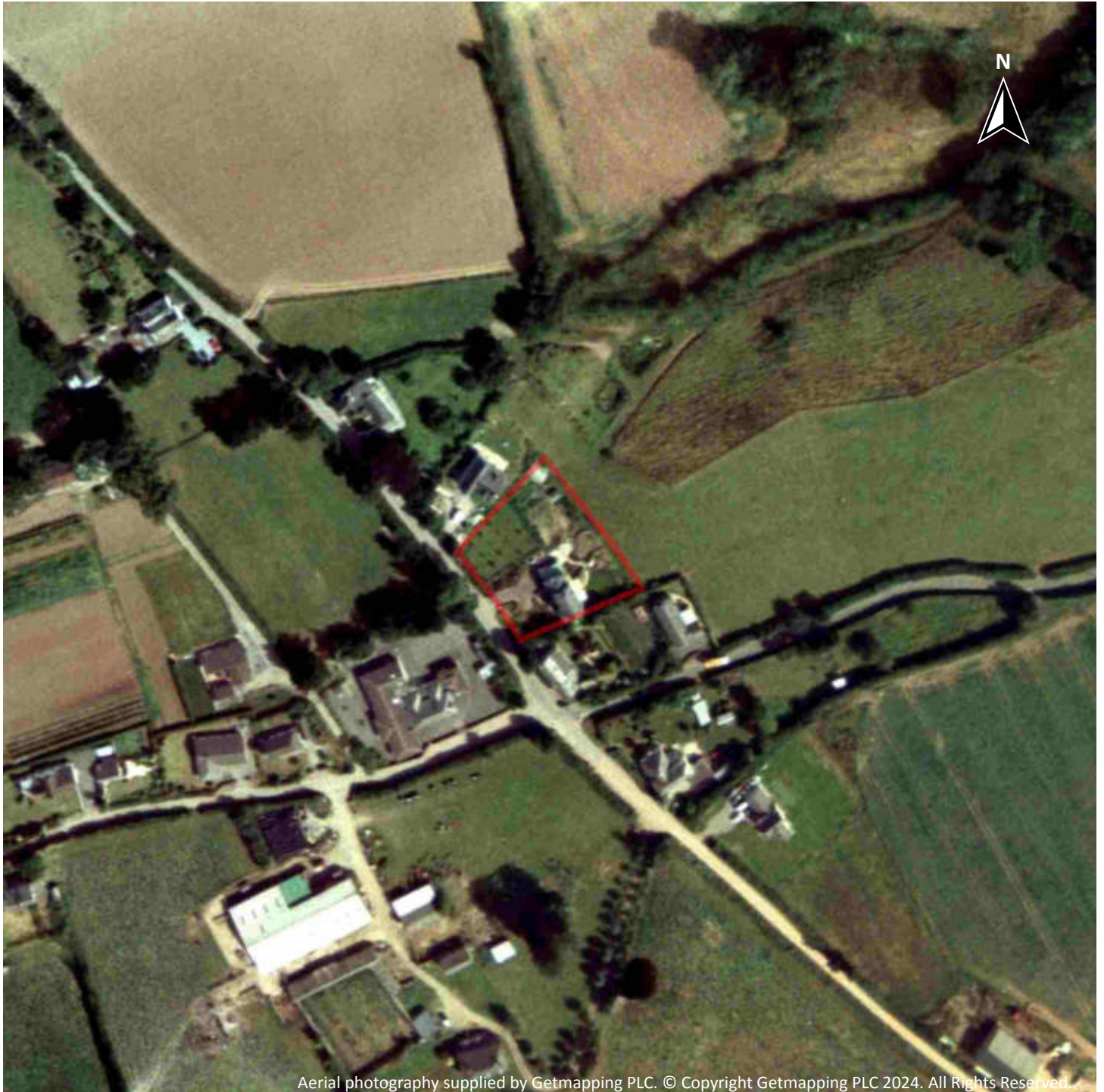


Capture Date: 24/05/2010

Site Area: 0.19ha



Recent site history - 1999 aerial photograph

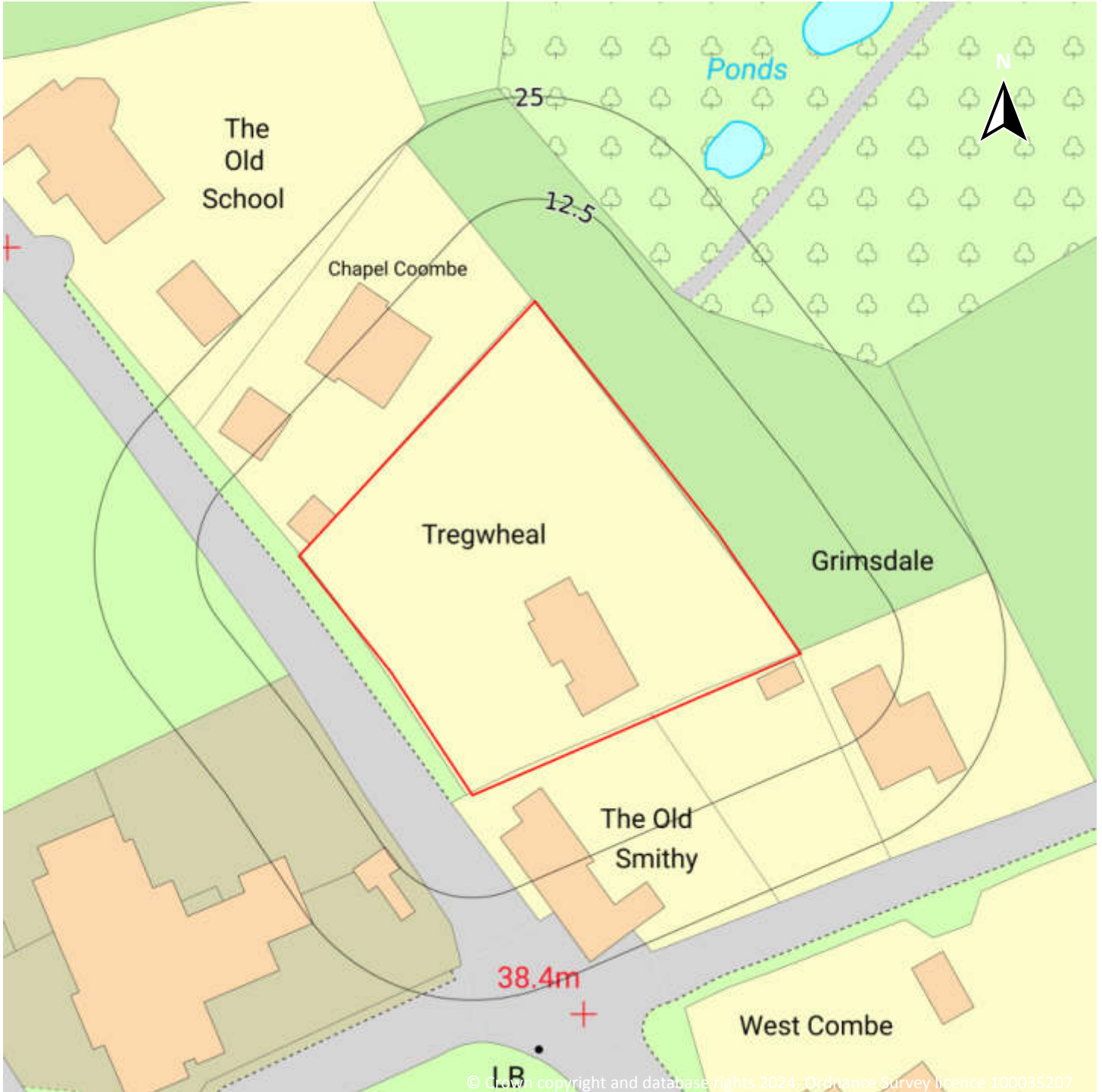


Capture Date: 27/07/1999

Site Area: 0.19ha



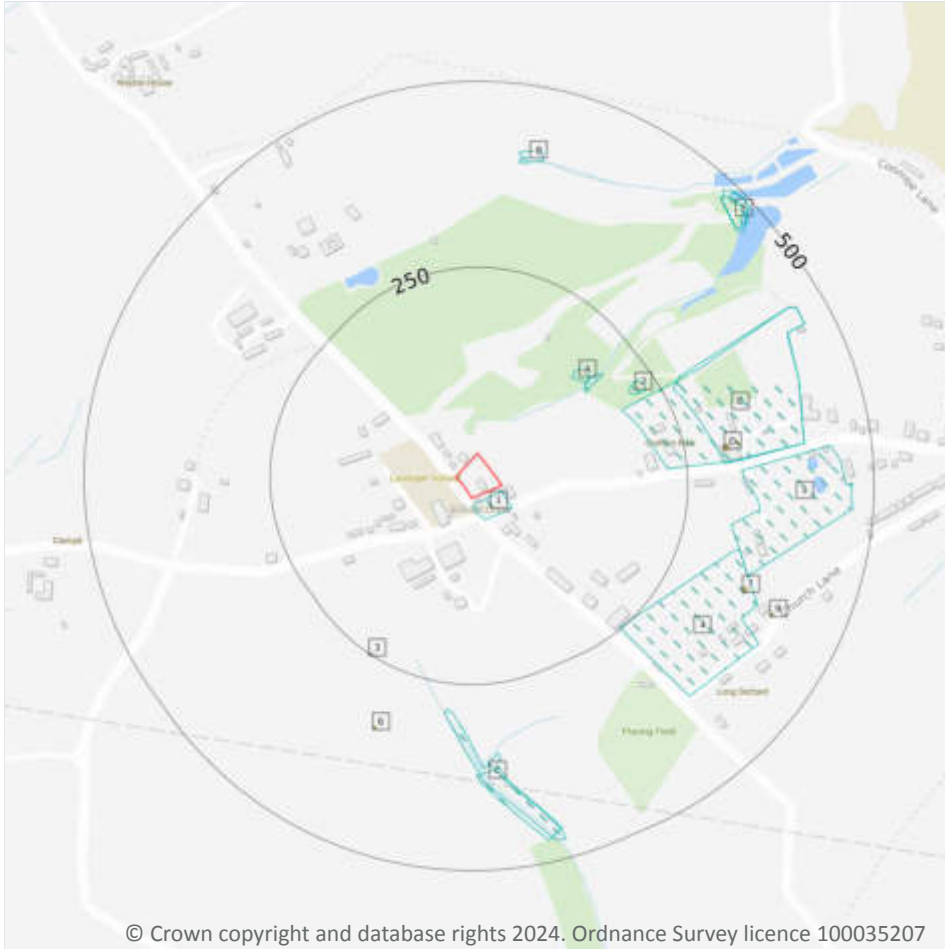
OS MasterMap site plan



Site Area: 0.19ha



1 Past land use



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

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1.1 Historical industrial land uses

Records within 500m

14

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

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

ID	Location	Land use	Dates present	Group ID
1	7m SE	Smithy	1882	396836

ID	Location	Land use	Dates present	Group ID
A	162m NE	Unspecified Heap	1882	391494
A	164m NE	Unspecified Pit	1905	380433
B	191m NE	Nurseries	1991	395638
2	212m NE	Unspecified Old Quarry	1882	394012
4	248m SE	Nurseries	1991	395637
B	264m NE	Nursery	1980	388044
C	285m S	Unspecified Pit	1907	380435
5	313m E	Nursery	1980 - 1991	420160
C	365m S	Cuttings	1980	398466
8	394m N	Unspecified Ground Workings	1905 - 1907	427438
E	459m NE	Unspecified Heap	1905	404365
E	461m NE	Unspecified Heap	1907 - 1919	405169
E	469m NE	Unspecified Heap	1968 - 1980	408198

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

6

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

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

ID	Location	Land use	Dates present	Group ID
3	247m SW	Unspecified Tank	1987	45837
D	301m E	Unspecified Tank	1993	45790
D	320m E	Unspecified Tank	1993	45792
6	333m S	Unspecified Tank	1987	45836
7	351m SE	Unspecified Tank	1993	45789



ID	Location	Land use	Dates present	Group ID
9	401m SE	Unspecified Tank	1952	45788

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 ungrouped 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 ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m **0**

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

This data is sourced from Ordnance Survey / Groundsure.



1.6 Historical military land

Records within 500m

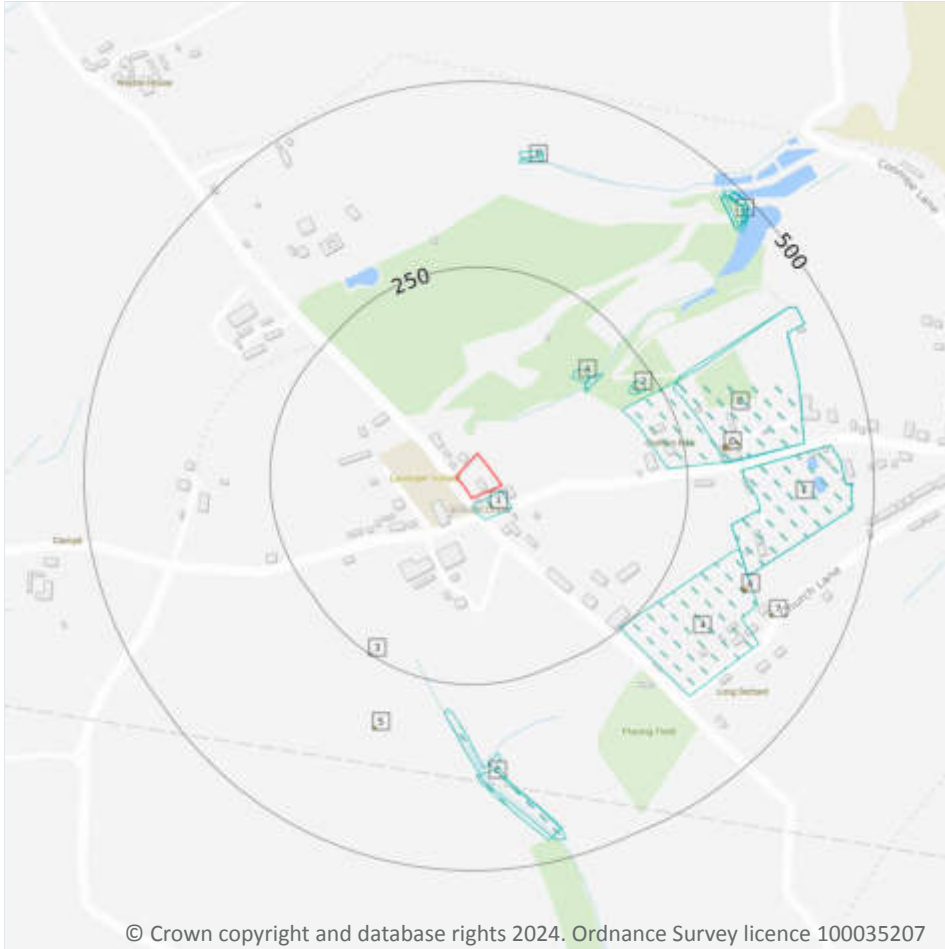
0

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

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



2 Past land use - un-grouped



— Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

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2.1 Historical industrial land uses

Records within 500m

18

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 19](#) >

ID	Location	Land Use	Date	Group ID
1	7m SE	Smithy	1882	396836
A	162m NE	Unspecified Heap	1882	391494
A	164m NE	Unspecified Pit	1905	380433

ID	Location	Land Use	Date	Group ID
B	191m NE	Nurseries	1991	395638
2	212m NE	Unspecified Old Quarry	1882	394012
4	248m SE	Nurseries	1991	395637
B	264m NE	Nursery	1980	388044
C	285m S	Unspecified Pit	1907	380435
E	313m E	Nursery	1980	420160
E	313m E	Nursery	1991	420160
C	365m S	Cuttings	1980	398466
F	394m N	Unspecified Ground Workings	1905	427438
F	402m N	Unspecified Ground Workings	1907	427438
G	459m NE	Unspecified Heap	1905	404365
G	461m NE	Unspecified Heap	1919	405169
G	465m NE	Unspecified Heap	1907	405169
G	469m NE	Unspecified Heap	1980	408198
G	469m NE	Unspecified Heap	1968	408198

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

6

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

Features are displayed on the Past land use - un-grouped map on [page 19 >](#)

ID	Location	Land Use	Date	Group ID
3	247m SW	Unspecified Tank	1987	45837
D	301m E	Unspecified Tank	1993	45790
D	320m E	Unspecified Tank	1993	45792
5	333m S	Unspecified Tank	1987	45836
6	351m SE	Unspecified Tank	1993	45789



ID	Location	Land Use	Date	Group ID
7	401m SE	Unspecified Tank	1952	45788

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.

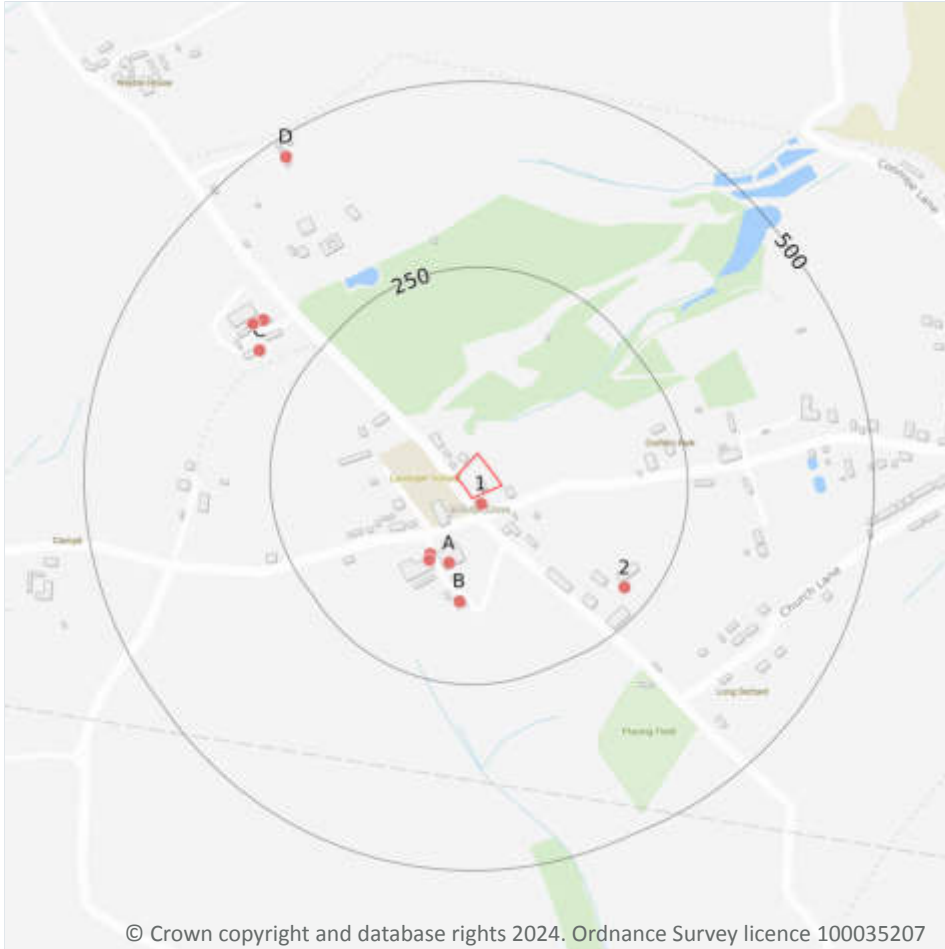
2.5 Historical garages

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)
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

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

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

3.5 Historical waste sites

Records within 500m

0

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

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

3.6 Licensed waste sites

Records within 500m

0

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

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

3.7 Waste exemptions

Records within 500m

62

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

Features are displayed on the Waste and landfill map on [page 22 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
1	12m S	PARK FARM, LANDULPH, SALTASH, PL12 6NE	WEX249208	Using waste exemption	On a farm	Use of waste in construction

ID	Location	Site	Reference	Category	Sub-Category	Description
A	93m S	Park Farm SALTASH Cornwall PL12 6NE	EPR/FE5445M P/A001	Using waste exemption	Non- Agricultural Waste Only	Use of waste in construction
A	95m SW	-	WEX379277	Using waste exemption	On a farm	Use of waste in construction
A	95m SW	-	WEX379277	Using waste exemption	On a farm	Use of waste for a specified purpose
A	95m SW	-	WEX379277	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	95m SW	-	WEX379277	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	95m SW	-	WEX379277	Disposing of waste exemption	On a farm	Burning waste in the open
A	101m SW	Park Farm SALTASH Cornwall PL12 6NE	EPR/UE5880P D/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
A	101m SW	Park Farm SALTASH Cornwall PL12 6NE	EPR/UE5880P D/A001	Treating waste exemption	Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
A	101m SW	Park Farm SALTASH Cornwall PL12 6NE	EPR/UE5880P D/A001	Using waste exemption	Agricultural Waste Only	Use of waste in construction
A	101m SW	Park Farm SALTASH Cornwall PL12 6NE	EPR/UE5880P D/A001	Using waste exemption	Agricultural Waste Only	Use of waste for a specified purpose
A	101m SW	Park Farm SALTASH Cornwall PL12 6NE	EPR/UE5880P D/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
A	101m SW	Park Farm SALTASH Cornwall PL12 6NE	EPR/UE5880P D/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
A	101m SW	Park Farm SALTASH Cornwall PL12 6NE	EPR/UE5880P D/A001	Using waste exemption	Agricultural Waste Only	Spreading waste on agricultural land to confer benefit
B	140m S	PARK FARM, LANDULPH, SALTASH, PL12 6NE	WEX025576	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters



ID	Location	Site	Reference	Category	Sub-Category	Description
B	140m S	PARK FARM, LANDULPH, SALTASH, PL12 6NE	WEX025576	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	140m S	PARK FARM, LANDULPH, SALTASH, PL12 6NE	WEX025576	Using waste exemption	On a farm	Use of waste in construction
B	140m S	PARK FARM, LANDULPH, SALTASH, PL12 6NE	WEX025576	Using waste exemption	On a farm	Use of waste for a specified purpose
B	140m S	PARK FARM, LANDULPH, SALTASH, PL12 6NE	WEX025576	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
B	140m S	PARK FARM, LANDULPH, SALTASH, PL12 6NE	WEX025576	Disposing of waste exemption	On a farm	Burning waste in the open
B	140m S	PARK FARM, LANDULPH, SALTASH, PL12 6NE	WEX025576	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
2	215m SE	-	WEX103398	Using waste exemption	Not on a farm	Use of waste in construction
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX292303	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX292303	Using waste exemption	On a farm	Use of waste for a specified purpose
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX292303	Using waste exemption	On a farm	Use of waste in construction
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX292303	Disposing of waste exemption	On a farm	Burning waste in the open
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX292303	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX292303	Treating waste exemption	On a farm	Screening and blending of waste
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX154752	Using waste exemption	On a Farm	Use of waste in construction
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX154752	Using waste exemption	On a Farm	Use of waste for a specified purpose



ID	Location	Site	Reference	Category	Sub-Category	Description
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX154752	Disposing of waste exemption	On a Farm	Deposit of waste from dredging of inland waters
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX040529	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX040529	Using waste exemption	On a farm	Use of waste in construction
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX040529	Using waste exemption	On a farm	Use of waste for a specified purpose
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX154752	Disposing of waste exemption	On a Farm	Burning waste in the open
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX154752	Treating waste exemption	On a Farm	Screening and blending of waste
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX154752	Disposing of waste exemption	On a Farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX040529	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX040529	Disposing of waste exemption	On a farm	Burning waste in the open
C	314m NW	GROVE FARM, LANDULPH, SALTASH, PL12 6QQ	WEX040529	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
C	333m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/HF0602ET /A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste in construction
C	333m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/SH0718R M/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste in construction
C	333m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/HF0602ET /A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on agricultural land to confer benefit



ID	Location	Site	Reference	Category	Sub-Category	Description
C	333m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/SH0718R M/A001	Using waste exemption	Both agricultural and non- agricultural waste	Spreading waste on agricultural land to confer benefit
C	342m NW	-	WEX323943	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
C	342m NW	-	WEX323943	Using waste exemption	On a farm	Use of waste for a specified purpose
C	342m NW	-	WEX323943	Using waste exemption	On a farm	Use of waste in construction
C	342m NW	-	WEX323943	Disposing of waste exemption	On a farm	Burning waste in the open
C	342m NW	-	WEX323943	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	342m NW	-	WEX323943	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
C	342m NW	-	WEX197610	Using waste exemption	On a Farm	Use of waste in construction
C	342m NW	-	WEX197610	Using waste exemption	On a Farm	Use of waste for a specified purpose
C	342m NW	-	WEX197610	Disposing of waste exemption	On a Farm	Deposit of waste from dredging of inland waters
C	342m NW	-	WEX197610	Using waste exemption	On a Farm	Spreading waste on agricultural land to confer benefit
C	342m NW	-	WEX197610	Disposing of waste exemption	On a Farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	342m NW	-	WEX197610	Disposing of waste exemption	On a Farm	Burning waste in the open
D	475m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/HE5880XE /A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters

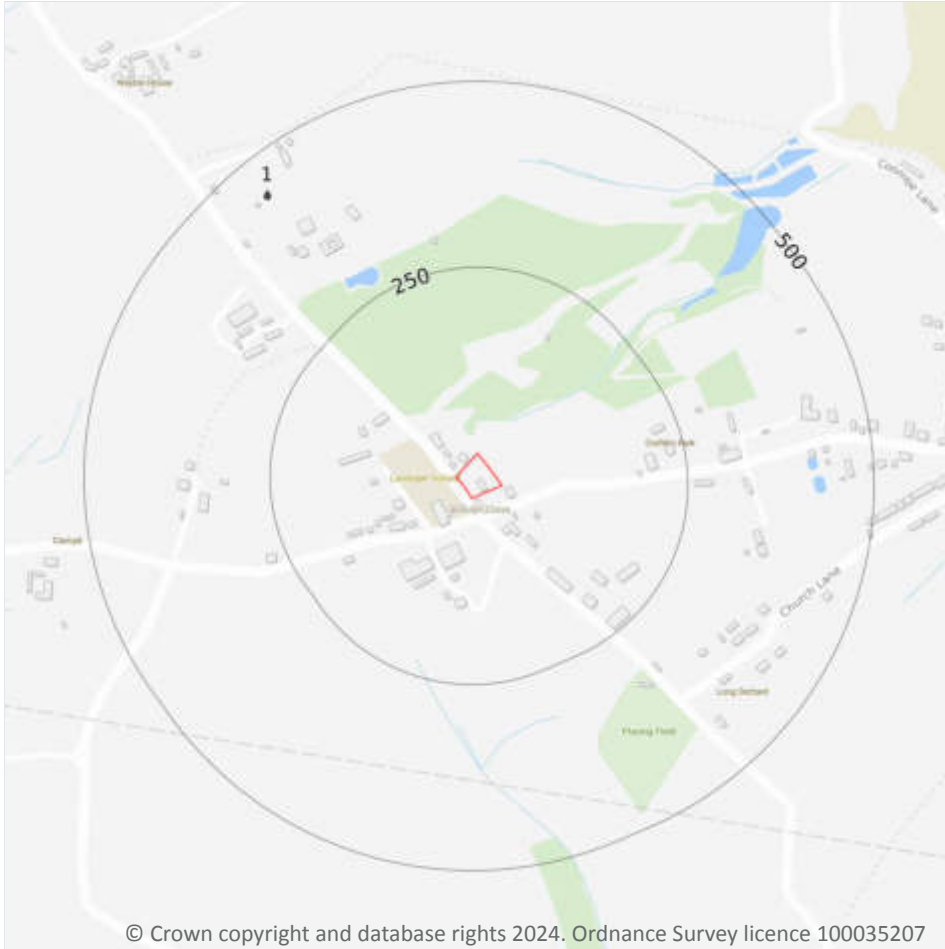


ID	Location	Site	Reference	Category	Sub-Category	Description
D	475m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/HE5880XE /A001	Treating waste exemption	Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
D	475m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/HE5880XE /A001	Using waste exemption	Agricultural Waste Only	Use of waste for a specified purpose
D	475m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/HE5880XE /A001	Using waste exemption	Both agricultural and non- agricultural waste	Use of waste in construction
D	475m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/HE5880XE /A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
D	475m NW	Grove Farm Saltash Cornwall PL12 6QQ	EPR/HE5880XE /A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Licensed Discharges to controlled waters

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
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High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0
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High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0
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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
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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
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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

1

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 29 >](#)

ID	Location	Address	Details	
1	448m NW	LAND ADJACENT TO ST ANNS, LANDULPH, SALTASH, CORNWALL	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: NRA-SW-2630 Permit Version: 1 Receiving Water: SOAKAWAY	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 13/03/1991 Effective Date: 13/03/1991 Revocation Date: -

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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

