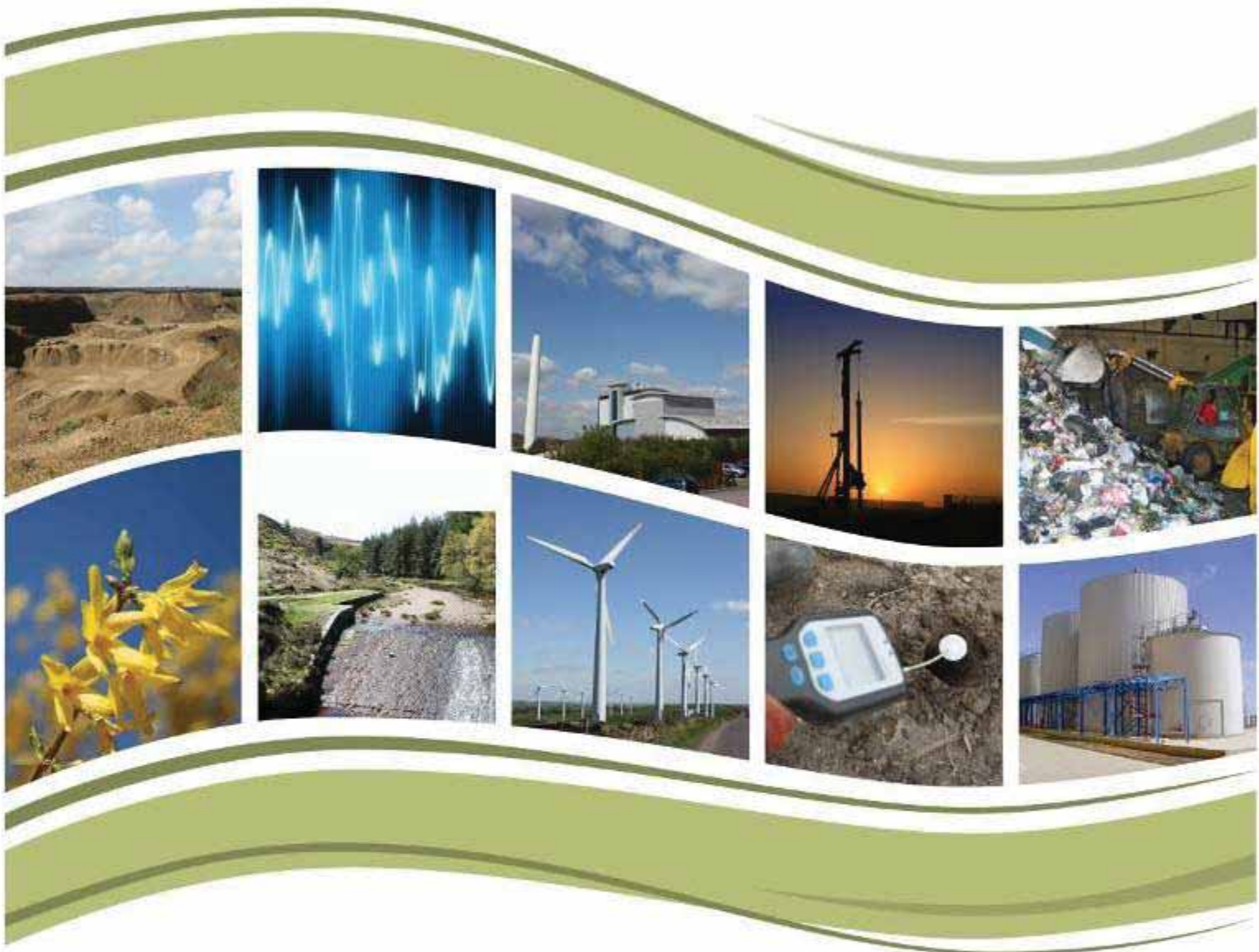




Preliminary Geo-Environmental Risk Assessment

St. Mary's Road, Hayling Island

For:

Gladman Developments Ltd.

SHF.1132.142.GE.R.001



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Preliminary Geo-Environmental Risk Assessment for land off St Mary's Close, Hayling Island.

Project:	St. Mary's Close, Hayling Island
For:	Gladman Developments Ltd.
Ref:	SHF.1132.142.GE.R.001
Status:	Final
Date:	August 2021
Author:	Nigel Ramsumair - MGeo (Hons.) , Senior Geo-Environmental Engineer
Reviewer:	David Oliver Frayne BSc (Hons) , FGS , CGeol , UKROGEP Associate Director

Disclaimer:

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We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

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Registered Office Stag House Chipping Wotton-Under-Edge Gloucestershire GL12 7AD

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1.0 INTRODUCTION

Background

- 1.1 Enzygo Limited has been commissioned by Gladman Developments to prepare a Preliminary Geo-Environmental Risk Assessment for a site, located off St. Mary's Road, Hayling Island, PO11 9BY.

Proposed Development

- 1.2 The proposed development is residential; with gardens, landscaping, and associated infrastructure.

Objectives

- 1.3 The objectives of the study are to:
- Review historical plans, geology, hydrogeology and site sensitivity information in order to complete a Desk Study Report. A Groundsure report has been obtained, a copy of which is included in Appendix 1;
 - Assess the implications of any potential environmental risks, liabilities and development constraints associated with the site in relation to the future use of the site and in relation to off-site receptors;
 - Conduct a site walkover;
 - Provide preliminary recommendations in relation to environmental risk, potential remedial options and to present an initial assessment of ground engineering considerations.

Risk Classification

- 1.4 Enzygo has utilised the available information, together with our experience to assess the likely risks to development from land quality issues. Definitions of the risk terms used are provided in the table on the following page.

Risk	Description
Dismissed	The risk has been dismissed.
Negligible	No contamination risk has been identified which is likely to affect development.
Low	No significant contaminated land risks have been encountered which would affect development, and there is a low risk that remediation will be required.
Low-Moderate	There are unlikely to be significant contaminated land issues associated with the site which will adversely affect its re-development. However, minor or localised contamination may be present which may require remediation. Remediation should be possible under a discovery strategy and with a call-out service.
Moderate	Some potential contaminated land risks have been encountered or identified which may affect re-development. The risks identified are unlikely to affect the entire site or preclude development. Remediation is considered feasible as part of the development process, and no further investigation is considered necessary.
Moderate-High	Some potentially significant contaminated land risks have been identified at the property that requires remediation. It is recommended that a separate remedial methodology is prepared, supported by a site-specific risk assessment.
High	Significant potential contaminated land risks have been identified and remediation is required; supported by further intrusive ground investigation, risk assessment and remedial design.

- 1.5 Where adverse risks are identified, these are discussed within the report.

2.0 SITE SETTING

Site Description

Table 1: Site location details

Item	Description
Site Address	St. Marys' Road, Hayling Island, PO11 9BY.
National Grid Reference	Approximate centre of the site: SZ 719 998

Current Site Description

- 2.1 The following description has been compiled from the inspection of the site undertaken on the 13th March 2018 by an experienced environmental consultant from Enzygo Ltd. Representative site photographs are presented as an Appendix to this report.
- 2.2 The site's topography is typically flat, with a slight slope rising towards the north west.
- 2.3 The current land usage is agricultural, with the fields having just been ploughed at the time of the walkover. The site boundaries are typically hedgerows and trees.
- 2.4 Some localised fly tipped rubbish was identified in the ditch north east of the site, typically this was plastic waste.
- 2.5 The central watercourse with the exception of the south-east of the site that trends up to the north-east where the existing property is positioned. (see photo).
- 2.6 There are a number of drainage ditches identified; one to the north of the proposed site, one that trends approximately east to west through the centre of the site, and a third, located on the south-western boundary of the site.

Surrounding Area

- 2.7 Land uses surrounding the site are summarised in Table 2 below:

Table 2: Surrounding land uses

Direction	Land Use
North	Open agricultural fields.
East	Typically, residential housing.
South	Typically, residential housing.
West	Open agricultural fields.

3.0 SITE HISTORY

3.1 A review of historical Ordnance Survey maps and information pertinent to the site and within a 250m radius is summarised below:

Table 3: Historical land uses on the Site and within the surrounding 250m.

Map/Imagery Date	On Site	Surrounding Area (within 250m)
1886 (1:10,560)	Site is marked as 'open fields'.	The site is generally surrounded by open fields. The west town contains cottages and farms located some 250m to the south-west. Nothing else significant can be identified
1896-1998 (1:10,560)	No significant change.	Smithy marked approximately 100m and 250m east and south of the site, respectively.
1907 (1:10,560)	No significant change.	Smithy's no longer marked. No other significant change.
1909-19013 (1:10,560)	No significant change.	No significant change.
1931 (1:10,560)	No significant change.	Increase in residential development around the site associated with west town and south Hayling. Associated with this development are some allotments gardens, the closest of which is indicated some 250m west of the site.
1938-1942 (1:10,560)	No significant change.	No significant change.
1957 (1:10,560)	No significant change.	No significant change.
1990 (1:10,560)	'Drain' now marked across the approximate centre, northern and south-western boundary of the site.	Significant residential development surrounding the site.
2002 (1:10,000)	No significant change.	No significant change.
2010 (1:10,000)	No significant change.	No significant change.
2014 (1:10,000)	No significant change.	No significant change.
2013 (aerial imagery)		
2014 (1:10,000)		
2017 (aerial imagery)		

3.2 There are considered to be no significant risks to the site, identified on available historical mapping.

4.0 ENVIRONMENTAL SETTING

Ground Conditions

- 4.1 The British Geological Survey (BGS) records indicate that the site is underlain by the following geological sequence:

Table 4: Geological summary of the site.

Geological Unit	Type	Description	Aquifer Classification
Superficial	River Terrace Deposits	Clay, Silt and Sand	Secondary A
Bedrock (whole site)	London Clay Formation	Clay, Silt and Sand	Unproductive

- 4.2 No Made Ground is identified below or near to the site from BGS records.
- 4.3 There are no landslips shown near to the site.
- 4.4 Records of background soil chemistry for the site show no exceedance above residential values.
- 4.5 BGS records near to the site confirm the presence of River Terrace and London Clay.

Groundwater

- 4.2 The superficial deposits underlying the site are classified as a 'Secondary A'.
- 4.3 The site is not located within a source protection zone.
- 4.4 The site is classified as unproductive when related to ground water abstraction.
- 4.5 The groundwater and surface water flooding risks are covered in the Enzygo Flood Risk Assessment (issued under separate cover, report no: SHF.1132.142.HY.R.001.B).

Coal Mining

- 4.6 No coal mining activities have been identified within 1000m of the site.

Non-Coal Mining and Cavities

- 4.7 There are no non-coal mining areas within 1000m of the site boundary.
- 4.8 There are no records of non-coal mining cavities within 1000m of the site.
- 4.9 There are no records of natural cavities within 1000m of the site boundary.

Brine/Gypsum/Tin/Clay Extraction

- 4.10 There are no Brine/Gypsum/Tin/Clay extraction areas within 1000m of the site boundary.

Ground Workings

- 4.11 Historical ground working features are documented in Table 3.
- 4.12 There are two current ground workings recorded within 100m of the site: Gravel yard 30m north and a pond 90m south.
- 4.13 No significant contaminative or engineering risks have been identified from the current or historic ground workings.

Hydrology

- 4.14 The nearest surface watercourse is on-site, and flows roughly across the centre of the site, trending in an east to west direction.
- 4.15 There are no surface water abstractions located within 500m of the site.
- 4.16 Detailed information on the risk of fluvial, surface water and groundwater flooding at the site is included in the Enzygo Flood Risk Assessment, issued under separate cover (Report no: SHF.1132.142.HY.R.001.B).

Radon Risk Potential

- 4.17 The Groundsure Geo Insight report indicates that the site is not in a Radon Affected Area. Therefore, no radon protective measures are necessary at the present time.

Natural Hazards Finding

- 4.18 BGS information presented within the Groundsure GeoInsight report identifies the following ground conditions (see Table 5; note that the risk category is the highest assigned to the site):

Table 5: Natural hazards on-site

Hazard	Risk Designation (Groundsure)
Collapsible Ground	Low
Compressible Ground	Negligible
Ground Dissolution	Negligible

Landslide	Very Low
Running Sand	Low
Swelling / Shrinking Clay	Low

4.19 No significant natural ground subsidence hazards are identified.

Sensitive Land Uses

4.20 The site is currently used for agriculture and is considered to have a moderate sensitivity

4.21 Historic England identifies no historical features on the site.

Environmental Sensitivity

4.22 Overall the site is currently considered to be of low environmental sensitivity due to the following:

- There are no abstractions nearby;
- There is a drainage ditch on the site; and
- Site is not within a Source Protection Zone.

4.26 The sensitivity for end users will be high for residential use with domestic gardens.

Current Industrial Land Uses

4.23 There are three industrial land uses within 100m of the site. The nearest land uses are an electricity substations 12m east, a works 23m south east and a garage 72m east. However, given the distance these are unlikely to significantly affect the development site.

4.24 There are no oil or gas pipelines within 500m of the site.

4.25 No new significant risks are identified from the register of industrial land uses.

5.0 CONSULTATIONS

Regulatory Database

5.1 The following information has been obtained from a commercially available environmental database.

Table 6: Environmental permits, incidents and registers

Environmental Permits, Incidents and Registers	0 -250m	250-500m	Details
Site determined as contaminated land	0	0	Not applicable.
Authorised industrial processes	0	0	Not applicable.
Registered radioactive substances	0	0	Not applicable.
Records of Part A (2) and Part B Activities	1	0	85m south-east Dry Cleaning. status: current permit; permit type: Part B; no enforcements notified. Given distance no significant risk identified.
Enforcements, prohibitions or prosecutions	0	0	Not applicable.
Pollution Incidents	1	0	Nearest incident 111m south-east of site on 01/01/02; pollutant: smoke (firefighting run-off); water, land and air impact: Category 4 (No Impact). No significant risks identified.
List 1 Dangerous Substance Inventory Sites	0	0	Not Applicable.
List 2 Dangerous Substance Inventory Sites	0	0	Not Applicable.
Consents issued under the Planning (Hazardous Substances) Act 1990	0	0	Not Applicable.
Control of Major Accident Hazard (COMAH)/ Notification of Installations Handling Hazardous Substances (NIHHS) sites	0	0	Not Applicable.
Records of Licensed Discharge Consents	0	0	Not Applicable.

5.2 No new risks are identified from the regulatory database.

Landfill Sites and Waste Treatment Sites

- 5.3 There are no records of any Environment Agency operational landfill sites within 500m of the site;
- 5.4 There are no records of waste treatment, transfer or disposal sites within 500m of the site.
- 5.5 There are no significant risks identified from the above.

6.0 PRELIMINARY CONCEPTUAL MODEL

Source	Location	Exposure Pathway	Potential Receptor	Probability of Exposure	Details
Human Health					
Asbestos, hydrocarbons and metals.	Historic Use	Ingestion dermal and inhalation.	Construction Workers.	Dismissed.	No significant source identified.
			Site users.		
Asbestos, hydrocarbons and metals.	Unforeseen Contamination.	Ingestion dermal and inhalation.	Construction Workers.	Dismissed.	Normal construction PPE will address risk under CDM.
			Site users.	Negligible.	Significant contamination unlikely.
Hydrocarbon and metals.	Migration from off-site sources.	Ingestion dermal and inhalation.	Construction Workers.	Dismissed.	No significant source identified.
			Site users.		
Ground Gas.	Historic Landfills.	Inhalation & Explosive.	Construction Workers.	Dismissed.	No source identified.
			Site users.		
	Potential Made Ground		Construction Workers.	Dismissed.	No confined access.
			Site users.	Dismissed.	No source identified.
Groundwater					
Hydrocarbon and metals.	Potential spillage on site.	Vertical Migration.	Groundwater.	Negligible.	Significant contamination unlikely.
Surface Water					
Hydrocarbon and metals.	Potential spillage on site.	Horizontal Migration.	River Network.	Negligible.	Significant contamination unlikely.
Environmental Receptors					
On site contaminants		Ingestion dermal and inhalation.	Ecology.	Dismissed.	No sensitive ecology designation.
		Direct.	Archaeology.	Dismissed.	None present.
		Direct.	Geology.	Dismissed.	None present.
		Phytotoxic.	Woodland.	Dismissed.	No receptor.
		Phytotoxic.	Crops.	Dismissed.	No source identified.
		Ingestion dermal and inhalation.	Livestock.	Dismissed.	No source/receptor identified.
Building Services					
On site contaminants		Direct.	Historic Buildings.	Dismissed.	No receptors
		Direct.	Proposed Buildings.	Dismissed.	No source identified.
		Permeate into pipework.	Water Pipes.	Dismissed.	No source identified.

7.0 DISCUSSION AND RECOMMENDATIONS

Proposed Development

- 7.1 The proposed development is for a residential development with associated infrastructure and soft landscaping.

Discussion

- 7.3 It is considered that there are negligible risks associated with land quality at the site. Any contamination is likely to be localised and would be addressed during development, probably through the use of a clean capping. If hydrocarbons are encountered below the tank these would be expected to be limited in extent and so can be removed.
- 7.4 It is considered that unexpected localised contamination encountered during development works can be addressed through a discovery strategy, with source removal and off-site disposal being likely to be the most appropriate remedial action.
- 7.5 The risk of ground gas has been dismissed due to no source being identified. However, this should be should be verified by a site investigation. It is considered that if a risk is identified, this can be mitigated through the use of conventional gas membrane and underfloor ventilation.
- 7.6 Conventional spread foundations should generally be suitable for the proposed development.
- 7.7 Based on the ground conditions soakaway drainage might be feasible and suitable testing should be undertaken.

Recommendations

- 7.8 It is recommended that an intrusive ground investigation is undertaken to confirm the ground conditions and provide information for the design of foundations and pavements. As no significant risk to development of the site has been identified it is considered that this investigation can be undertaken under a suitable planning condition.
- 7.9 Exploratory holes should be advanced across the proposed residential development area.

- 7.10 Soil samples should be recovered for chemical analysis to assist with waste classification and also provide information on soil quality to assist with design of the development.
- 7.11 If contamination is identified, as stated above, this should be able to be remediated as part of the site development works.



Photo 1: Panoramic view looking east across the site.



Photo 2: Drainage ditch North of site



Photo 3: OH powerlines running across site

Appendix 1 - Drawings

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Aerial imagery © 2015 Microsoft Corporation

Site Boundary	11.61ha
BUILT DEVELOPMENT	
Proposed Residential Area (up to 210 dwellings @ 314sqm)	6.90ha
Proposed Apartments with Care (CC) (50 to 80 units)	0.60ha
ACCESS	
Proposed Vehicular Access	
Proposed Indicative Primary Road	
Proposed Indicative Secondary Lanes	
Proposed Informal Recreational Footpath	
GREEN INFRASTRUCTURE	4.28ha
Existing Trees and Hedgerows (Retained)	
Vegetation to be removed	
Proposed Tree Planting	
Potential Indicative SuDS Basins	0.5ha
Likely Public Open Space (The division of proposed uses is set out on the table below)	0.72ha
Play Area (600m ²)	
Teenage Provision (225m ²)	

Havant Open Spaces Plan Requirements		
Open Space Type	Req per person	Req/ha development (210x210m)
Teenage Provision	0.0000ha	0.00ha
Equipped Play Provision	0.0000ha	0.00ha
Green play and playing field/recreation grounds	0.0000ha	0.00ha
Multi-functional green spaces (amenity green spaces, parks and gardens and informal green spaces)	0.002ha	1.40ha
TOTAL	0.0020ha	1.40ha

No provision is made for the following categories of open space: Allotments, Artificial Turf Pitch, Bowling Green, Indoor Sports, Play Park, Tennis and other courts



J:\PROJECTS\HAYLING ISLAND\02 Plan 2 DEVELOPMENT FRAMEWORK PLAN.dwg

Gladman Developments Ltd
Land off St Mary's Road
Hayling Island

DEVELOPMENT FRAMEWORK PLAN

1 July @ A3
April 2018
7478-L-02 - J



Appendix 2 – Groundsure Reports

Wm



EmapSite

Masdar House, 1 Reading Road,
Eversley, RG27 0RP

Report Reference: EMS-481373_645851

Your Reference: EMS_481373_645851

Report Date 31 May 2018

Report Delivery Email - pdf
Method:

Geo Insight

Address: Land north of St. Mary's Road, St. Mary's Road, Hayling Island , PO11 9DF,

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geo Insight** as requested.

If you would like further assistance regarding this report then please contact the emapsite customer services team on 0118 9736883 quoting the above report reference number.

Yours faithfully,

emapsite customer services team

Enc.
Groundsure Geo Insight

Address: Land north of St. Mary's Road, St. Mary's Road, Hayling Island , PO11 9DF,
Date: 31 May 2018
Reference: EMS-481373_645851
Client: EmapSite

NW

N

NE



W

E

SW

S

SE

Aerial Photograph Capture date: 17-Apr-2016
Grid Reference: 471925,099809
Site Size: 11.91ha

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Overview of Findings

The Groundsure Geo Insight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Non-coal mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Geology 1:10,000 Scale

1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	Yes
	1.2.2 Are there any records of landslip within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and linear features	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale?	No

Section 2: Geology 1:50,000 Scale

2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	No
2.2 Superficial Geology and Landslips	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	Yes
	2.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No

Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid Geology and linear features

2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.

2.3.2 Are there any records relating to permeability of bedrock ground within the study site boundary?

Yes

2.3.3 Are there any records of linear features within 500m of the study site boundary?

No

Section 3: Radon

3. Radon

3.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.

3.2 Radon Protection

No radon protective measures are necessary.