4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m

0

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

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



4.17 List 2 Dangerous Substances

Records within 500m

0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m

0

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

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

4.19 Pollution inventory substances

Records within 500m

0

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

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

4.20 Pollution inventory waste transfers

Records within 500m

0

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

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

4.21 Pollution inventory radioactive waste

Records within 500m

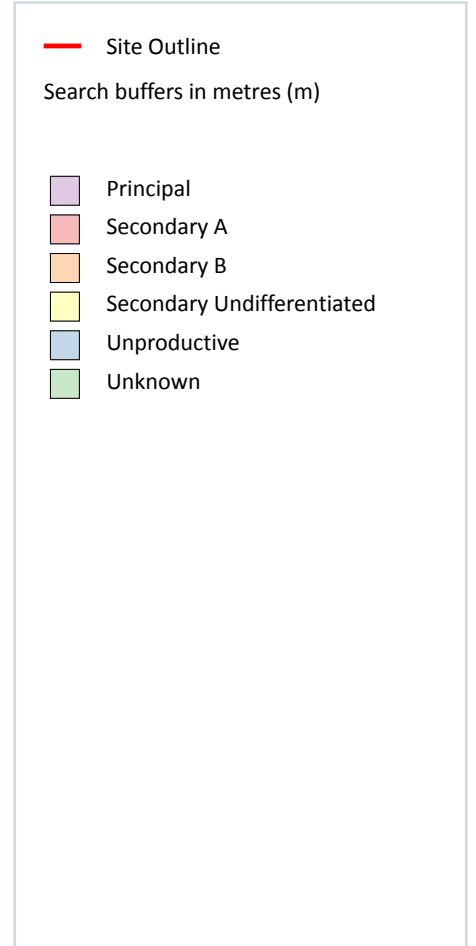
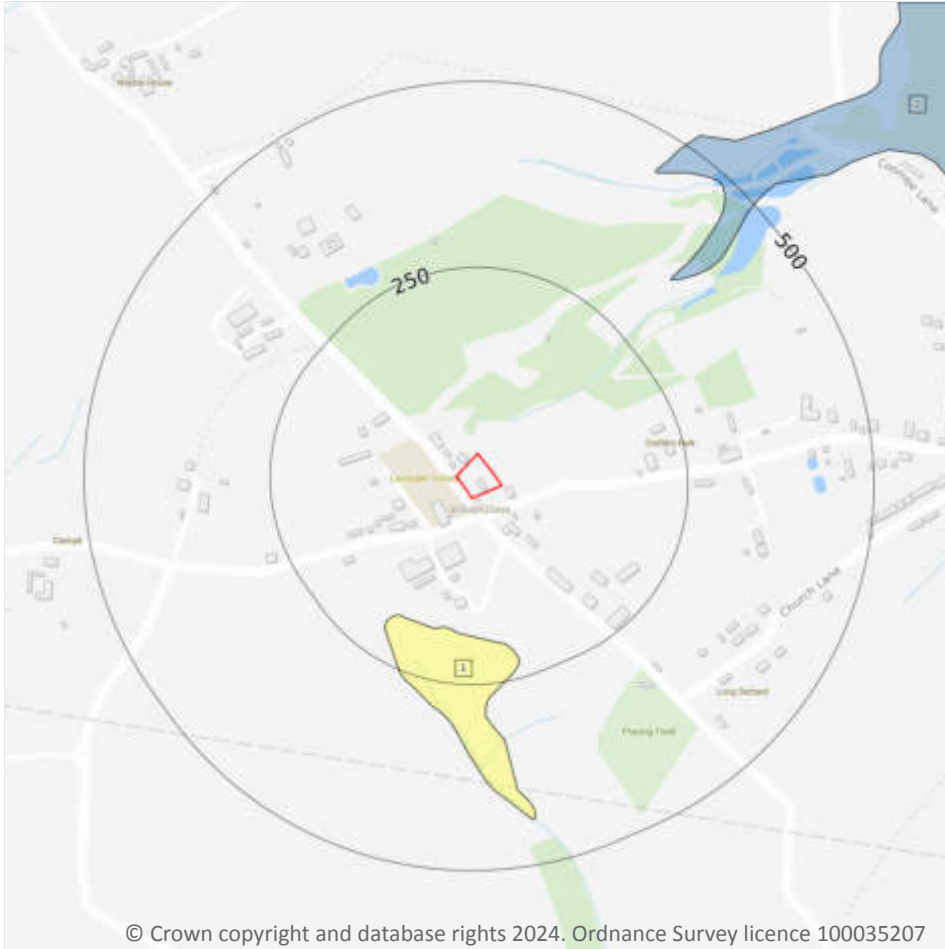
0

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

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



5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m

2

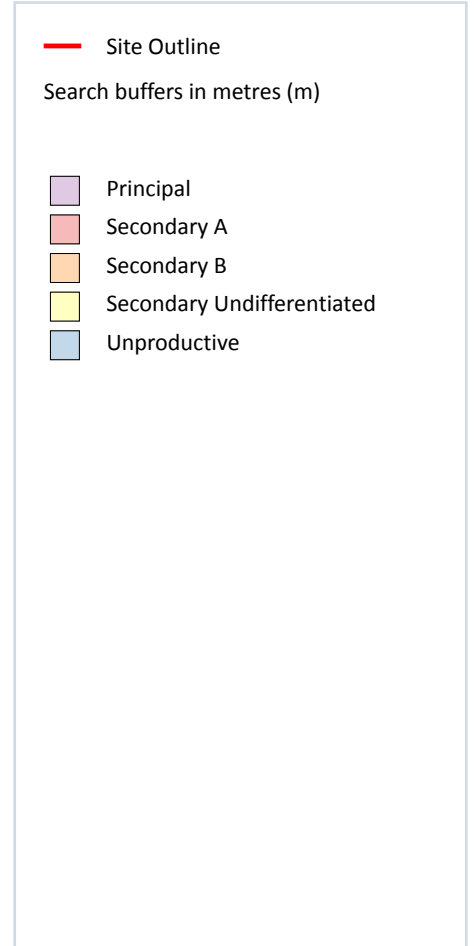
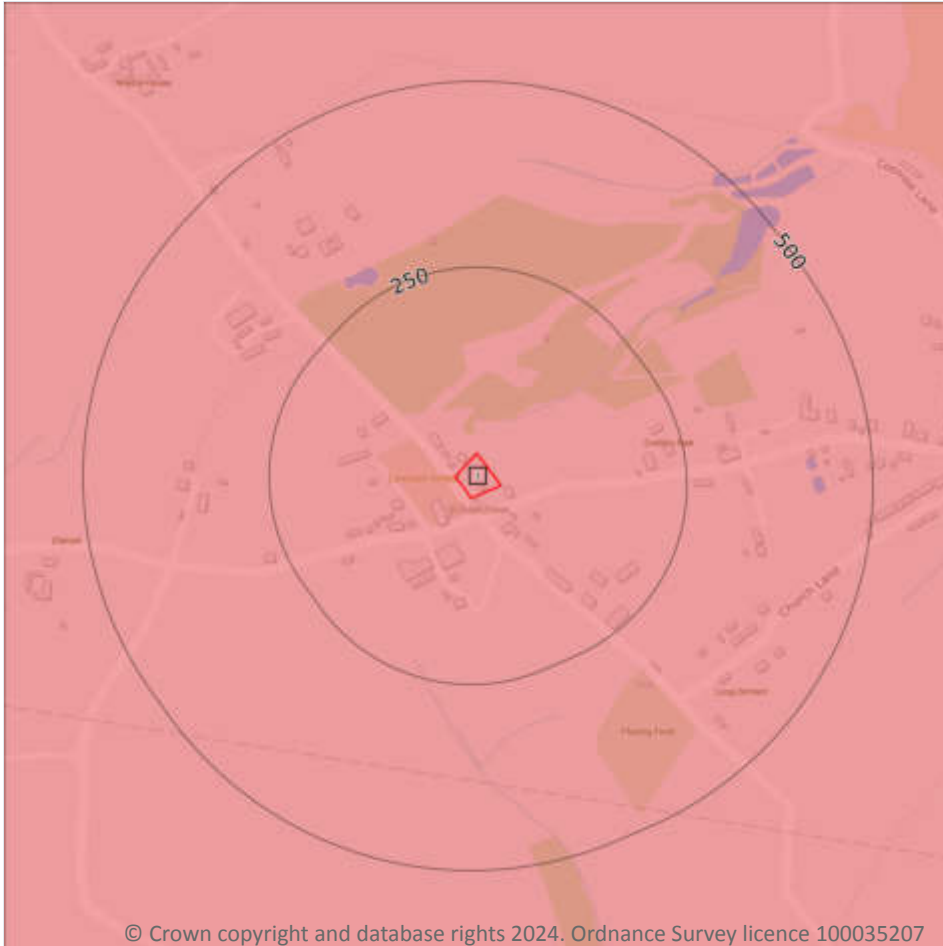
Aquifer status of groundwater held within superficial geology.

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

ID	Location	Designation	Description
1	176m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	349m NE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m

1

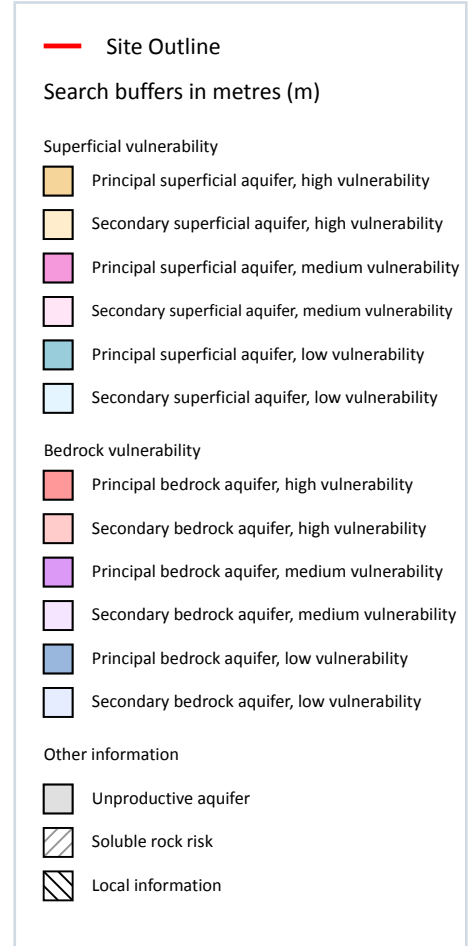
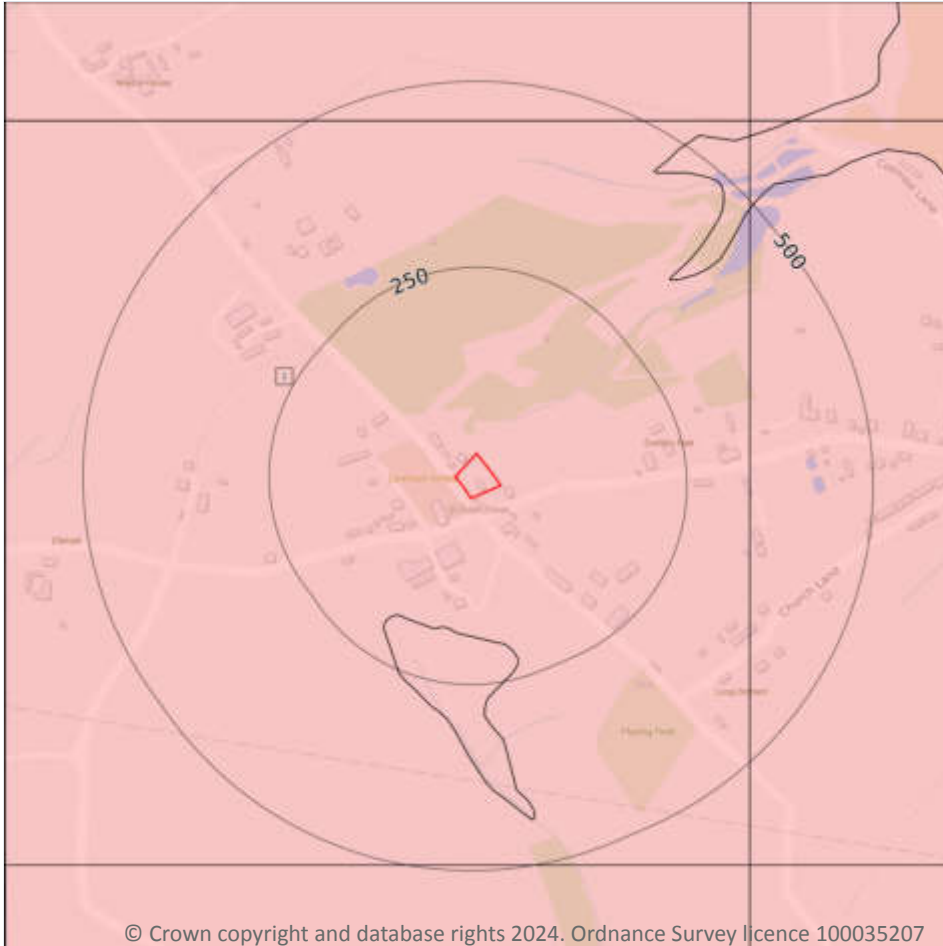
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 35](#) >

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

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

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

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

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

Features are displayed on the Groundwater vulnerability map on [page 36](#) >

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

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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

5.5 Groundwater vulnerability- local information

Records on site

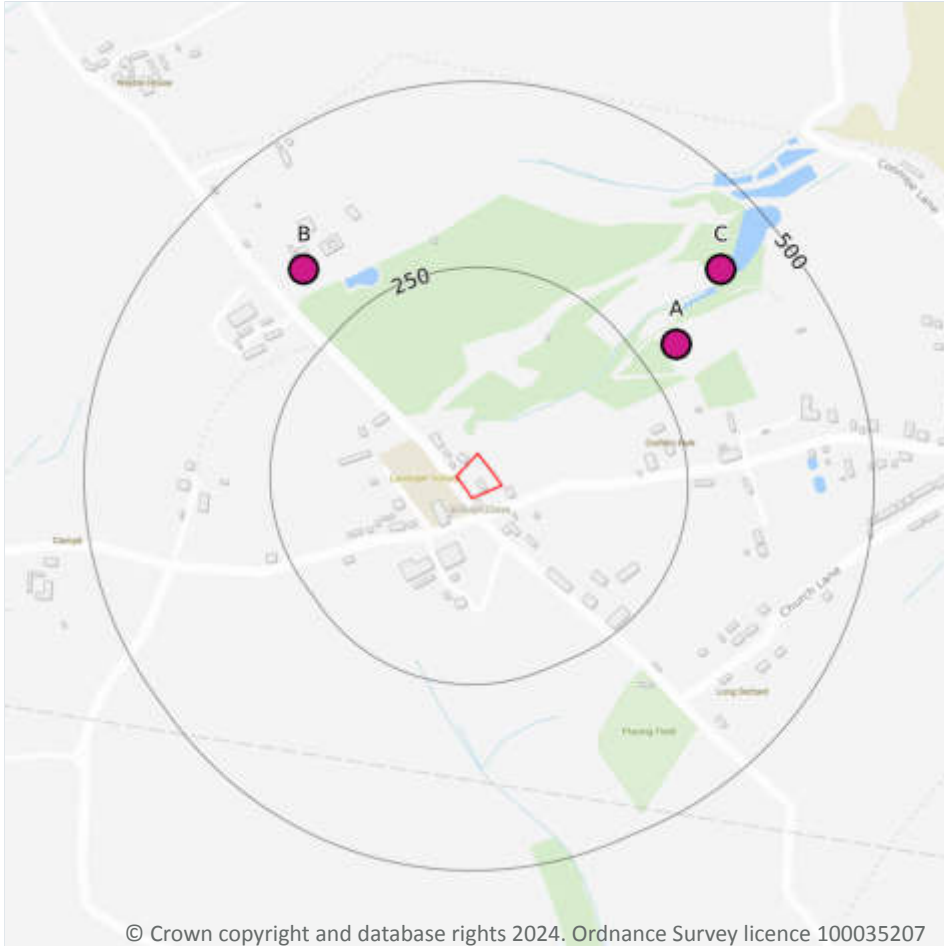
0

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

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



Abstractions and Source Protection Zones



5.6 Groundwater abstractions

Records within 2000m

19

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 38](#) >

ID	Location	Details	
A	300m NE	Status: Active Licence No: 15/47/015/G/056 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: HIGHCROFT NURSERIES, LANDULPH Data Type: Point Name: Richards Easting: 242900 Northing: 62700	Annual Volume (m ³): 3272 Max Daily Volume (m ³): 45.46 Original Application No: 10758 Original Start Date: 31/03/1977 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
A	300m NE	Status: Active Licence No: 15/47/015/G/056 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: HIGHCROFT NURSERIES, LANDULPH Data Type: Point Name: Richards Easting: 242900 Northing: 62700	Annual Volume (m ³): 3272 Max Daily Volume (m ³): 45.46 Original Application No: 10758 Original Start Date: 31/03/1977 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
A	300m NE	Status: Historical Licence No: 15/47/015/G/056 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: "HIGHCROFT NURSERIES, LANDULPH" Data Type: Point Name: Richards Easting: 242900 Northing: 62700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1977 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1977 Version End Date: -
A	300m NE	Status: Historical Licence No: 15/47/015/G/056 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "HIGHCROFT NURSERIES, LANDULPH" Data Type: Point Name: Richards Easting: 242900 Northing: 62700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1977 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1977 Version End Date: -
B	339m NW	Status: Historical Licence No: 15/47/015/G/048 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "ST ANNES FARM, LANDULPH - WELL" Data Type: Point Name: Cradick Easting: 242400 Northing: 62800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 30/06/1966 Expiry Date: - Issue No: 100 Version Start Date: 30/06/1966 Version End Date: -



ID	Location	Details	
B	339m NW	Status: Historical Licence No: 15/47/015/G/048 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: ST ANNES FARM, LANDULPH - WELL Data Type: Point Name: Cradick Easting: 242400 Northing: 62800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 30/06/1966 Expiry Date: - Issue No: 100 Version Start Date: 30/06/1966 Version End Date: -
C	409m NE	Status: Historical Licence No: 15/47/015/G/060 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: "TAMARA, LANDULPH" Data Type: Point Name: Cradick Easting: 242960 Northing: 62800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 08/08/1979 Expiry Date: - Issue No: 100 Version Start Date: 31/07/1998 Version End Date: -
C	409m NE	Status: Historical Licence No: 15/47/015/G/096 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: "TAMARA, LANDULPH" Data Type: Point Name: Holmes Easting: 242960 Northing: 62800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 08/08/1979 Expiry Date: - Issue No: 100 Version Start Date: 31/07/1998 Version End Date: -
C	409m NE	Status: Historical Licence No: 15/47/015/G/096 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: TAMARA, LANDULPH Data Type: Point Name: Holmes Easting: 242960 Northing: 62800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 08/08/1979 Expiry Date: - Issue No: 100 Version Start Date: 31/07/1998 Version End Date: -
C	409m NE	Status: Historical Licence No: 15/47/015/G/060 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: TAMARA, LANDULPH Data Type: Point Name: Cradick Easting: 242960 Northing: 62800	Annual Volume (m ³): 5137 Max Daily Volume (m ³): 256 Original Application No: - Original Start Date: 08/08/1979 Expiry Date: - Issue No: 100 Version Start Date: 31/07/1998 Version End Date: -



ID	Location	Details	
-	1095m S	Status: Historical Licence No: 15/47/015/G/024 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "MARSH FARM, LANDULPH - WELL" Data Type: Point Name: Best Easting: 242700 Northing: 61400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1095m S	Status: Historical Licence No: 15/47/015/G/024 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: MARSH FARM, LANDULPH - WELL Data Type: Point Name: Best Easting: 242700 Northing: 61400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1432m SW	Status: Historical Licence No: 15/47/015/G/082 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "MODITONHAM, BOTUS FLEMING - WELL" Data Type: Point Name: Macmillan Easting: 241700 Northing: 61400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/02/1986 Expiry Date: - Issue No: 100 Version Start Date: 07/05/1986 Version End Date: -
-	1432m SW	Status: Historical Licence No: 15/47/015/G/082 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: MODITONHAM, BOTUS FLEMING - WELL Data Type: Point Name: Macmillan Easting: 241700 Northing: 61400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/02/1986 Expiry Date: - Issue No: 100 Version Start Date: 07/05/1986 Version End Date: -
-	1525m W	Status: Historical Licence No: 15/47/015/G/099 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: BOREHOLE AT WEST KINGSMILL, LANDULPH Data Type: Point Name: Congdon & Sons Easting: 241080 Northing: 62480	Annual Volume (m ³): 7300 Max Daily Volume (m ³): 20 Original Application No: - Original Start Date: 27/01/2004 Expiry Date: 31/03/2014 Issue No: 101 Version Start Date: 27/01/2004 Version End Date: -



ID	Location	Details	
-	1750m SW	Status: Historical Licence No: 15/47/015/G/014 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "BURRHILLS FARM, CARKEEL - WELL" Data Type: Point Name: Holman & Sons Easting: 241900 Northing: 60900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1750m SW	Status: Historical Licence No: 15/47/015/G/014 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: BURRHILLS FARM, CARKEEL - WELL Data Type: Point Name: Holman & Sons Easting: 241900 Northing: 60900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1894m SW	Status: Historical Licence No: 15/47/015/G/015 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "BURRHILLS FARM, CARKEEL - WELL" Data Type: Point Name: Holman & Sons Easting: 241600 Northing: 60900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1894m SW	Status: Historical Licence No: 15/47/015/G/015 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: BURRHILLS FARM, CARKEEL - WELL Data Type: Point Name: Holman & Sons Easting: 241600 Northing: 60900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

0

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

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



5.8 Potable abstractions

Records within 2000m

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

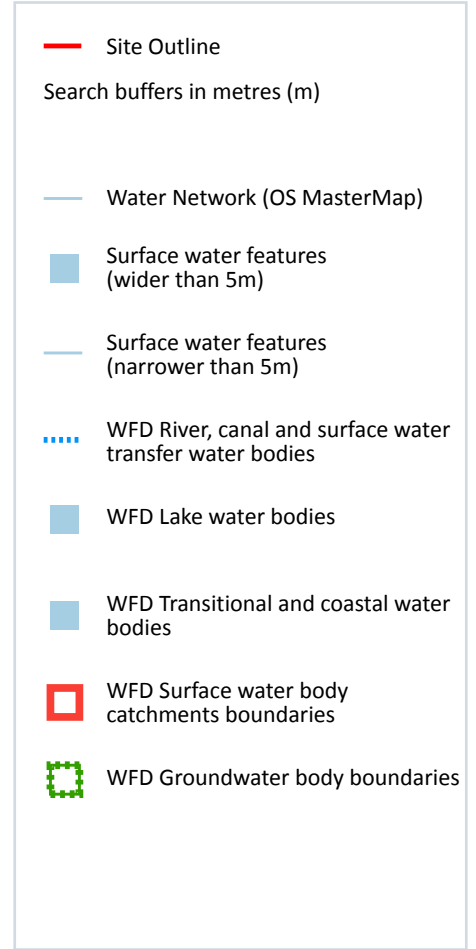
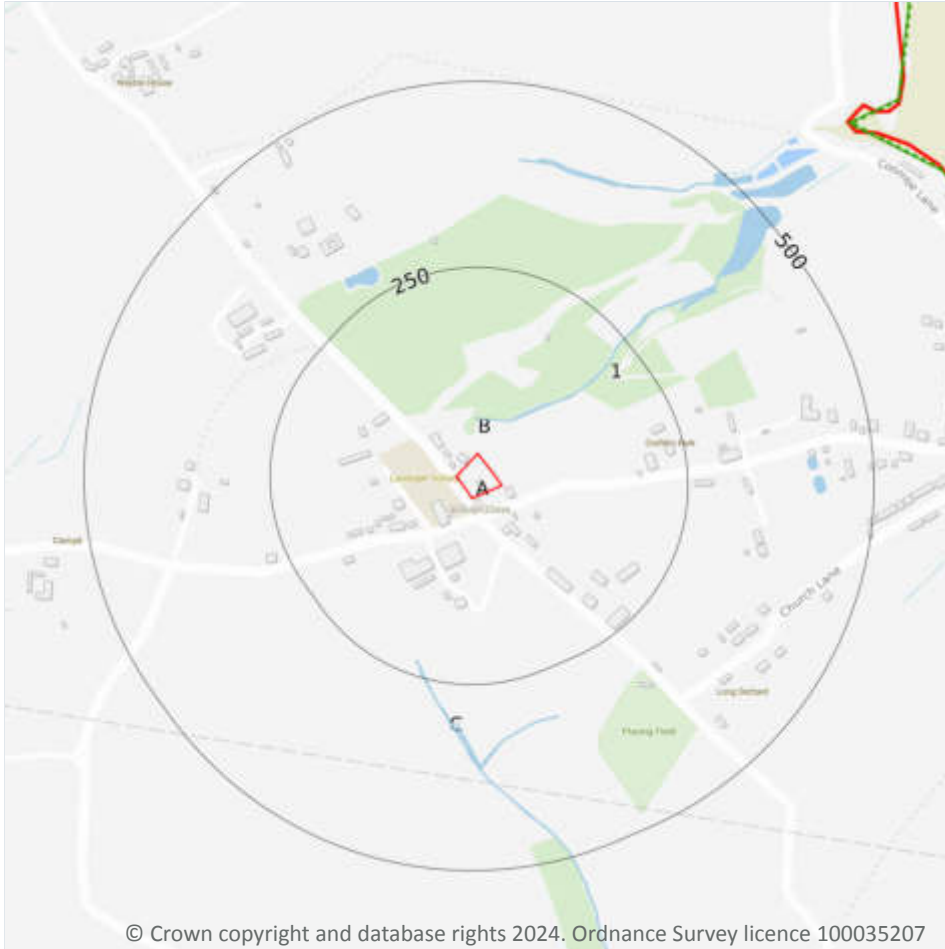
0

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



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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 44 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
1	46m N	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
B	47m N	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	228m S	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

4

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

Features are displayed on the Hydrology map on [page 44 >](#)

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 44 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	Coastal Catchment	Not part of a river WB catchment	71	Tamar Lower and Inny	Tamar

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



6.4 WFD Surface water bodies

Records identified	0
---------------------------	----------

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.

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

6.5 WFD Groundwater bodies

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

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

Features are displayed on the Hydrology map on [page 44 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Tamar	GB40802G806700 ↗	Poor	Poor	Good	2019

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

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

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

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

7.2 Historical Flood Events

Records within 250m

0

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

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

7.3 Flood Defences

Records within 250m

0

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

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



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

0

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

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



8 Surface water flooding

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

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

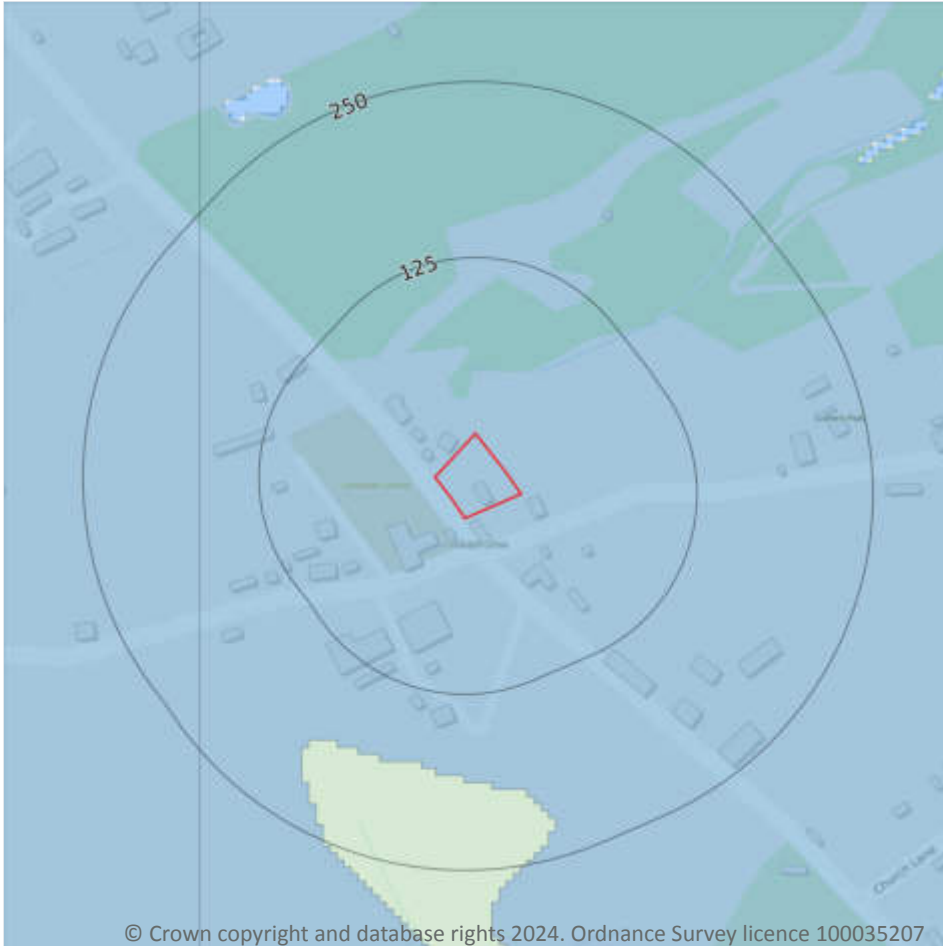
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the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

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

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



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9.1 Groundwater flooding

Highest risk on site

Negligible

Highest risk within 50m

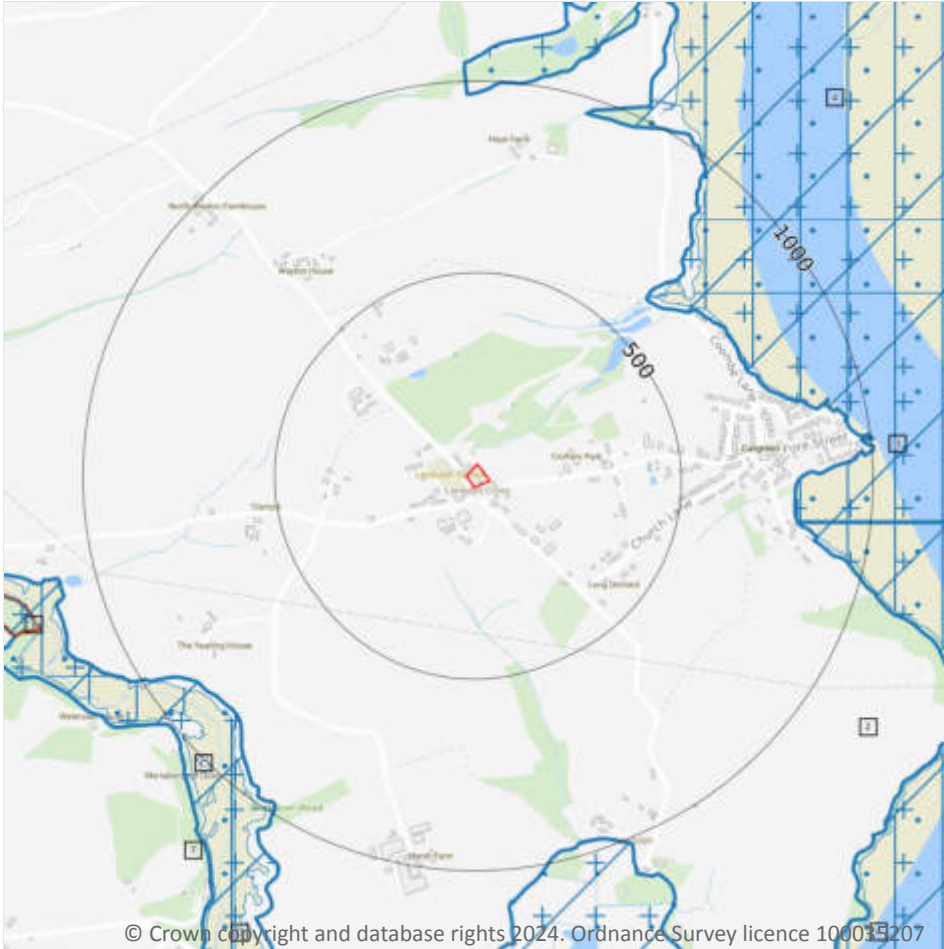
Negligible






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

Features are displayed on the Groundwater flooding map on [page 51](#) >

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
-  Sites of Special Scientific Interest (SSSI)
-  Special Areas of Conservation (SAC)
-  Special Protection Areas (SPA)
-  Designated Ancient Woodland
-  Marine Conservation Zones

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10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

5

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

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

ID	Location	Name	Data source
1	617m NE	Tamar - Tavy Estuary	Natural England



ID	Location	Name	Data source
5	811m E	Tamar - Tavy Estuary	Natural England
-	1816m E	Tamar - Tavy Estuary	Natural England
-	1818m E	Tamar - Tavy Estuary	Natural England
-	1913m E	Tamar - Tavy Estuary	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m

2

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

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

ID	Location	Name	Features of interest	Habitat description	Data source
A	617m NE	Plymouth Sound & Estuaries	Subtidal sandbanks; Estuaries; Intertidal mudflats and sandflats; Shallow inlets and bays; Reefs; Glasswort and other annuals colonising mud and sand; Cord-grass swards; Atlantic salt meadows; Sea lamprey; River lamprey; Allis shad; Twaite shad; Bottlenose dolphin; Harbour porpoise; Otter; Grey seal; Shore dock.	Marine areas, Sea inlets; Coastal sand dunes, Sand beaches, Machair; Shingle, Sea cliffs, Islets; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Salt marshes, Salt pastures, Salt steppes	Natural England



ID	Location	Name	Features of interest	Habitat description	Data source
6	848m NE	Plymouth Sound & Estuaries	Subtidal sandbanks; Estuaries; Intertidal mudflats and sandflats; Shallow inlets and bays; Reefs; Glasswort and other annuals colonising mud and sand; Cord-grass swards; Atlantic salt meadows; Sea lamprey; River lamprey; Allis shad; Twaite shad; Bottlenose dolphin; Harbour porpoise; Otter; Grey seal; Shore dock.	Marine areas, Sea inlets; Coastal sand dunes, Sand beaches, Machair; Shingle, Sea cliffs, Islets; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Salt marshes, Salt pastures, Salt steppes	Natural England

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

10.4 Special Protection Areas (SPA)

Records within 2000m

3

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

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

ID	Location	Name	Species of interest	Habitat description	Data source
2	617m NE	Tamar Estuaries Complex	Little egret; Pied avocet	Salt marshes, Salt pastures, Salt steppes; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Bogs, Marshes, Water fringed vegetation, Fens	Natural England
-	1703m NW	Tamar Estuaries Complex	Little egret; Pied avocet	Salt marshes, Salt pastures, Salt steppes; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Bogs, Marshes, Water fringed vegetation, Fens	Natural England
-	1803m N	Tamar Estuaries Complex	Little egret; Pied avocet	Salt marshes, Salt pastures, Salt steppes; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Bogs, Marshes, Water fringed vegetation, Fens	Natural England

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

10.5 National Nature Reserves (NNR)

Records within 2000m

0

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

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



10.6 Local Nature Reserves (LNR)

Records within 2000m

0

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

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

10.7 Designated Ancient Woodland

Records within 2000m

4

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

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

ID	Location	Name	Woodland Type
9	1181m W	Unknown	Ancient & Semi-Natural Woodland
-	1607m NW	Unknown	Ancient & Semi-Natural Woodland
-	1630m S	Burrhills Wood	Ancient & Semi-Natural Woodland
-	1975m NW	Unknown	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m

0

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

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



10.9 Forest Parks

Records within 2000m

0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

55

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

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

ID	Location	Name	Status
3	618m NE	Tamar Estuary Sites	Designated
4	664m NE	Tamar Estuary Sites	Designated
7	874m SW	Tamar Estuary Sites	Designated
B	901m SW	Tamar Estuary Sites	Designated
C	988m SW	Tamar Estuary Sites	Designated
C	1035m SW	Tamar Estuary Sites	Designated
8	1061m SW	Tamar Estuary Sites	Designated
-	1271m S	Tamar Estuary Sites	Designated
D	1299m SW	Tamar Estuary Sites	Designated
-	1307m S	Tamar Estuary Sites	Designated
D	1314m SW	Tamar Estuary Sites	Designated
A	1324m SE	Tamar Estuary Sites	Designated
-	1334m E	Tamar Estuary Sites	Designated
-	1399m S	Tamar Estuary Sites	Designated
-	1422m E	Tamar Estuary Sites	Designated
-	1429m E	Tamar Estuary Sites	Designated
-	1478m S	Tamar Estuary Sites	Designated
-	1493m S	Tamar Estuary Sites	Designated



ID	Location	Name	Status
-	1493m S	Tamar Estuary Sites	Designated
-	1504m SW	Tamar Estuary Sites	Designated
-	1522m N	Tamar Estuary Sites	Designated
-	1523m SW	Tamar Estuary Sites	Designated
-	1539m S	Tamar Estuary Sites	Designated
-	1544m S	Tamar Estuary Sites	Designated
-	1562m NE	Tamar Estuary Sites	Designated
-	1562m S	Tamar Estuary Sites	Designated
I	1582m NE	Tamar Estuary Sites	Designated
-	1588m S	Tamar Estuary Sites	Designated
-	1618m SW	Tamar Estuary Sites	Designated
-	1642m NE	Tamar Estuary Sites	Designated
-	1648m NE	Tamar Estuary Sites	Designated
-	1674m S	Tamar Estuary Sites	Designated
-	1701m NW	Tamar Estuary Sites	Designated
-	1727m NE	Tamar Estuary Sites	Designated
-	1731m S	Tamar Estuary Sites	Designated
-	1759m NE	Tamar Estuary Sites	Designated
-	1766m S	Tamar Estuary Sites	Designated
-	1779m NE	Tamar Estuary Sites	Designated
-	1780m N	Tamar Estuary Sites	Designated
-	1791m S	Tamar Estuary Sites	Designated
-	1803m S	Tamar Estuary Sites	Designated
-	1803m S	Tamar Estuary Sites	Designated
-	1815m S	Tamar Estuary Sites	Designated
-	1820m S	Tamar Estuary Sites	Designated
-	1824m S	Tamar Estuary Sites	Designated
-	1831m S	Tamar Estuary Sites	Designated



ID	Location	Name	Status
-	1835m S	Tamar Estuary Sites	Designated
-	1843m NE	Tamar Estuary Sites	Designated
-	1843m S	Tamar Estuary Sites	Designated
-	1883m NE	Tamar Estuary Sites	Designated
-	1886m S	Tamar Estuary Sites	Designated
-	1887m S	Tamar Estuary Sites	Designated
-	1933m NE	Tamar Estuary Sites	Designated
-	1946m S	Tamar Estuary Sites	Designated
-	1993m NE	Tamar Estuary Sites	Designated

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

10.11 Green Belt

Records within 2000m

0

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

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

10.12 Proposed Ramsar sites

Records within 2000m

0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

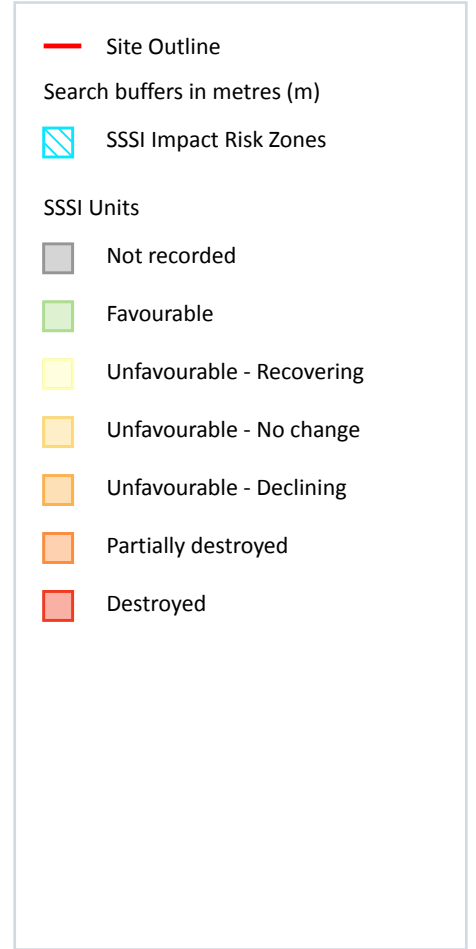
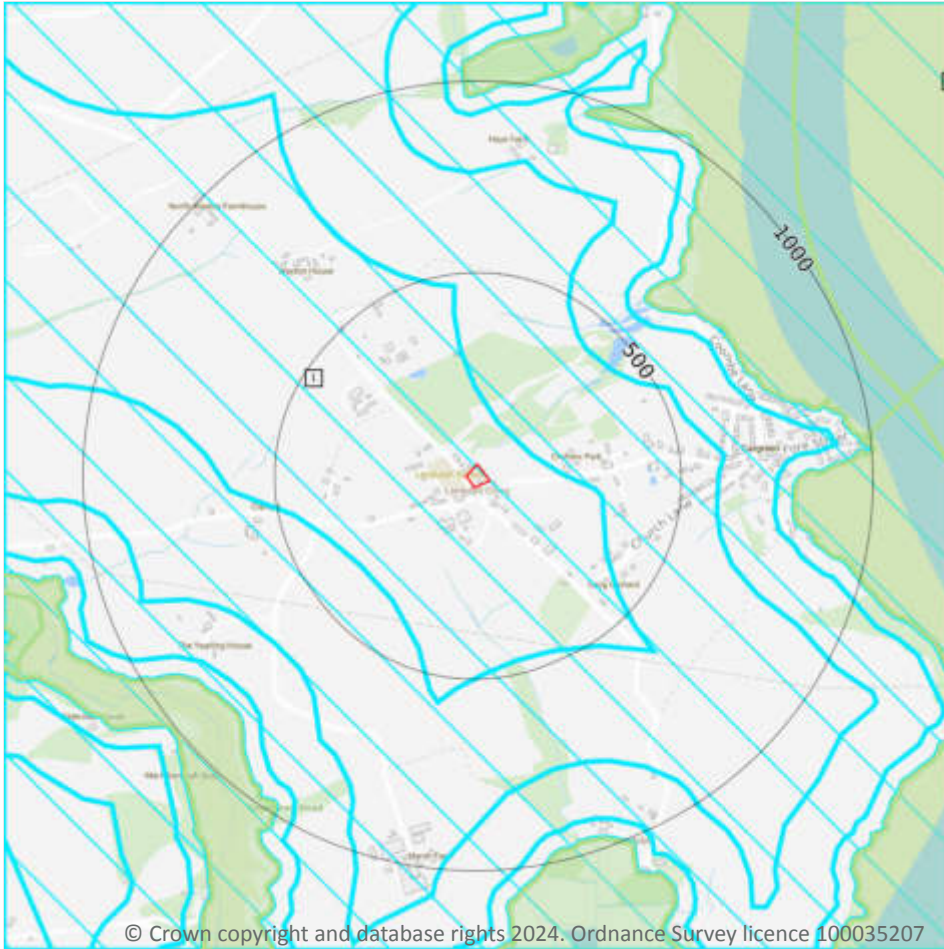
0

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

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



SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on [page 60](#) >

ID	Location	Type of developments requiring consultation
1	On site	<p>Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.</p> <p>Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines.</p> <p>Minerals, Oil and Gas - Planning applications for quarries: new proposals or extensions, outside or extending outside existing settlements/urban areas affecting greenspace, farmland or semi natural habitats. Oil & gas exploration/extraction.</p> <p>Rural non-residential - Large non residential developments outside existing settlements/urban areas where net additional gross internal floorspace is > 1,000m² or footprint exceeds 0.2ha.</p> <p>Residential - Residential development of 50 units or more.</p> <p>Rural residential - Any residential development of 10 or more houses outside existing settlements/urban areas.</p> <p>Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t).</p> <p>Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.</p> <p>Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.</p> <p>Composting - Any composting proposal with more than 500 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.</p> <p>Discharges - Any discharge of water or liquid waste of more than 2m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.</p> <p>Notes: Strategic solutions for recreational impacts are in place. Please contact your Local Planning Authority as they have the information to advise on specific requirements.</p>

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

8

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

Features are displayed on the SSSI Impact Zones and Units map on [page 60 >](#)

ID: 6
 Location: 617m NE
 SSSI name: Tamar - Tavy Estuary
 Unit name: Clifton
 Broad habitat: Littoral Sediment
 Condition: Favourable
 Reportable features:



Feature name	Feature condition	Date of assessment
H1130 Estuaries	Favourable	27/06/2013
H1140 Mudflats and sandflats not covered by seawater at low tide	Favourable	27/06/2013
S1102 Allis shad, Alosa alosa	Favourable	27/06/2013
SM4-28 - Saltmarsh	Favourable	27/06/2013

ID: 7
 Location: 798m E
 SSSI name: Tamar - Tavy Estuary
 Unit name: Kingsmill Lake
 Broad habitat: Littoral Sediment
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
H1130 Estuaries	Favourable	24/06/2013
H1140 Mudflats and sandflats not covered by seawater at low tide	Favourable	24/06/2013
S1102 Allis shad, Alosa alosa	Favourable	24/06/2013
SM4-28 - Saltmarsh	Favourable	24/06/2013

ID: 8
 Location: 1011m NE
 SSSI name: Tamar - Tavy Estuary
 Unit name: Egypt Marsh
 Broad habitat: Littoral Sediment
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
H1130 Estuaries	Favourable	08/08/2013
H1140 Mudflats and sandflats not covered by seawater at low tide	Favourable	08/08/2013
Lowland mixed deciduous woodland	Favourable	08/08/2013
S1102 Allis shad, Alosa alosa	Favourable	08/08/2013
SM4-28 - Saltmarsh	Favourable	08/08/2013



ID: 9
 Location: 1107m E
 SSSI name: Tamar - Tavy Estuary
 Unit name: Tamerton Lake
 Broad habitat: Littoral Sediment
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
H1130 Estuaries	Favourable	25/06/2010
H1140 Mudflats and sandflats not covered by seawater at low tide	Favourable	25/06/2010
SM4-28 - Saltmarsh	Favourable	25/06/2010

ID: 10
 Location: 1165m W
 SSSI name: Tamar - Tavy Estuary
 Unit name: Hole Wood And Ziggerson Wood
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Favourable	13/08/2012

ID: -
 Location: 1599m NW
 SSSI name: Tamar - Tavy Estuary
 Unit name: Pentillie Woodlands
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
H1130 Estuaries	Not Recorded	01/01/1900
H1140 Mudflats and sandflats not covered by seawater at low tide	Not Recorded	01/01/1900
Lowland mixed deciduous woodland	Favourable	14/02/2014
S1102 Allis shad, Alosa alosa	Not Recorded	01/01/1900
SM4-28 - Saltmarsh	Favourable	22/09/2010



ID: -
 Location: 1780m NW
 SSSI name: Tamar - Tavy Estuary
 Unit name: North Hooe
 Broad habitat: Littoral Sediment
 Condition: Favourable
 Reportable features:

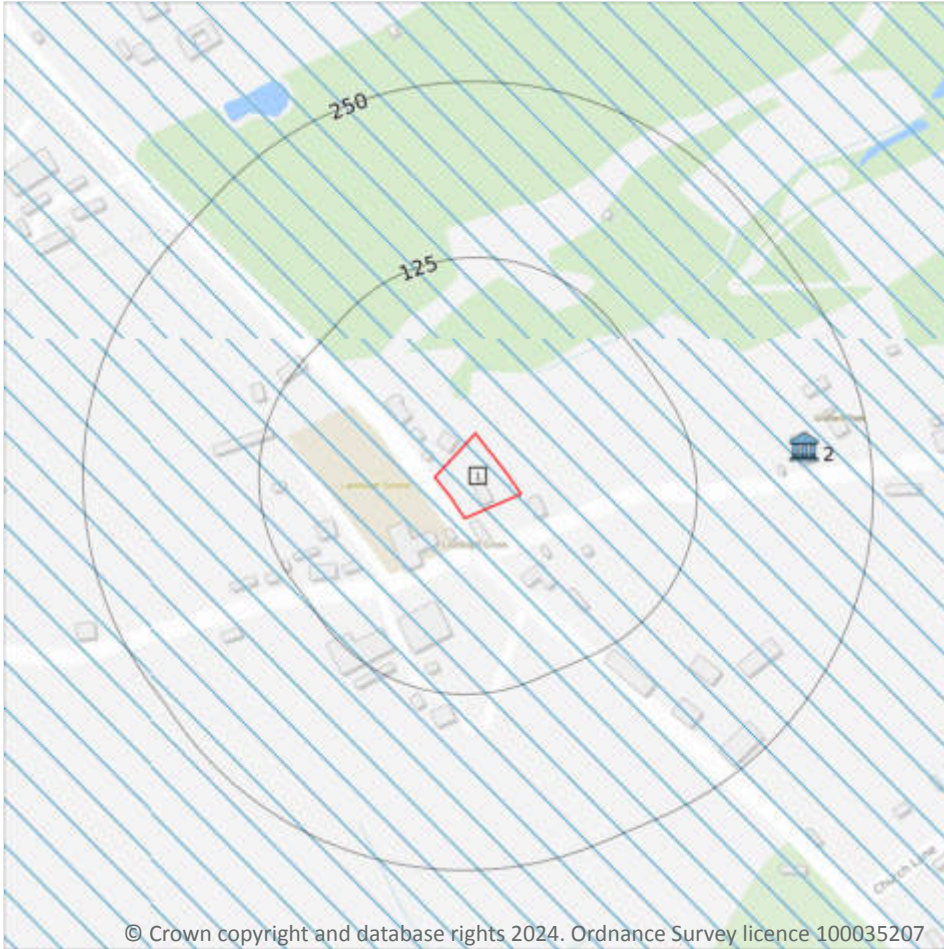
Feature name	Feature condition	Date of assessment
H1130 Estuaries	Favourable	09/08/2013
H1140 Mudflats and sandflats not covered by seawater at low tide	Favourable	09/08/2013
S1102 Allis shad, <i>Alosa alosa</i>	Favourable	09/08/2013
SM4-28 - Saltmarsh	Favourable	09/08/2013



ID: -
 Location: 1898m S
 SSSI name: Tamar - Tavy Estuary
 Unit name: Hole Wood And Ziggerson Wood
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Favourable	13/08/2012

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

11 Visual and cultural designations



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

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

1

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

Features are displayed on the Visual and cultural designations map on [page 65 >](#)

ID	Location	NAME	Data Source
1	On site	Tamar Valley	Natural England

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

1

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

Features are displayed on the Visual and cultural designations map on [page 65 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
2	204m E	Landulph Methodist Church With Attached Sunday School, Front Wall And Railings	II	1329353	19/10/1987

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



11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

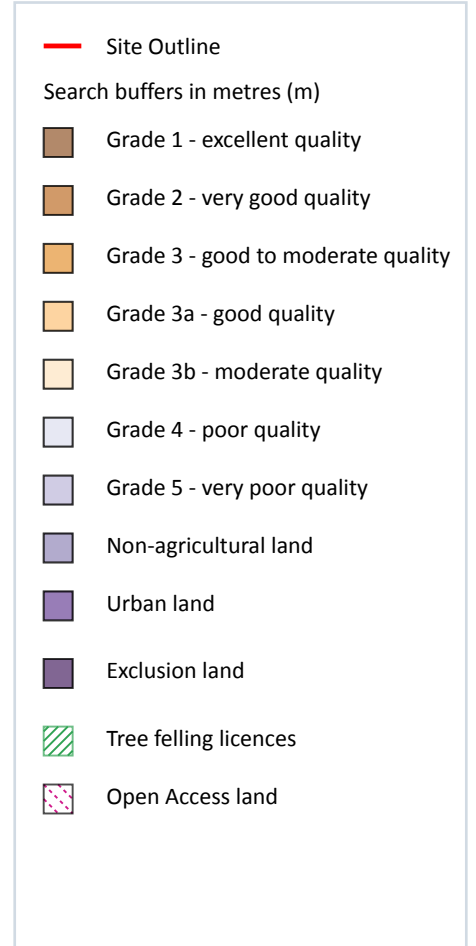
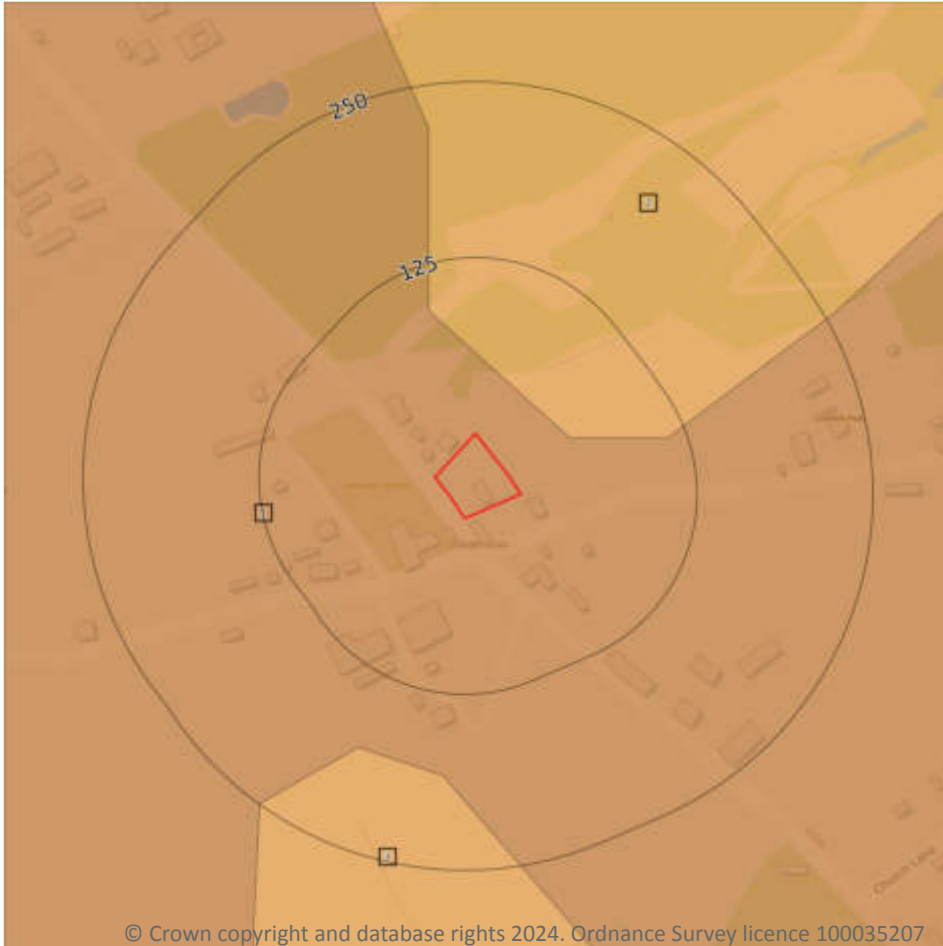
0

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

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



12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m

3

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

Features are displayed on the Agricultural designations map on [page 68](#) >

ID	Location	Classification	Description
1	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
2	43m NE	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.
3	178m S	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

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

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

12.3 Tree Felling Licences

Records within 250m

0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

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



This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

3

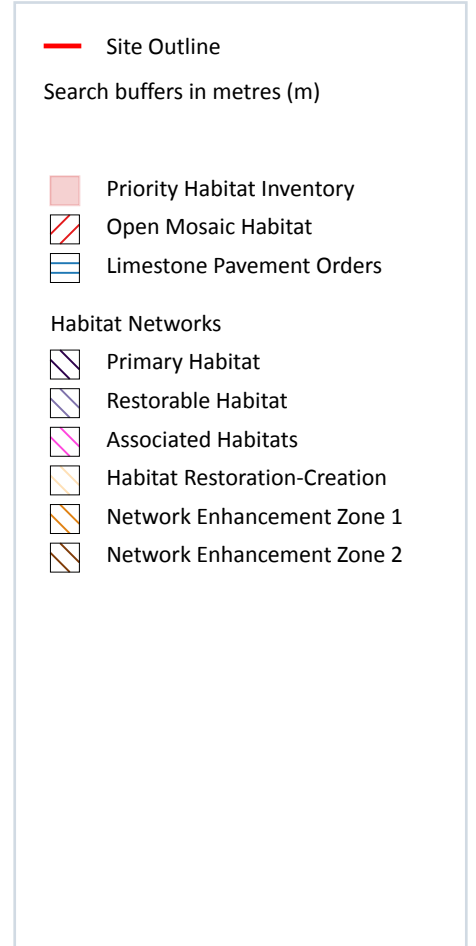
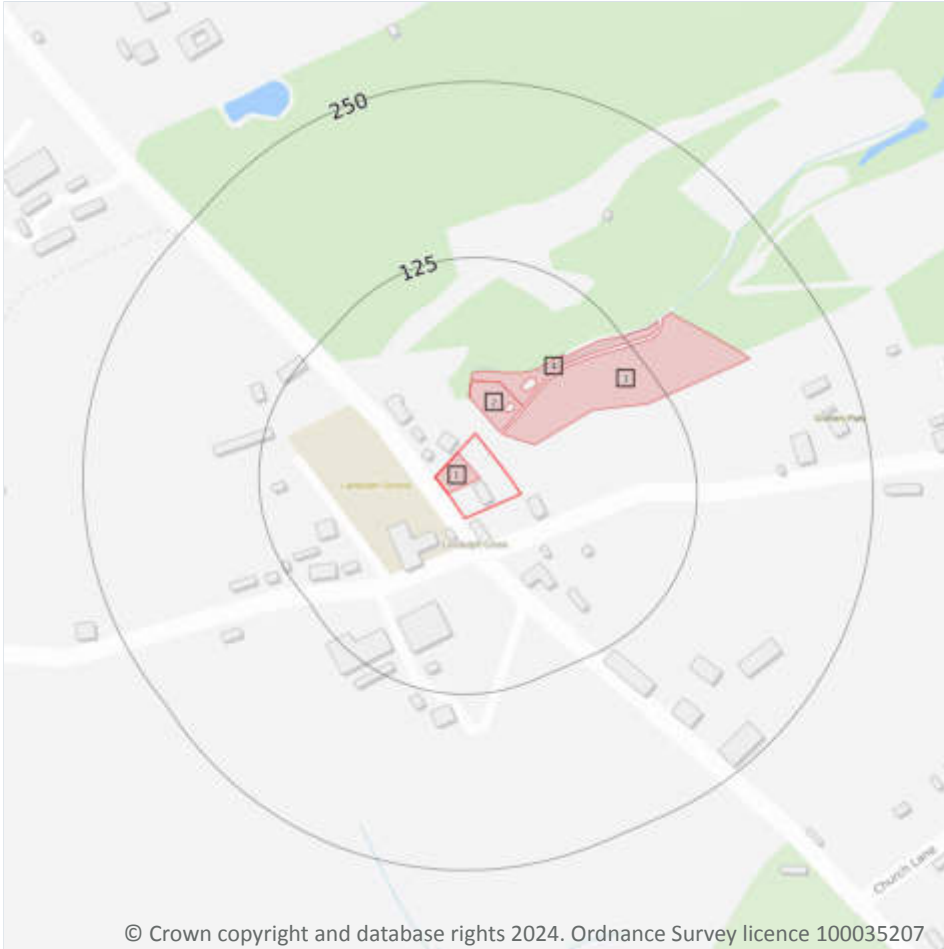
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
123m W	1333844	Countryside Stewardship (Middle Tier)	01/01/2023	31/12/2027
176m S	667006	Countryside Stewardship (Middle Tier)	01/01/2019	31/12/2023
176m S	1607502	Countryside Stewardship (Higher Tier)	01/06/2023	31/05/2025

This data is sourced from Natural England.