Section 4: Ground Workings

On-site

0-50m

51-250

251-500

501-1000

4.1 Historical Surface Ground Working Features from Small Scale Mapping

0

1

5

Not Searched

Not Searched

4.2 Historical Underground Workings from Small Scale Mapping

0

0

0

0

0

4.3 Current Ground Workings

0

0

0

0

0

Section 5: Mining, Extraction & Natural Cavities

On-site

0-50m

51-250

251-500

501-1000

5.1 Historical Mining

0

0

0

0

0

5.2 Coal Mining

0

0

0

0

0

5.3 Johnson Poole and Bloomer Mining Area

0

0

0

0

0

5.4 Non-Coal Mining*

0

0

0

0

0

5.5 Non-Coal Mining Cavities

0

0

0

0

0

5.5 Natural Cavities

0

0

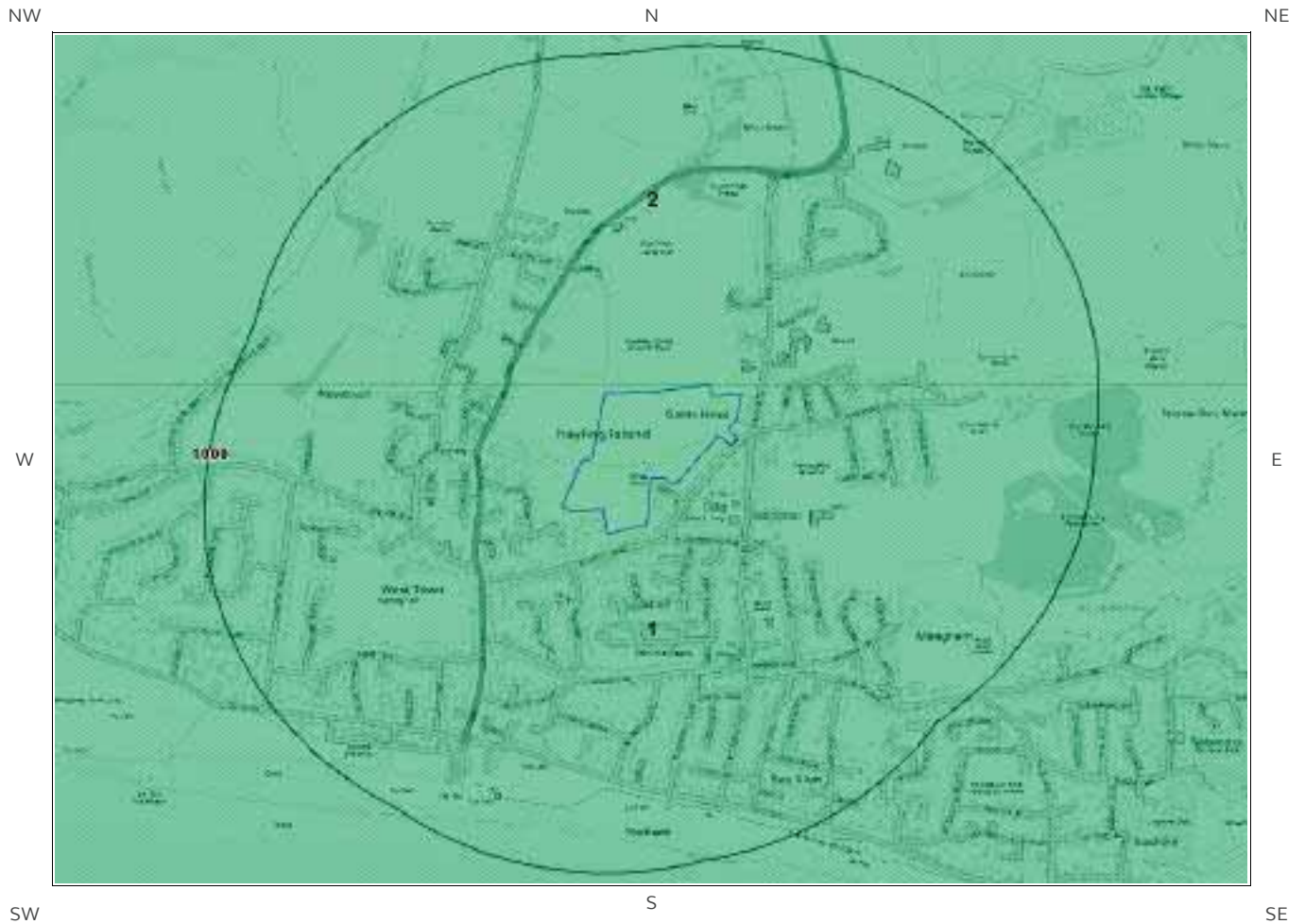
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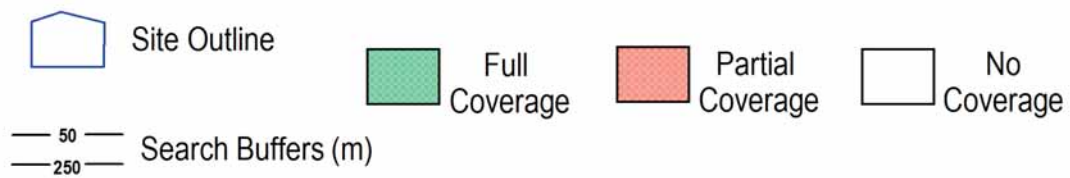
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Tin Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-site				
6.1 Shrink-Swell Clay	Low				
6.2 Landslides	Very Low				
6.3 Ground Dissolution of Soluble Rocks	Negligible				
6.4 Compressible Deposits	Negligible				
6.5 Collapsible Deposits	Low				
6.5 Running Sand	Low				
Section 7: Borehole Records	On-site	0-50m	51-250		
7 BGS Recorded Boreholes	1	1	11		
Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
8 Records of Background Soil Chemistry	3	7	0		
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	0	0	Not Searched	
9.2 Historical Railway and Tunnel Features	0	0	0	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	0	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

1:10,000 Scale Availability



1_10,000 Availability Legend

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Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	Some deposits are mapped	Full	Full	No coverage
2	1.0	Some deposits are mapped	Full	Full	No coverage
N3	1686.0	Some deposits are mapped	Full	Full	No coverage
N4	1725.0	Some deposits are mapped	Full	Full	No coverage

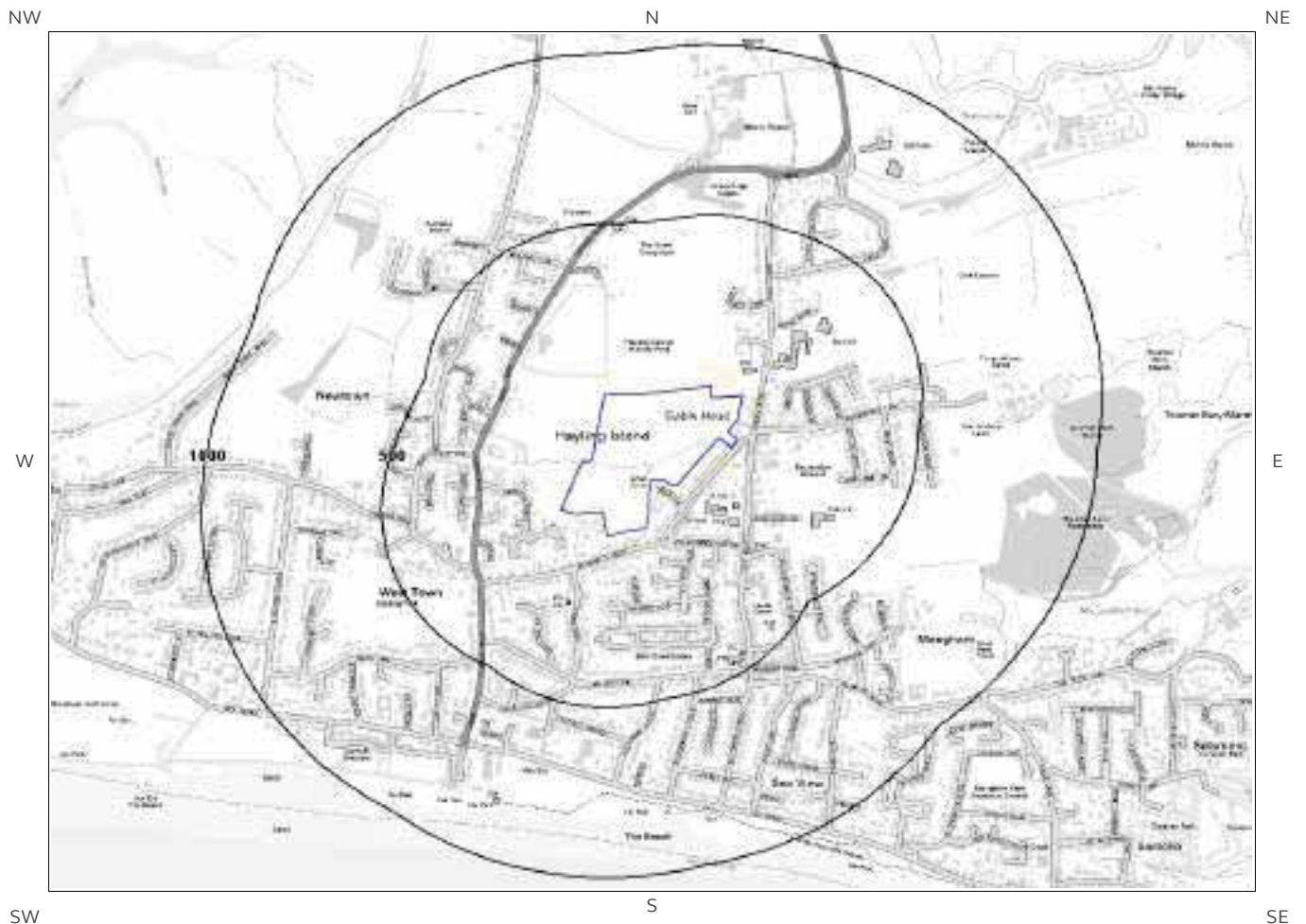
Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

Geology	Full Coverage	Partial Coverage	No Coverage
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped
Mass Movement	Some deposits are mapped on this tile	-	No coverage

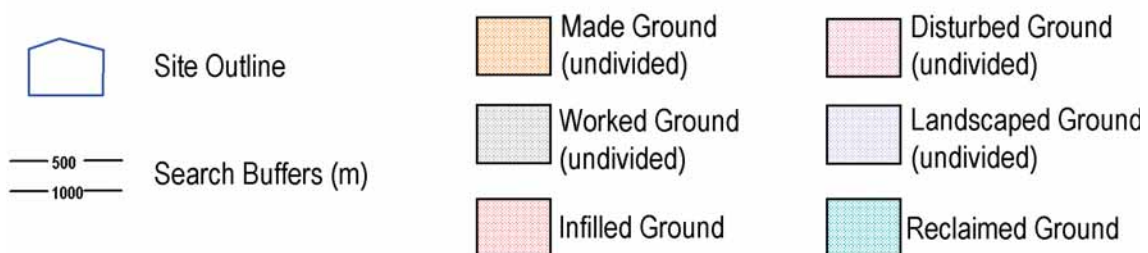
1 Geology (1:10,000 scale).

1.1 Artificial Ground map (1:10,000 scale)



Artificial Ground Legend

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1. Geology 1:10,000 scale

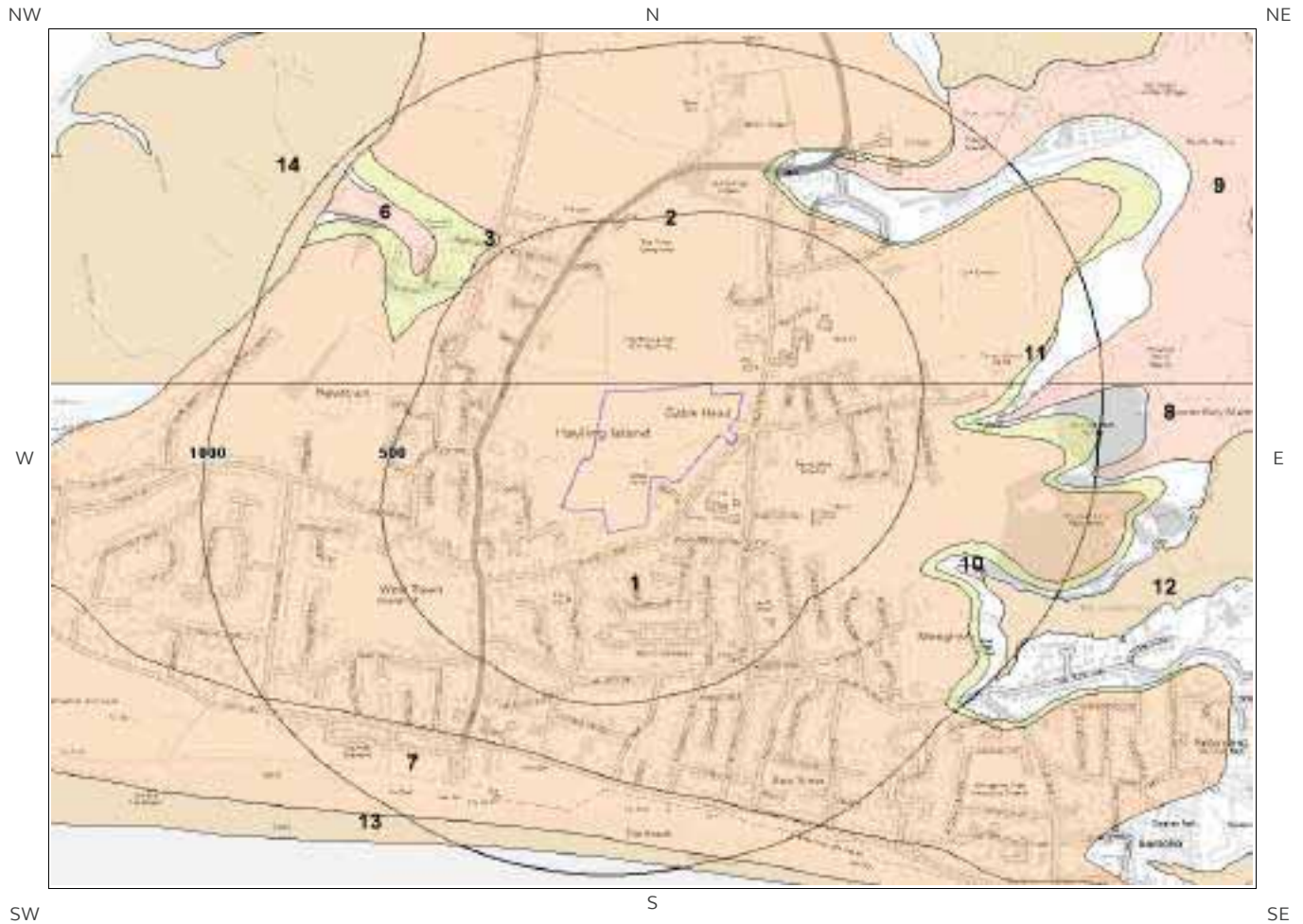
1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

Are there any records of Artificial/ Made Ground within 500m of the study site boundary at 1:10,000 scale? No

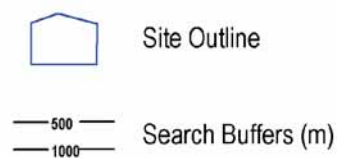
Database searched and no data found.

1.2 Superficial Deposits and Landslips map (1:10,000 scale)



Artificial Ground Legend

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1.2 Superficial Deposits and Landslips

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary at 1:10,000 scale? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	RTDU-CZ	River Terrace Deposits (undifferentiated) - Silty Clay	Clay, Silty
2	1.0	N	RTDU-CZ	River Terrace Deposits (undifferentiated) - Silty Clay	Clay, Silty

1.2.2 Landslip

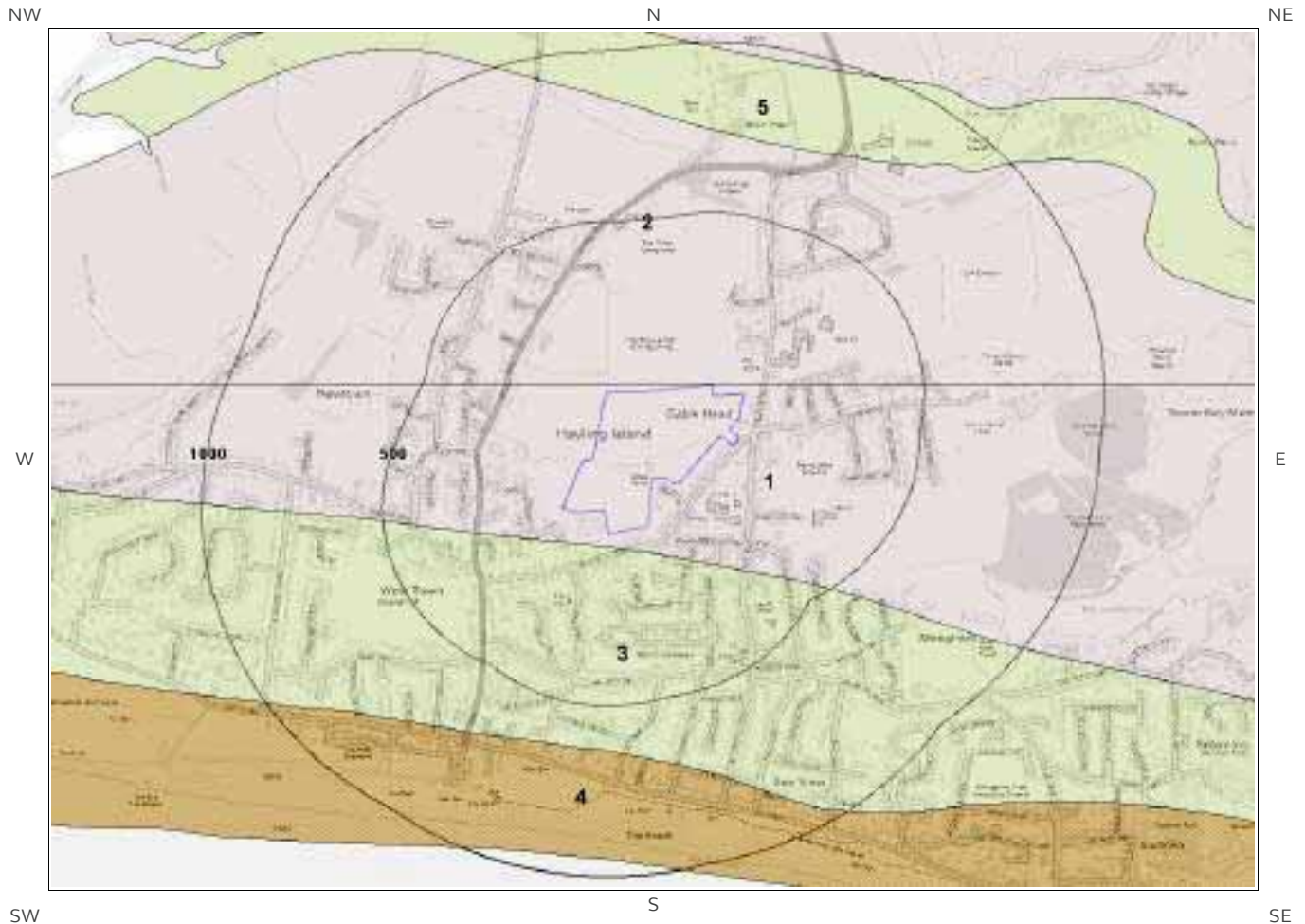
Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:10,000 scale

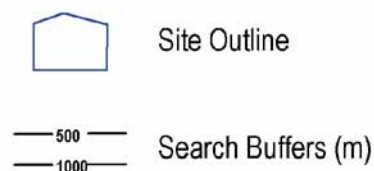
This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3 Bedrock and linear features map (1:10,000 scale)



Bedrock and linear features Legend

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1.3 Bedrock and linear features

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary at 1:10,000 scale.

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
2	1.0	N	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
3	34.0	S	POWH-SSCL	Portsmouth Sand Member And Whitecliff Sand Member (undifferentiated) - Sand, Silt And Clay	Palaeogene Period

1.3.2 Linear features

Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale? No

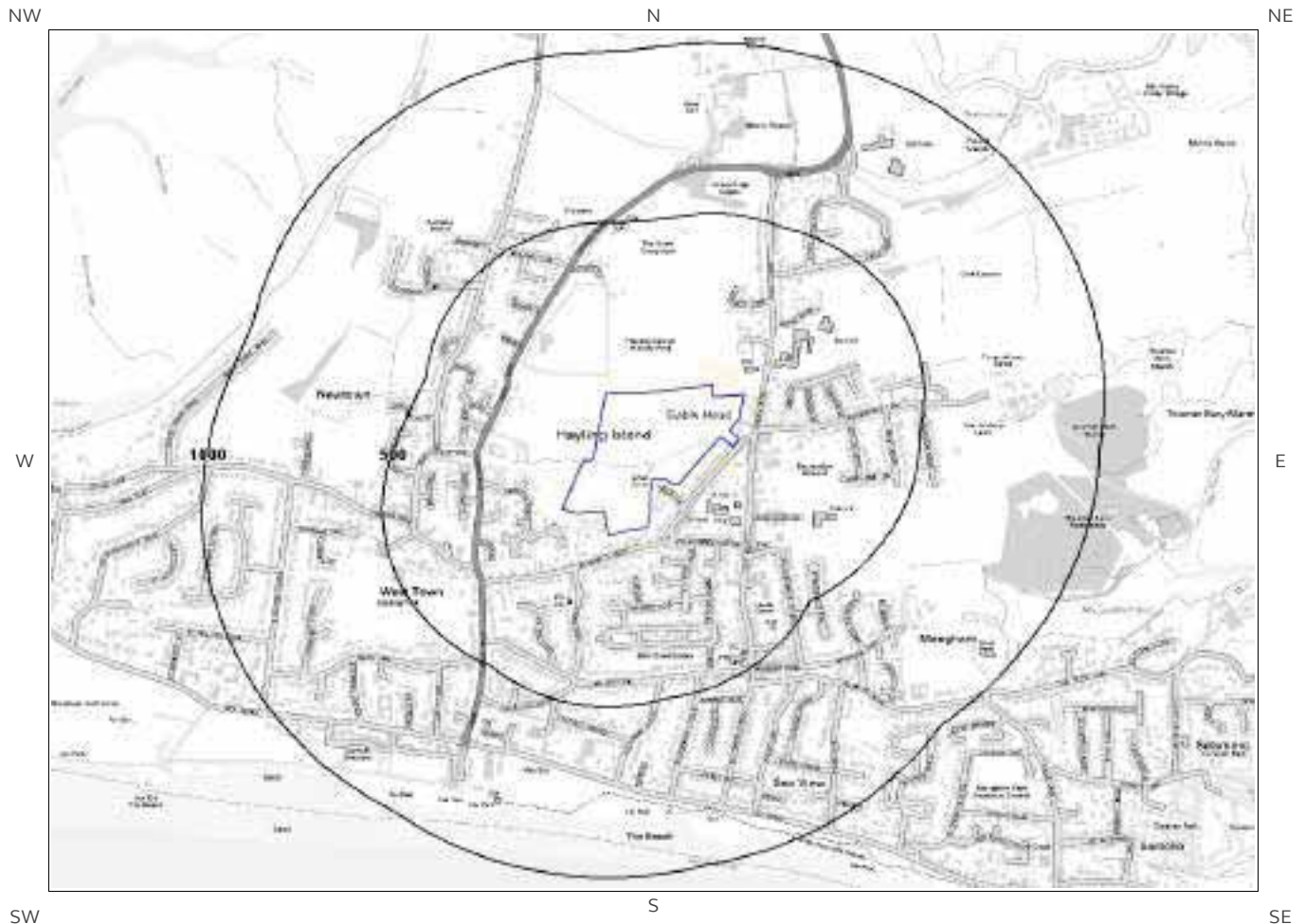
Database searched and no data found at this scale.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

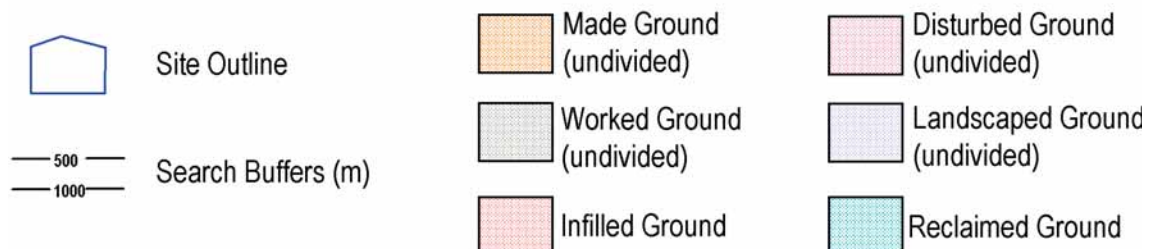
This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2 Geology 1:50,000 Scale

2.1 Artificial Ground map



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2. Geology 1:50,000 scale

2.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 331

2.1.1 Artificial/ Made Ground

Are there any records of Artificial/ Made Ground within 500m of the study site boundary? No

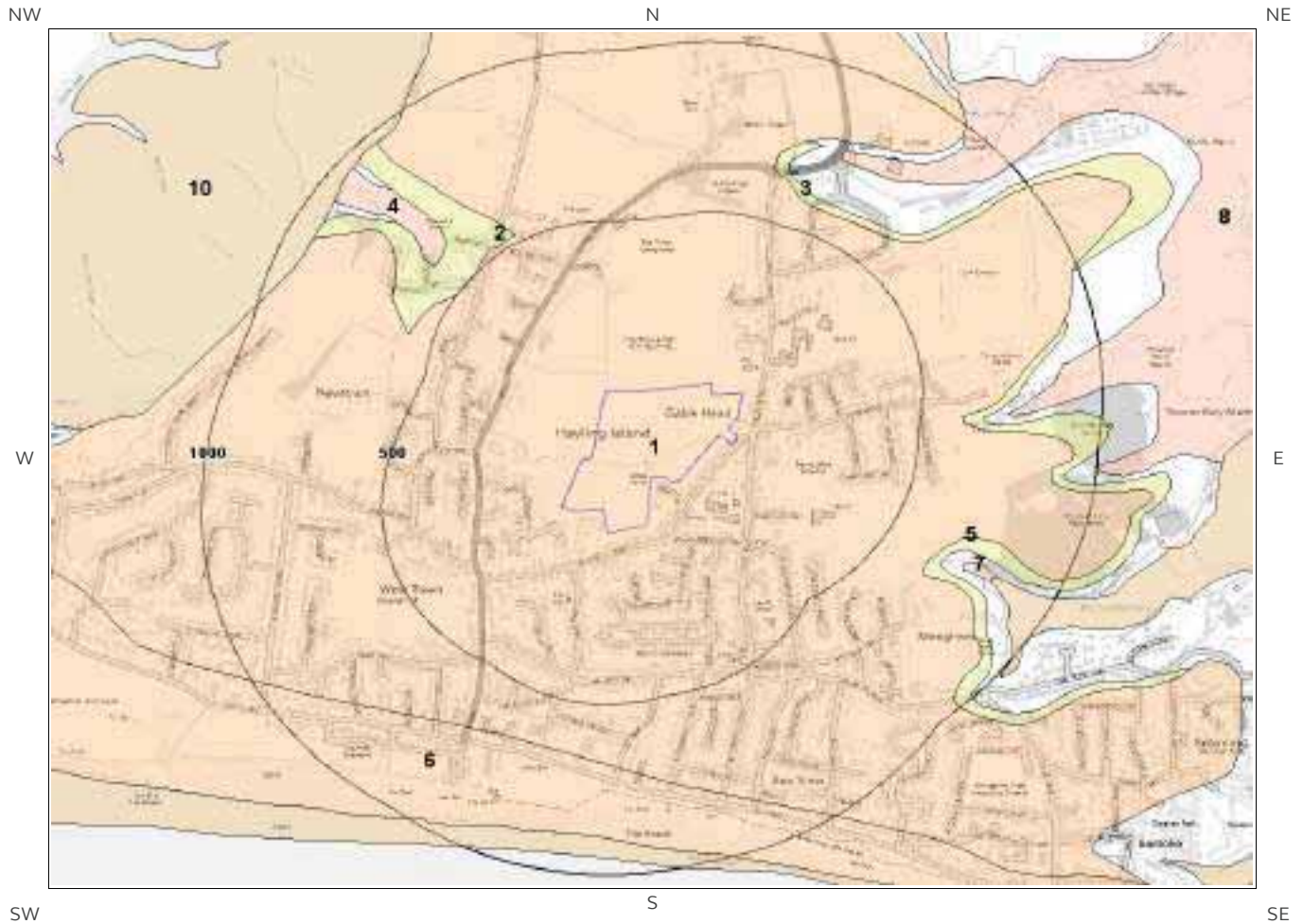
Database searched and no data found.