13 Habitat designations



13.1 Priority Habitat Inventory

Records within 250m

4

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

Features are displayed on the Habitat designations map on [page 71 >](#)

ID	Location	Main Habitat	Other habitats
1	On site	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
2	14m N	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
3	15m NE	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
4	26m N	No main habitat but additional habitats present	Additional: TORCH (INV 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

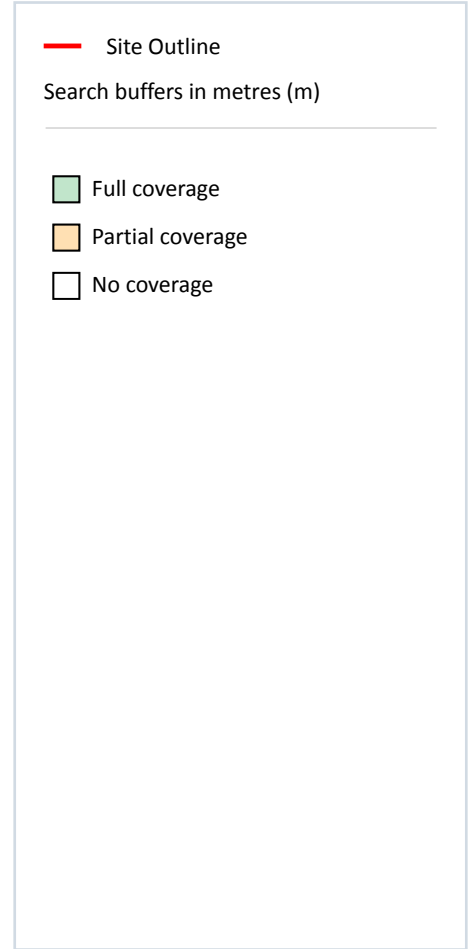
0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 73](#) >

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

This data is sourced from the British Geological Survey.

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

14.2 Artificial and made ground (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



- Site Outline
- Search buffers in metres (m)
- Geological map tile

15.1 50k Availability

Records within 500m

1

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

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

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW348_plymouth_v4

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

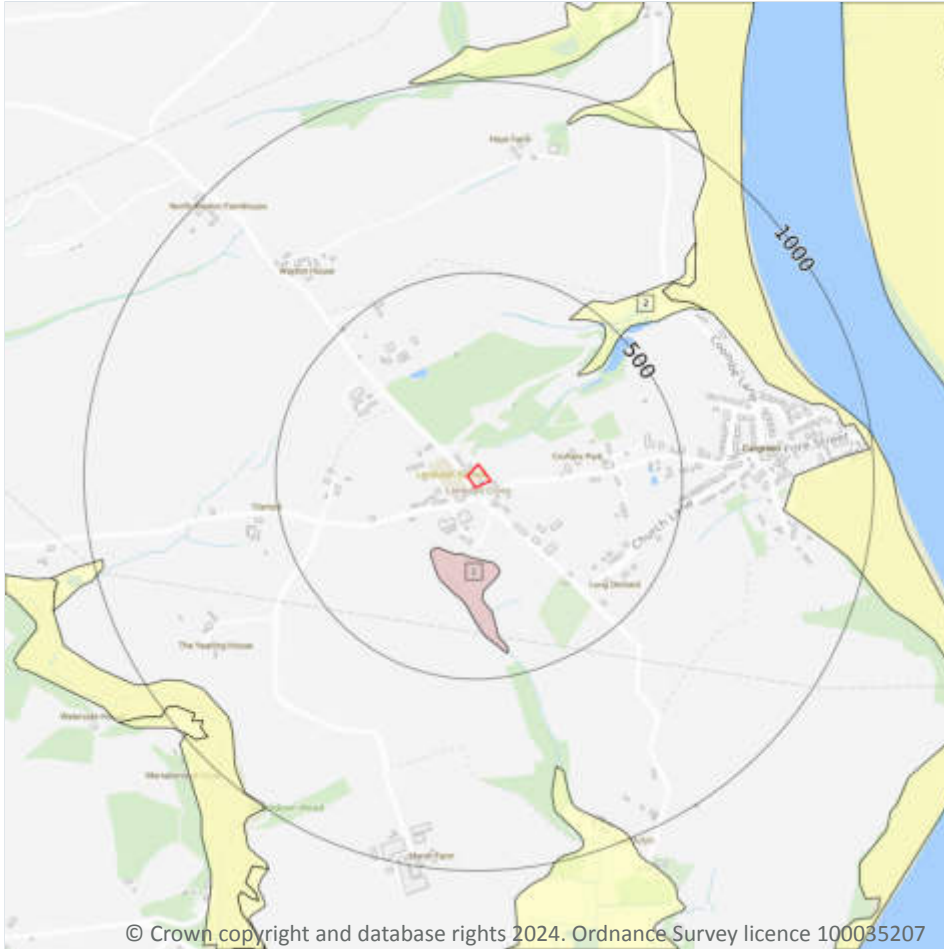
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
- Landslip (50k)
- Superficial geology (50k)
Please see table for more details.

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15.4 Superficial geology (50k)

Records within 500m

2

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

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

ID	Location	LEX Code	Description	Rock description
1	176m S	HEAD- XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
2	349m NE	SAMD-Z	SALTMARSH DEPOSITS	SILT

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

0

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

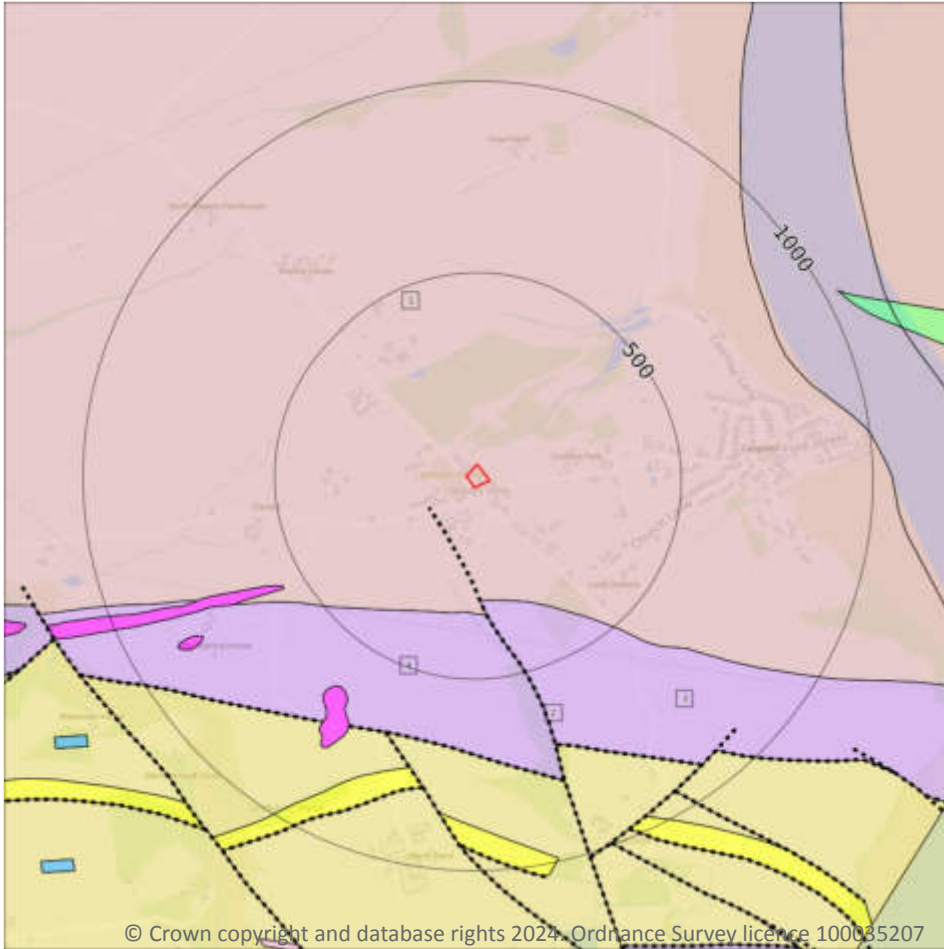
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (50k)
- Bedrock geology (50k)
Please see table for more details.

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15.8 Bedrock geology (50k)

Records within 500m

3

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 81](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	TVY-SLTE	TAVY FORMATION - SLATE	FRASNIAN
3	295m S	TPT-MDSI	TORPOINT FORMATION - MUDSTONE AND SILTSTONE	FRASNIAN
4	325m S	TPT-MDSI	TORPOINT FORMATION - MUDSTONE AND SILTSTONE	FRASNIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

1

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

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

1

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

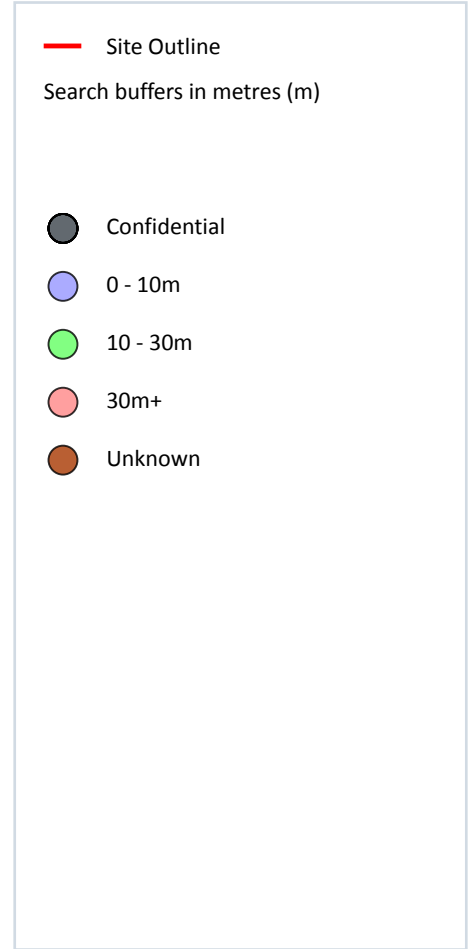
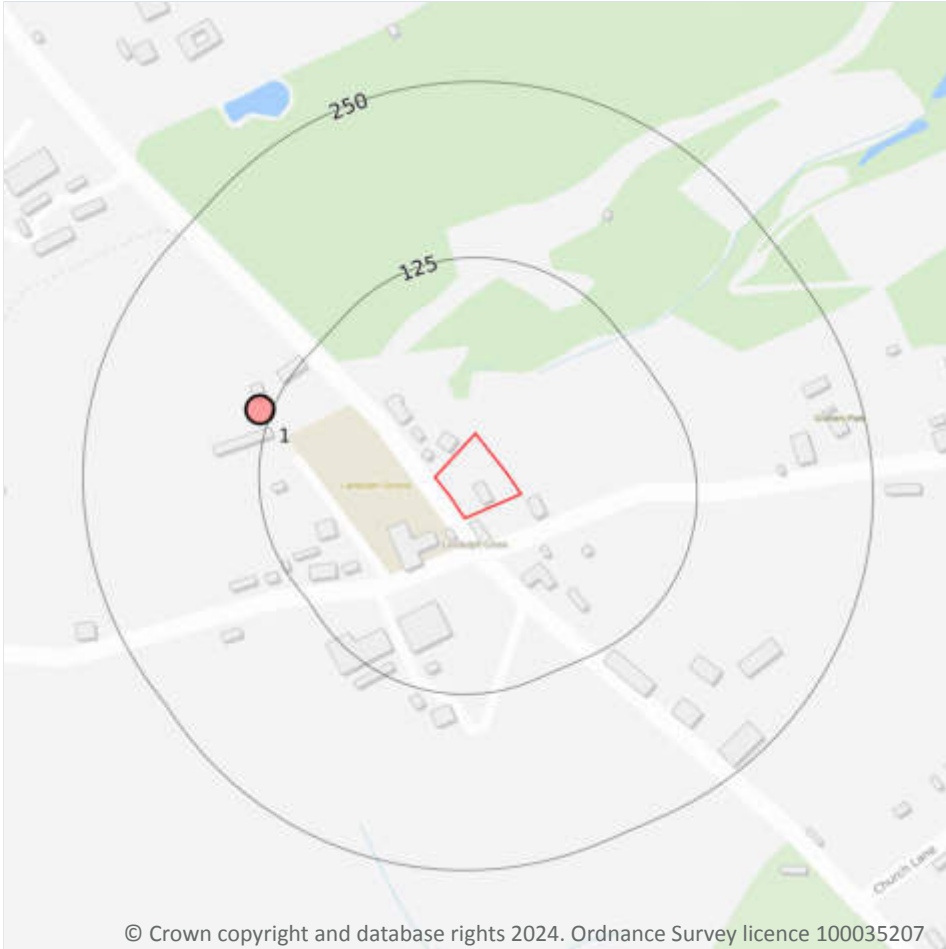
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 81](#) >

ID	Location	Category	Description
2	127m SW	FAULT	Fault, inferred, displacement unknown

This data is sourced from the British Geological Survey.



16 Boreholes



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16.1 BGS Boreholes

Records within 250m

1

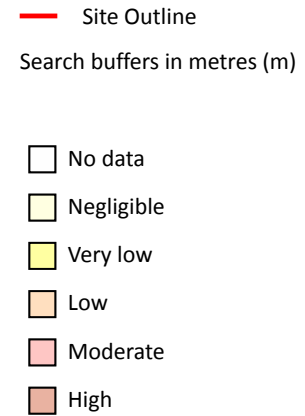
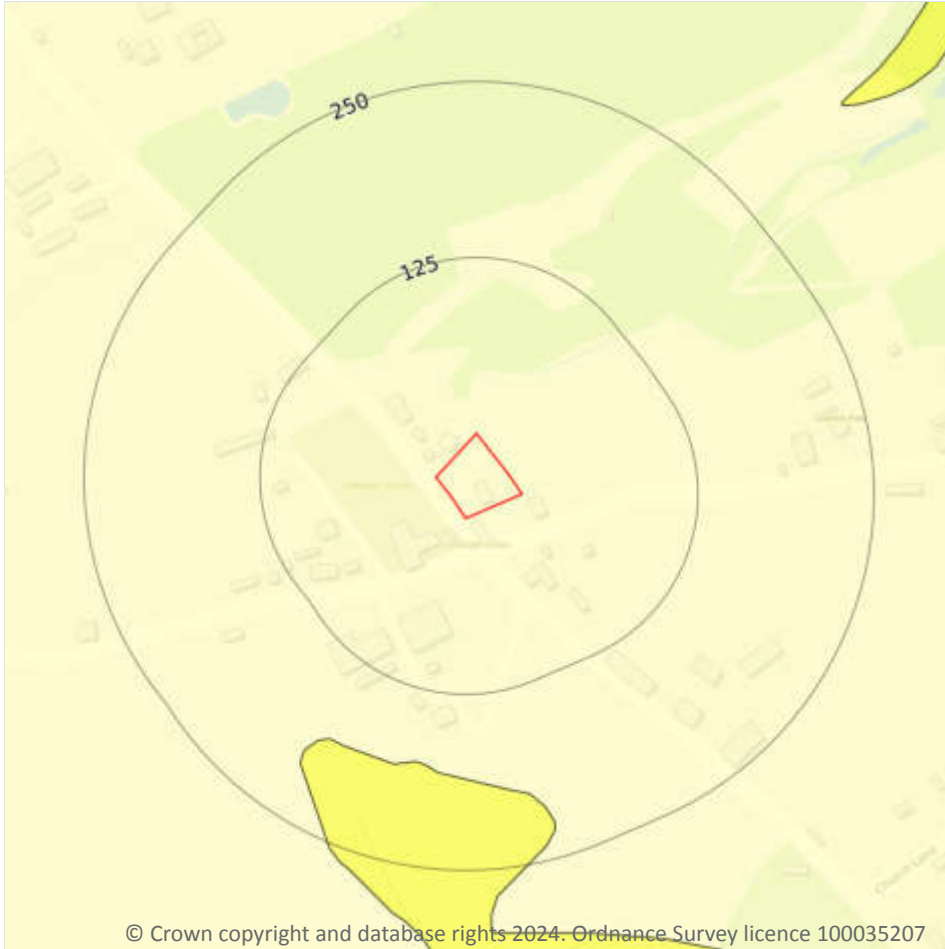
The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several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

Features are displayed on the Boreholes map on [page 83](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	134m W	242480 62570	GROVE NURSERIES, LANDULPH CROSS	77.5	N	1137604 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m

1

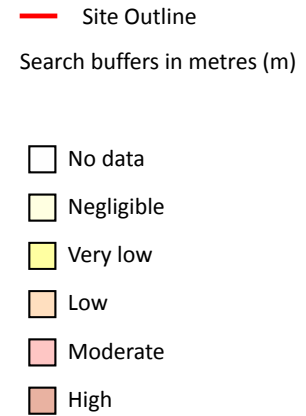
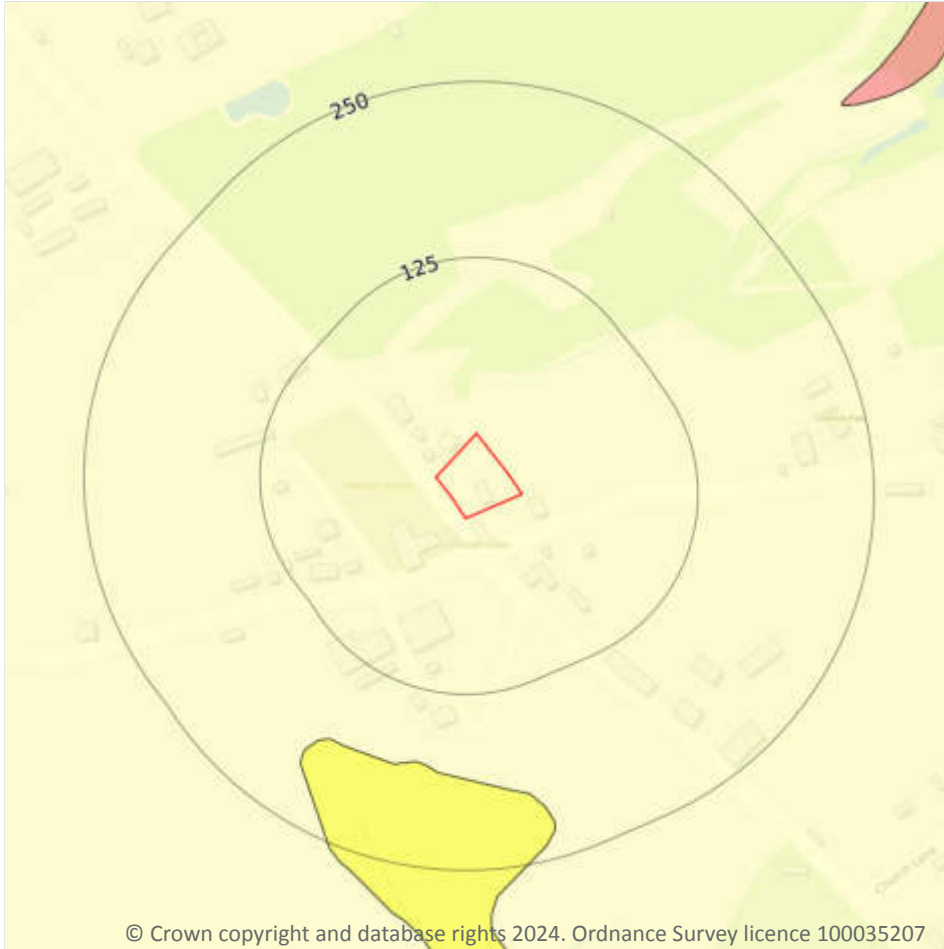
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 84 >](#)

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



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17.2 Running sands

Records within 50m

1

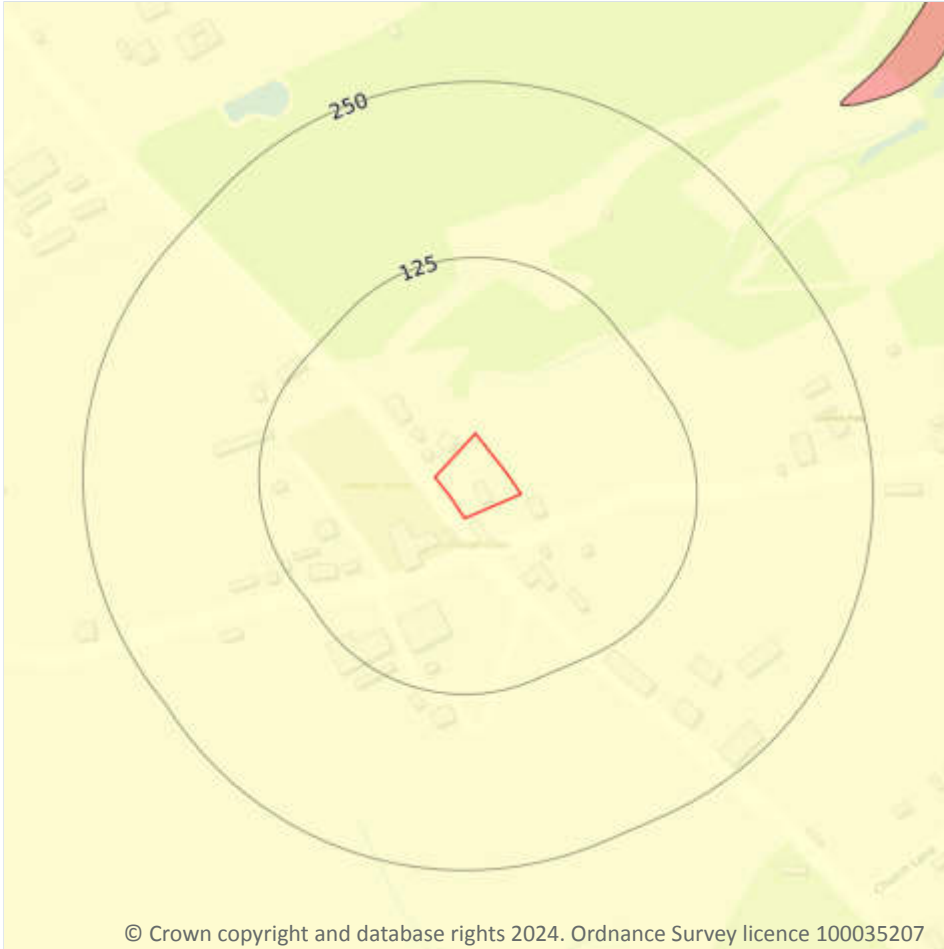
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on [page 85 >](#)

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m

1

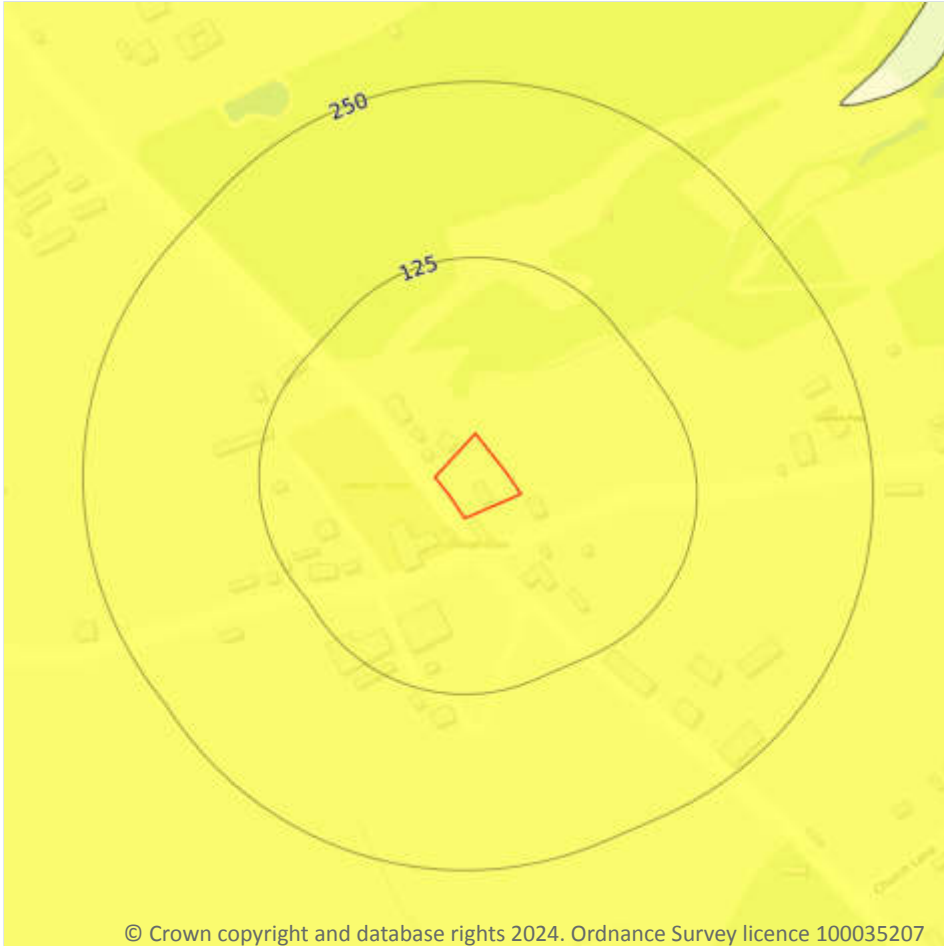
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

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

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



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— Site Outline
Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m

1

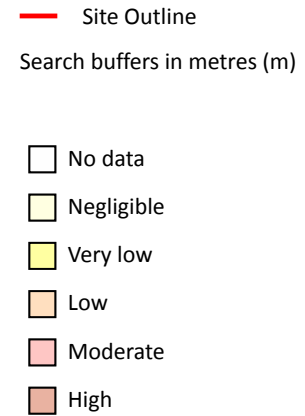
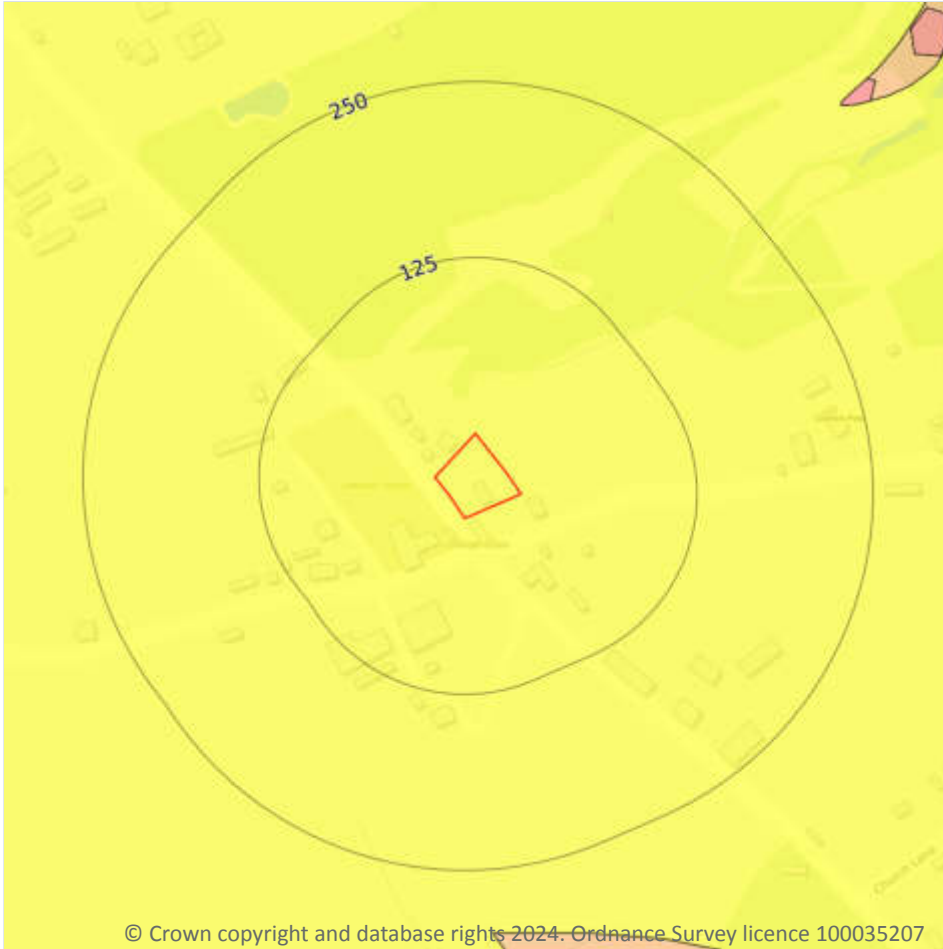
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 87 >](#)