2.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No

Database searched and no data found.

2.2 Superficial Deposits and Landslips map (1:50,000 scale)



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2.2 Superficial Deposits and Landslips

2.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	RTDU-XSZC	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND, SILT AND CLAY
2	497.0	NW	RBD1-XSV	RAISED BEACH DEPOSITS, 1	SAND AND GRAVEL

2.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	High	Low
1.0	N	Intergranular	High	Low

2.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

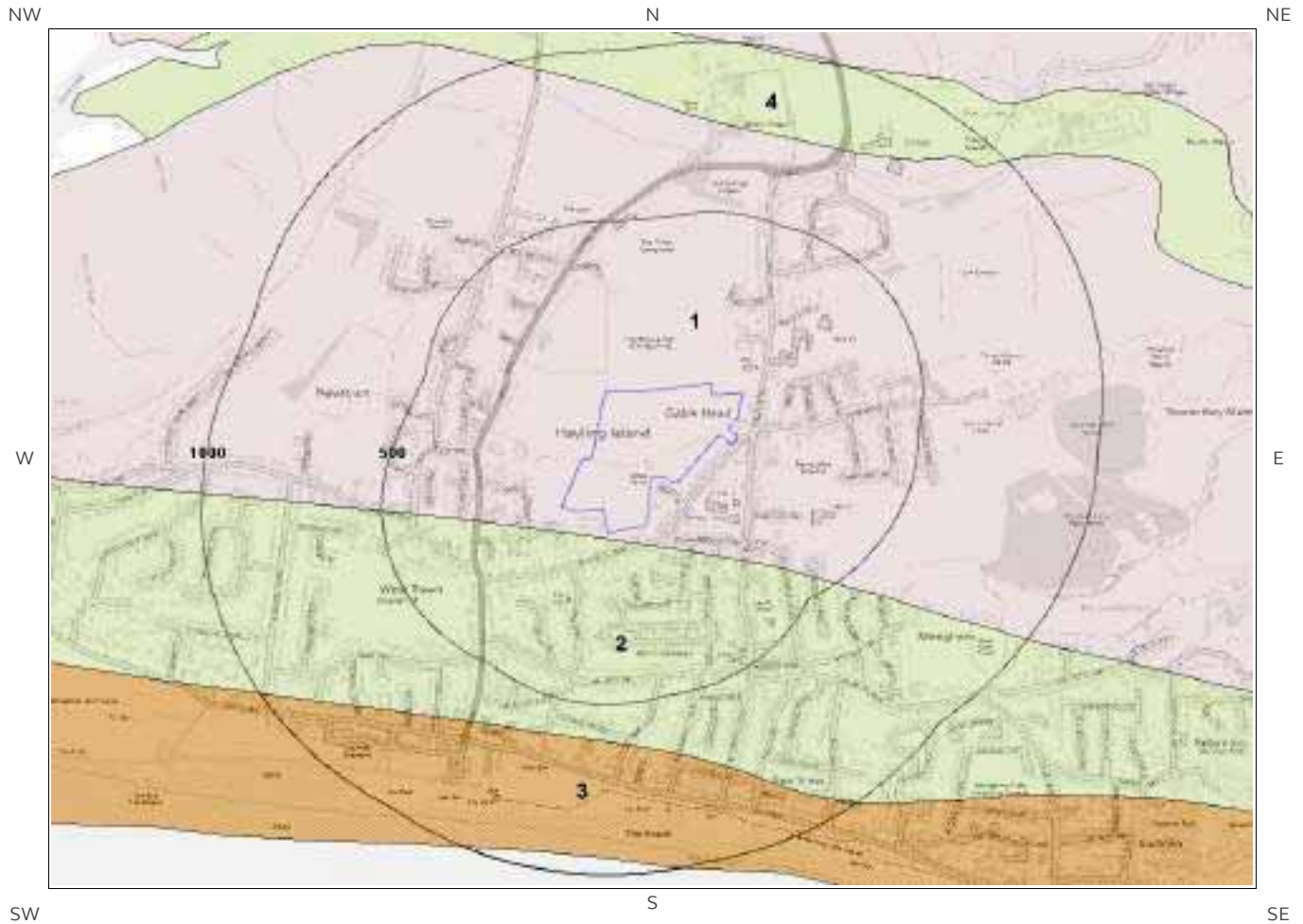
This Geology shows the main components as discrete layers, there are: Artificial/ Made Ground, Superficial/ Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2.2.4 Landslip Permeability

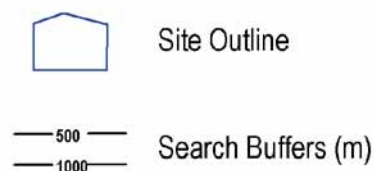
Are there any records relating to permeability of landslips within the study site boundary? No

Database searched and no data found.

2.3 Bedrock and linear features map (1:50,000 scale)



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2.3 Bedrock, Solid Geology & linear features

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 331

2.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN
2	13.0	S	POWH-S	PORTSMOUTH SAND MEMBER AND WHITECLIFF SAND MEMBER (UNDIFFERENTIATED) - SAND	-

2.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site boundary? Yes

Distance	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Moderate	Very Low
1.0	N	Mixed	Moderate	Very Low
13.0	S	Intergranular	High	High

2.3.3 Linear features

Are there any records of linear features within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nation wide coverage.

3 Radon Data

3.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

3.2 Radon Protection

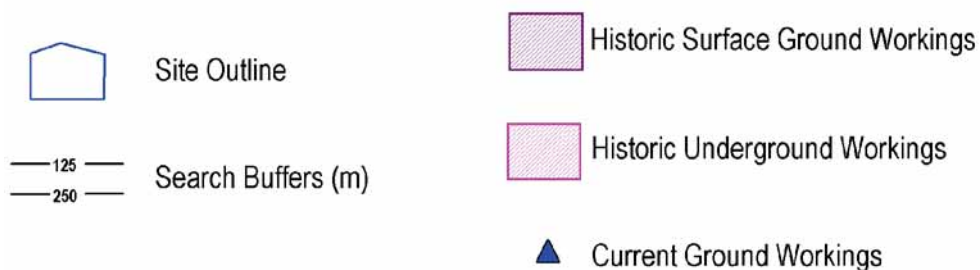
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

4 Ground Workings map



Ground Workings Legend

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4 Ground Workings

4.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Use	Date
1	27.0	N	472206 100040	Grave Yard	1866
2A	99.0	S	471912 99475	Pond	1931
3A	99.0	S	471912 99475	Pond	1938
4A	99.0	S	471912 99475	Pond	1907
5B	209.0	NW	471513 99790	Pond	1931
6B	209.0	NW	471513 99790	Pond	1938

4.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? No

Database searched and no data found.

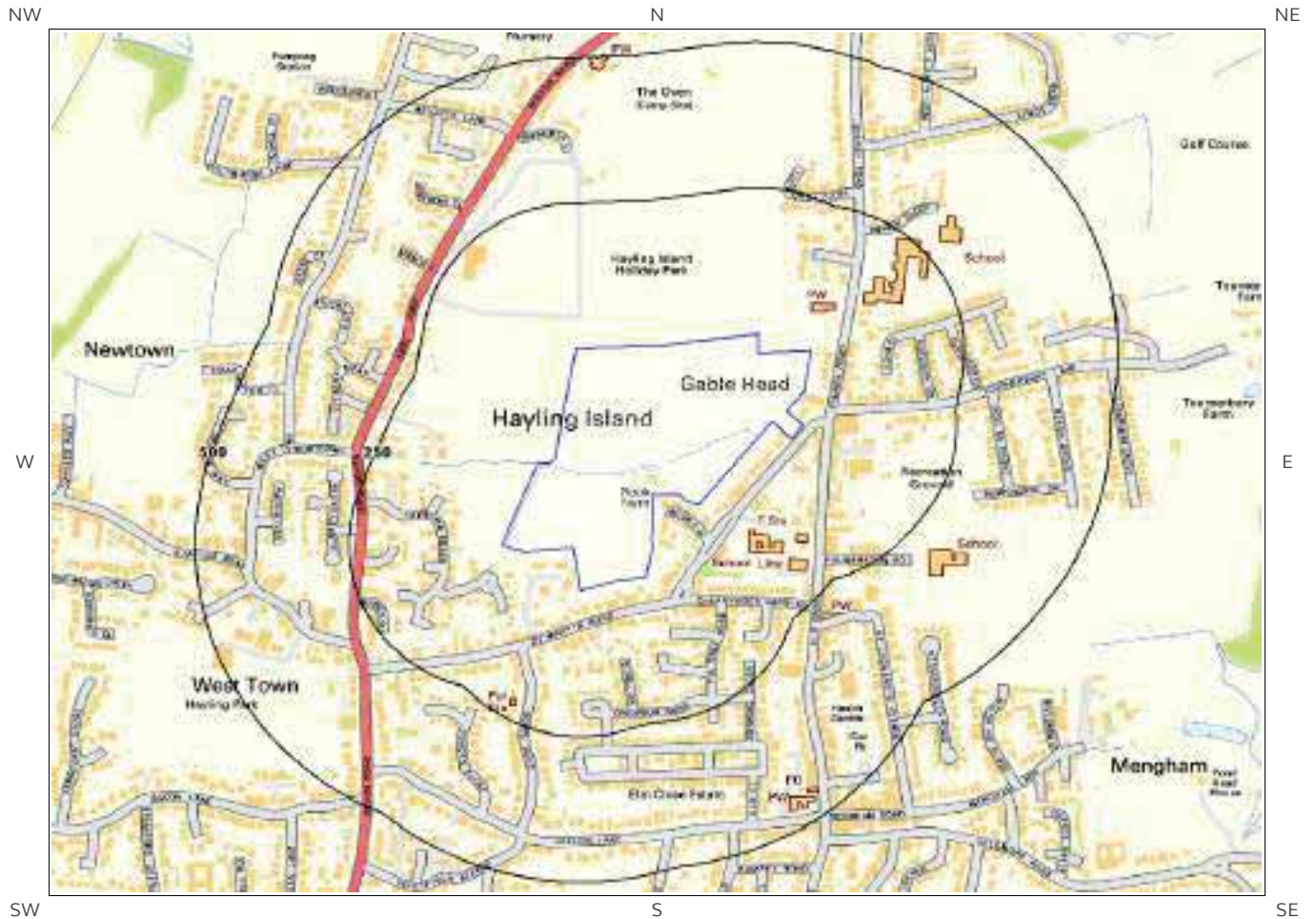
4.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? No

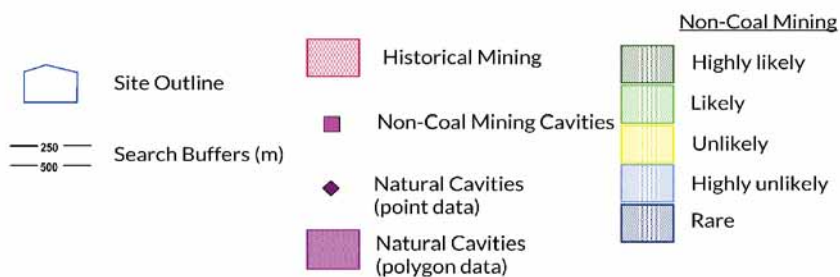
Database searched and no data found.

5 Mining, Extraction & Natural Cavities map



Mining, Extraction and
Natural Cavities Legend

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5 Mining, Extraction & Natural Cavities

5.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

5.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled “Review of mining instability in Great Britain, 1990” PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.6 Natural Cavities

This dataset provides information based on the Peter Brett Associates natural cavities database. The dataset is made up of points and polygons. Where polygons are used these represent an area in which it is expected the cavities could be found. It does not indicate that cavities are present everywhere within the polygon, and caution should be used in the interpretation of this data.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

5.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

5.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level..

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

6 Natural Ground Subsidence

6.1 Shrink-Swell Clay map



Shrink Swell Clay Legend

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6.2 Landslides map



Landslides Legend

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6.3 Ground Dissolution of Soluble Rocks map



6.4 Compressible Deposits map



Compressible Deposits Legend

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6.5 Collapsible Deposits map



Collapsible Deposits Legend

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6.6 Running Sand map



Running Sand Legend

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6 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site** boundary? Low

6.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.
2	1.0	N	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

* This includes an automatically generated 50m buffer zone around the site

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	1.0	N	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

6.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.
2	1.0	N	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

6.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.
2	1.0	N	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

6.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

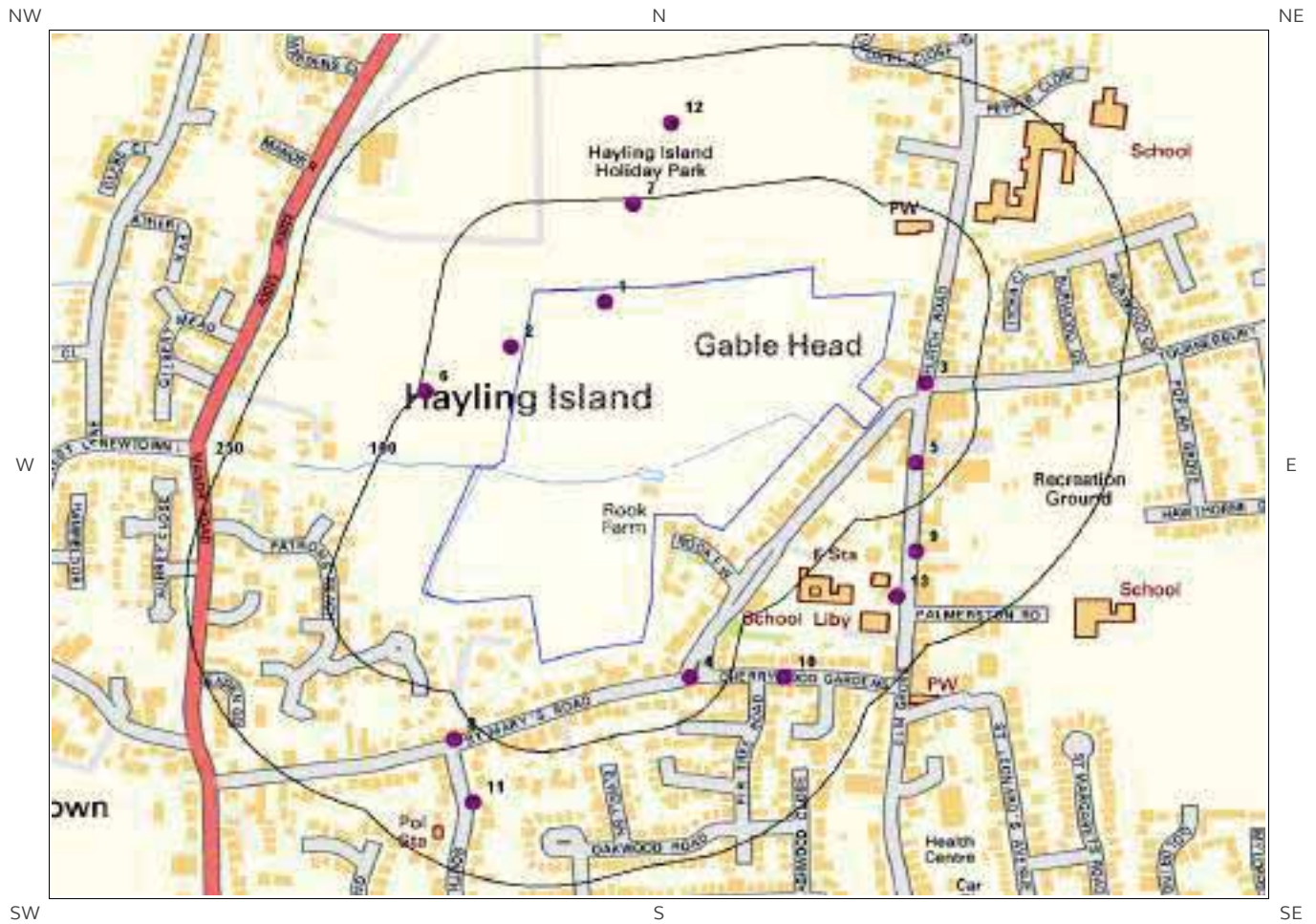
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Slight possibility for collapsible deposit problems after major changes in loading or groundwater conditions. Normal maintenance to avoid large amounts of water entering the ground through pipe leakage or soak-aways should reduce the likelihood of problems due to collapsible deposits. For new build, assess the possibility of collapsible (loessic) deposits in ground investigation. For existing property, no significant increase in insurance risk from collapsible deposits is likely.
2	1.0	N	Low	Slight possibility for collapsible deposit problems after major changes in loading or groundwater conditions. Normal maintenance to avoid large amounts of water entering the ground through pipe leakage or soak-aways should reduce the likelihood of problems due to collapsible deposits. For new build, assess the possibility of collapsible (loessic) deposits in ground investigation. For existing property, no significant increase in insurance risk from collapsible deposits is likely.

6.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

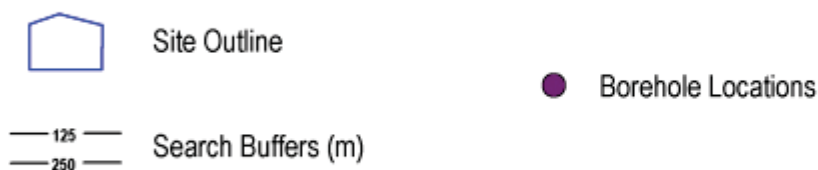
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build - consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property - no significant increase in insurance risk due to running sand problems is likely.
2	1.0	N	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build - consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property - no significant increase in insurance risk due to running sand problems is likely.

7 Borehole Records map



Borehole Records Legend

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7 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

13

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	0.0	On Site	471880 99960	SZ79NW15	7.0	HAYLING ISLAND MAIN DRAINAGE NO.119
2	14.0	W	471780 99910	SZ79NW14	4.0	HAYLING ISLAND MAIN DRAINAGE NO.100
3	52.0	SE	472220 99870	SZ79NW93	3.0	SOUTH HAYLING SURFACE WATER DRAINAGE 2/16
4	65.0	SE	471970 99540	SZ79NW95	3.0	SOUTH HAYLING SURFACE WATER DRAINAGE 2/18
5	65.0	SE	472210 99780	SZ79NW92	3.0	SOUTH HAYLING SURFACE WATER DRAINAGE 2/15
6	93.0	W	471690 99860	SZ79NW13	4.0	HAYLING ISLAND MAIN DRAINAGE NO.101
7	93.0	N	471910 100070	SU70SW108	7.0	HAYLING ISLAND MAIN DRAIN BH99
8	127.0	SW	471720 99470	SZ79NW96	3.0	SOUTH HAYLING SURFACE WATER DRAINAGE 2/19
9	148.0	S	472210 99680	SZ79NW91	4.0	SOUTH HAYLING SURFACE WATER DRAINAGE 2/14
10	156.0	E	472070 99540	SZ79NW94	3.0	SOUTH HAYLING SURFACE WATER DRAINAGE 2/17
11	173.0	SW	471740 99400	SZ79NW97	3.0	SOUTH HAYLING SURFACE WATER DRAINAGE 2/20
12	180.0	N	471950 100160	SU70SW107	6.0	HAYLING ISLAND MAIN DRAIN 107
13	190.0	SE	472190 99630	SZ79NW90	4.0	SOUTH HAYLING SURFACE WATER DRAINAGE 2/13

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#1: scans.bgs.ac.uk/sobi_scans/boreholes/455974
#2: scans.bgs.ac.uk/sobi_scans/boreholes/455973
#3: scans.bgs.ac.uk/sobi_scans/boreholes/456052
#4: scans.bgs.ac.uk/sobi_scans/boreholes/456054
#5: scans.bgs.ac.uk/sobi_scans/boreholes/456051
#6: scans.bgs.ac.uk/sobi_scans/boreholes/455972
#7: scans.bgs.ac.uk/sobi_scans/boreholes/425777
#8: scans.bgs.ac.uk/sobi_scans/boreholes/456055
#9: scans.bgs.ac.uk/sobi_scans/boreholes/456050
#10: scans.bgs.ac.uk/sobi_scans/boreholes/456053
#11: scans.bgs.ac.uk/sobi_scans/boreholes/456056
#12: scans.bgs.ac.uk/sobi_scans/boreholes/425776
#13: scans.bgs.ac.uk/sobi_scans/boreholes/456049

8 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

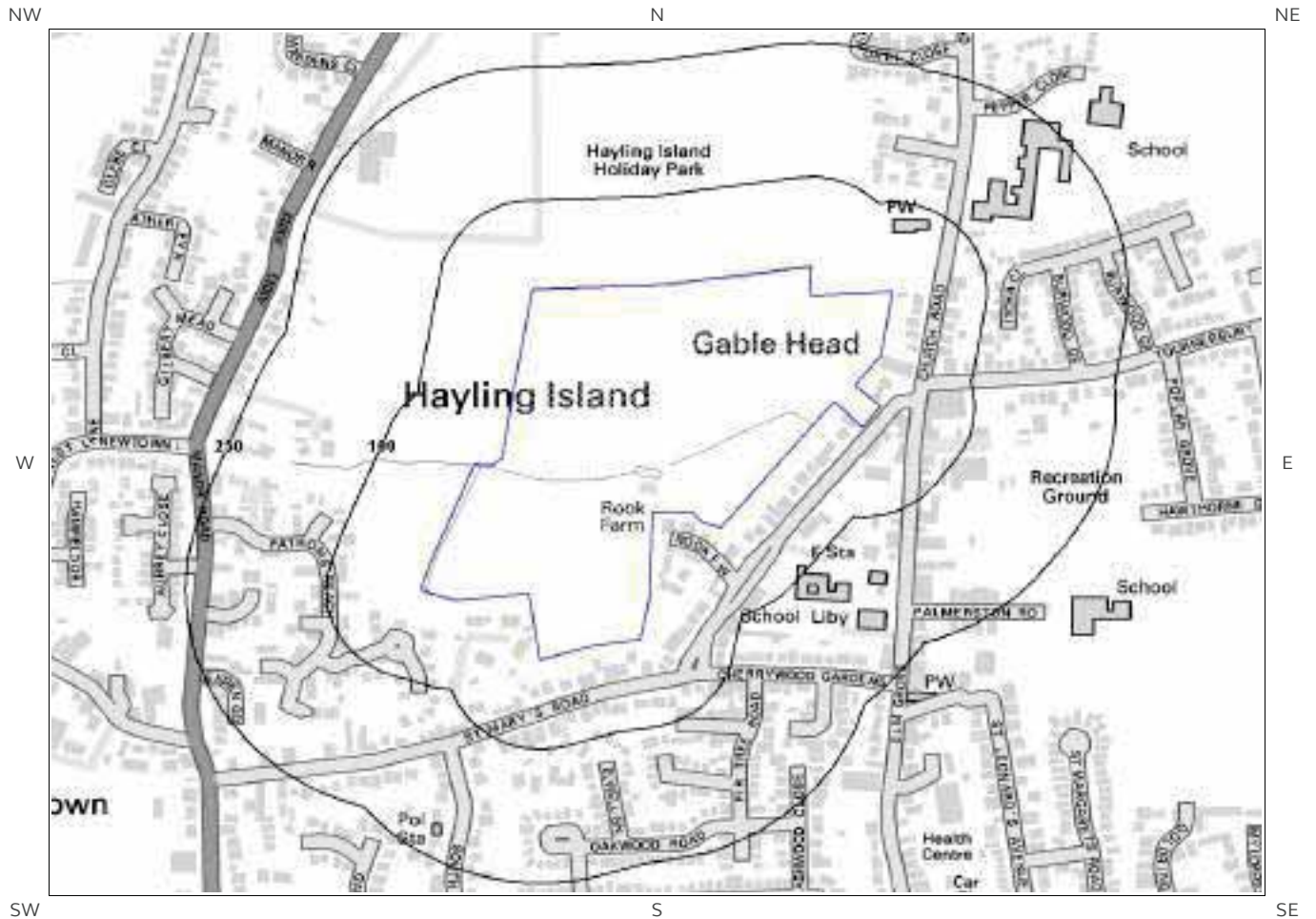
10

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
1.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
1.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
13.0	S	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
14.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
14.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
14.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
14.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg

*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

9 Railways and Tunnels map



Railways and Tunnels Legend

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Ordnance Survey license 100035207.
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9 Railways and Tunnels

9.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

9.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

9.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary? No

Have any historical railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary? No

Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project? No

Is the study site within 500m of the route of the Crossrail 1 rail project? No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

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BGS Geological Hazards Reports and general geological enquiries



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www.coal.gov.uk



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Standard Terms and Conditions

Groundsure's Terms and Conditions can be viewed online at this link:
<https://www.groundsure.com/terms-and-conditions-may25-2018>



EmapSite

Masdar House, 1 Reading Road,
Eversley, RG27 0RP

Groundsure
Reference:

EMS-481373_645852

Your Reference:

EMS_481373_645852

Report Date

31 May 2018

Report Delivery
Method:

Email - pdf

Enviro Insight

Address: Land north of St. Mary's Road, St. Mary's Road, Hayling Island , PO11 9DF,

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviro Insight** as requested.

If you would like further assistance regarding this report then please contact the emapsite customer services team on 0118 9736883 quoting the above report reference number.

Yours faithfully,

emapsite customer services team

Enc.
Groundsure Enviroinsight

Enviro Insight

Address: Land north of St. Mary's Road, St. Mary's Road, Hayling Island , PO11 9DF,
Date: 31 May 2018
Reference: EMS-481373_645852
Client: EmapSite



Aerial Photograph Capture date: 17-Apr-2016
Grid Reference: 471925,099809
Site Size: 11.91ha

Report Reference: EMS-481373_645852
Client Reference: EMS_481373_645852

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Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	1	4	8	7
1.2 Additional Information – Historical Tank Database	0	0	1	10
1.3 Additional Information – Historical Energy Features Database	1	6	17	54
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	4	19
1.6 Potentially Infilled Land	0	1	5	7

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	1	1
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	1
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	2	0
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	0	1	0
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	2	3

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	2	9	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	1	1
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Records of Artificial Ground and Made Ground present beneath the study site	None identified
5.2 Records of Superficial Ground and Drift Geology present beneath the study site	Identified
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m					
6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site	Identified					
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site	Identified					
	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	1
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	1	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	3	2	1	0	Not searched	Not searched

Section 6: Hydrogeology and Hydrology		0-500m				
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site	No	No	No	No	No	No
6.10 Ordnance Survey MasterMap Water Network entries within 500m of the site	20	0	0	4	Not searched	Not searched
6.11 Surface water features within 250m of the study site	Yes	No	No	Not searched	Not searched	Not searched

Section 7: Flooding	
7.1 Environment Agency Zone 2 floodplains within 250m of the study site	None identified
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	None identified
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site	Very Low
7.4 Flood Defences within 250m of the study site	None identified
7.5 Areas benefiting from Flood Defences within 250m of the study site	None identified
7.6 Areas used for Flood Storage within 250m of the study site	None identified
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site	Potential at Surface
7.8 BGS confidence rating for the Groundwater Flooding susceptibility areas	Moderate

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	8	13
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	2	5
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	3	3
8.5 Records of Ramsar sites	0	0	0	0	3	3
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	1	1
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	1	1	0
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	1	0	0	0	0	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards		
9.1 Maximum risk of natural ground subsidence		Low
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site		Low
9.1.2 Maximum Landslides hazard rating identified on the study site		Very Low
9.1.3 Maximum Soluble Rocks hazard rating identified on the study site		Negligible
9.1.4 Maximum Compressible Ground hazard rating identified on the study site		Negligible
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site		Low
9.1.6 Maximum Running Sand hazard rating identified on the study site		Low
9.2 Radon		
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The site is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.	
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.	

Section 10: Mining		
10.1 Coal mining areas within 75m of the study site		None identified
10.2 Non-Coal Mining areas within 50m of the study site boundary		None identified
10.3 Brine affected areas within 75m of the study site		None identified

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

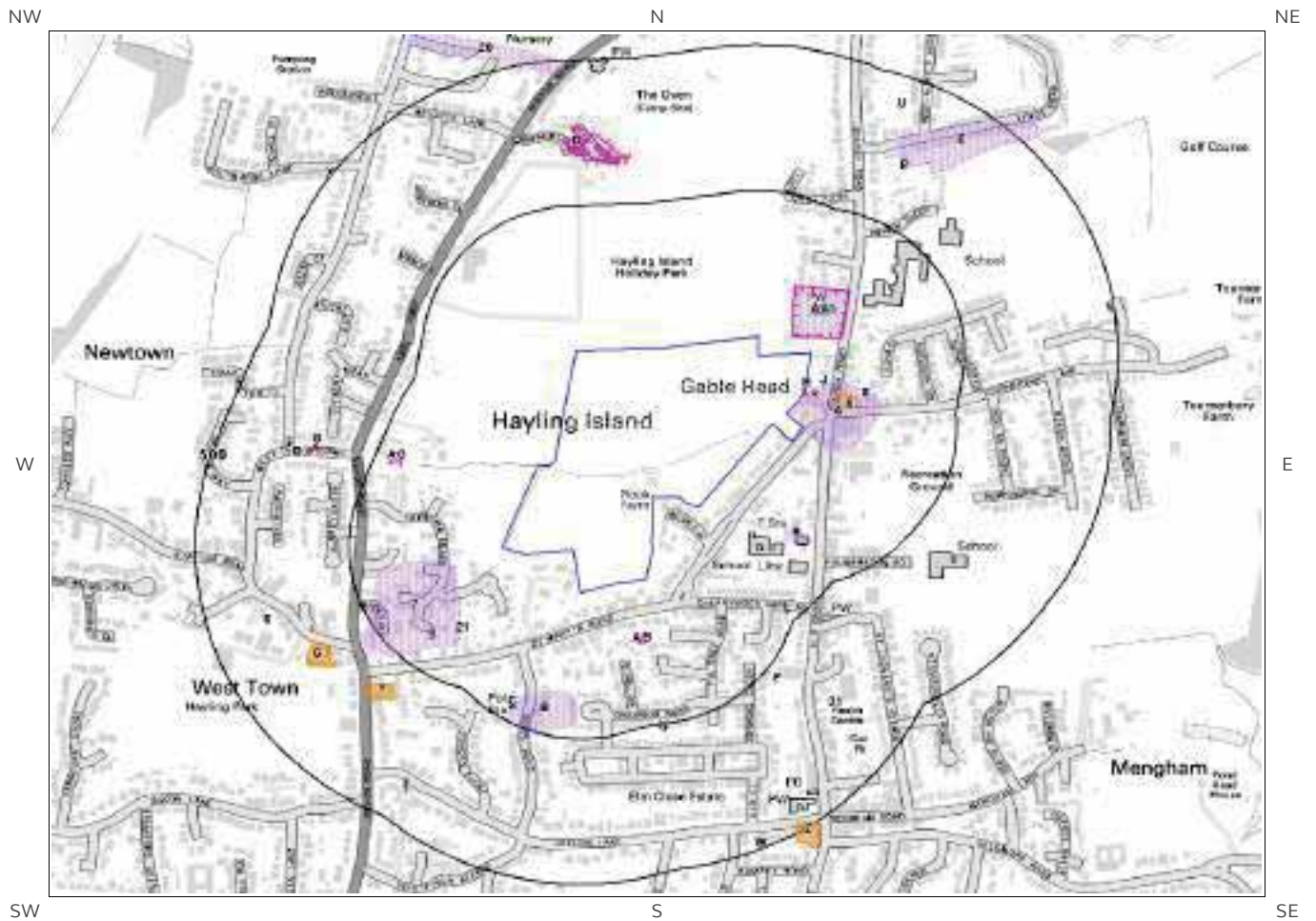
Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Historical Land Use



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1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 20

ID	Distance [m]	Direction	Use	Date
1I	0	On Site	Unspecified Works	1990
2A	1	NE	Smithy	1896
3A	21	E	Smithy	1896
4AA	27	N	Grave Yard	1866
5	29	E	Smithy	1896
6A	52	E	Smithy	1866
7	85	SW	Military Camp	1957
8	96	E	Smithy	1896
9	128	SE	Fire Station	1990
10B	170	S	Smithy	1896
11B	208	S	Smithy	1866
12C	213	SW	Police Station	1990
13C	247	SW	Smithy	1896
14D	347	N	Refuse Heap	1913
15D	347	N	Refuse Heap	1913
16E	348	NE	Nursery	1931
17D	349	N	Refuse Heap	1911
18E	350	NE	Nursery	1938
19D	350	N	Refuse Heap	1907
20	476	N	Nursery	1970

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary: 11

ID	Distance (m)	Direction	Use	Date
21	155	SW	Unspecified Tank	1987
22F	274	SE	Unspecified Tank	1996
23F	274	SE	Unspecified Tank	1980

24F	274	SE	Unspecified Tank	1968
25F	274	SE	Unspecified Tank	1989
26F	274	SE	Unspecified Tank	1986
27F	274	SE	Unspecified Tank	1979
28F	274	SE	Unspecified Tank	1979
29G	353	SW	Unspecified Tank	1932
30G	353	SW	Unspecified Tank	1937
31	376	SE	Unspecified Tank	1979

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary:

78

ID	Distance (m)	Direction	Use	Date
32H	0	On Site	Electricity Substation	1968
33H	13	E	Electricity Substation	1996
34I	13	E	Electricity Substation	1980
35H	16	E	Electricity Substation	1986
36H	16	E	Electricity Substation	1989
37J	26	E	Electricity Substation	1979
38J	26	E	Electricity Substation	1979
39K	187	SW	Electricity Substation	1997
40K	187	SW	Electricity Substation	1996
41K	190	SW	Electricity Substation	1989
42K	191	SW	Electricity Substation	1990
43L	227	SE	Electricity Substation	1996
44L	228	SE	Electricity Substation	1968
45L	228	SE	Electricity Substation	1980
46L	228	SE	Electricity Substation	1979
47L	228	SE	Electricity Substation	1989
48L	228	SE	Electricity Substation	1986
49L	228	SE	Electricity Substation	1979
50M	242	E	Electricity Substation	1996
51M	242	E	Electricity Substation	1968
52M	245	E	Electricity Substation	1989
53M	245	E	Electricity Substation	1986
54M	245	E	Electricity Substation	1979
55M	245	E	Electricity Substation	1979
56N	256	S	Electricity Substation	1990
57N	257	S	Electricity Substation	1996
58N	257	S	Electricity Substation	1997

59N	258	S	Electricity Substation	1989
60O	341	NW	Electricity Substation	1968
61O	341	NW	Electricity Substation	1989
62O	342	NW	Electricity Substation	1997
63O	342	NW	Electricity Substation	1996
64O	344	NW	Electricity Substation	1987
65O	344	NW	Electricity Substation	1990
66P	347	NE	Electricity Substation	1996
67P	350	NE	Electricity Substation	1968
68P	350	NE	Electricity Substation	1990
69P	350	NE	Electricity Substation	1957
70P	350	NE	Electricity Substation	1990
71Q	365	N	Electricity Substation	1968
72Q	366	N	Electricity Substation	1991
73Q	366	N	Electricity Substation	1988
74Q	366	N	Electricity Substation	1957
75R	368	W	Gas Governor	1997
76R	368	W	Gas Governor	1996
77R	368	W	Gas Governor	1989
78R	370	W	Gas Governor	1990
79Q	379	N	Electricity Substation	1996
80S	403	W	Electricity Substation	1996
81S	403	W	Electricity Substation	1997
82S	403	W	Electricity Substation	1989
83S	405	W	Electricity Substation	1990
84T	433	SW	Electricity Substation	1996
85T	433	SW	Electricity Substation	1997
86T	434	SW	Electricity Substation	1990
87T	434	SW	Electricity Substation	1987
88T	434	SW	Electricity Substation	1989
89U	444	N	Electricity Substation	1996
90U	445	N	Electricity Substation	1968
91U	446	N	Electricity Substation	1990
92U	446	N	Electricity Substation	1990
93U	446	N	Electricity Substation	1957
94V	488	E	Electricity Substation	1957
95V	488	E	Electricity Substation	1990
96V	488	E	Electricity Substation	1990
97V	489	E	Electricity Substation	1996
98W	492	S	Electricity Substation	1996
99W	494	S	Electricity Substation	1968
100W	494	S	Electricity Substation	1980
101W	496	S	Electricity Substation	1979
102W	496	S	Electricity Substation	1979
103W	496	S	Electricity Substation	1986
104W	496	S	Electricity Substation	1989

105X	498	NW	Electricity Substation	1991
106X	498	NW	Electricity Substation	1957
107X	498	NW	Electricity Substation	1988
108X	499	NW	Electricity Substation	1996
109X	500	NW	Electricity Substation	1968

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 23

ID	Distance (m)	Direction	Use	Date
110A	52	E	Garage	1980
111A	52	E	Garage	1968
112A	53	E	Garage	1986
113A	53	E	Garage	1979
114Y	292	SW	Garage	1968
115Y	292	SW	Garage	1997
116Y	292	SW	Garage	1996
117Y	294	SW	Garage	1987
118Y	294	SW	Garage	1990
119Y	301	SW	Garage	1989
120G	325	SW	Garage	1989
121G	325	SW	Garage	1968
122G	328	SW	Garage	1987
123G	330	SW	Garage	1990
124G	333	SW	Garage	1996
125G	333	SW	Garage	1997
126Z	484	SE	Garage	1996
127Z	486	SE	Garage	1980
128Z	486	SE	Garage	1968
129Z	488	SE	Garage	1989
130Z	488	SE	Garage	1986

131Z	488	SE	Garage	1979
132Z	488	SE	Garage	1979

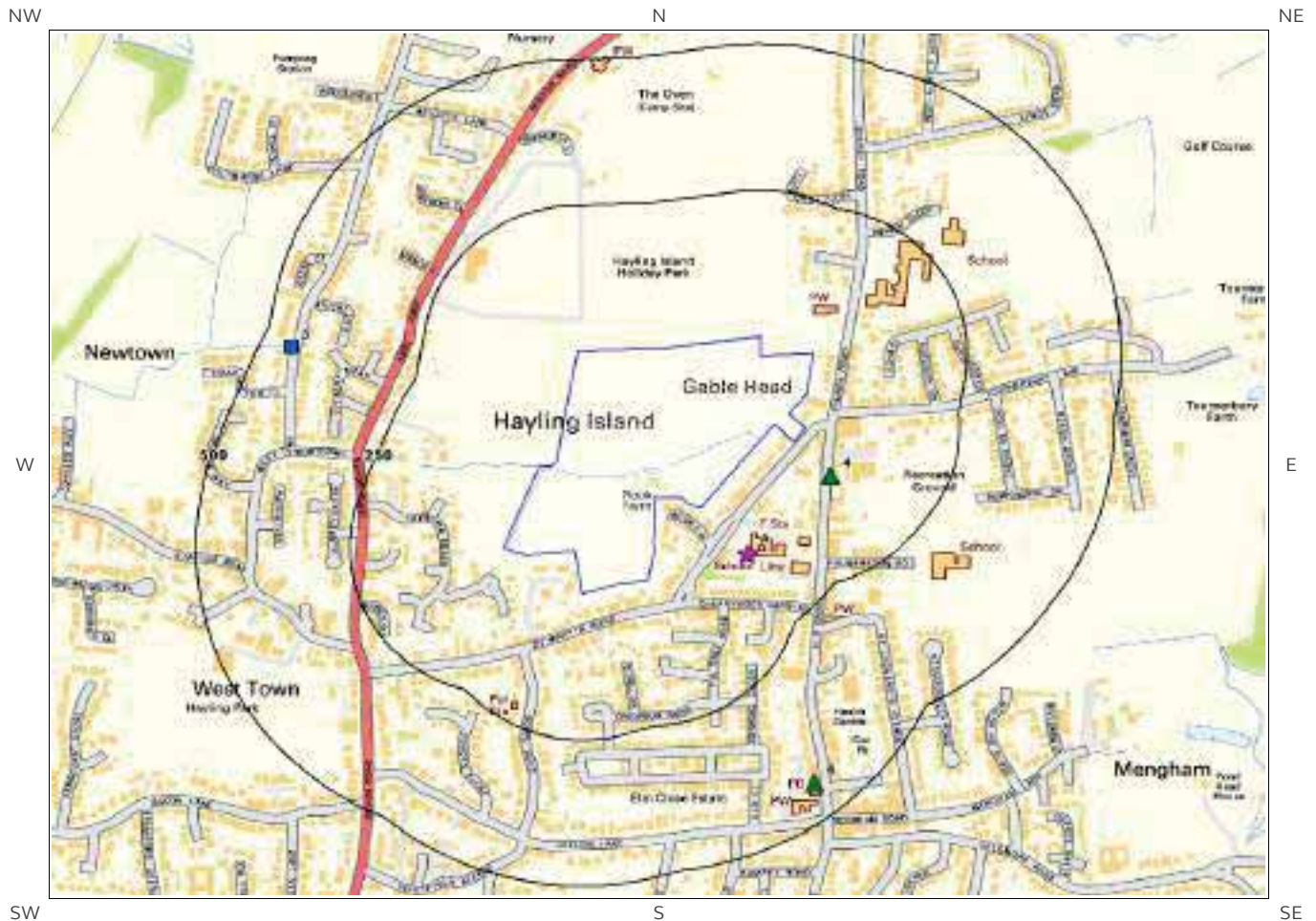
1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 13

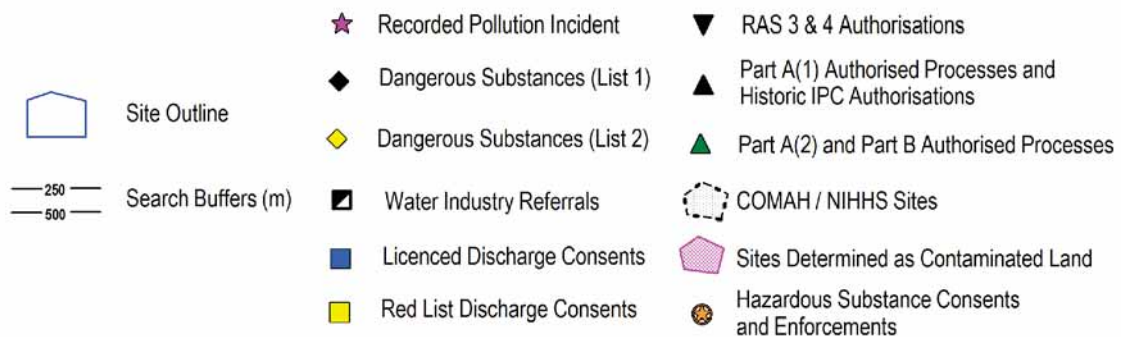
The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
133AA	27	N	Grave Yard	1866
134AB	99	S	Pond	1907
135AB	99	S	Pond	1931
136AB	99	S	Pond	1938
137AC	209	NW	Pond	1938
138AC	209	NW	Pond	1931
139D	319	N	Pond	1931
140D	320	N	Pond	1938
141	323	N	Ponds	1957
142D	347	N	Refuse Heap	1913
143D	347	N	Refuse Heap	1913
144D	349	N	Refuse Heap	1911
145D	350	N	Refuse Heap	1907

2. Environmental Permits, Incidents and Registers Map



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2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
4	85	SE	472216 99757	Address: Spotless Too, 122 Elm Grove, Hayling Island, PO11 9EH Process: Dry Cleaning Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
5	442	SE	472189 99230	Address: Cleancare Dry Cleaners, 9 Elm Grove, Hayling Island, PO11 9EA Process: Dry Cleaning Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

1

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
3	452	NW	471340 099980	Address: NEWTOWN LANE, NEWTOWN LANE, HAYLING ISLAND HAMPSHIRE Effluent Type: UNSPECIFIED Permit Number: H00079 Permit Version: 1 Receiving Water: FRESHWATER RIVER Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 22/01/1965 Effective Date: 22-Jan-1965 Revocation Date: 31/03/1997

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

0

Database searched and no data found.