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



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17.5 Landslides

Records within 50m

1

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

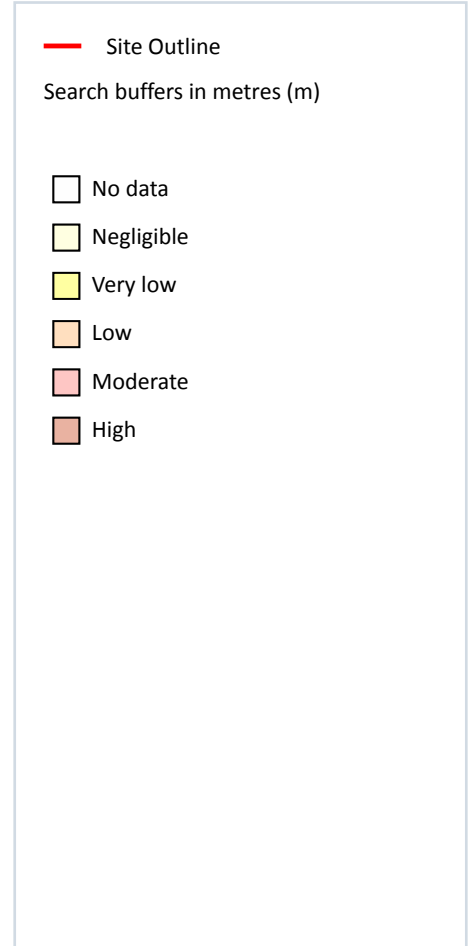
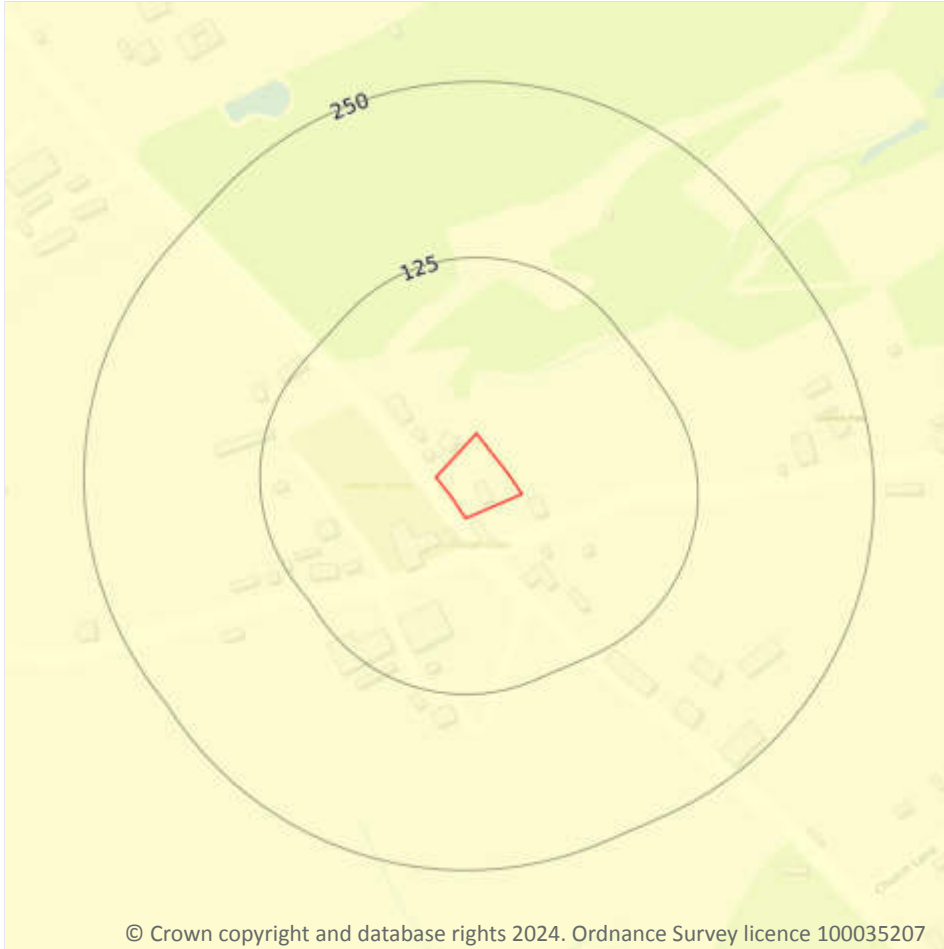
Features are displayed on the Natural ground subsidence - Landslides map on [page 88](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

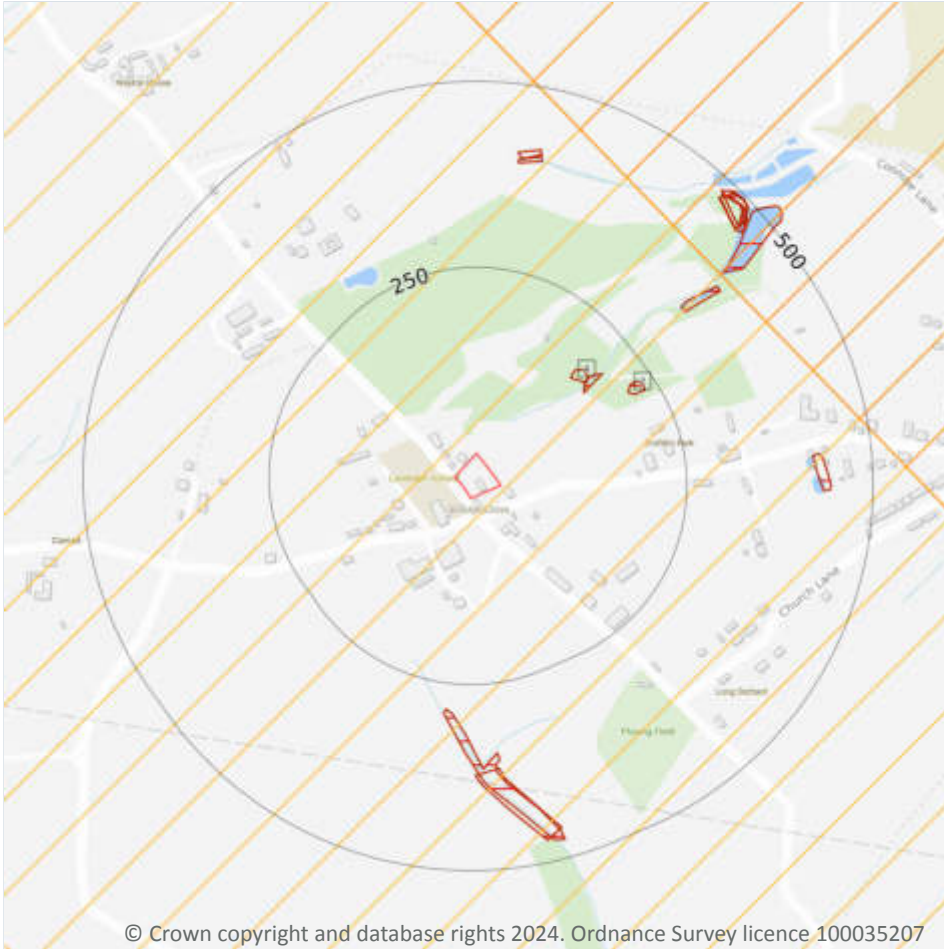
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 89](#)

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

This data is sourced from the British Geological Survey.



18 Mining and ground workings



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

18.1 BritPits

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

3

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

Features are displayed on the Mining and ground workings map on [page 91](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	162m NE	Unspecified Heap	1882	1:10560
A	164m NE	Unspecified Pit	1905	1:10560
2	212m NE	Unspecified Old Quarry	1882	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

4

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

Features are displayed on the Mining and ground workings map on [page 91](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
-	712m E	Disused Tin Mine	1882	1:10560
-	840m E	Unspecified Old Shaft	1907	1:10560
-	843m E	Unspecified Old Shaft	1905	1:10560
-	879m E	Unspecified Old Shaft	1919	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m

0

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

This data is sourced from Groundsure.



18.5 Historical Mineral Planning Areas

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

2

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

Features are displayed on the Mining and ground workings map on [page 91](#) >

ID	Location	Name	Commodity	Class	Likelihood
1	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
4	403m NE	South West England	Vein Mineral	C	Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.



18.8 The Coal Authority non-coal mining

Records within 500m

0

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

0

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m

0

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

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

This data is sourced from Groundsure.



18.12 Coal mining

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

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

This data is sourced from the Coal Authority.

18.13 Brine areas

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

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

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

18.14 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

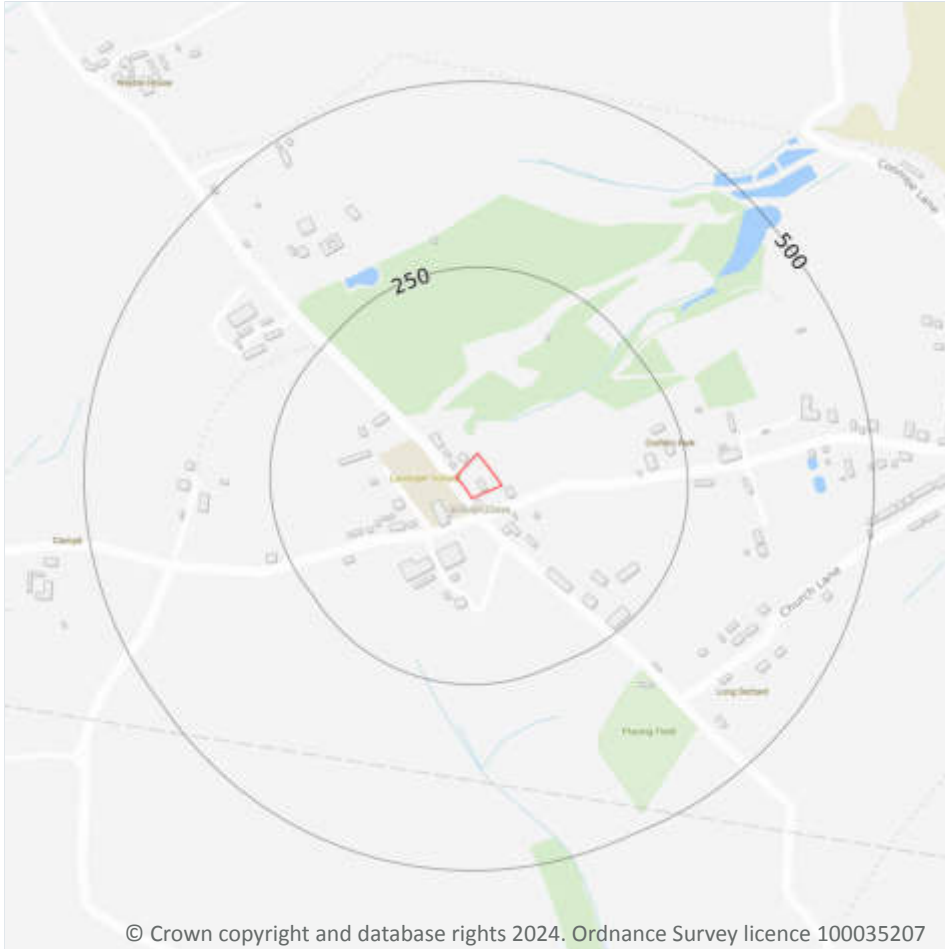
Records on site	0
-----------------	---

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

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



19 Ground cavities and sinkholes



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- Mining cavities
- Reported recent incidents
- Historical incidents
- BGS karst database (Point)
- BGS karst database (Line)
- BGS karst database (Area)

19.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

1

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

Features are displayed on the Ground cavities and sinkholes map on [page 96 >](#)

ID	Location	Mine Address	Mineral	Data source	Publisher
-	745m NE	Tamar New South, Saltash, Cornwall	Lead	CORNISH MINES (METALLIFEROUS AND ASSOCIATED MINERALS 1845-1913)	UNIVERSITY OF EXETER

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

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

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

This data is sourced from Groundsure.



19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

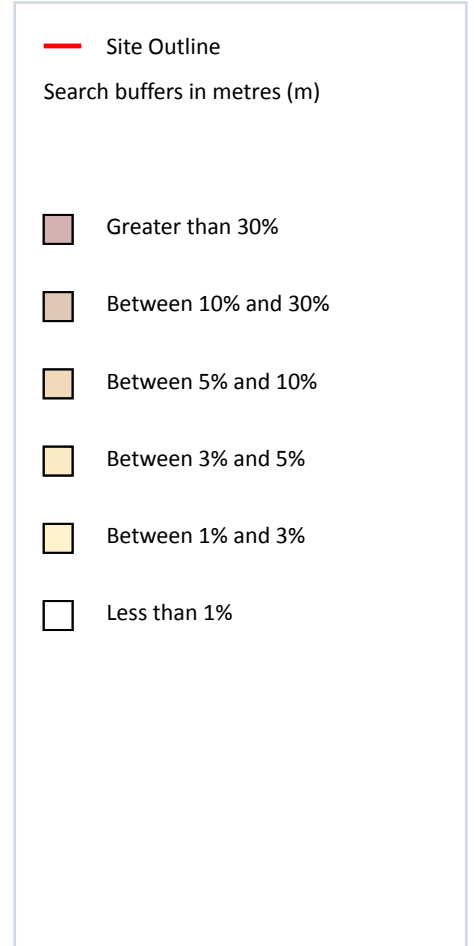
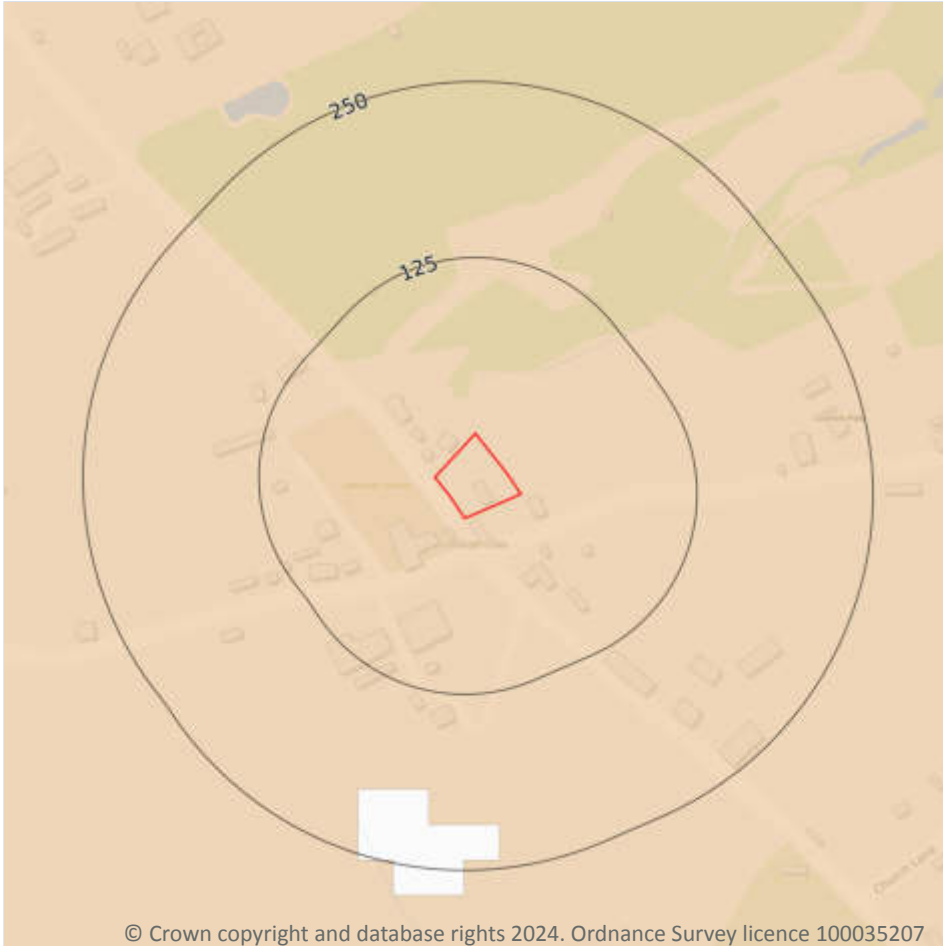
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



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20.1 Radon

Records on site

1

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

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

Location	Estimated properties affected	Radon Protection Measures required
On site	Between 5% and 10%	Basic



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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	45 - 60 mg/kg	7 - 9 mg/kg	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	45 - 60 mg/kg	7 - 9 mg/kg	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

0

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

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m

0

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



This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

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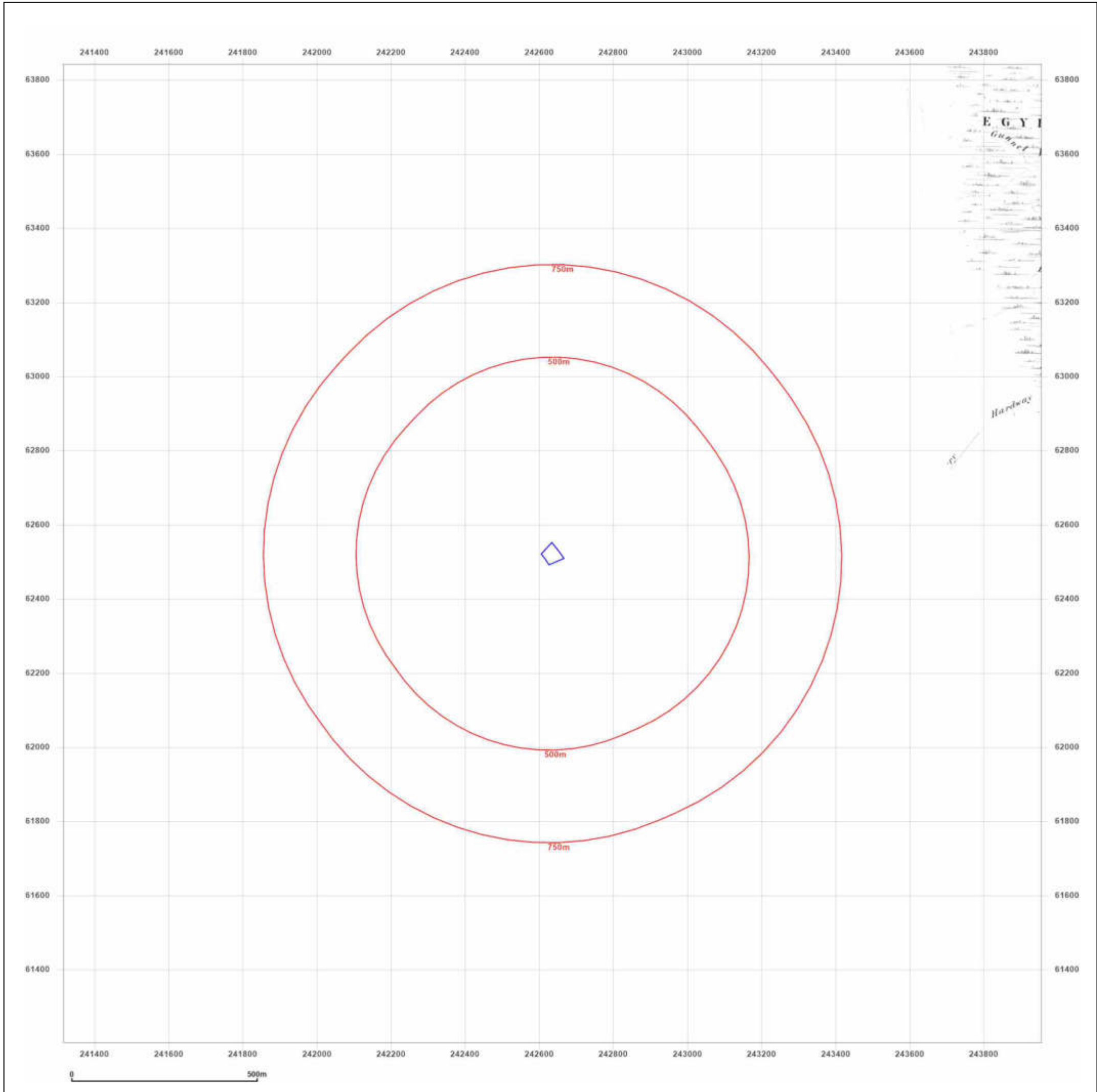
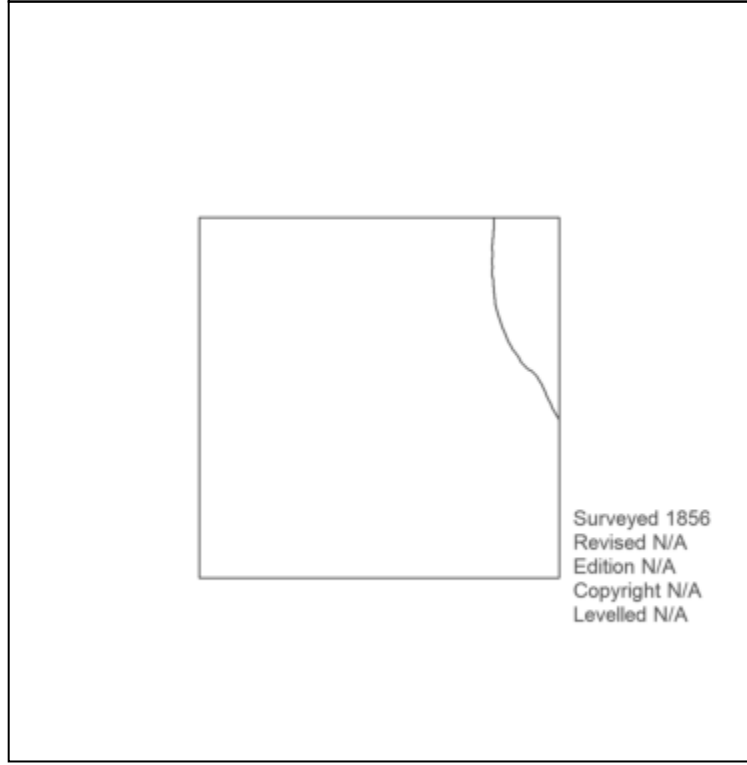
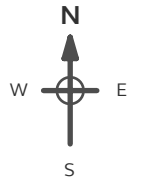
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Grid Ref: 242635, 62522

Map Name: County Series

Map date: 1856

Scale: 1:10,560

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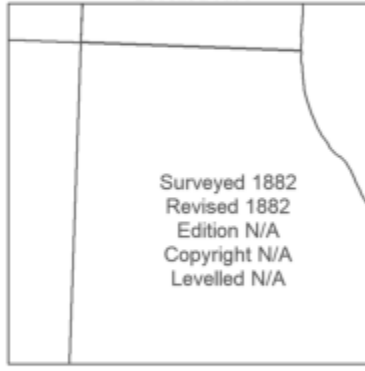
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Map date: 1882

Scale: 1:10,560

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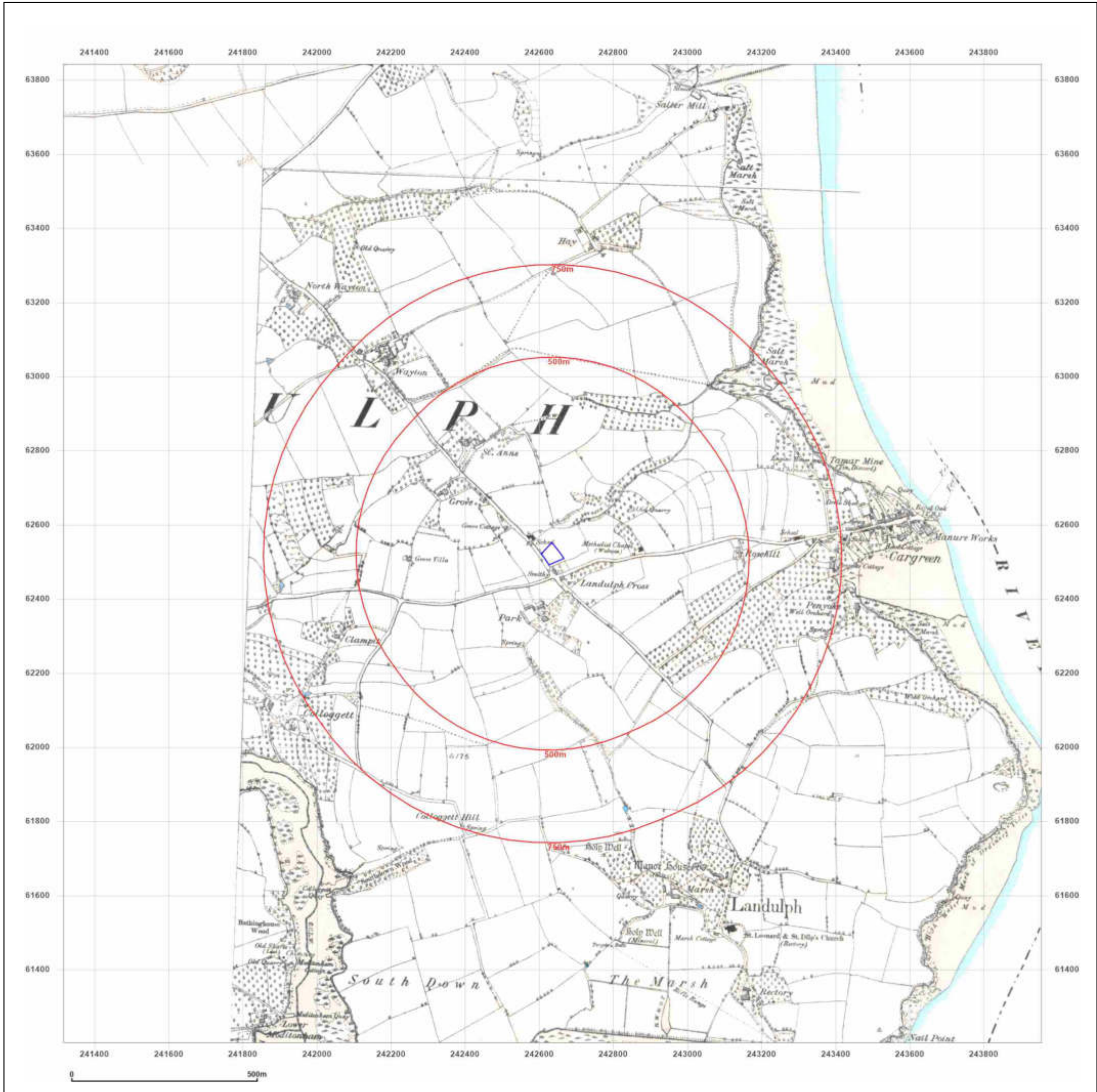


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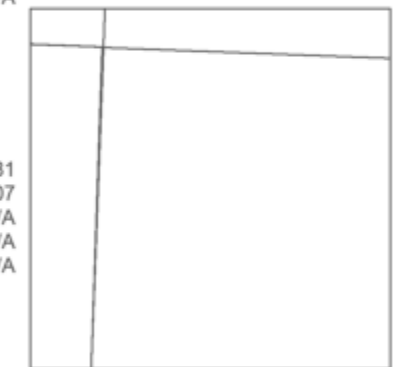
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Scale: 1:10,560

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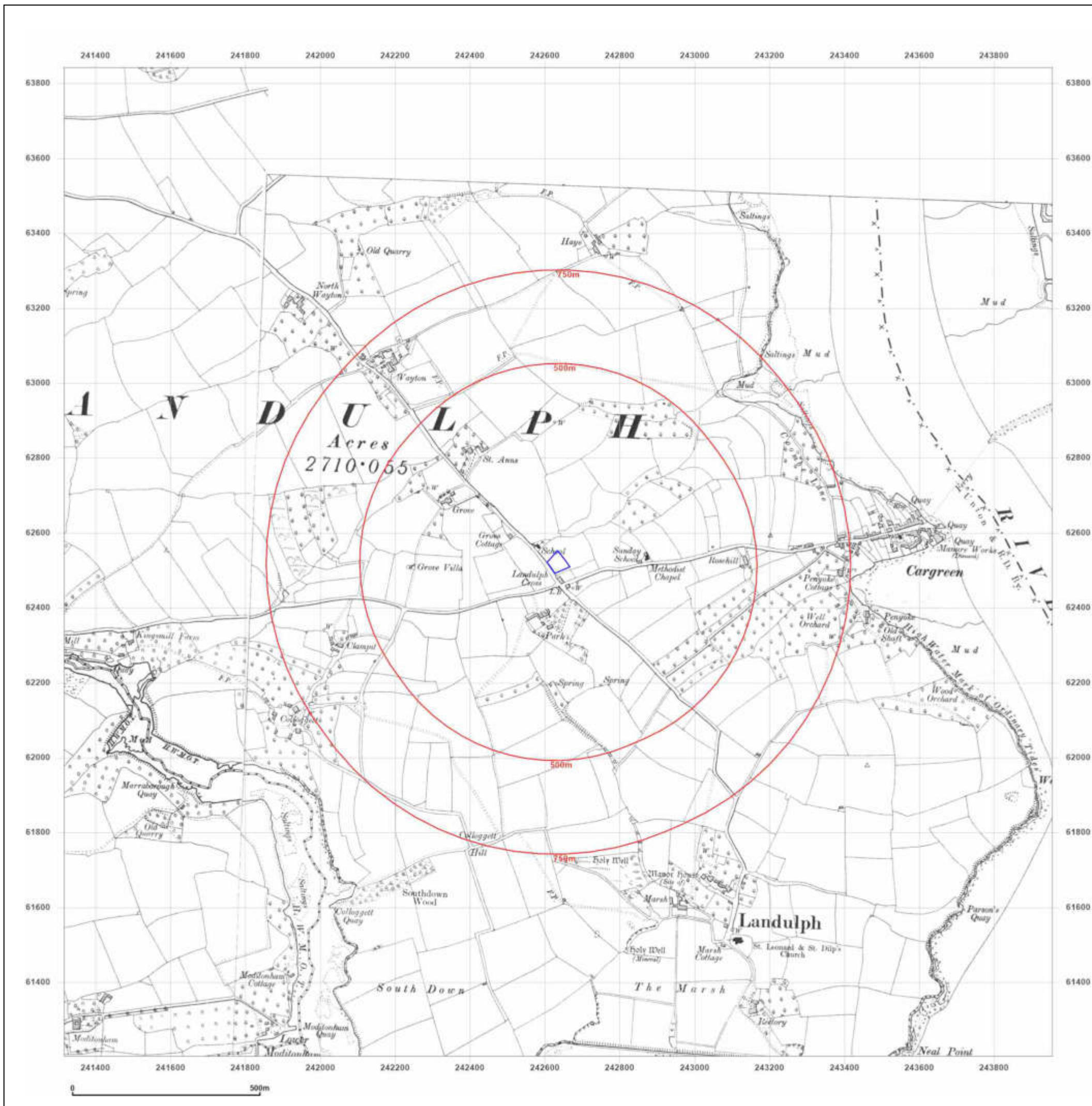