2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

2

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
1A	111	SE	472081 99625	Incident Date: 01-Jan-2002 Incident Identification: 50041 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
2A	111	SE	472081 99625	Incident Date: 01-Jan-2002 Incident Identification: 50041 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

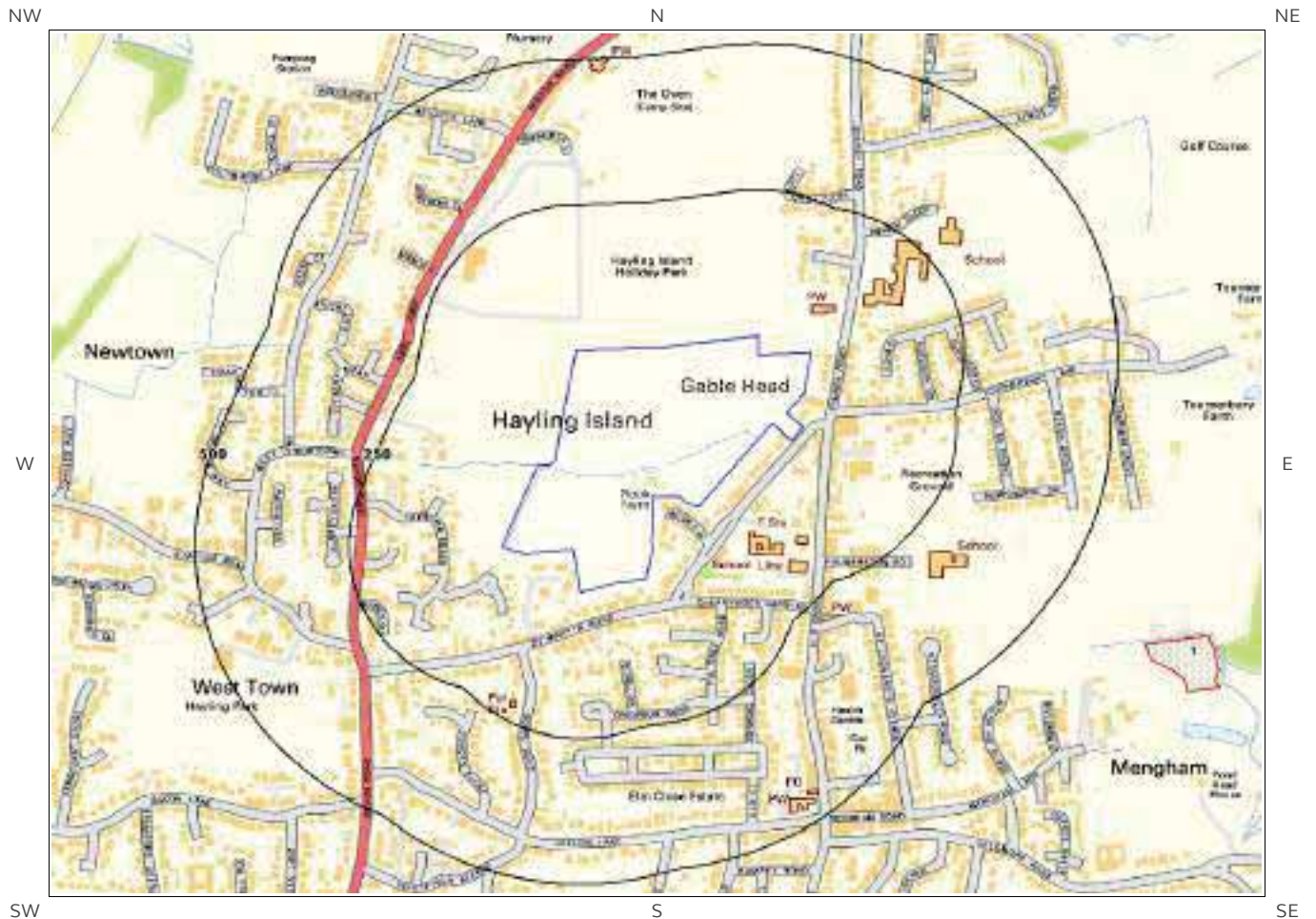
Database searched and no data found.

2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

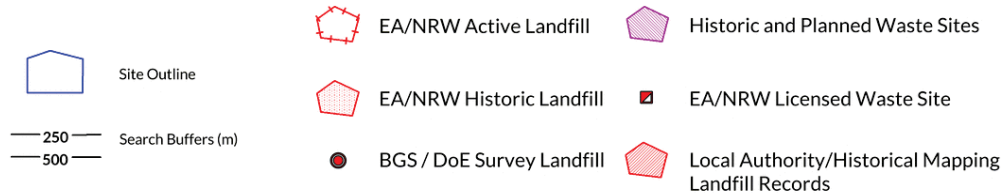
Records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site 0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



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3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

1

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
1	670	SE	472800 99400	Site Address: North of Mengham House, Mengham Lane, Hayling Island, Hampshire Waste Licence: Yes Site Reference: FHA5, 13/23 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 17-Jul-1991 Licence Surrendered: Licence Holder Address: Mengham House, Mengham Lane, Hayling Island, Hampshire Operator: - Licence Holder: Mrs J M Selby First Recorded: - Last Recorded: -

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

0

Database searched and no data found.

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

0

Database searched and no data found.

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

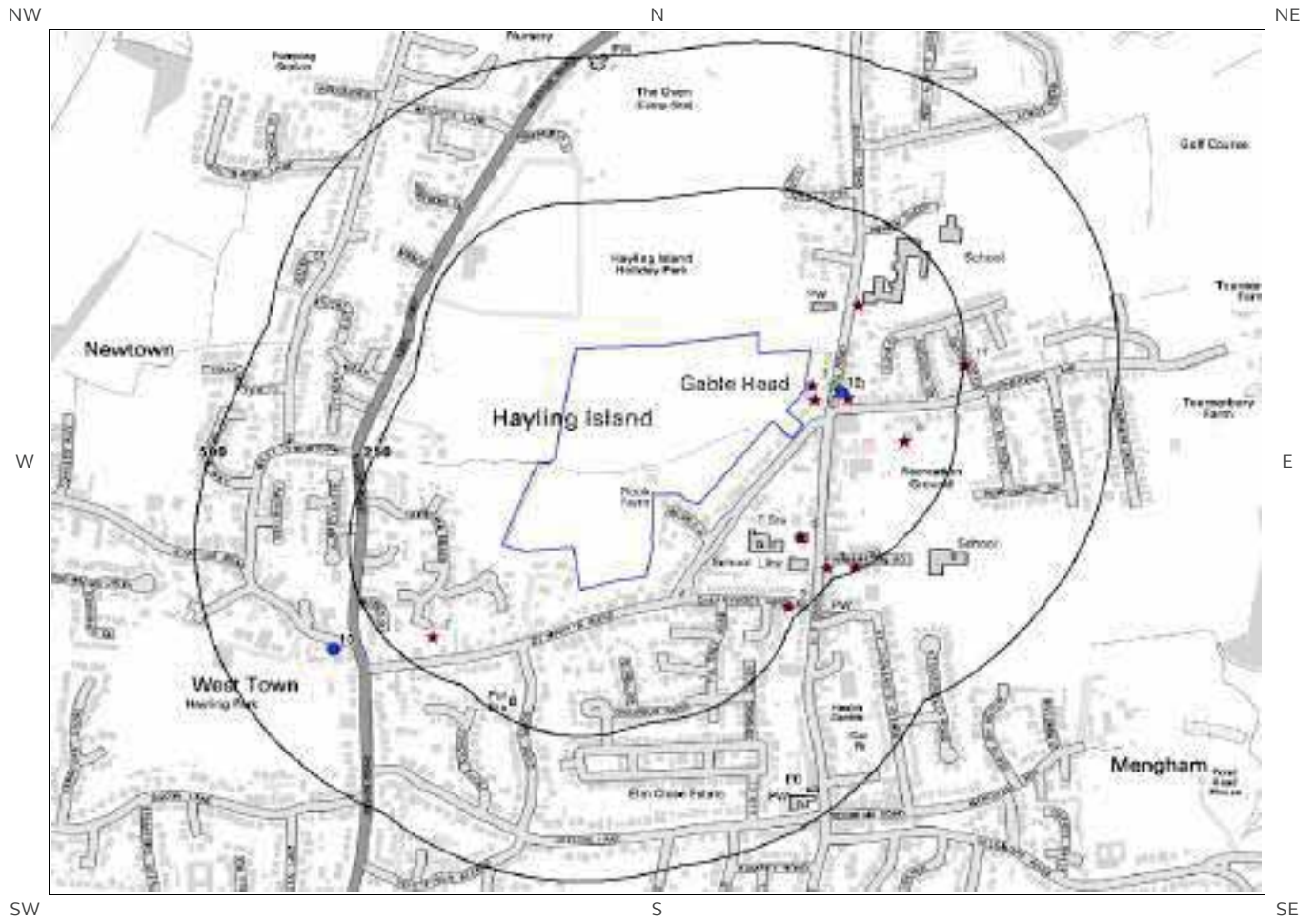
5

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
Not shown	852	N	472060 100850	Site Address: Osier Dell, Manor Farm, Manor Road, Hayling Island, Hampshire, PO11 0QW Type: Composting Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: FIE012 EPR reference: EA/EPR/KP3395ED/A001 Operator: Fieldfare U K Limited Waste Management licence No: 100006 Annual Tonnage: 7999.0 Issue Date: 28/11/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Fieldfare Uk Limited Correspondence Address: -
Not shown	852	N	472060 100850	Site Address: Osier Dell, Manor Farm, Manor Road, Hayling Island, Hampshire, PO11 0QW Type: Composting Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TWG001 EPR reference: EA/EPR/EB3300GW/T001 Operator: The Woodhorn Group Ltd Waste Management licence No: 100006 Annual Tonnage: 7999.0 Issue Date: 28/11/2007 Effective Date: 12/10/2016 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Manor Farm Correspondence Address: -
Not shown	1296	N	472526 101224	Site Address: Freezer Boat Yard, Mill Rythe Lane, Hayling Island, Hampshire, PO11 0QG Type: ELV Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HMS003 EPR reference: EA/EPR/JP3295HD/S002 Operator: H M S Total Vehicle Recovery Ltd Waste Management licence No: 10250 Annual Tonnage: 0.0 Issue Date: 22/10/2004 Effective Date: - Modified: - Surrendered Date: 02/05/2012 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Hms Total Vehicle Recovery Ltd Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	1319	N	472510 101253	Site Address: Land / Premises At, Mill Rythe Lane, Hayling Island, Hampshire, PO11 0QG Type: ELV Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HOW007 EPR reference: EA/EPR/YP3195HT/S002 Operator: Howards Car Spares Waste Management licence No: 10241 Annual Tonnage: 0.0	Issue Date: 24/05/2004 Effective Date: - Modified: - Surrendered Date: 24/03/2015 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Howards Car Spares Correspondence Address: -
Not shown	1319	N	472510 101253	Site Address: Land / Premises At, Mill Rythe Lane, Hayling Island, Hampshire, PO11 0QG Type: ELV Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HOW007 EPR reference: EA/EPR/YP3195HT/S002 Operator: Howards Car Spares Waste Management licence No: 10241 Annual Tonnage: 0.0	Issue Date: 24/05/2004 Effective Date: - Modified: - Surrendered Date: 24/03/2015 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Howards Car Spares Correspondence Address: -

4. Current Land Use Map



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4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

11

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	12	E	Electricity Sub Station	472190 99909	PO11	Electrical Features	Infrastructure and Facilities
2	23	SE	Works	472195 99885	PO11	Unspecified Works Or Factories	Industrial Features
3	72	E	Hayling Garage	472247 99888.	2-4, Church Road, Hayling Island, PO11 ONT	New Vehicles	Motoring
4	109	NE	Gas Governor Station	472265 100048	PO11	Gas Features	Infrastructure and Facilities
5	162	SE	Hayling Island Fire Station	472171 99650.	Hayling Island Fire Station 103, Elm Grove, Hayling Island, PO11 9ED	Fire Brigade Stations	Central and Local Government
6	167	E	Wks	472341 99815	PO11	Unspecified Works Or Factories	Industrial Features
7	195	SW	Electricity Sub Station	471572 99477	PO11	Electrical Features	Infrastructure and Facilities
8	228	SE	Electricity Sub Station	472151 99530	PO11	Electrical Features	Infrastructure and Facilities
9	230	S	Hayling Garage	472213 99595.	86, Elm Grove, Hayling Island, PO11 9EH	Vehicle Repair, Testing and Servicing	Repair and Servicing
10	243	SE	Southpest Services	472261 99598.	14, Palmerston Road, Hayling Island, PO11 9ET	Pest and Vermin Control	Contract Services
11	250	E	Electricity Sub Station	472437 99945	PO11	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

2

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
12	61	E	472238 99898	Obsolete	Hayling Garage, 2-4, Church Road, Church Road, Tournernburg Lane, Hayling Island, Hampshire, PO11 ONT	Not Applicable	Obsolete

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
13	329	SW	471410 99456	Proteus	West End Garage, 5, Station Road, Station Road, Hayling Island, Hampshire, PO11 0EA	Not Applicable	Obsolete

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site:

0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site:

0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
RTDU-XSZC	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND, SILT AND CLAY

5.3 Bedrock and Solid Geology

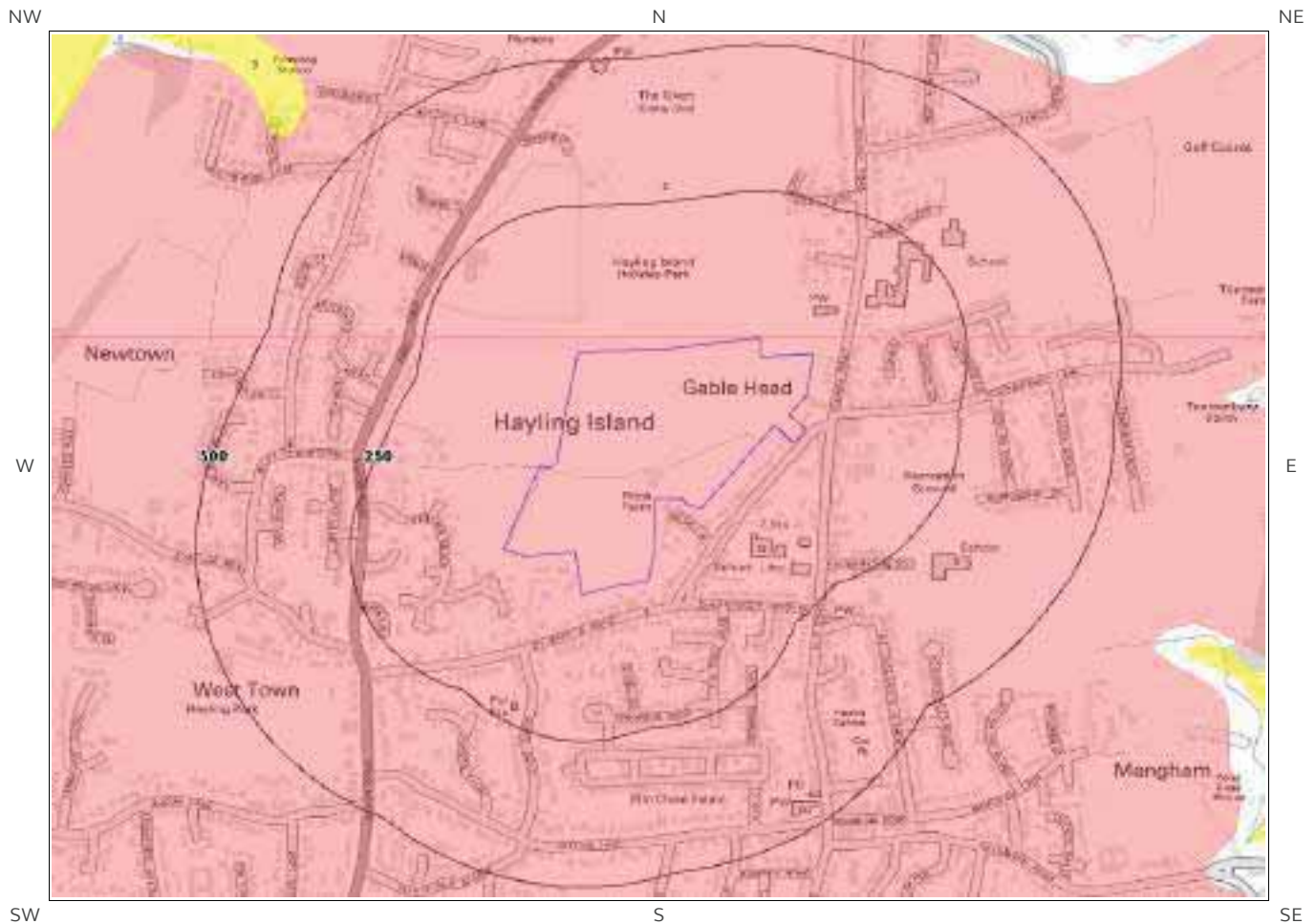
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
LC-XCZS	LONDON CLAY FORMATION	CLAY, SILT AND SAND
POWH-S	PORTSMOUTH SAND MEMBER AND WHITECLIFF SAND MEMBER (UNDIFFERENTIATED)	SAND

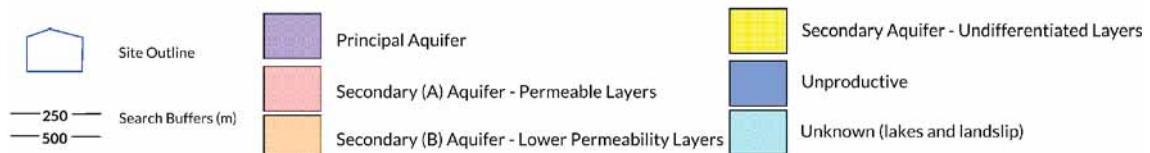
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

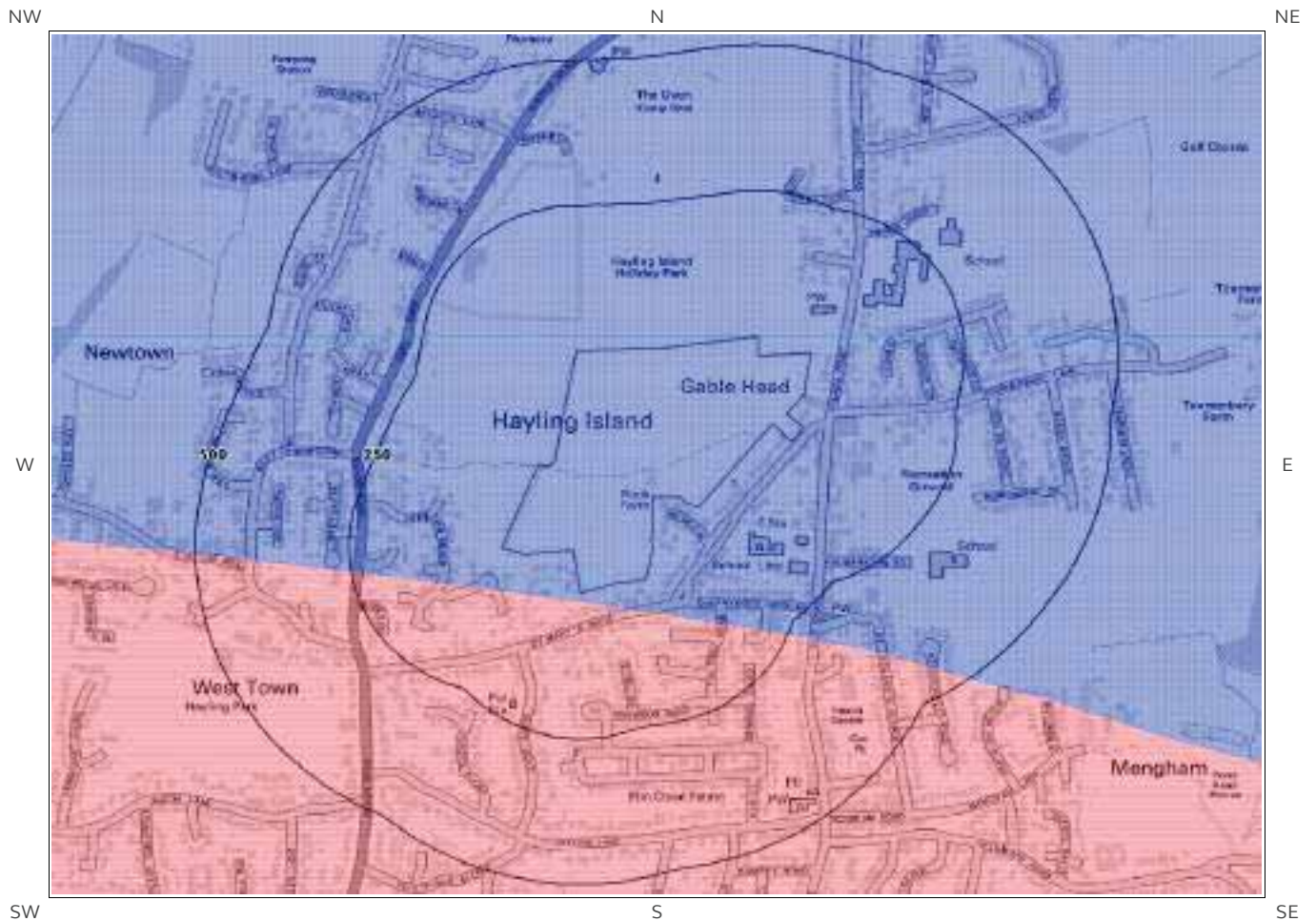
6a. Aquifer Within Superficial Geology



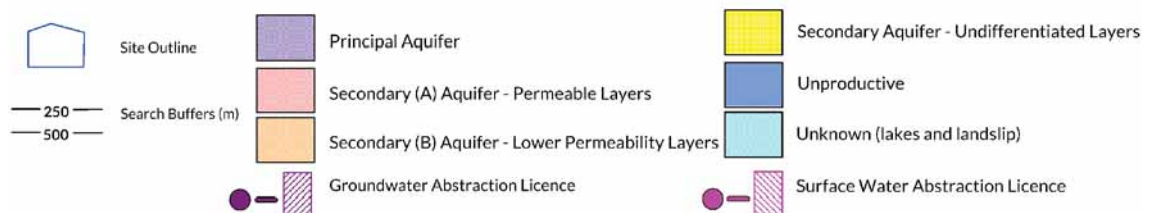
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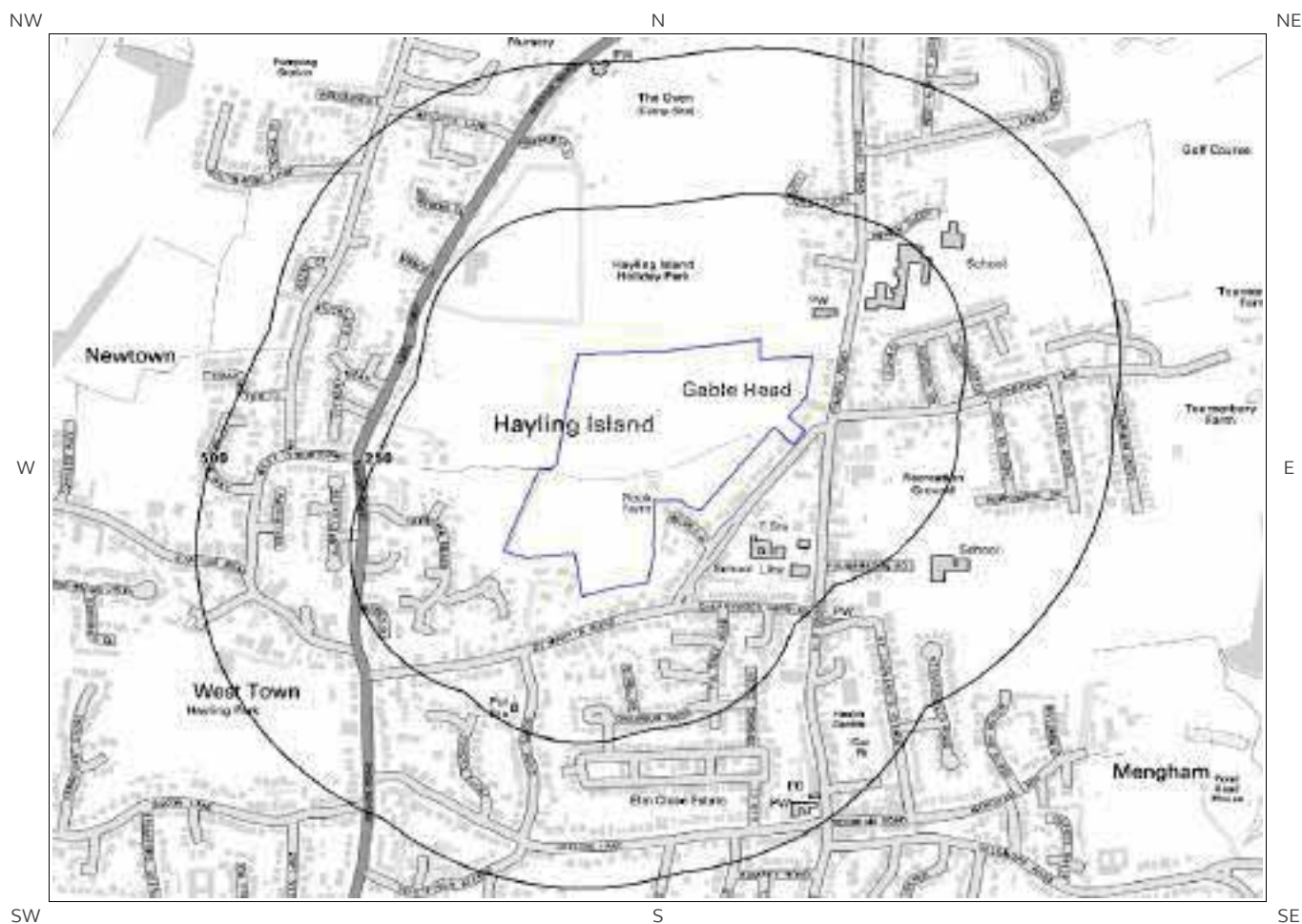
6b. Aquifer Within Bedrock Geology and Abstraction Licenses



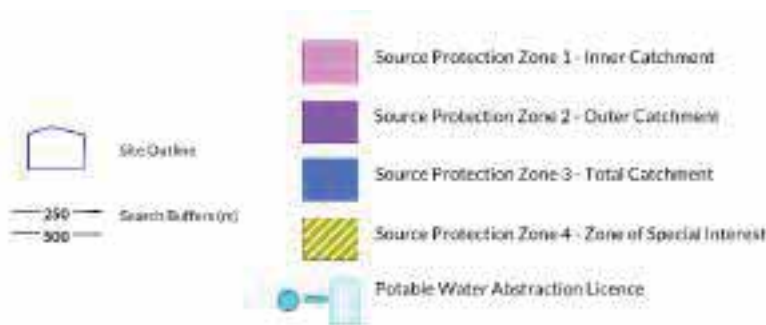
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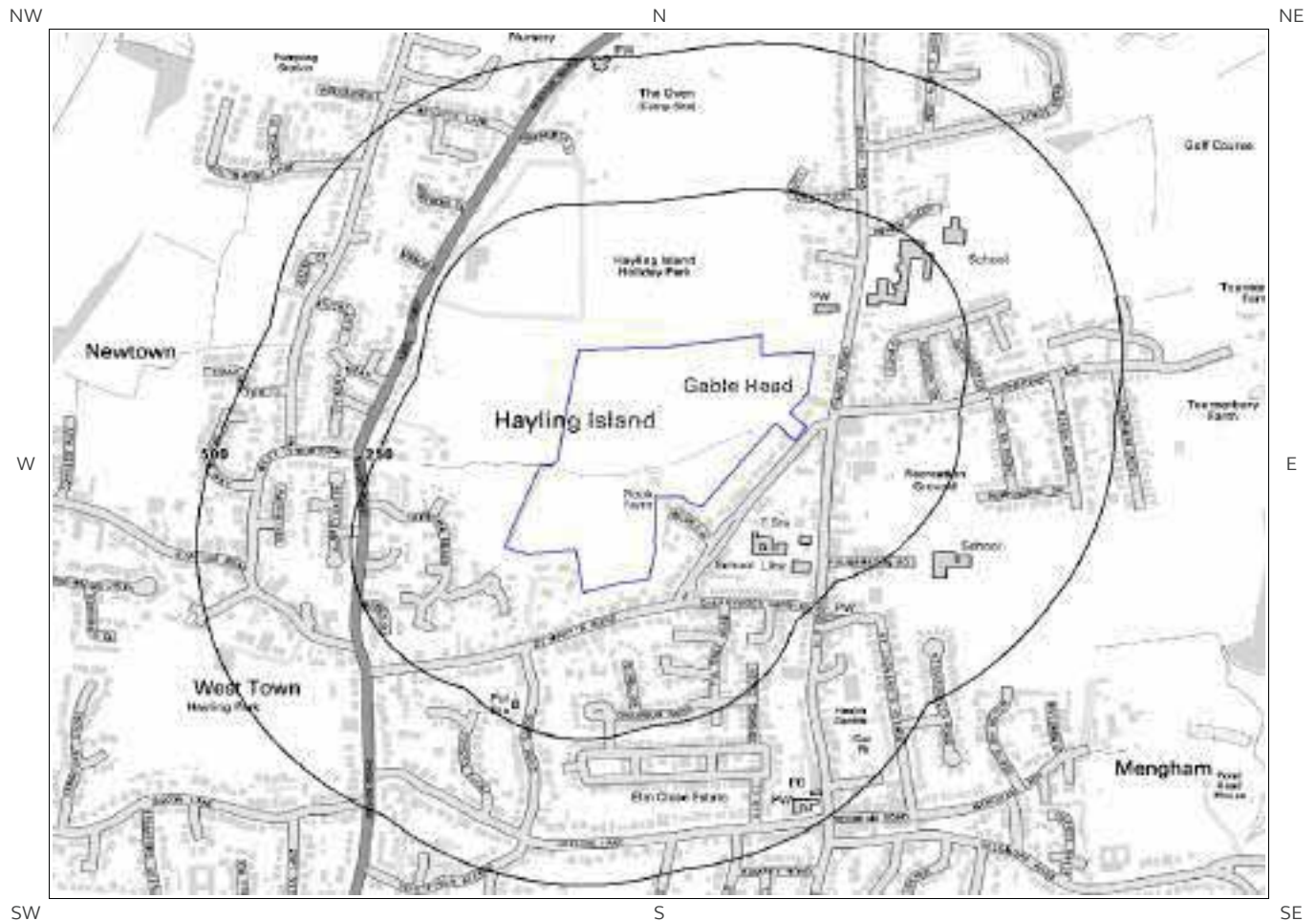
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



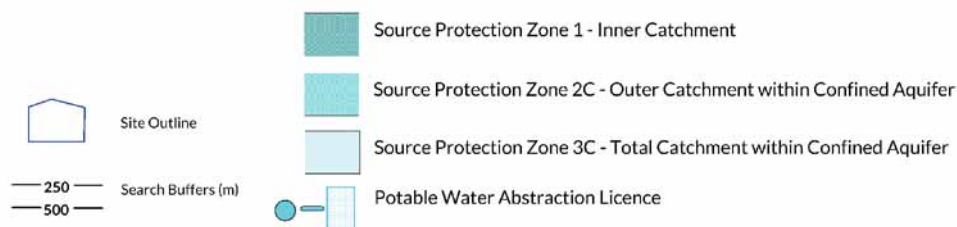
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6d. Hydrogeology – Source Protection Zones within confined aquifer

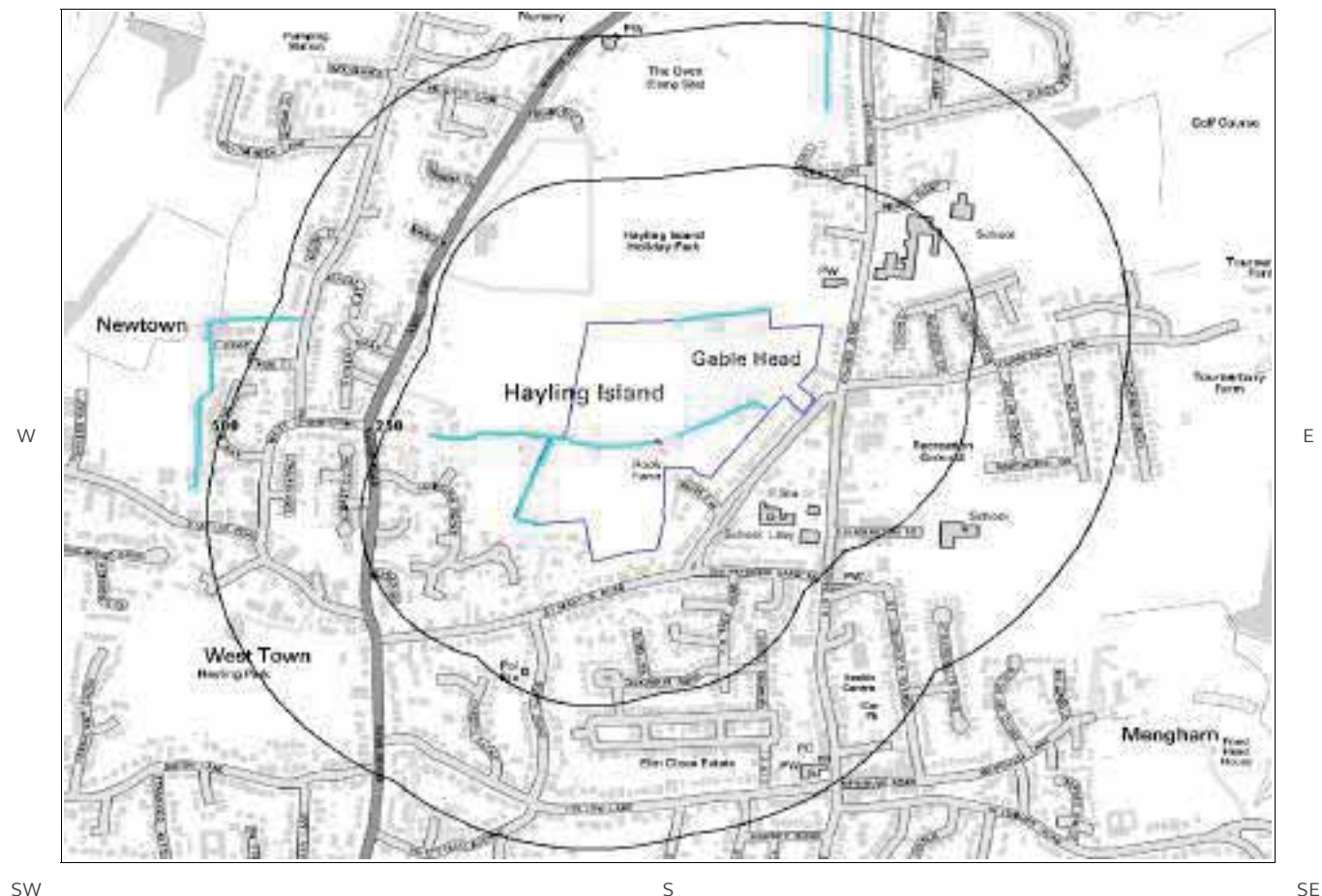


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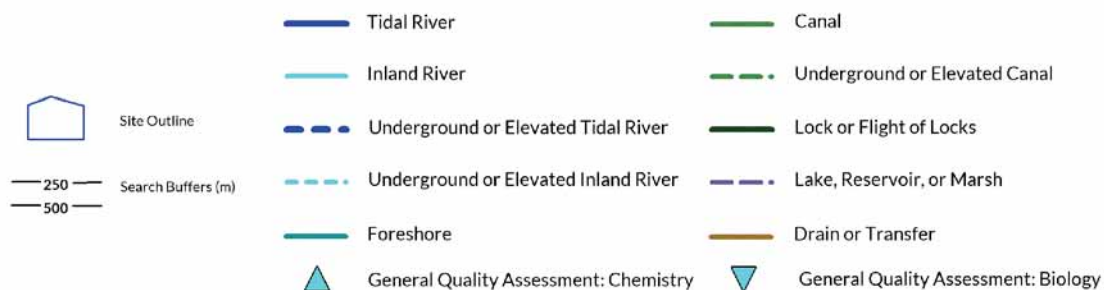
6e. Hydrology – Watercourse Network and River Quality

NW N NE



SW S SE

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6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Records of strata classification within the superficial geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	1	N	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

6.2 Aquifer within Bedrock Deposits

Records of strata classification within the bedrock geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
3	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
4	1	N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
1	13	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site

Identified

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
Not shown	1624	W	469730 99420	Status: Active Licence No: 11/42/39/2 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: Hayling Island Golf Club Data Type: Line Name: Hayling Golf Club Ltd	Annual Volume (m³): 20900 Max Daily Volume (m³): 300 Original Application No: - Original Start Date: 23/12/1965 Expiry Date: - Issue No: 101 Version Start Date: 31/3/2016 Version End Date:

6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site

Identified

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
Not shown	822	E	473010 99970	Status: Active Licence No: 28/038CA Details: Spray Irrigation - Storage Direct Source: Southern Region Surface Waters Point: Unnamed Watercouse At Tournurbury Farm, Hayling Island Data Type: Line Name: A G Phillips & Son Ltd	Annual Volume (m³): 12000 Max Daily Volume (m³): 110 Application No: 169/1341CA Original Start Date: 15/11/1993 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2016 Version End Date:

6.5 Potable Water Abstraction Licences

Potable Water Abstraction Licences within 2000m of the study site

None identified

Database searched and no data found.

6.6 Source Protection Zones

Source Protection Zones within 500m of the study site

None identified

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Source Protection Zones within the Confined Aquifer within 500m of the study site None identified

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site Identified

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/Intermediate Leaching Potential	I1	Soils which can possibly transmit a wide range of pollutants.
0	On Site	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
0	On Site	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
1	N	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
39	N	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
70	SE	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.

6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site None identified

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 Chemical Quality:

Database searched and no data found.

6.10 Ordnance Survey MasterMap Water Network

Ordnance Survey MasterMap Water Network entries within 500m of the study site

This watercourse information is provided by Ordnance Survey MasterMap Water Network. The data provides a detailed centre line following the curve of the waterway precisely, so all distances provided in the report should be understood as measurements to the centreline rather than a measurement to the nearest point of the watercourse. Underground watercourses are inferred from entry and exit points so caution is advised in using these to indicate precise locations of underground watercourses when planning site investigation and development.

The following Ordnance Survey MasterMap Water Network records are represented on the Hydrology Map (6e):

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
1	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
2	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
3	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
4	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
5	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
6	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
7	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
8	0 On Site	-	Lake, loch or reservoir.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
9	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
10	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
2	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
3	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
4	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
5	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
6	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
7	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
8	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
9	0 On Site	-	Lake, loch or reservoir.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
10	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
11	0 On Site	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
12	357 N	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	357 N	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
11	456 NW	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
12	456 NW	-	Inland river not influenced by normal tidal action.	Catchment Area: East Hampshire Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided

6.11 Surface Water Features

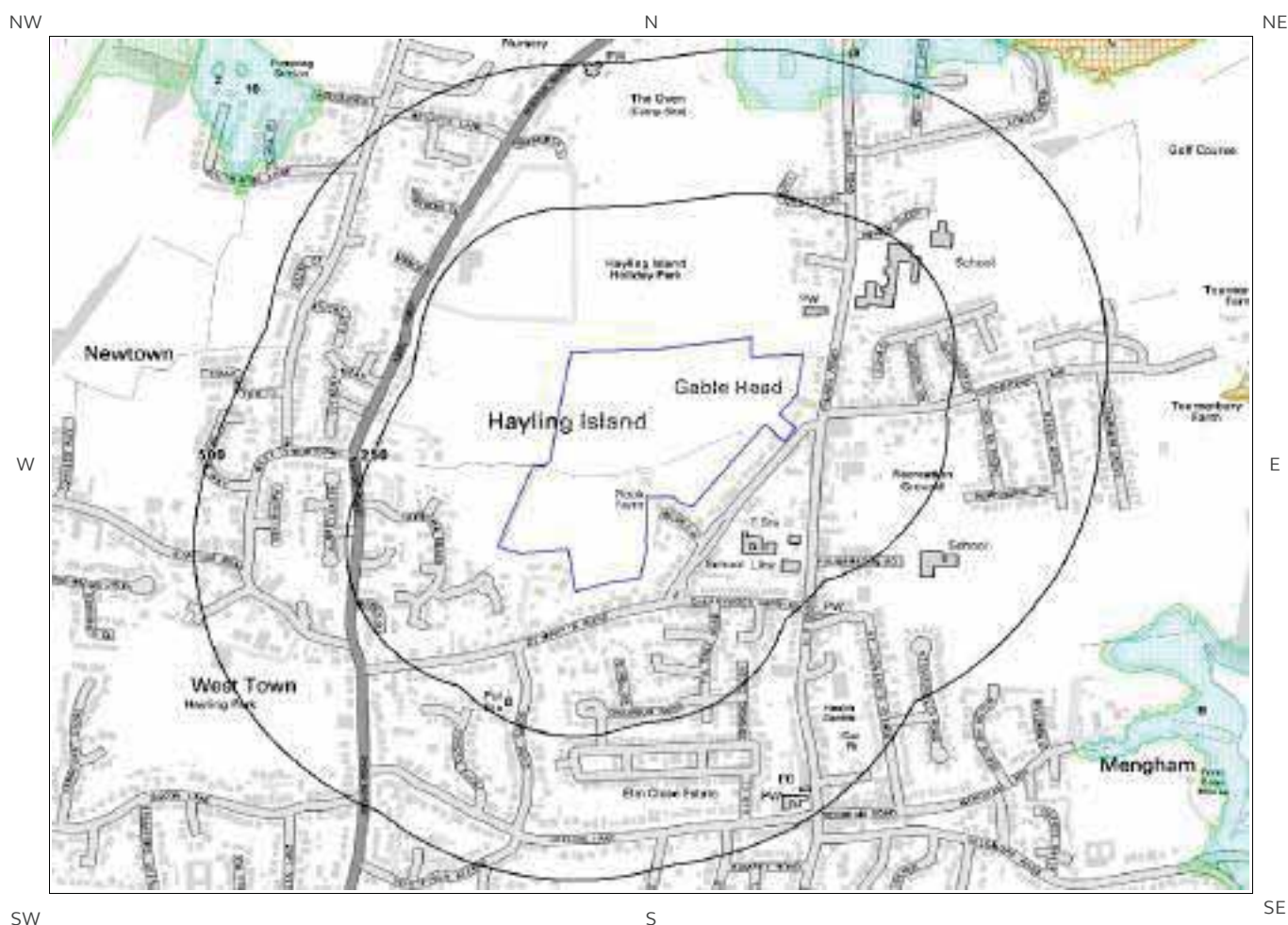
Surface water features within 250m of the study site

Identified

The following surface water records are not represented on mapping:

Distance (m)	Direction
0	On Site
0	On Site
0	On Site
0	On Site
0	On Site
0	On Site

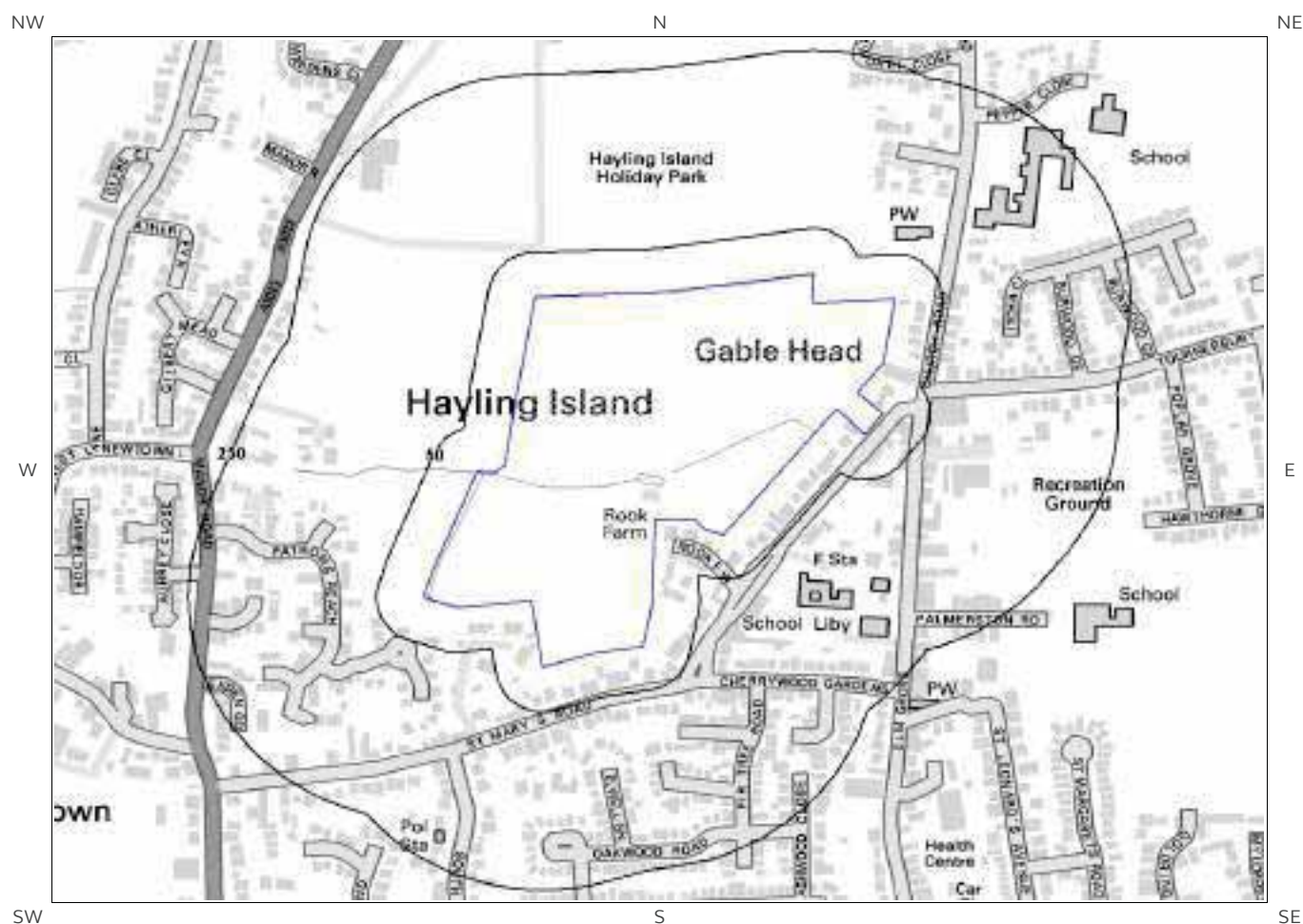
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



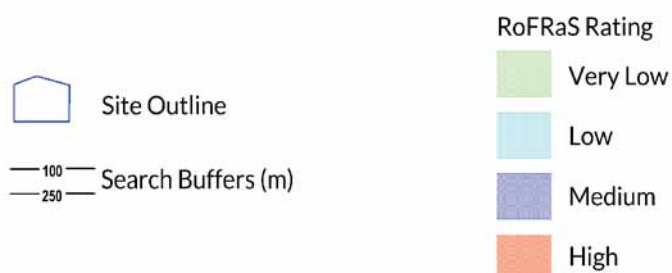
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7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



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7 Flooding

7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m None identified

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m None identified

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

Database searched and no data found.