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Grid Ref: 242635, 62522

Map Name: County Series

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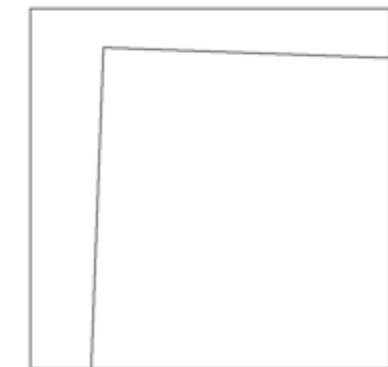
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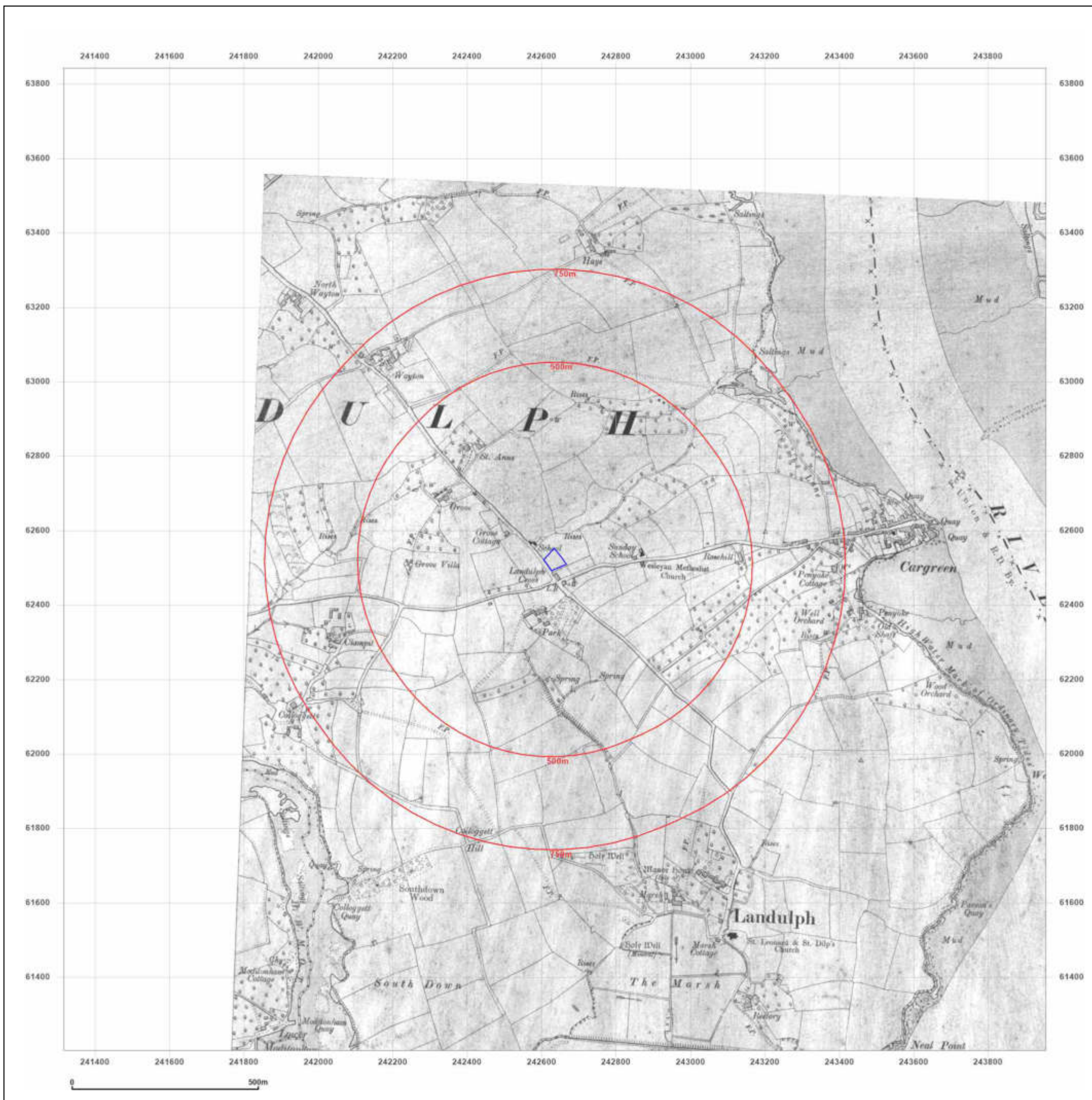


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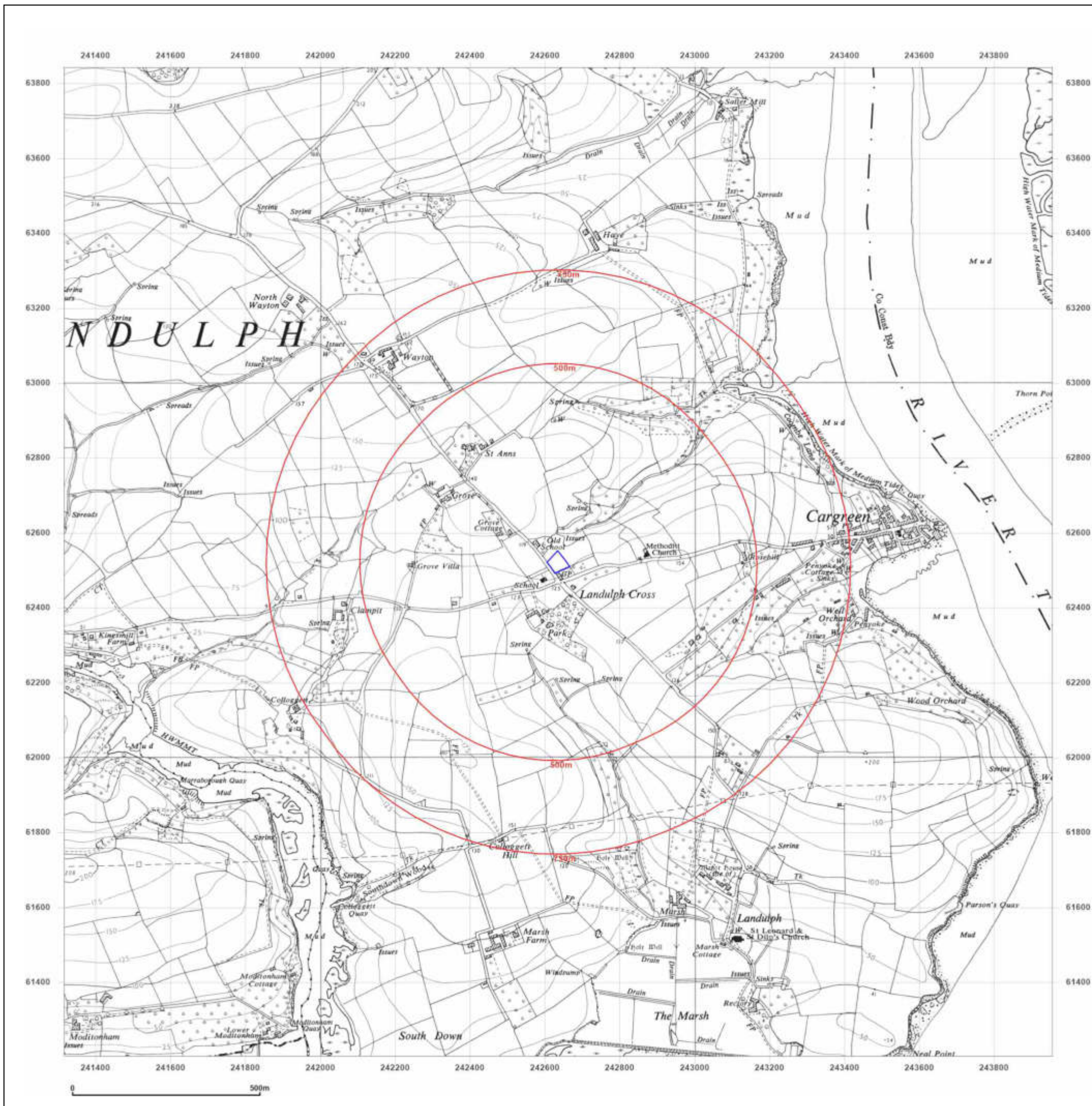


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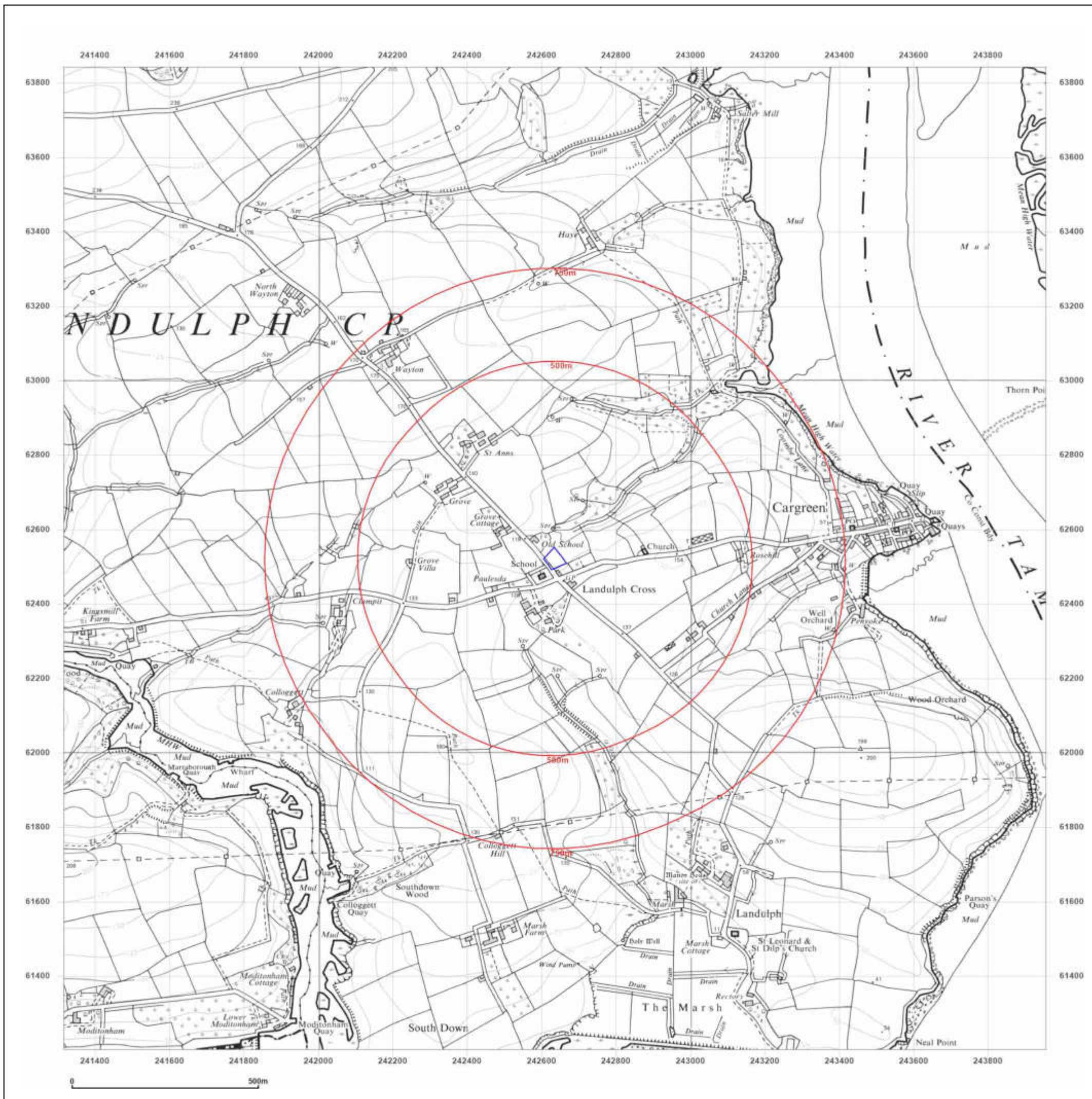


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Production date: 05 January 2024

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Site Details:

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Saltash, PL12 6QQ

Client Ref: C23214_Landulph
Report Ref: GS-DIZ-Z1W-CSX-L5F
Grid Ref: 242635, 62522

Map Name: National Grid

Map date: 1980

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1975
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

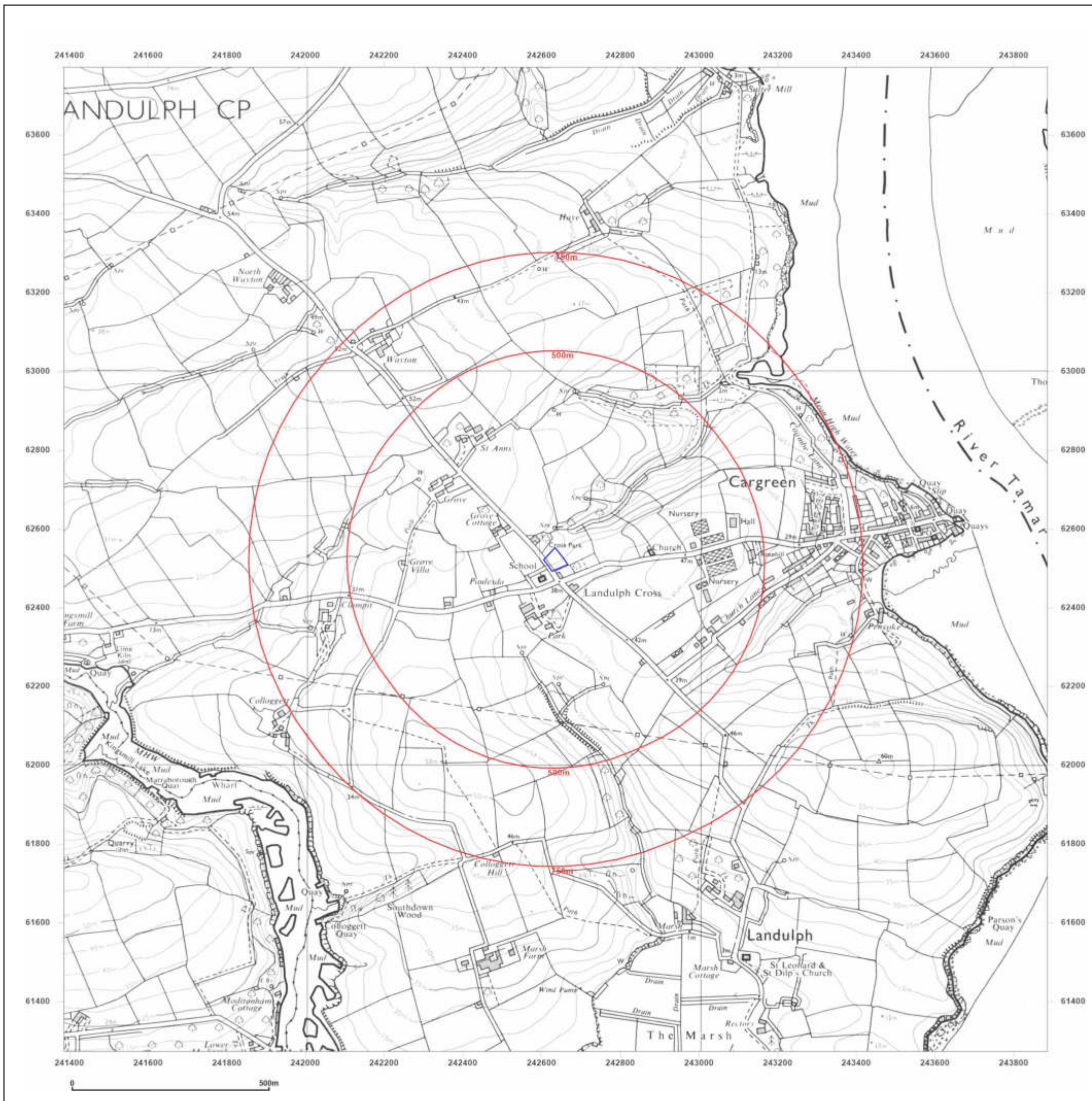


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Client Ref: C23214_Landulph
Report Ref: GS-DIZ-Z1W-CSX-L5F
Grid Ref: 242635, 62522

Map Name: National Grid

Map date: 1991

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Printed at: 1:10,000



Surveyed 1986
Revised 1991
Edition N/A
Copyright N/A
Levelled N/A

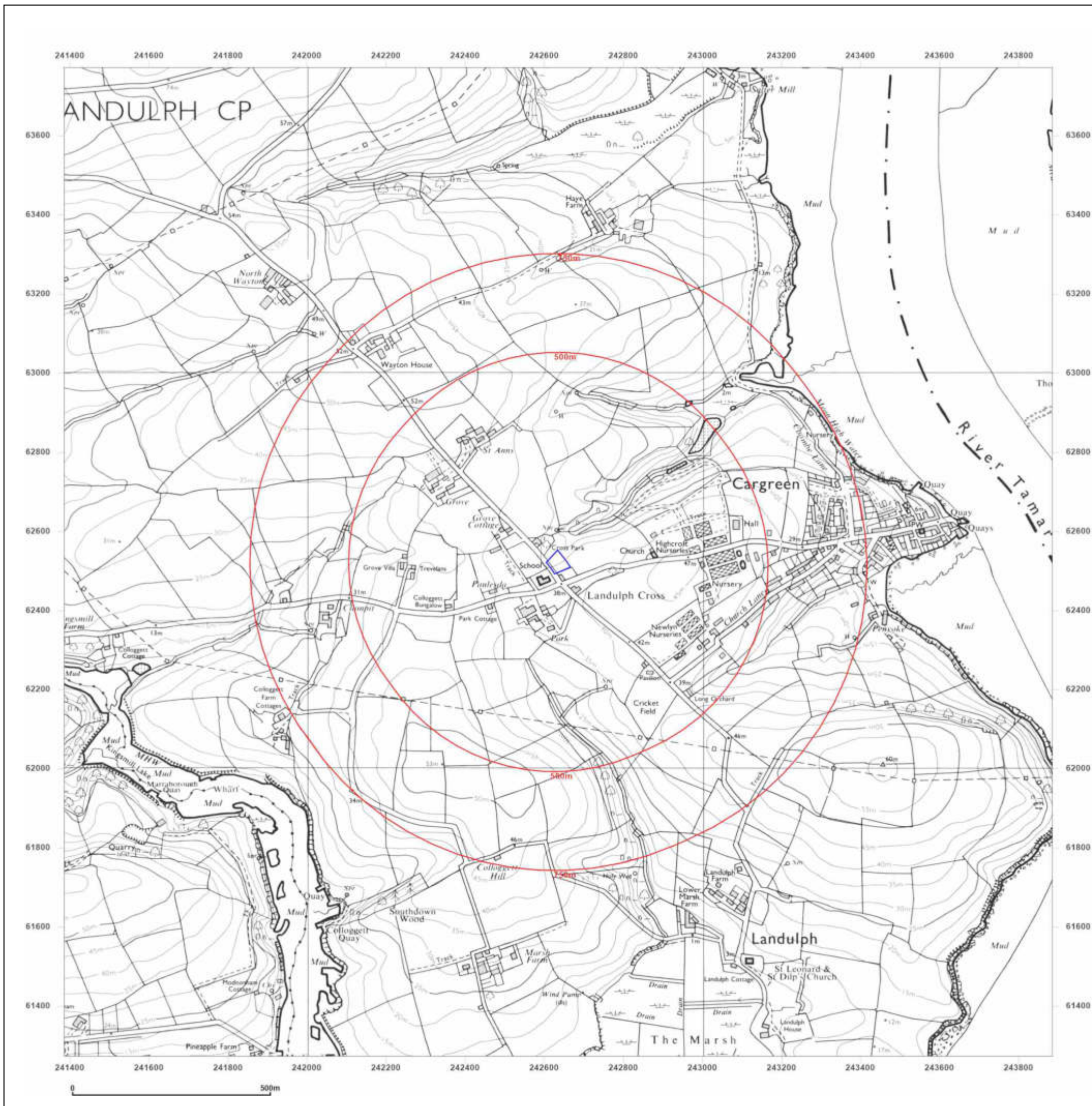


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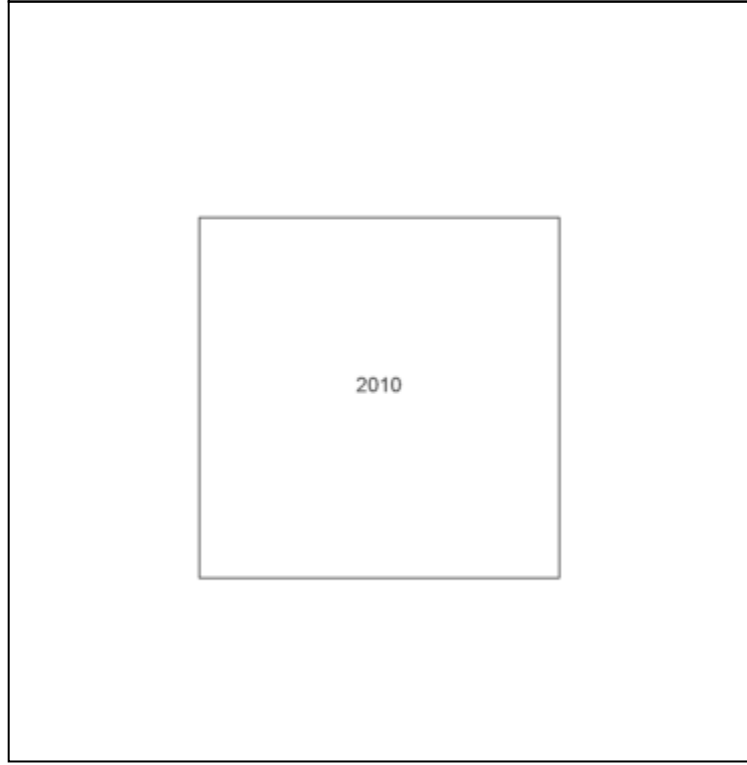
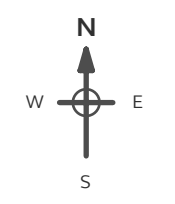
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Map Name: National Grid

Map date: 2010

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Printed at: 1:10,000

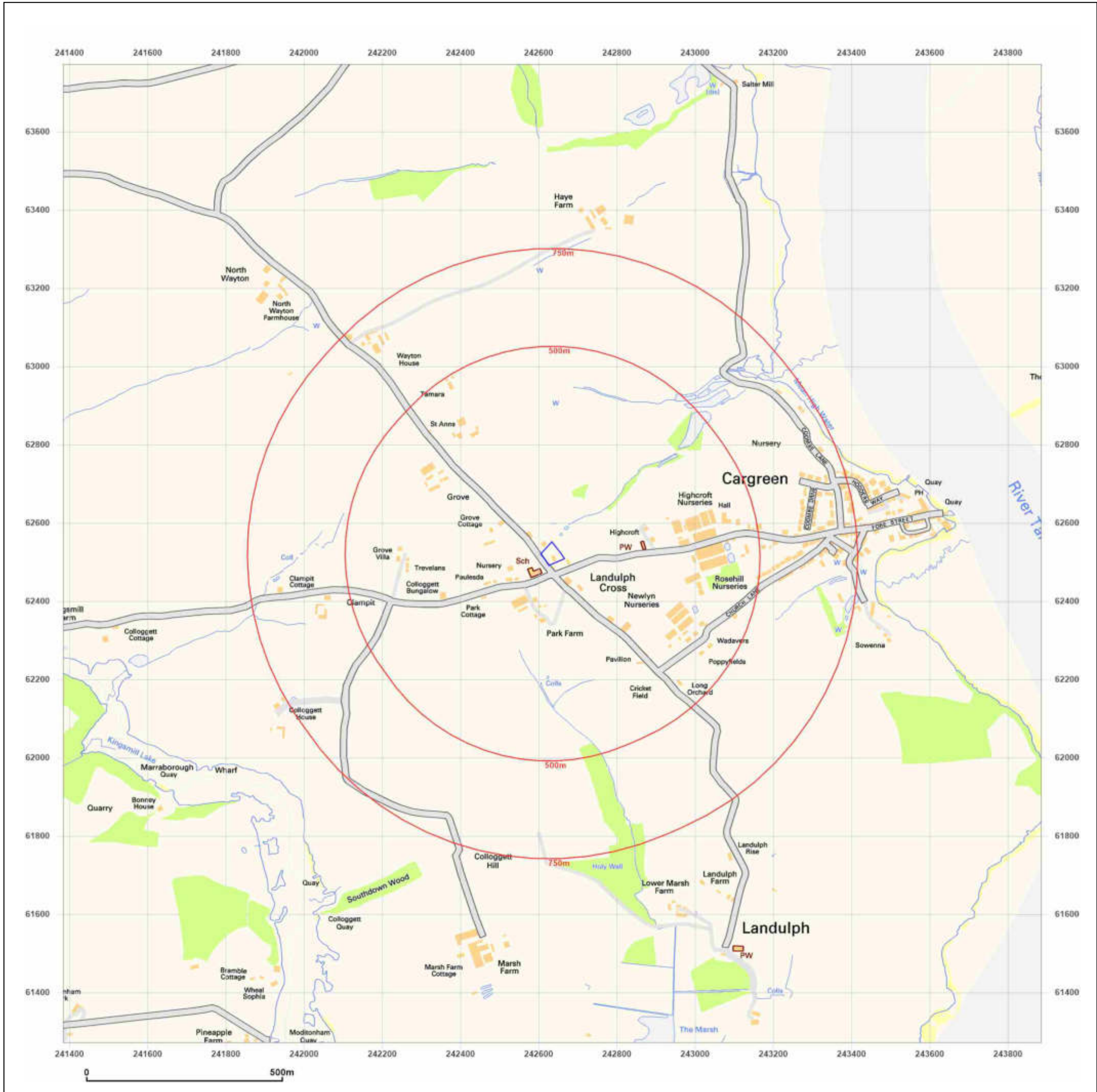


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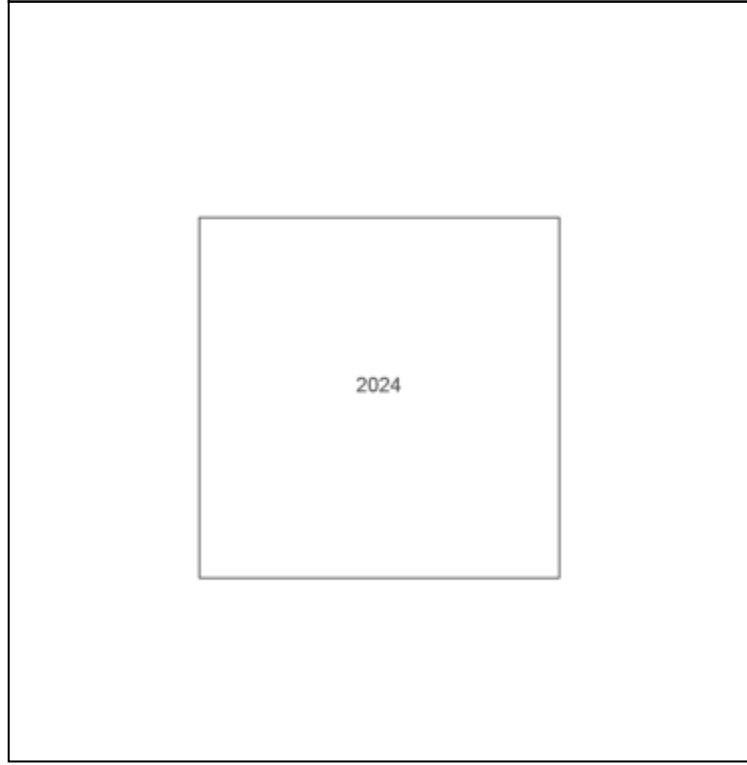
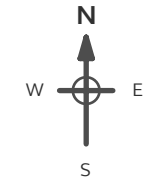
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Map Name: National Grid

Map date: 2024

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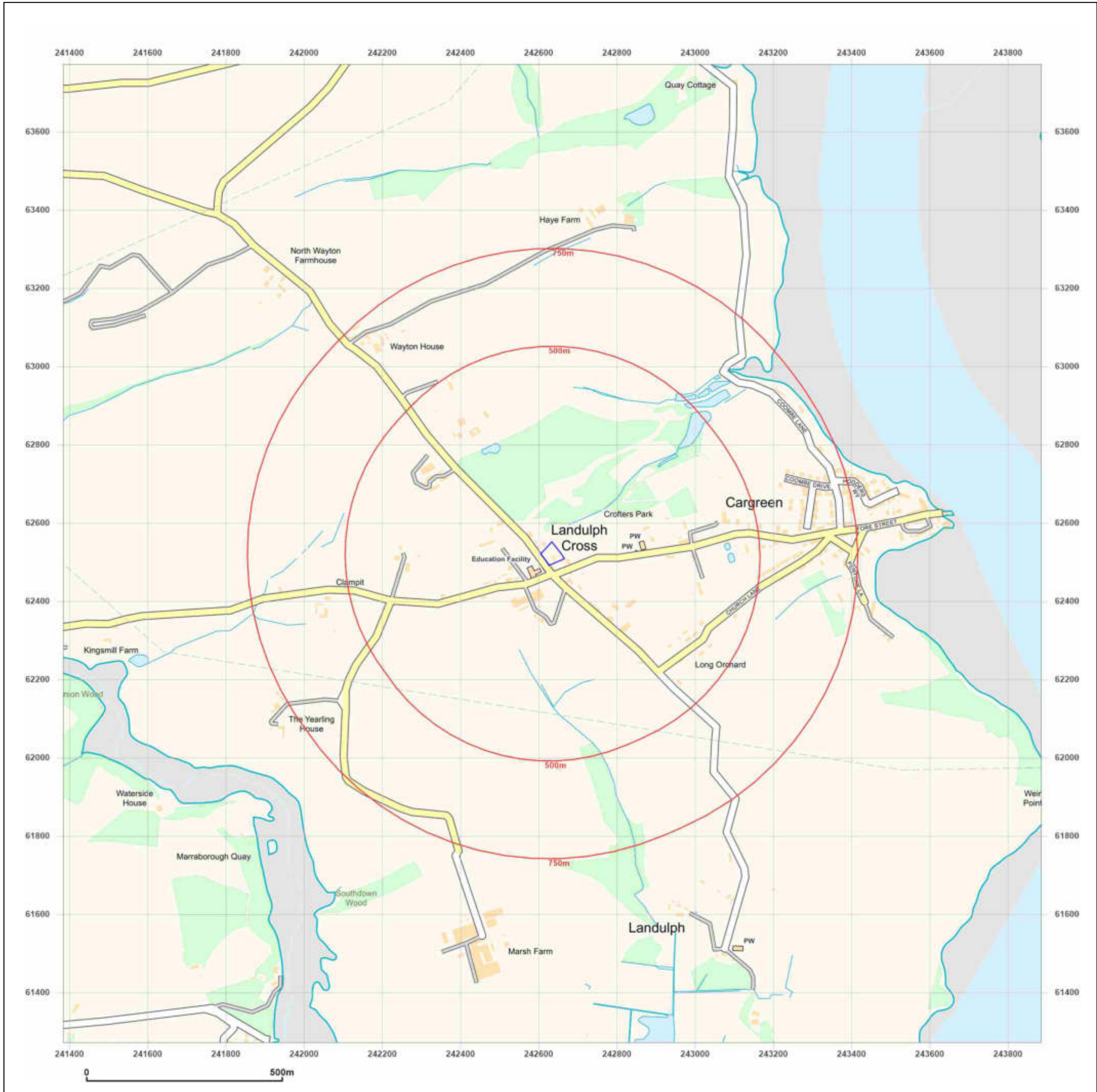