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

Highest risk of flooding onsite Very Low

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

Flood Defences within 250m of the study site None identified
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site None identified

7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site

None identified

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site

Identified

Clearwater Flooding or Superficial Deposits Flooding

Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

7.8 Groundwater Flooding Confidence Areas

British Geological Survey confidence rating in this result

Moderate

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

8. Designated Environmentally Sensitive Sites Map



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8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site

Identified

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

21

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
14	689	S	Sinah Common	Natural England
15	753	E	Chichester Harbour	Natural England
16	768	SE	Chichester Harbour	Natural England
17	789	NW	Langstone Harbour	Natural England
18	802	E	Chichester Harbour	Natural England
19	805	E	Chichester Harbour	Natural England
20	929	NW	Langstone Harbour	Natural England
21	931	NW	Langstone Harbour	Natural England
22	1052	NE	Chichester Harbour	Natural England
23B	1133	W	Langstone Harbour	Natural England
24	1377	E	Chichester Harbour	Natural England
Not shown	1404	N	Chichester Harbour	Natural England
26	1431	E	Chichester Harbour	Natural England
Not shown	1495	W	Sinah Common	Natural England
Not shown	1521	W	Sinah Common	Natural England
Not shown	1696	W	Langstone Harbour	Natural England
Not shown	1709	W	Sinah Common	Natural England
Not shown	1725	W	Langstone Harbour	Natural England
Not shown	1800	W	Sinah Common	Natural England
Not shown	1822	W	Sinah Common	Natural England
Not shown	1939	NE	Chichester Harbour	Natural England

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

7

The following Special Area of Conservation (SAC) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SAC Name	Data Source
1	768	SE	Solent Maritime	Natural England
2A	929	NW	Solent Maritime	Natural England
3	1052	NE	Solent Maritime	Natural England
4B	1133	W	Solent Maritime	Natural England
Not shown	1696	W	Solent Maritime	Natural England
Not shown	1725	W	Solent Maritime	Natural England
Not shown	1915	SW	Solent Maritime	Natural England

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

6

The following Special Protection Area (SPA) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SPA Name	Data Source
8C	754	E	Chichester and Langstone Harbours	Natural England
9A	787	NW	Chichester and Langstone Harbours	Natural England
10D	806	E	Chichester and Langstone Harbours	Natural England
11B	1131	W	Chichester and Langstone Harbours	Natural England
Not shown	1696	W	Chichester and Langstone Harbours	Natural England
Not shown	1725	W	Chichester and Langstone Harbours	Natural England

8.5 Records of Ramsar sites within 2000m of the study site:

6

The following Ramsar records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ramsar Site Name	Ramsar Site Status	Data Source
35C	753	E	Chichester and Langstone Harbours	Listed	Natural England
36A	789	NW	Chichester and Langstone Harbours	Listed	Natural England
37D	805	E	Chichester and Langstone Harbours	Listed	Natural England
38B	1133	W	Chichester and Langstone Harbours	Listed	Natural England
Not shown	1696	W	Chichester and Langstone Harbours	Listed	Natural England
Not shown	1725	W	Chichester and Langstone Harbours	Listed	Natural England

8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

2

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
41	722	W	Hayling Billy	Natural England
Not shown	1799	NE	Gutner Point	Natural England

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

2

The following Area of Outstanding Natural Beauty (AONB) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	AONB/NSA Name	Data Source
44	472	E	Chichester Harbour	Natural England
45	728	NE	Chichester Harbour	Natural England

8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

1

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
43	0	On Site	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

Database searched and no data found.

0

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a Groundsure Geo Insight, available from our [website](#). The following information has been found:

9.1.1 Shrink Swell

Maximum Shrink-Swell** hazard rating identified on the study site Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

9.1.2 Landslides

Maximum Landslide* hazard rating identified on the study site Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

9.1.3 Soluble Rocks

Maximum Soluble Rocks* hazard rating identified on the study site Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

Maximum Compressible Ground* hazard rating identified on the study site

Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

9.1.5 Collapsible Rocks

Maximum Collapsible Rocks* hazard rating identified on the study site

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Slight possibility for collapsible deposit problems after major changes in loading or groundwater conditions. Normal maintenance to avoid large amounts of water entering the ground through pipe leakage or soak-aways should reduce the likelihood of problems due to collapsible deposits. For new build, assess the possibility of collapsible (loessic) deposits in ground investigation. For existing property, no significant increase in insurance risk from collapsible deposits is likely.

9.1.6 Running Sand

Maximum Running Sand** hazard rating identified on the study site

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property no significant increase in insurance risk due to running sand problems is likely.

* This indicates an automatically generated 50m buffer and site.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The site is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Coal mining areas within 75m of the study site

None identified

Database searched and no data found.

10.2 Non-Coal Mining

Non-Coal Mining areas within 50m of the study site boundary

None identified

Database searched and no data found.

10.3 Brine Affected Areas

Brine affected areas within 75m of the study site

None identified

Guidance: No Guidance Required.

Contact Details

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enquiries@bgs.ac.uk



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133-155 Waterloo Road, London, SE1 8UG
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Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



**Public Health
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The Coal Authority

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DX 716176 Mansfield 5
www.coal.gov.uk



**The Coal
Authority**

Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505



Local Authority

Authority: Havant Borough Council
Phone: 023 9247 4174

Web: <http://www.havant.gov.uk/>

Address: Civic Centre, Civic Centre Road, Havant, Hampshire, PO9

Gemapping PLC

Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444



Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, Natural England/Natural Resources Wales who retain the Copyright and Intellectual Property Rights for the data.

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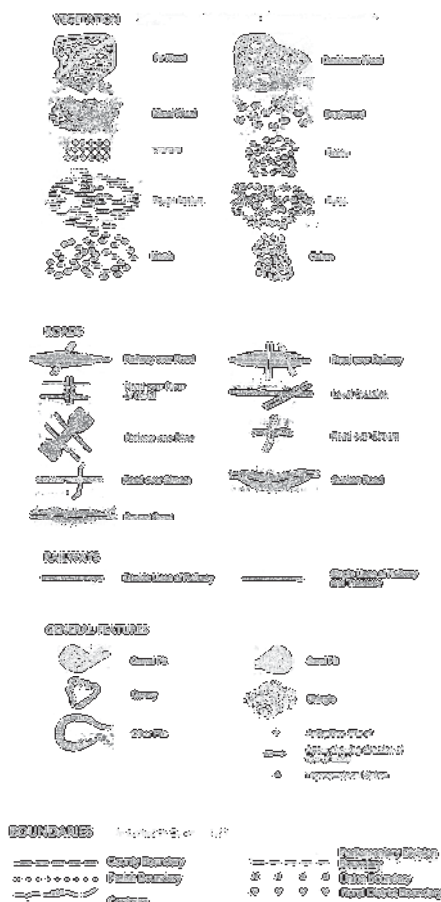
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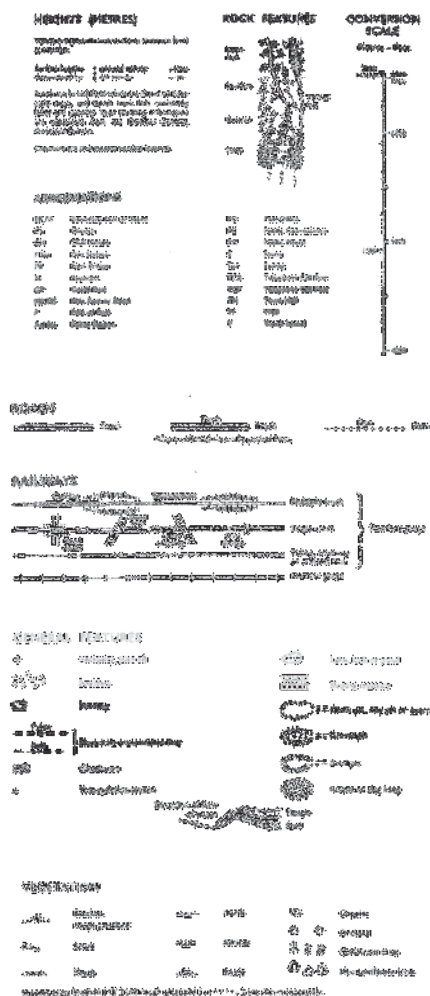
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County Series 1:10,560 scale



National Grid 1:10,000 scale



Historical Map Pack Legend

County Series & National Grid

1:10,560 scale

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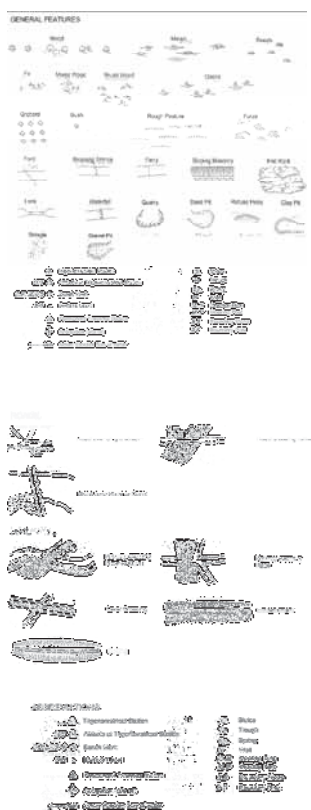
If you have a query regarding any of the maps provided please contact GroundSure's technical helpline. We will endeavour to answer any queries you may have.

Technical Helpline

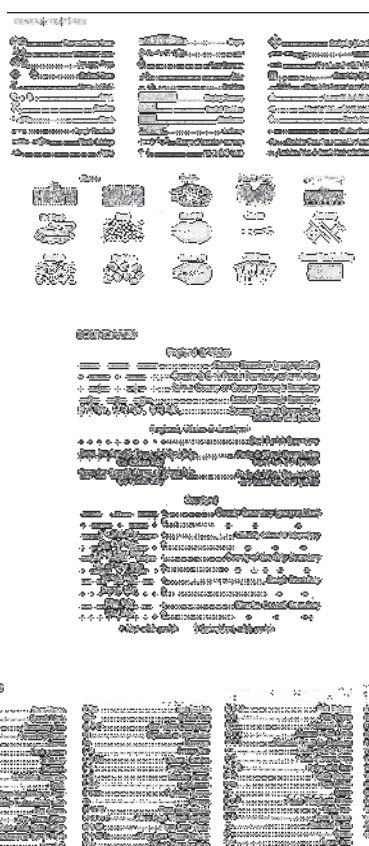
Tel 08444159000

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County Series 1:2,500 scale



National Grid 1:2,500 / 1:1,250 scale



Historical Map Pack Legend

County Series

1:1,250 scale

~

County Series & National Grid

1:2,500 scale

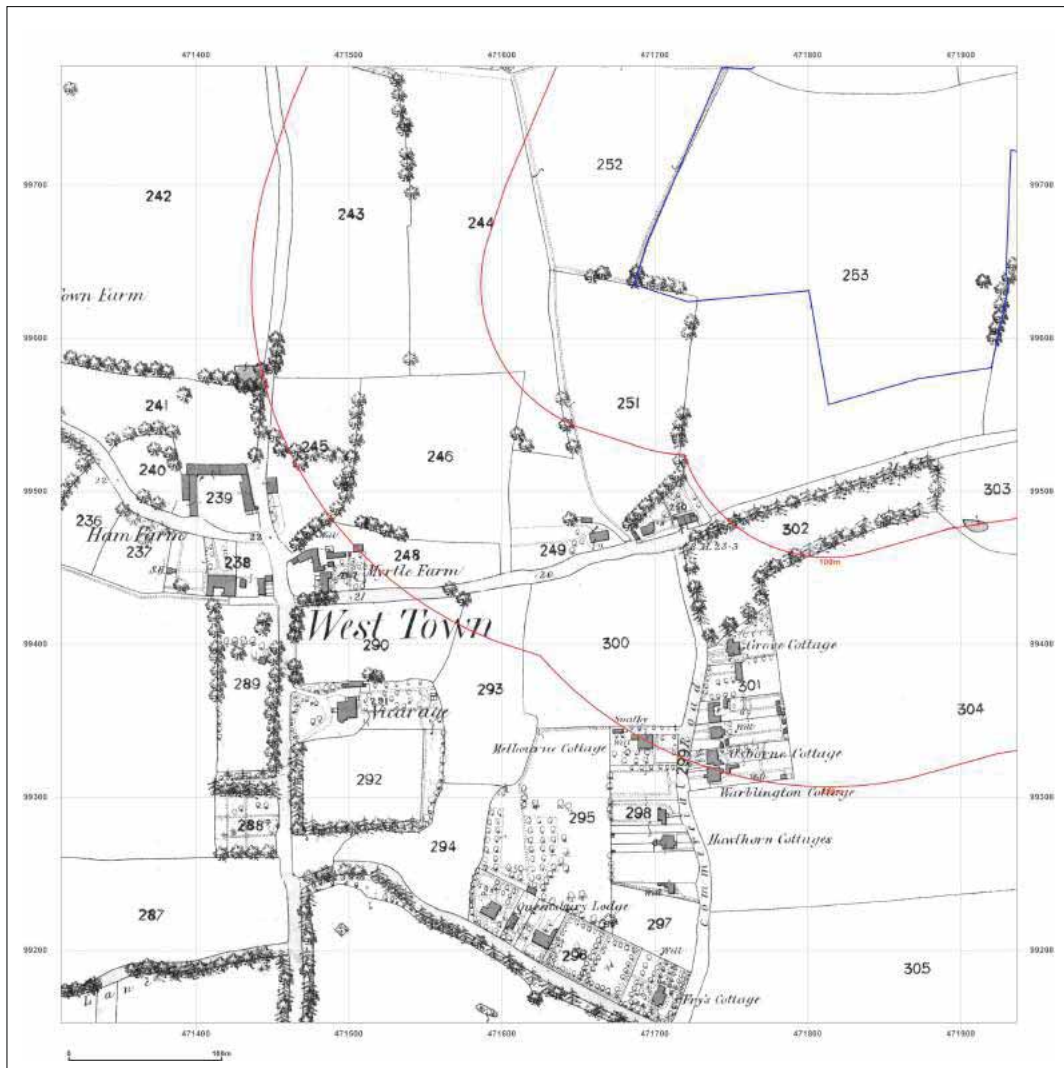
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Site Details:

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, PO11 9DF

Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: County Series

Map date: 1867

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1867
Revised 1867
Edition N/A
Copyright N/A
Landed N/A



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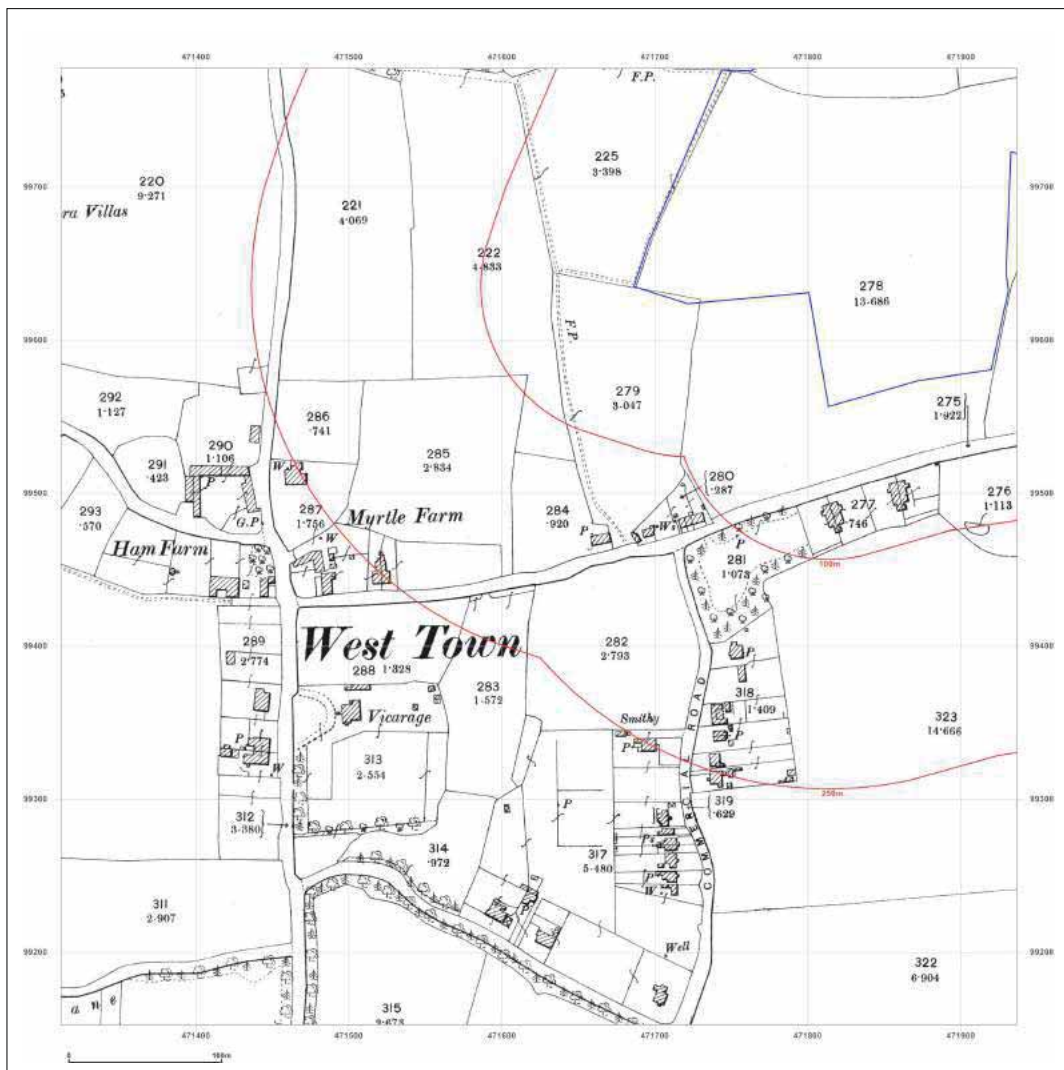


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: County Series

Map date: 1898

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1898
Revised 1898
Edition N/A
Copyright N/A
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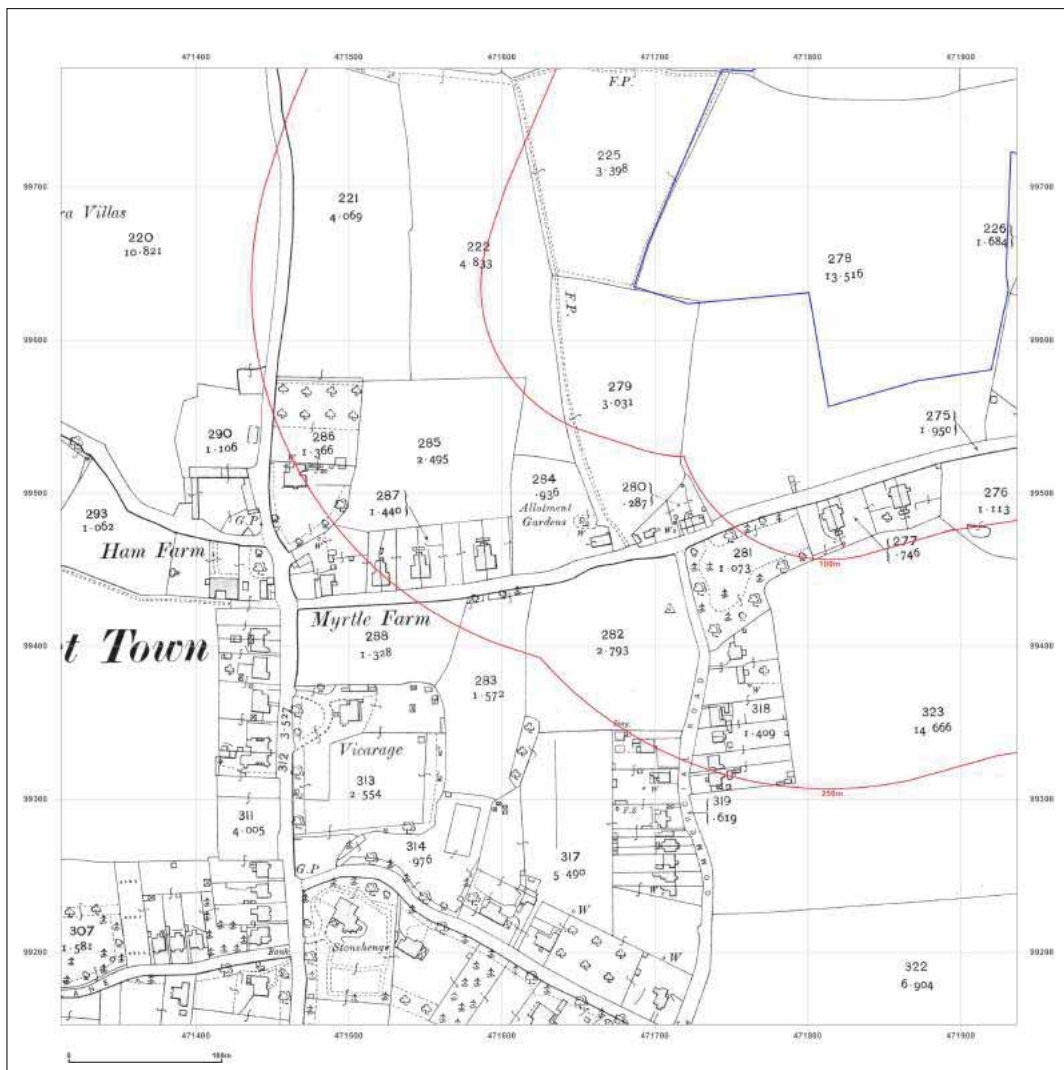


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: County Series

Map date: 1908

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1908
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A



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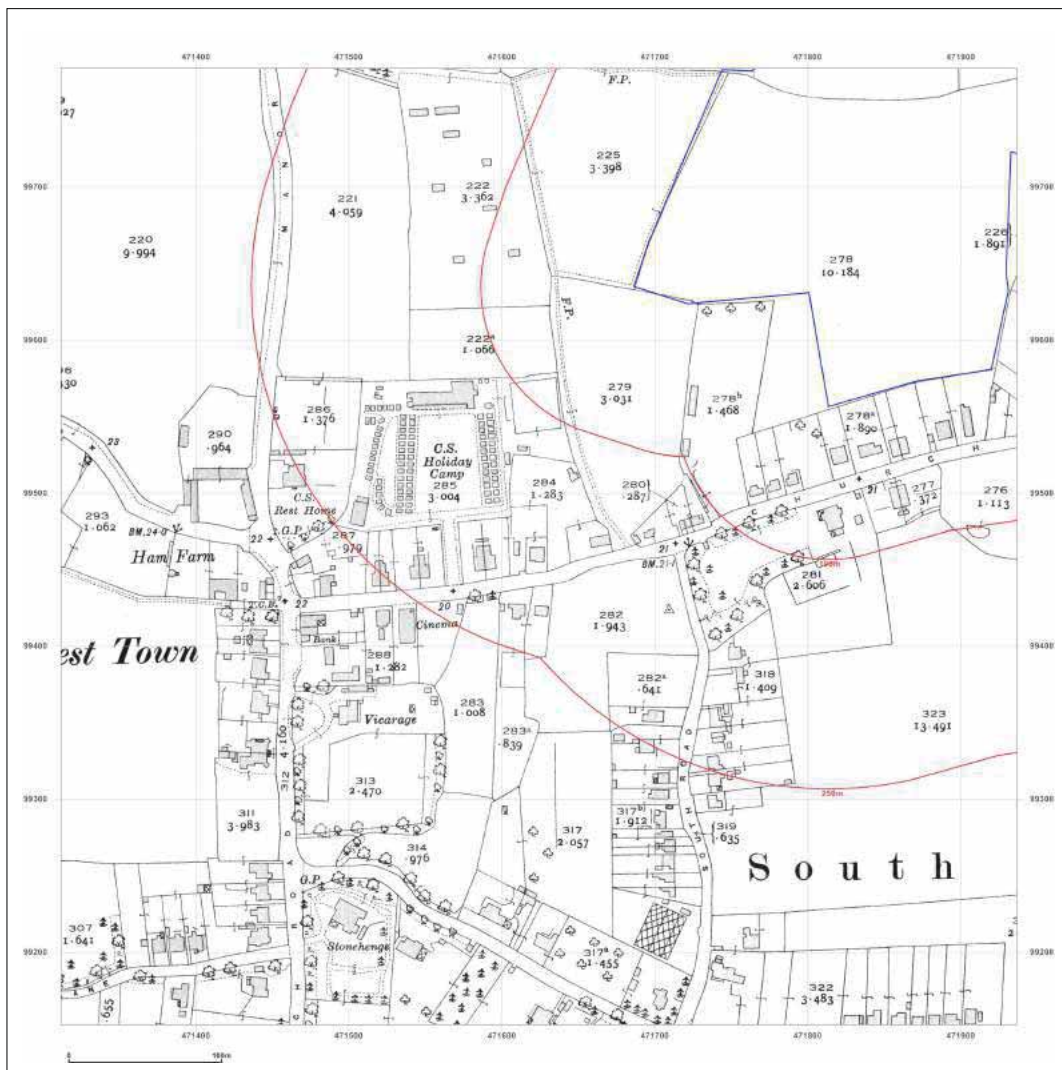