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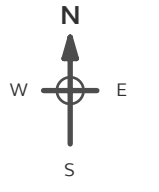
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Grid Ref: 242635, 62522


Map Name: County Series

Map date: 1883

Scale: 1:2,500

Printed at: 1:2,500





Surveyed 1883
Revised 1883
Edition N/A
Copyright N/A
Levelled N/A

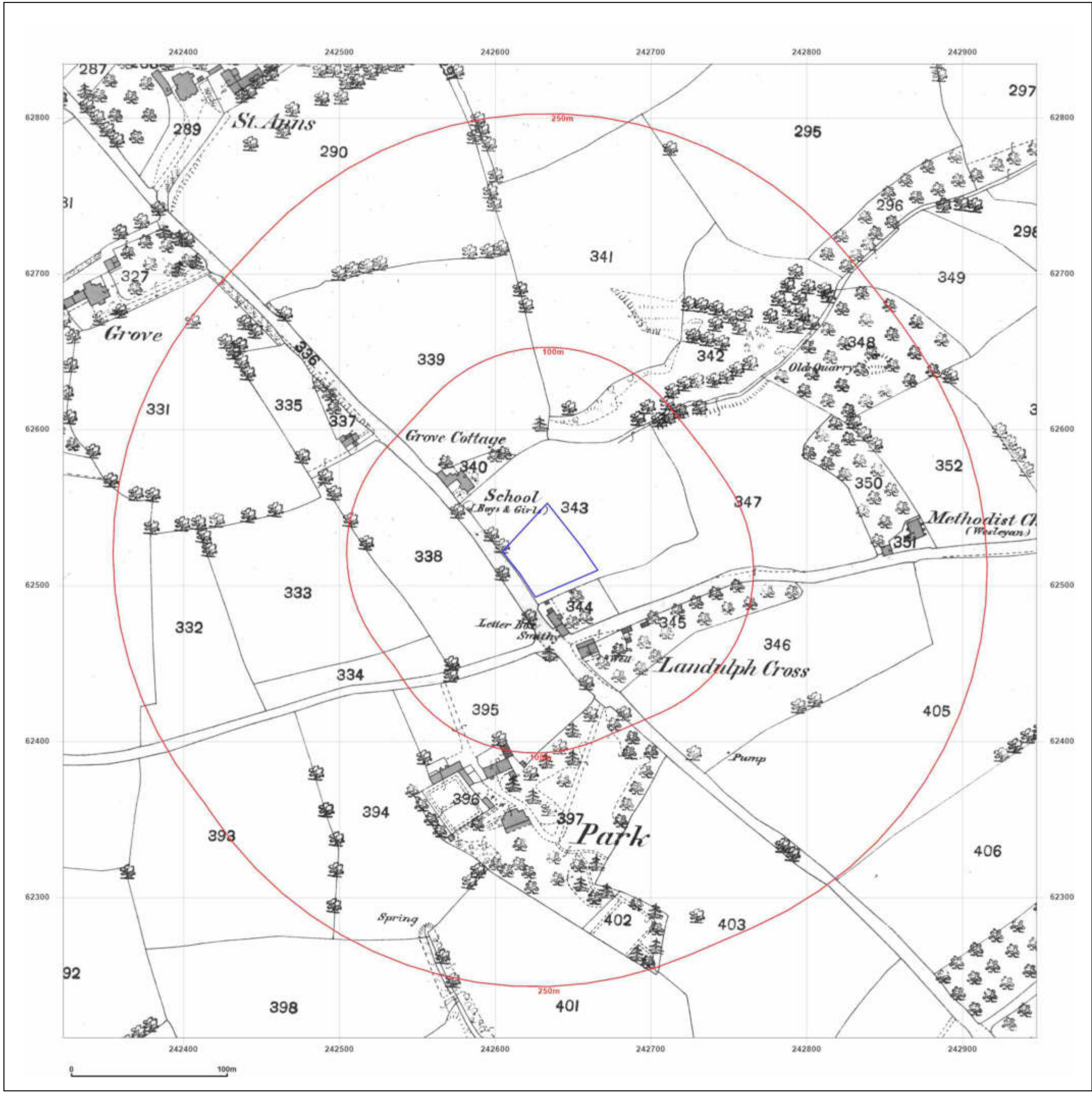


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Client Ref: C23214_Landulph
Report Ref: GS-DIZ-Z1W-CSX-L5F
Grid Ref: 242635, 62522

Map Name: County Series

Map date: 1895

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1895
Revised 1895
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1895
Revised 1895
Edition N/A
Copyright N/A
Levelled N/A

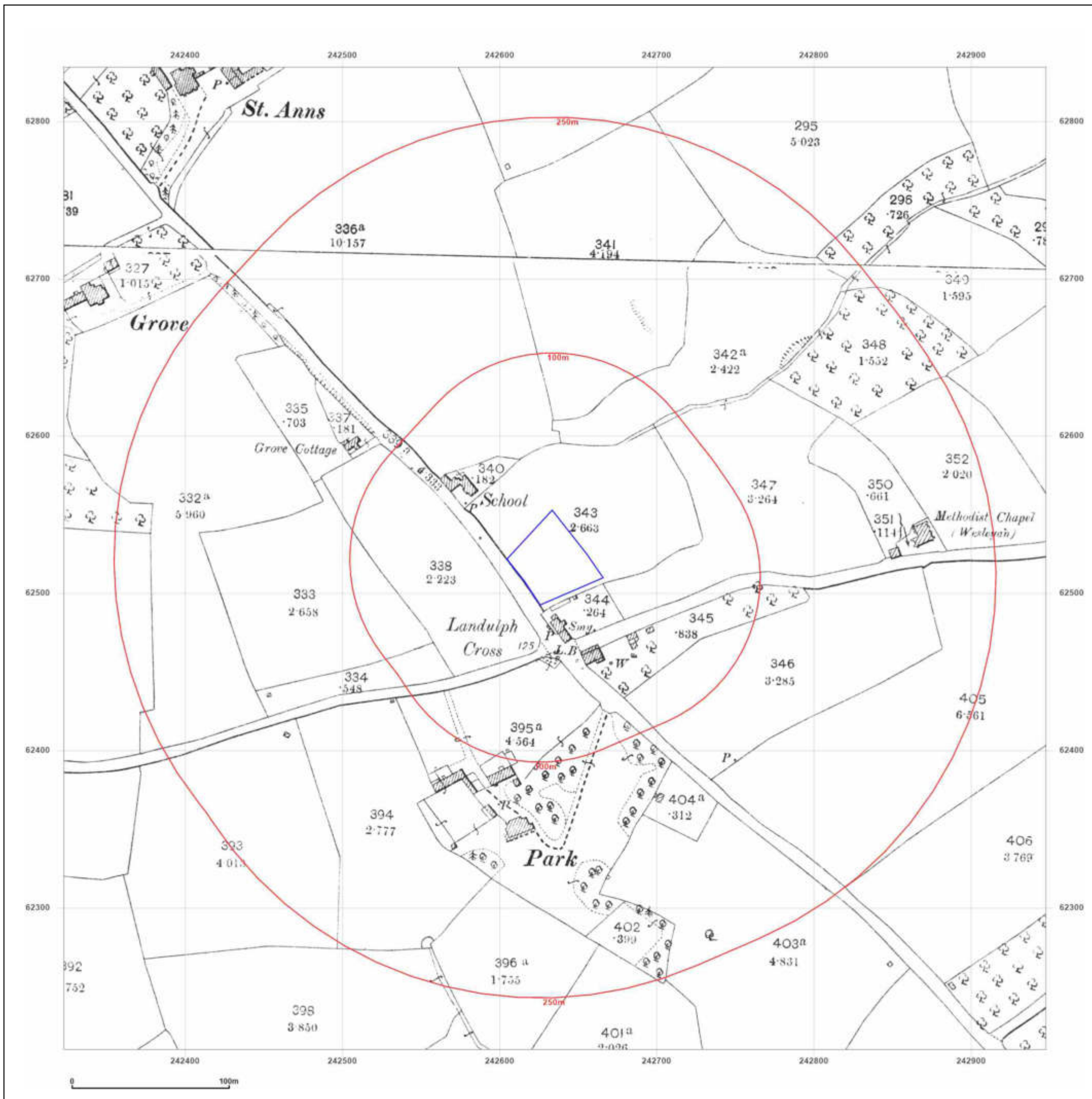


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Client Ref: C23214_Landulph
Report Ref: GS-DIZ-Z1W-CSX-L5F
Grid Ref: 242635, 62522

Map Name: County Series

Map date: 1895

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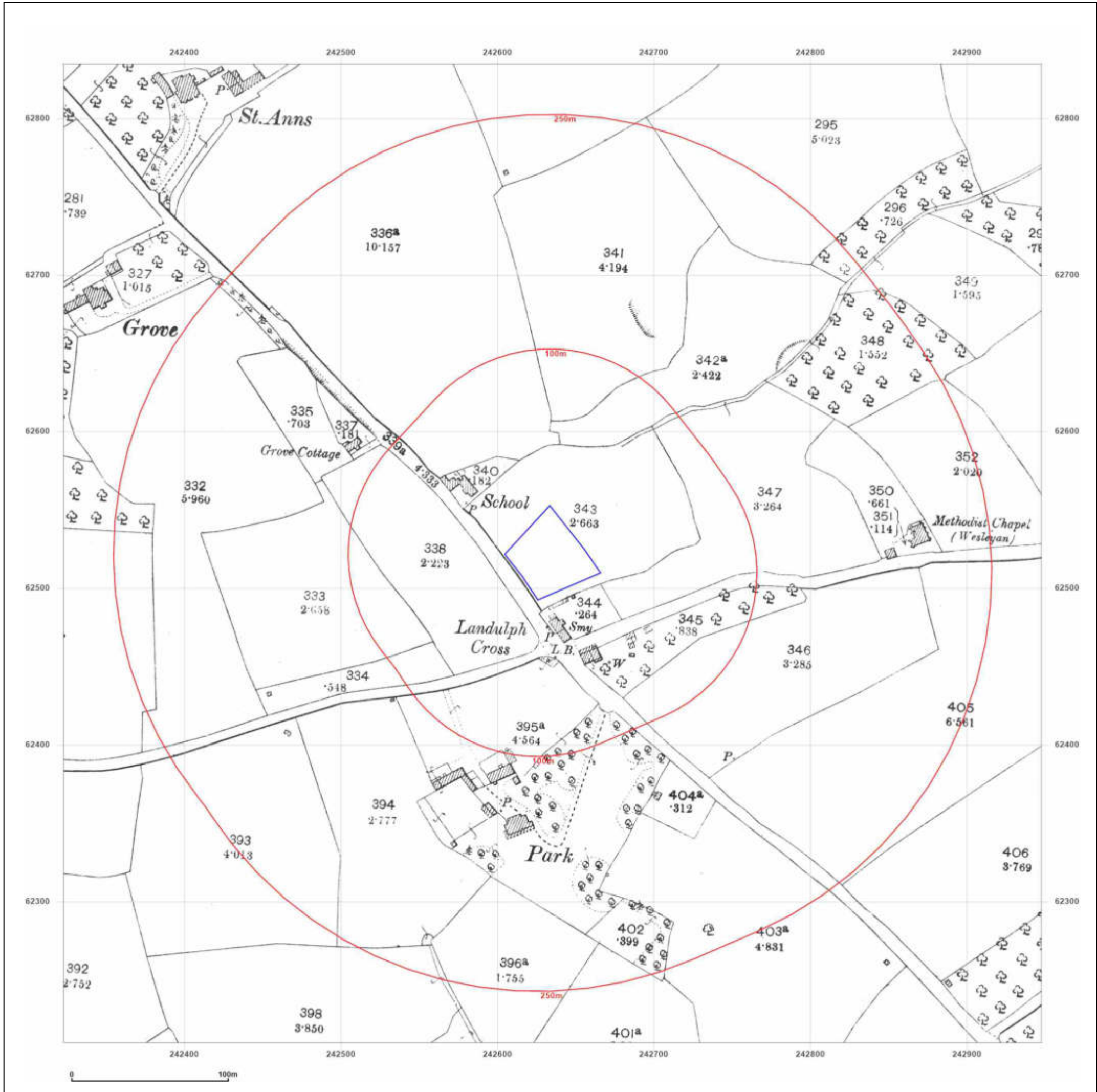


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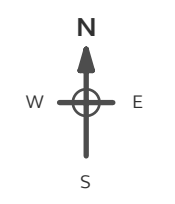
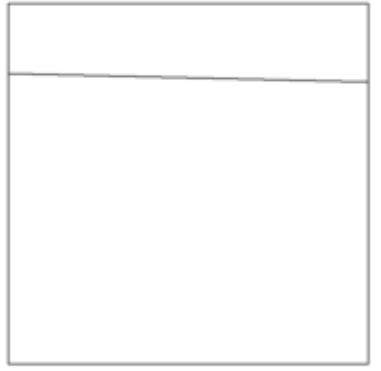
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Grid Ref: 242635, 62522

Map Name: County Series

Map date: 1906-1907

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1907
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1906
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

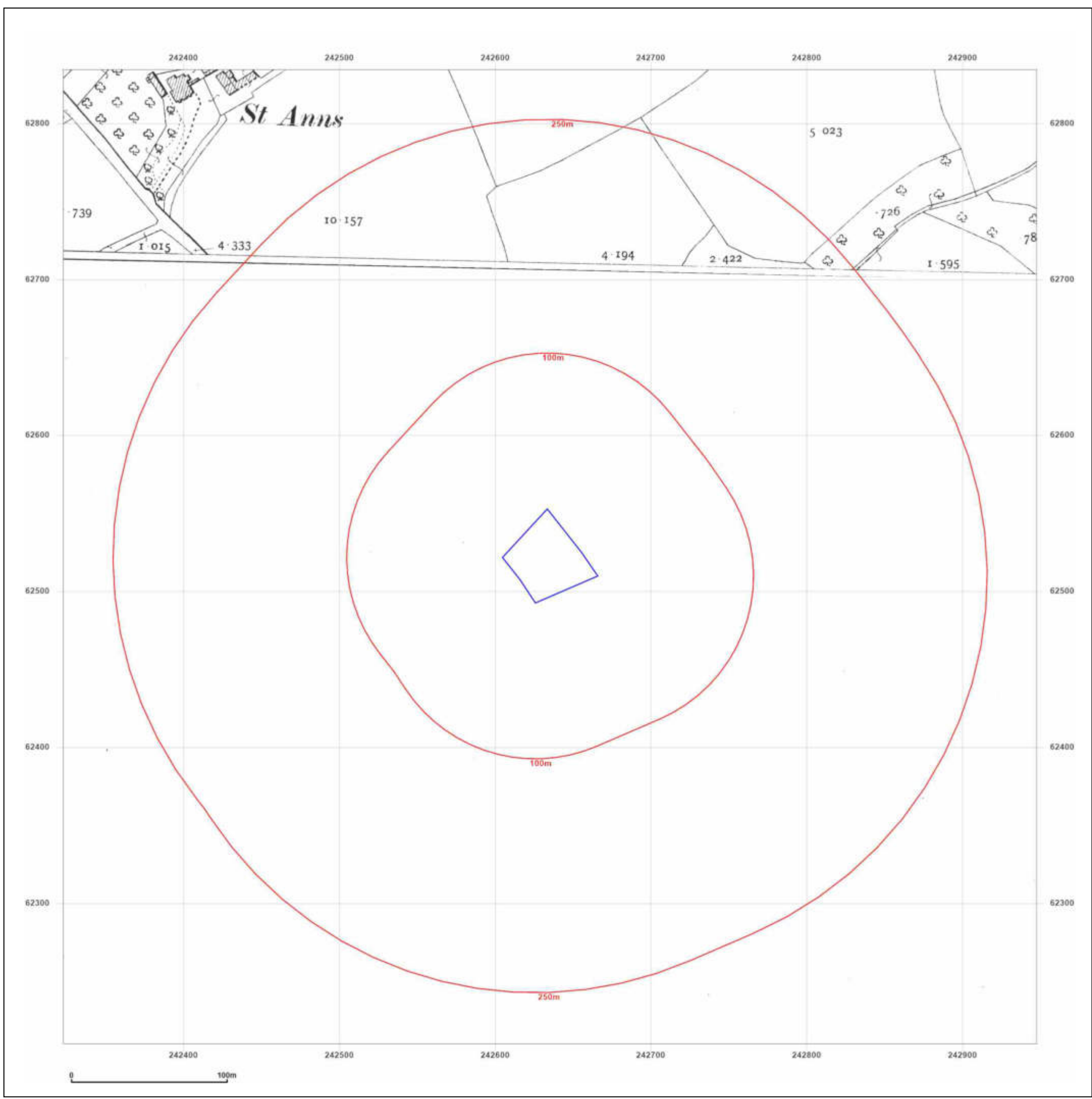


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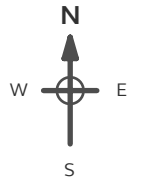
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Report Ref: GS-DIZ-Z1W-CSX-L5F
Grid Ref: 242635, 62522


Map Name: County Series

Map date: 1907

Scale: 1:2,500

Printed at: 1:2,500





Surveyed 1907
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

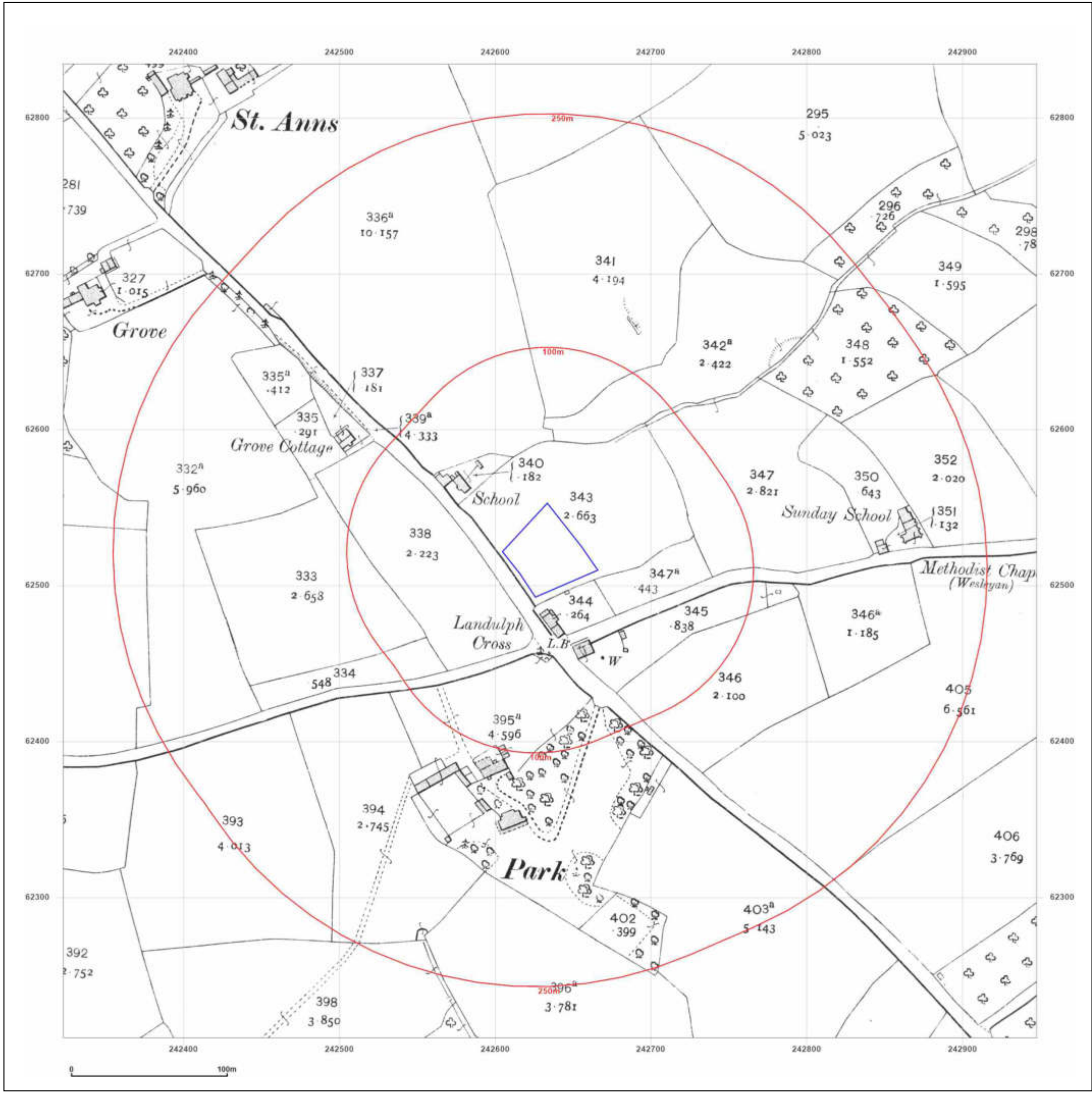


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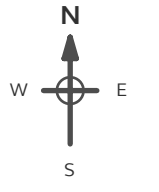

Client Ref: C23214_Landulph
Report Ref: GS-DIZ-Z1W-CSX-L5F
Grid Ref: 242635, 62522

Map Name: County Series

Map date: 1914

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1914
Revised 1914
Edition N/A
Copyright N/A
Levelled N/A

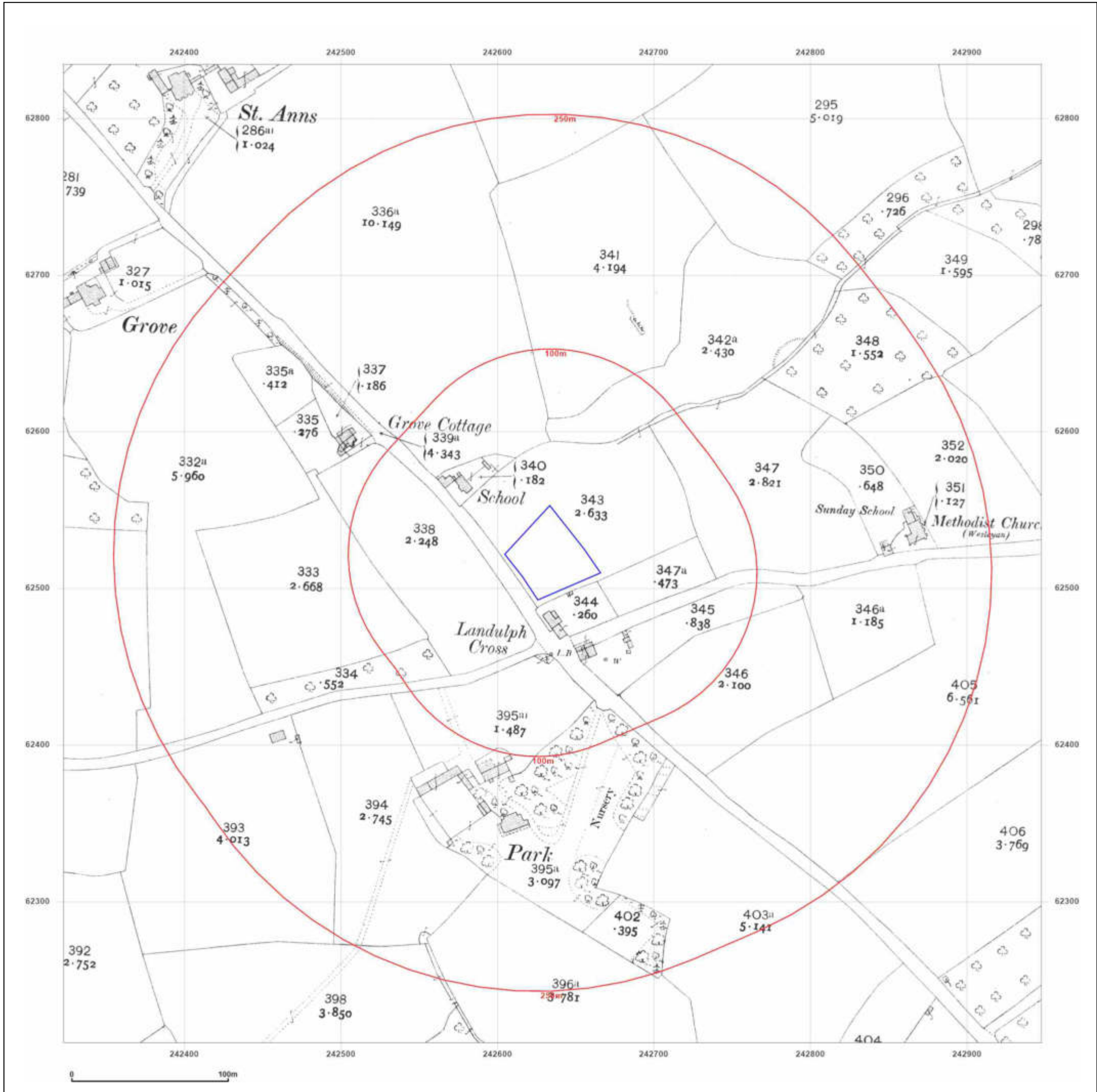


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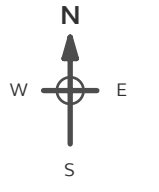
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Report Ref: GS-DIZ-Z1W-CSX-L5F
Grid Ref: 242635, 62522

Map Name: National Grid

Map date: 1951

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1951
Revised 1951
Edition N/A
Copyright N/A
Levelled 1950

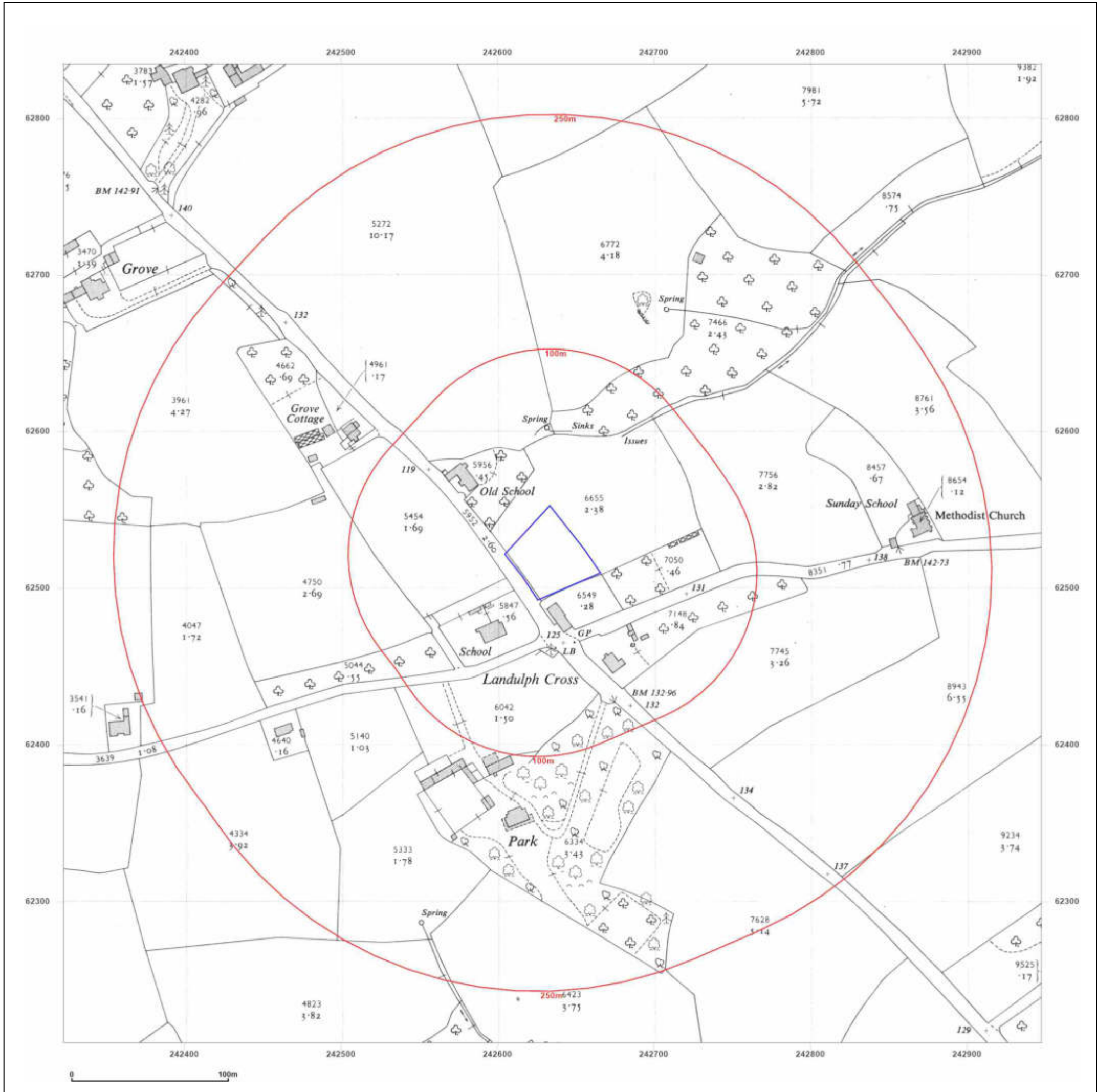


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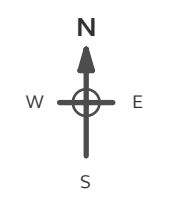
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Report Ref: GS-DIZ-Z1W-CSX-L5F
Grid Ref: 242635, 62522

Map Name: National Grid

Map date: 1952

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

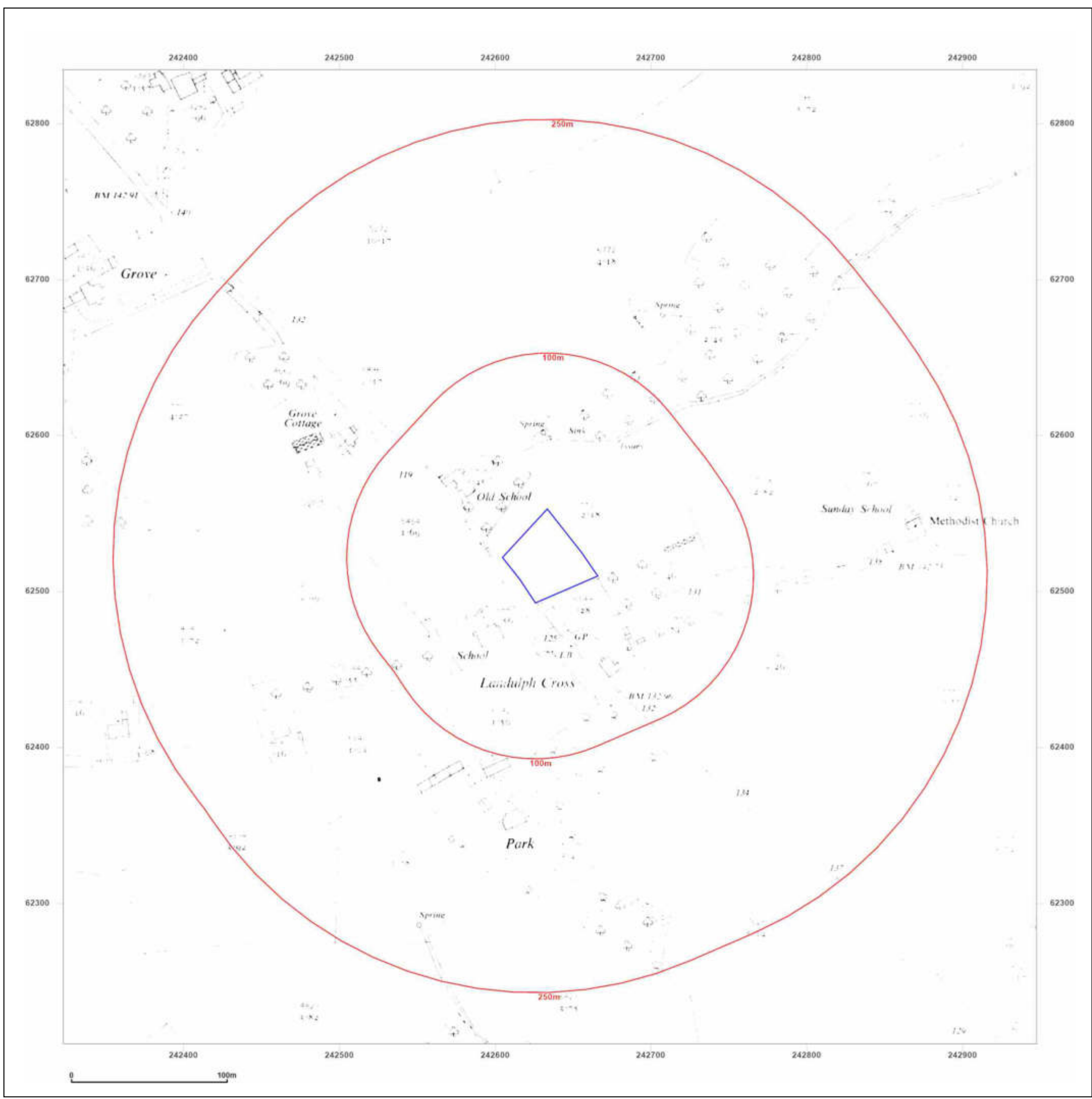


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Client Ref: C23214_Landulph
Report Ref: GS-DIZ-Z1W-CSX-L5F
Grid Ref: 242635, 62522

Map Name: National Grid

Map date: 1987

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1964
Revised 1987
Edition N/A
Copyright 1987
Levelled 1964

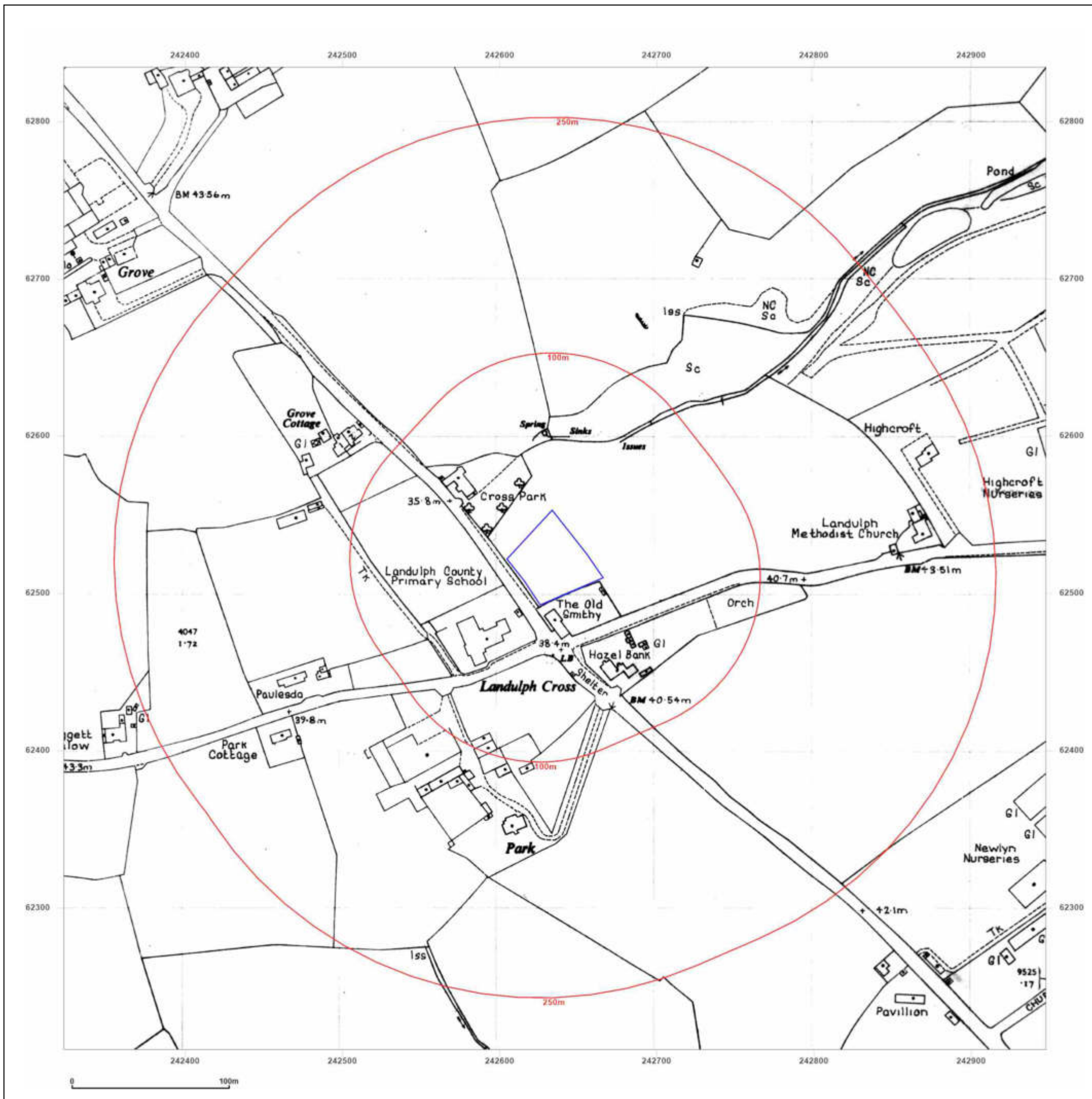


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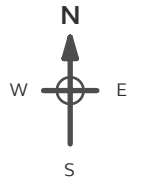
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Map Name: National Grid

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Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

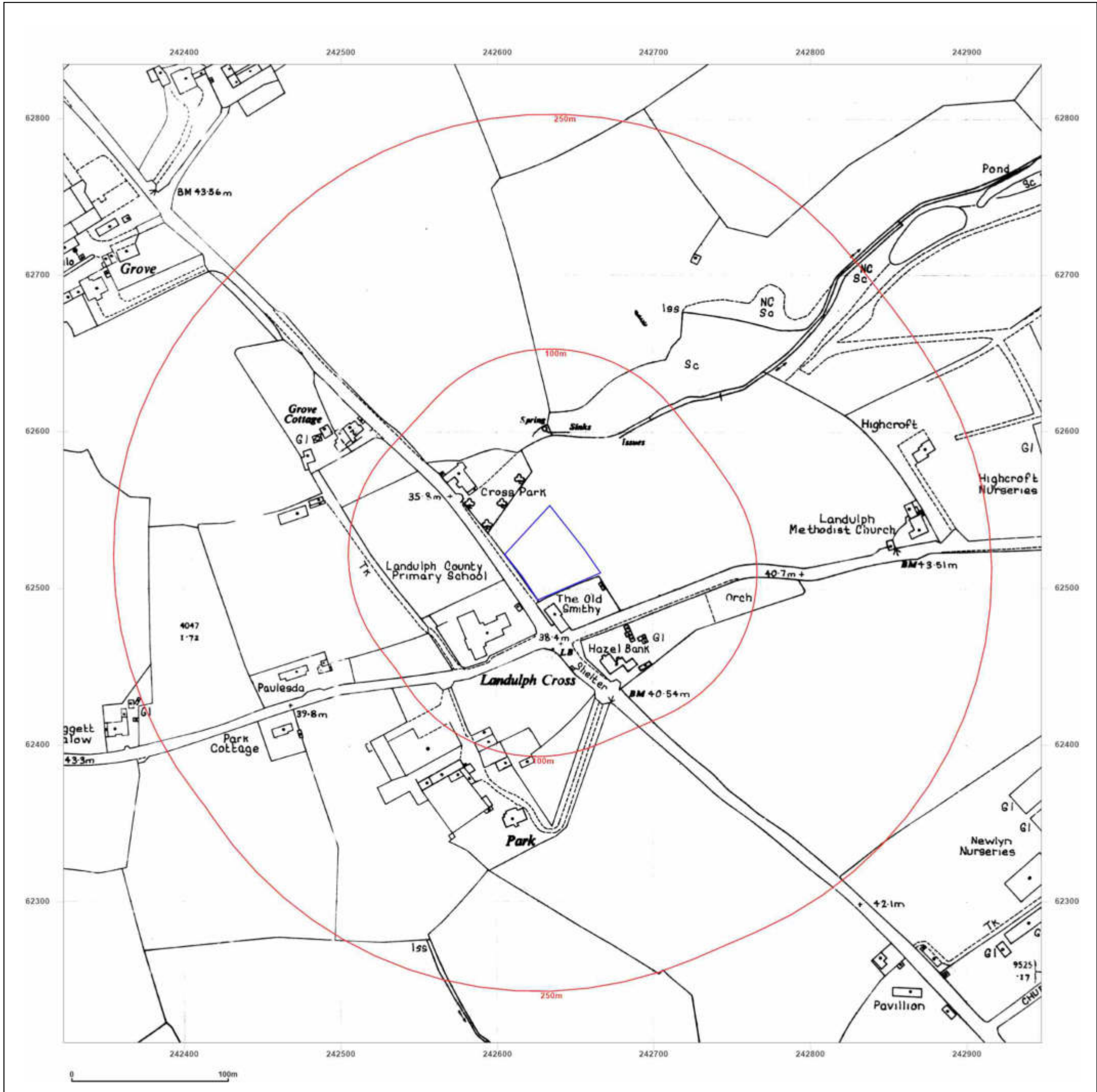


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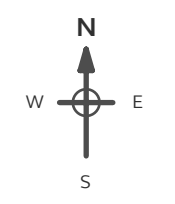
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Printed at: 1:2,500



Surveyed 1993
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

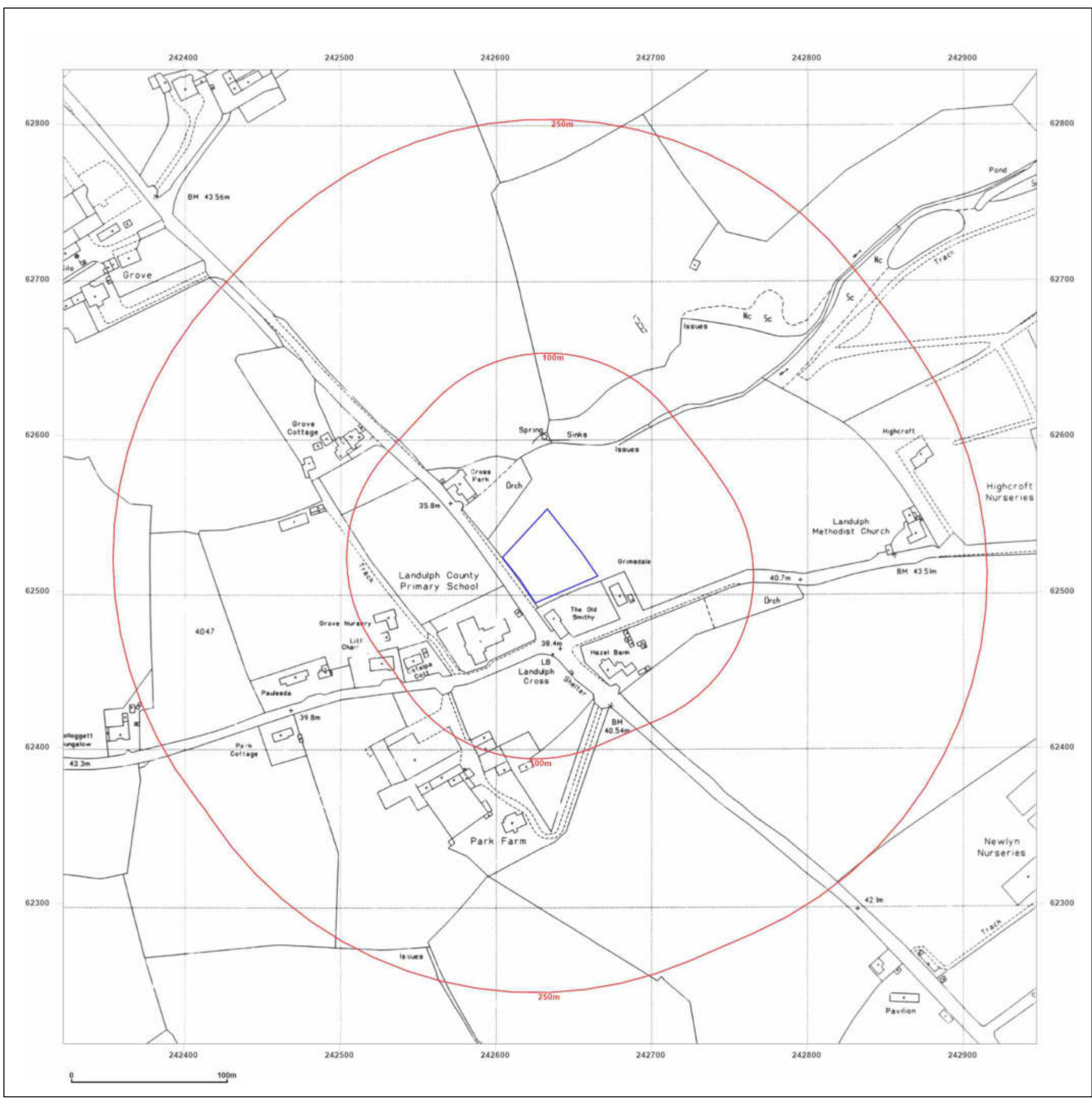


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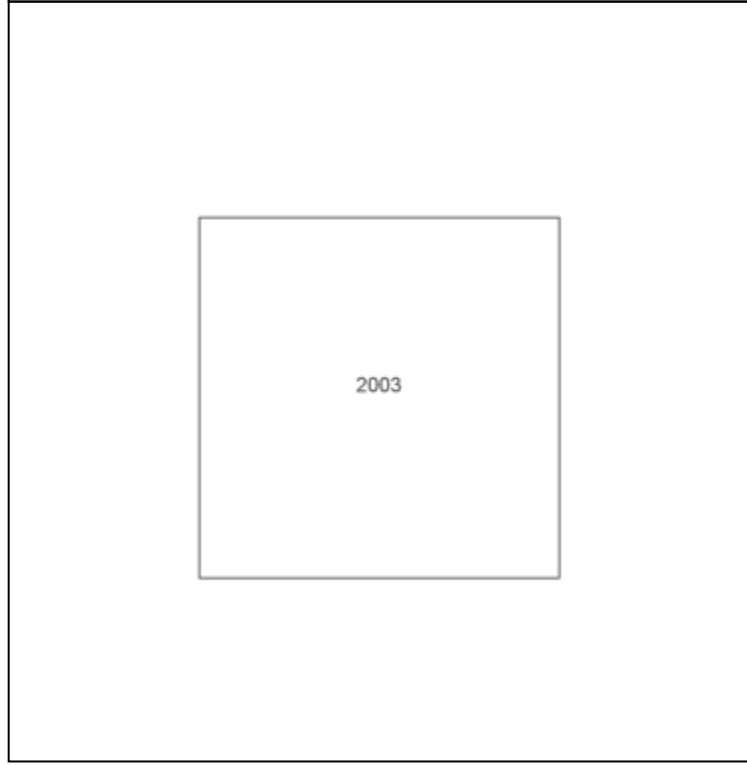
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Grid Ref: 242635, 62522

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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Appendix D BGS Radon Report

GARETH CHUGG
16 LYNDRICK ROAD
PLYMOUTH
PL3 5TA
UNITED KINGDOM

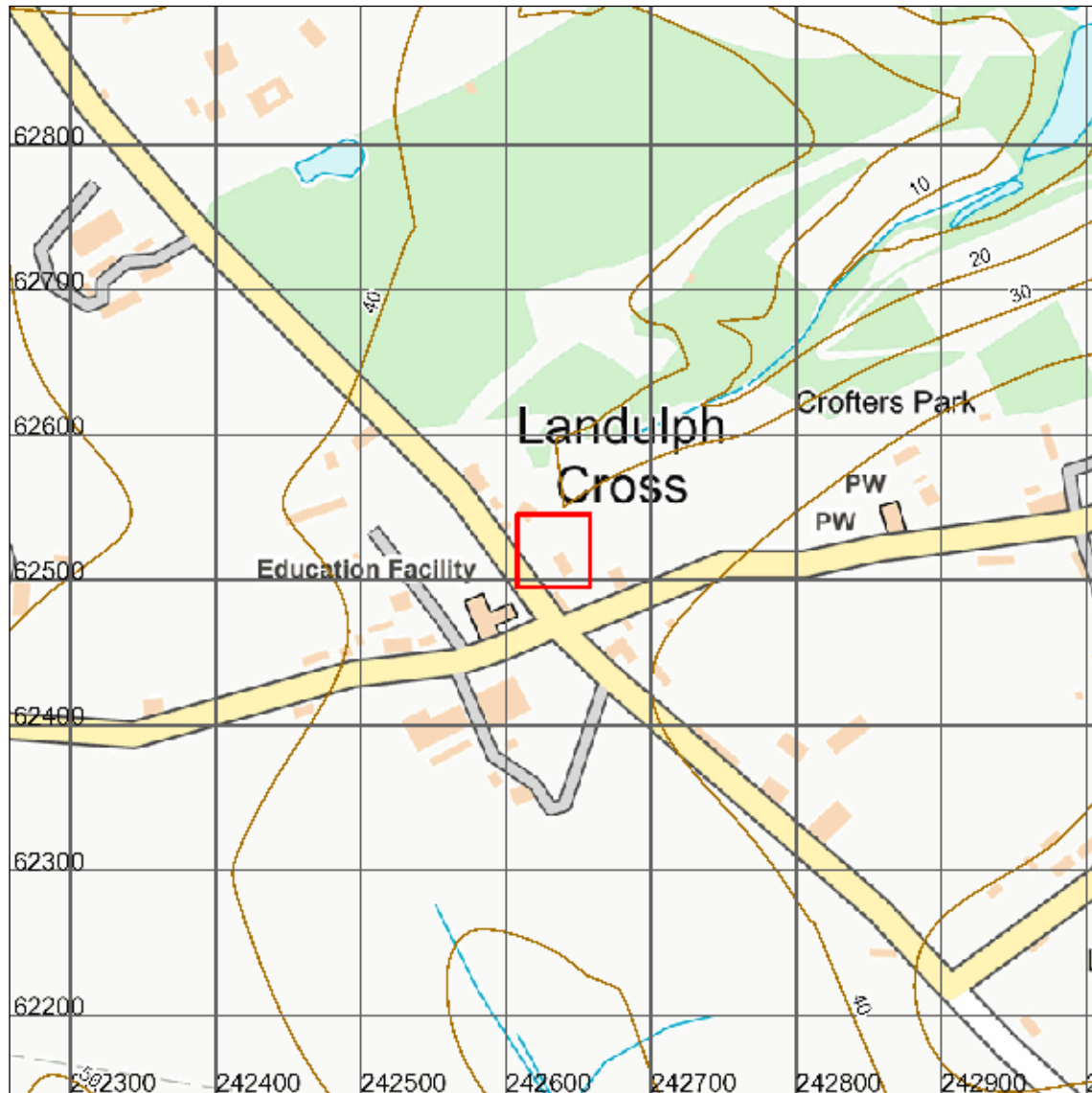
Radon Report

Advisory report on the requirement for radon protective measures in new buildings, conversions and extensions to existing buildings. The report also indicates whether a site is located within a radon Affected Area

Report Id: *BGS_336587/51361*

Client reference: C23123 Tregwheal

Search location



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Search location indicated in red

*This report describes a site located at National Grid Reference 242633, 62520.
Note that for sites of irregular shape, this point may lie outside the site boundary.
Where the client has submitted a site plan the assessment will be based on the area given.*

Radon Report: UK

When extensions are made to existing buildings in high radon areas, or new buildings are constructed in these areas, the Building Regulations for England, Wales, Scotland and Northern Ireland require that protective measures are taken against radon entering the building.

This report provides information on whether radon protective measures are required. Depending on the probability of buildings having high radon levels, the Regulations may require either:

1. No protective measures
2. Basic protective measures
3. Full protective measures

This is an advisory report on the requirement for radon protective measures in new buildings, conversions and extensions. The report also indicates whether a site is located within a radon Affected Area

Requirement for radon protective measures

The determination below follows advice in *BR211 Radon: Guidance on protective measures for new buildings (2023 edition)*, which also provides guidance on what to do if the result indicates that protective measures are required.

Is the property in an area where radon protective measures are required for new buildings or extensions to existing ones as described in publication BR211 (2023 edition) Radon: Guidance on protective measures for new buildings?

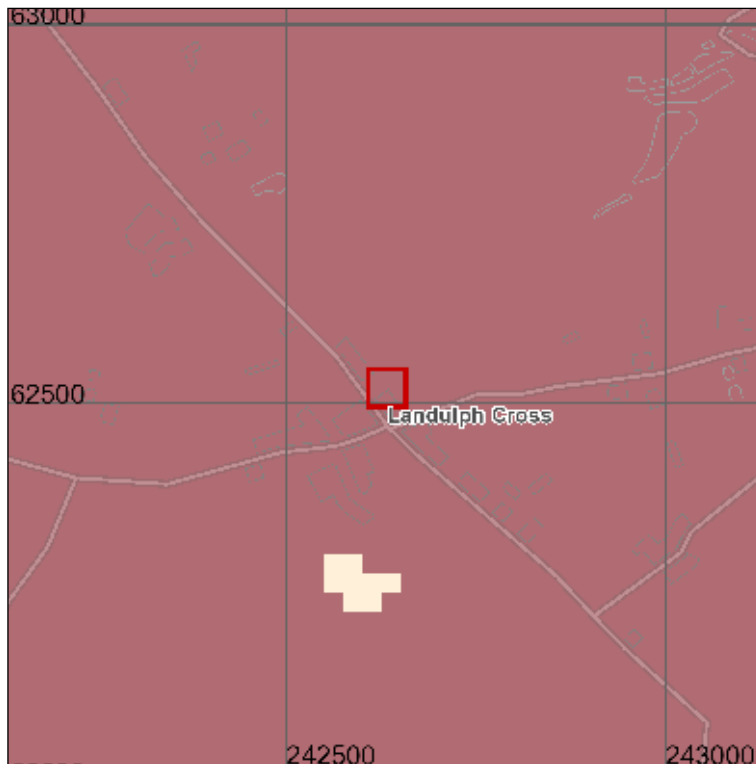
BASIC RADON PROTECTIVE MEASURES ARE REQUIRED FOR THE REPORT AREA.

More details of the protective measures required are available in *BR211 Radon: Guidance on protective measures for new buildings (2023 Edition)*.

Whether or not the radon level in a building is above or below the radon Action Level can only be established by having the building tested. The UKHSA provides a radon testing service which can be accessed at www.ukradon.org or by telephone (01235 822622).

If you require further information or guidance, you should contact your local authority building control officer or approved inspector.

Radon Affected Area



% Homes estimated to be at or above the action level	
	0-1%
	1-3%
	3-5%
	5-10%
	10-30%
	30-100%

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 Search area indicated in red

Is the property in a radon Affected Area as defined by the UK Health Security Agency (UKHSA) and if so what percentage of homes are estimated to be at or above the Action Level? YES

Additional Information

THE PROPERTY IS IN A RADON AFFECTED AREA WHERE 5 TO 10% OF HOMES ARE ESTIMATED TO BE AT OR ABOVE THE ACTION LEVEL.

The UKHSA recommends a radon 'Action Level' of 200 Becquerels per cubic metre of air (Bq m^{-3}) for the annual average of the radon gas concentration in a home. Where 1% or more of homes are estimated to be at or above the Action Level the area should be regarded as a radon Affected Area.

This report informs you whether the property is in a radon Affected Area and the percentage of homes that are estimated to be at or above the radon Action Level at this location. Being in an Affected Area does not necessarily mean there is a high radon level within the property; the only way to determine the radon level is to carry out a radon measurement.

The UKHSA advises that radon gas should be measured in all properties within radon Affected Areas and that homes with radon levels at or above the Action Level (200 Bq m⁻³) should be remediated. Householders with levels between the Target Level (100 Bq m⁻³) and Action Level should seriously consider reducing their radon level, especially if they are at greater risk, such as if they are current or ex smokers. Whether or not a home is in fact above or below the Action Level or Target Level can only be established by having the building tested. The UKHSA provides a validated radon testing service which can be accessed at www.ukradon.org.

The information in this report provides an answer to one of the standard legal enquiries on house purchase in England and Wales, known as Law Society CON29 Enquiries of the Local Authority (2016); 3.14 Radon Gas: Do records indicate that the property is in a “Radon Affected Area” as identified by the UKHSA. The data can also be used to advise house buyers and sellers in Scotland and Northern Ireland.

If you are buying a new build property in a Radon Affected Area, you should ask the builder whether radon protective measures were incorporated in the construction of the property.

If you are buying a currently occupied property in a radon Affected Area, you should ask the present owner whether radon levels have been measured in the property. If they have, ask whether the results were at or above the radon Action Level and if so, whether remedial measures were installed, radon levels were re-tested, and if the results of re-testing confirmed the effectiveness of the measures.

Further information on radon is available from the UKHSA at www.ukradon.org.

What is radon?

Radon is a naturally occurring radioactive gas, which is produced by the radioactive decay of radium which, in turn, is derived from the radioactive decay of uranium. Uranium is found in small quantities in all soils and rocks, although the amount varies from place to place. Radon released from rocks and soils is quickly diluted in the atmosphere. Concentrations in the open air are normally very low and do not present a hazard. Radon that enters enclosed spaces such as some buildings (particularly basements), caves, mines, and tunnels may reach high concentrations in some circumstances. The construction method and degree of ventilation will influence radon levels in individual buildings. A person's exposure to radon will also vary according to how particular buildings and spaces are used.

Inhalation of the radioactive decay products of radon gas increases the chance of developing lung cancer. If individuals are exposed to high concentrations for significant periods of time, there may be cause for concern. In order to limit the risk to individuals, the Government has adopted an Action Level for radon in homes of 200 becquerels per cubic metre (Bq m^{-3}). The Government advises householders that, where the radon level is at or above the Action Level, measures should be taken to reduce the concentration.

Radon in workplaces

The Ionising Radiation Regulations 2017 require employers to take action when radon is present above a defined level in the workplace. Advice may be obtained from your local Health and Safety Executive Area Office or the Environmental Health Department of your local authority. The BRE publishes a guide (BR293): **Radon in the workplace**. BRE publications may be obtained from the BRE Bookshop, Tel: 01923 664262, email: bookshop@bre.co.uk website: www.brebookshop.com

Contact Details

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Lyell Centre
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EH14 4AP
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