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Grid Ref: 471624, 99465

Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1932
Revised 1932
Edition N/A
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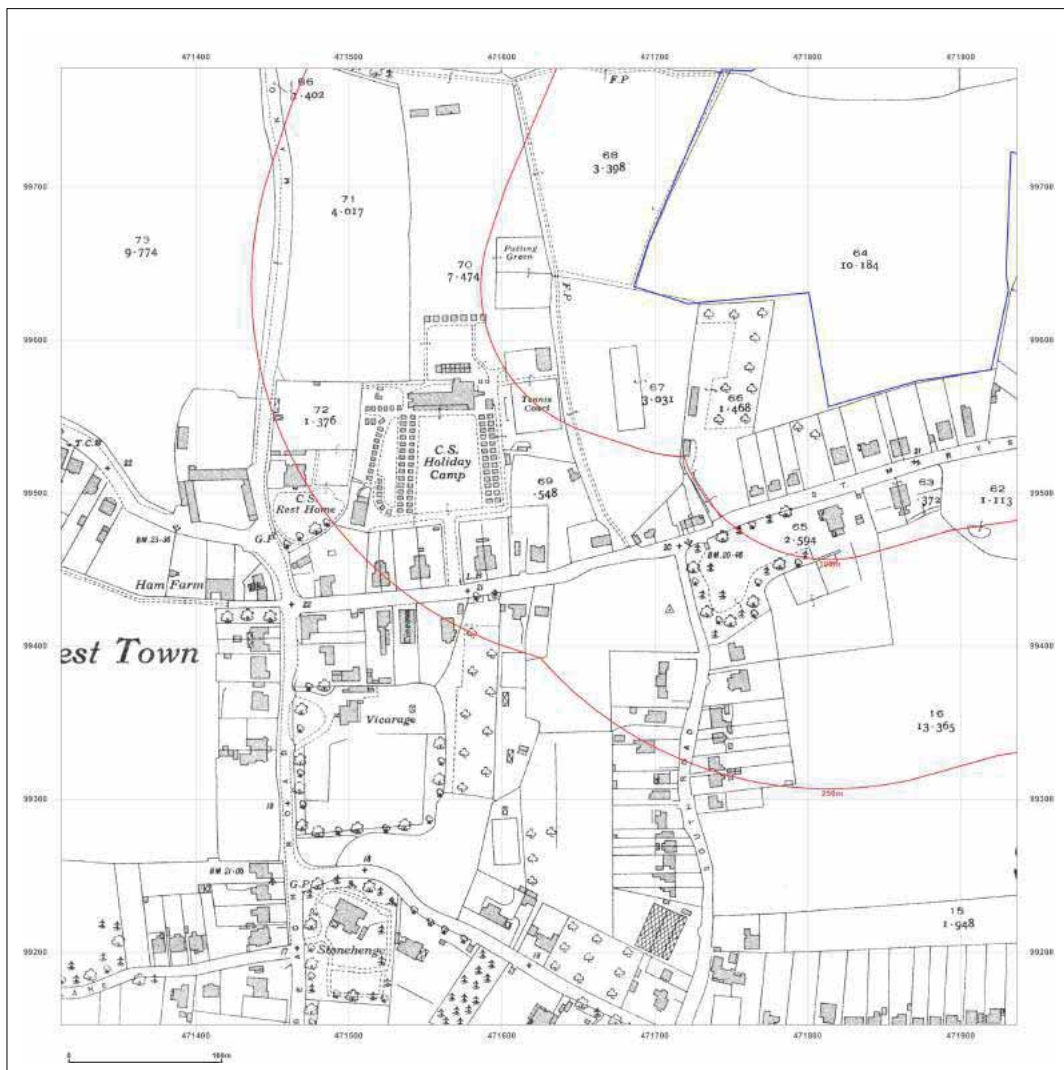


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Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: County Series

Map date: 1937

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1937
Revised 1937
Edition N/A
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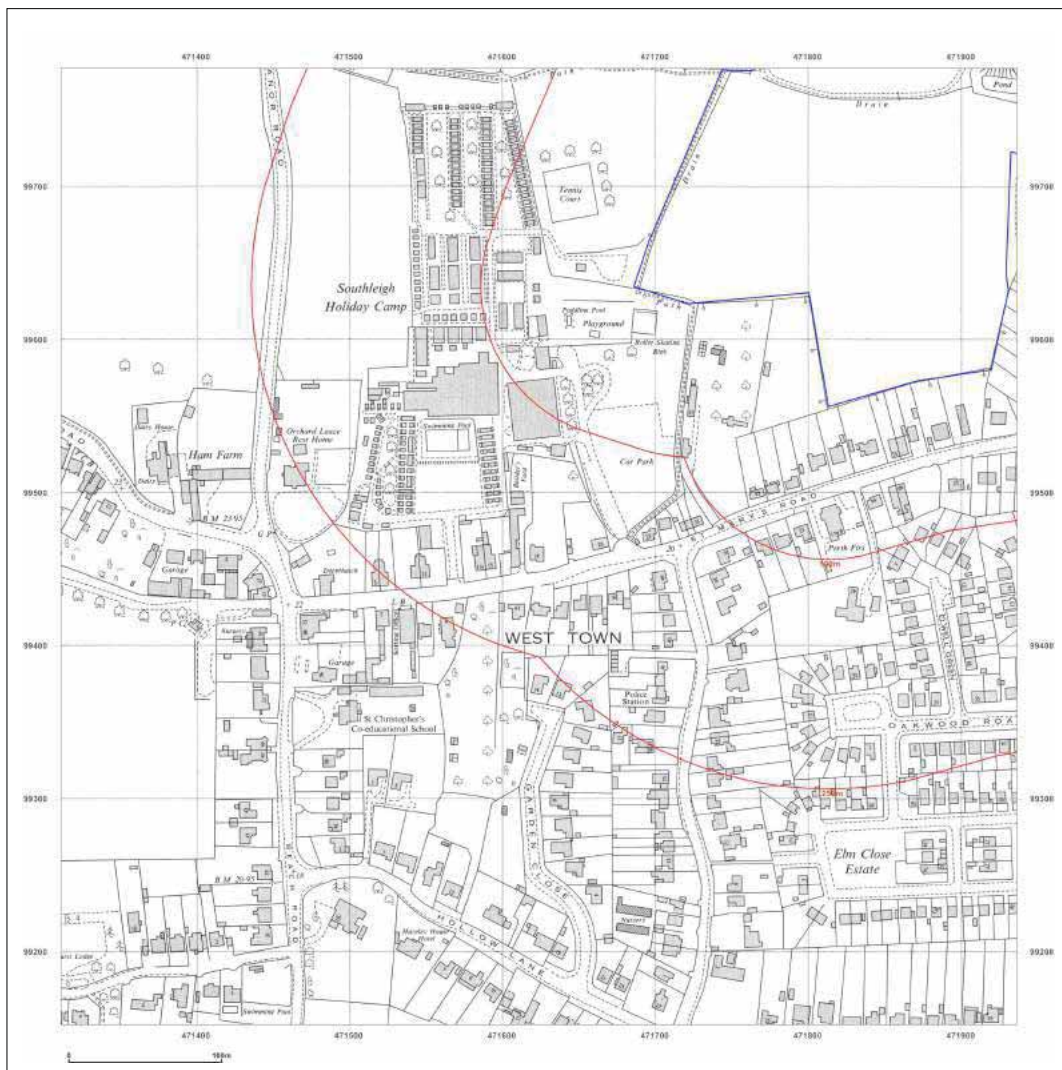


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: National Grid

Map date: 1968

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1968
Revised 1968
Edition N/A
Copyright 1968
Levelled 1957



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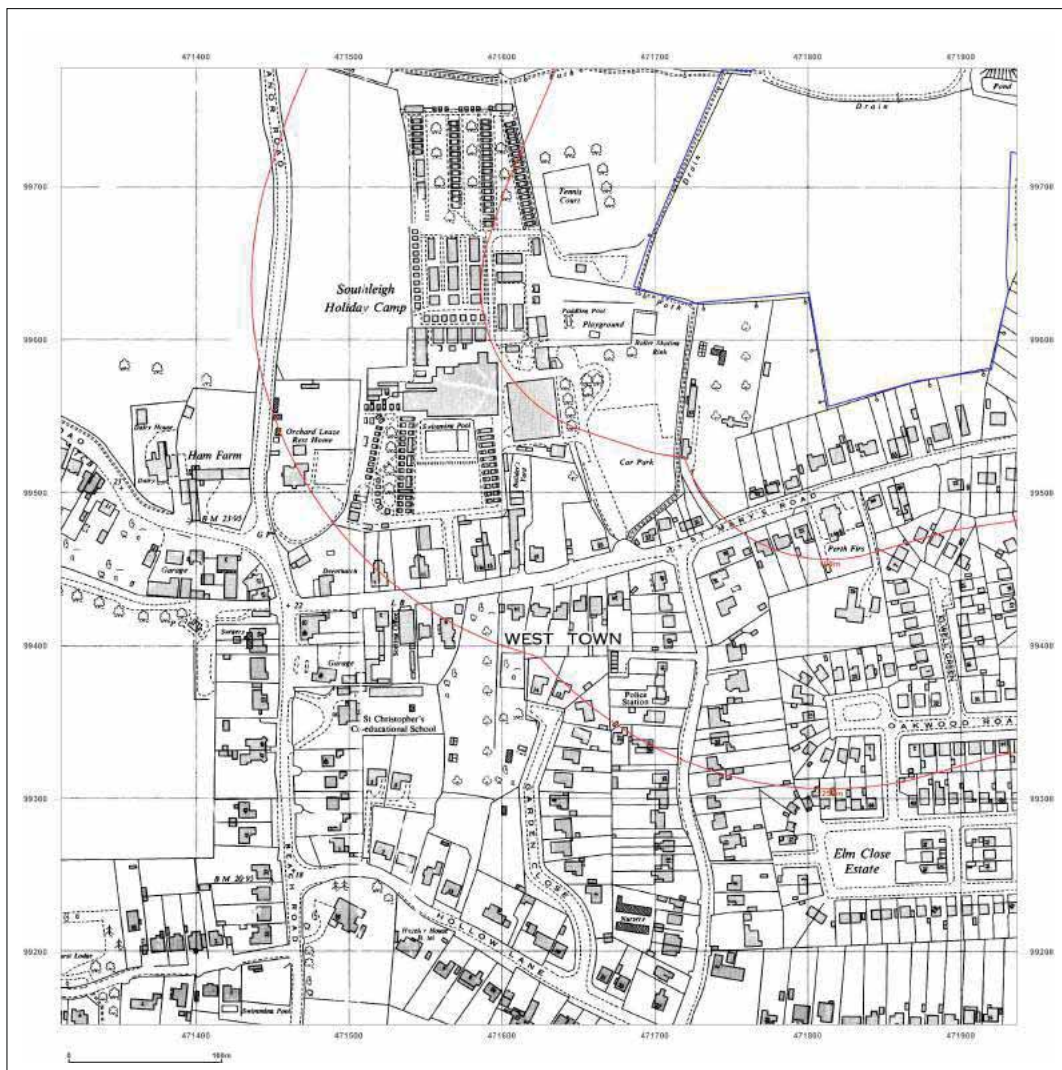


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: National Grid

Map date: 1969

Scale: 1:2,500

Printed at: 1:2,500



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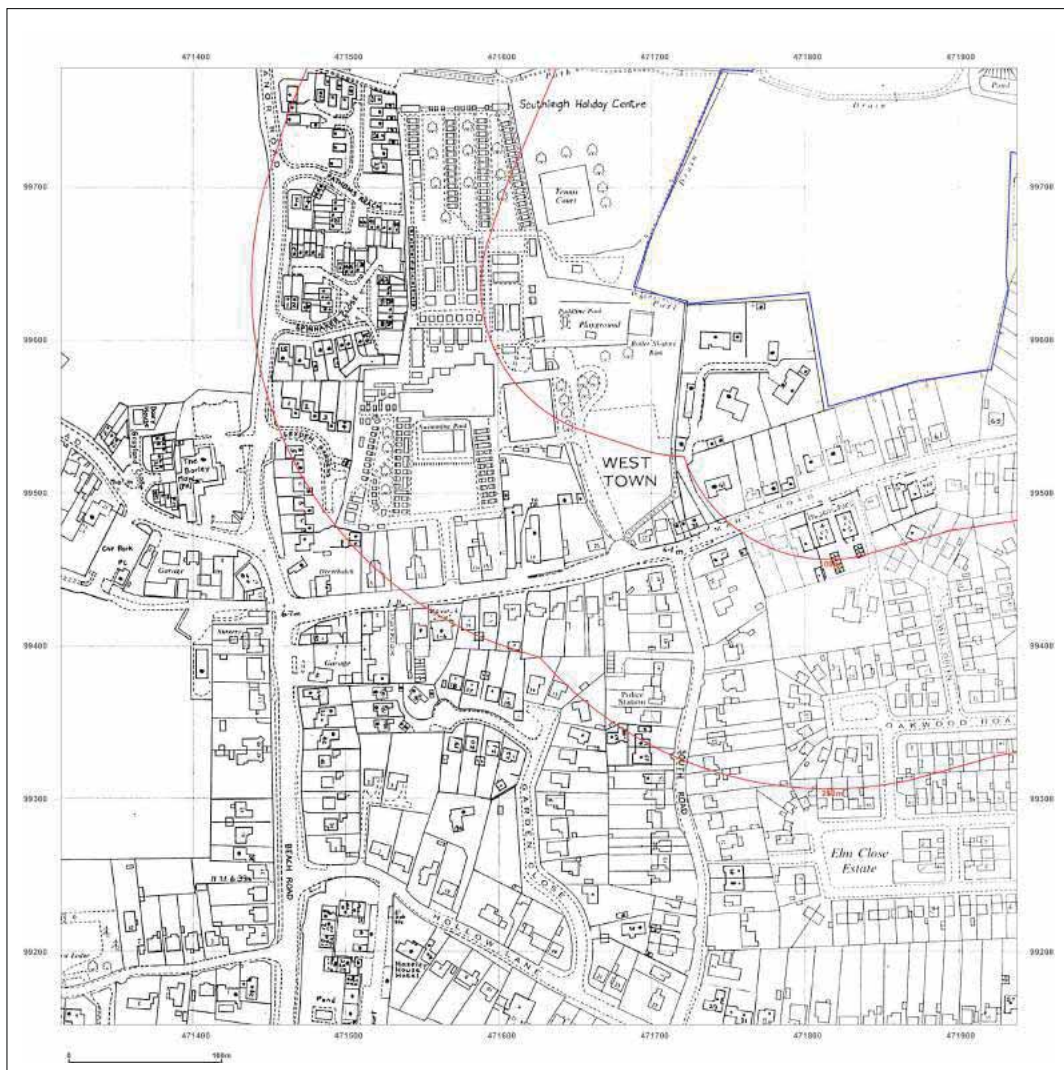


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: National Grid

Map date: 1987

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1957
Revised 1987
Edition N/A
Copyright 1987
Levelled 1957



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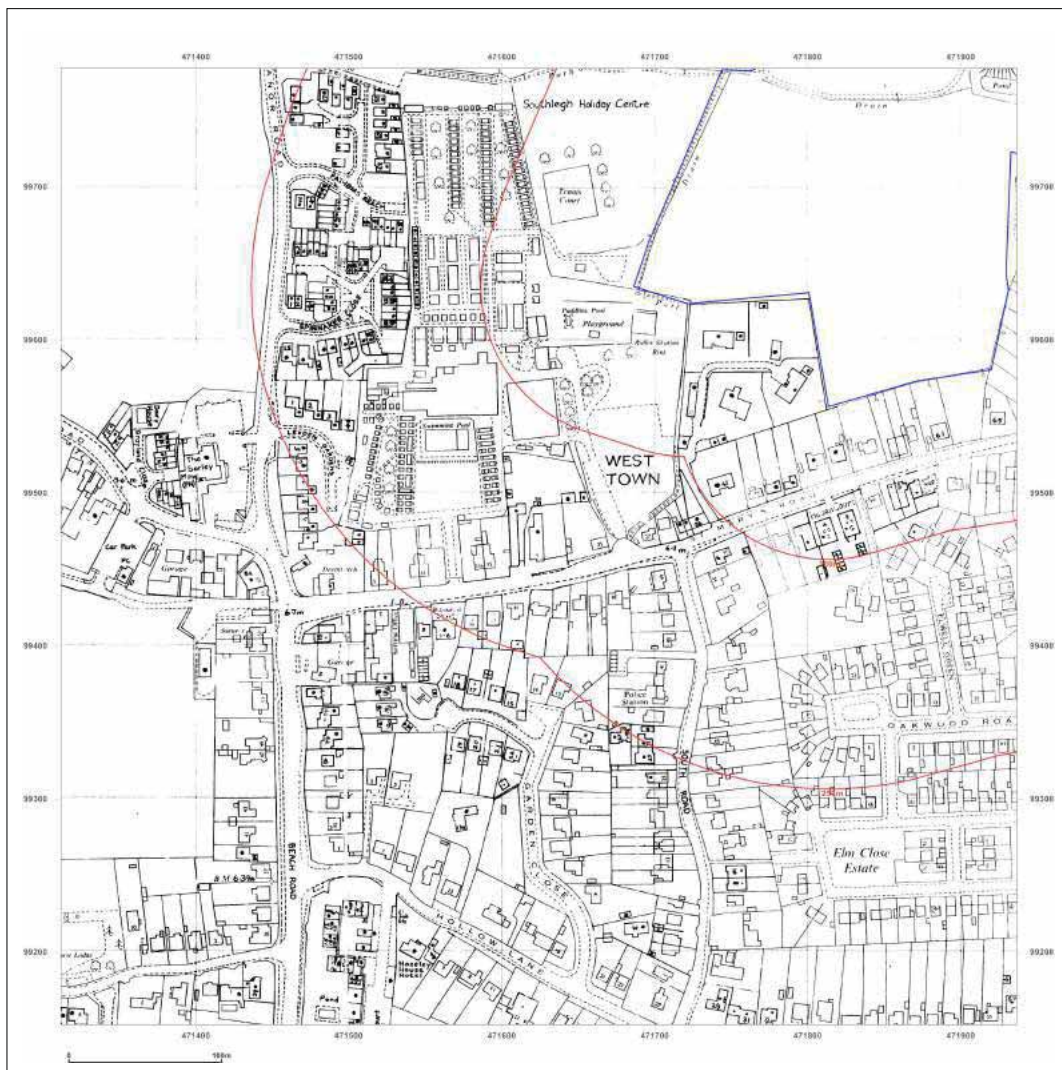


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: National Grid

Map date: 1987

Scale: 1:2,500

Printed at: 1:2,500



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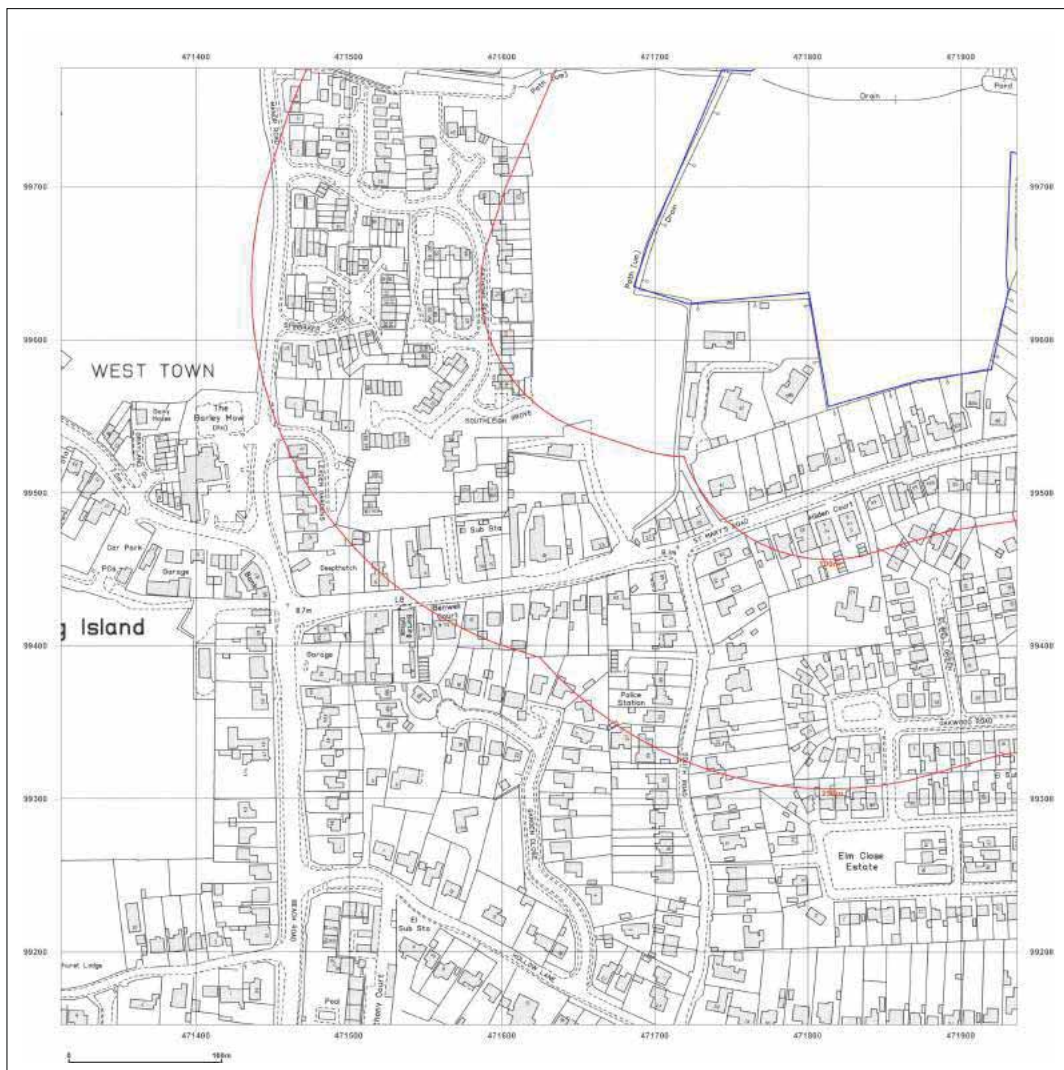


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: National Grid

Map date: 1989

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1989
Revised 1989
Edition N/A
Copyright 1989
Levelled N/A



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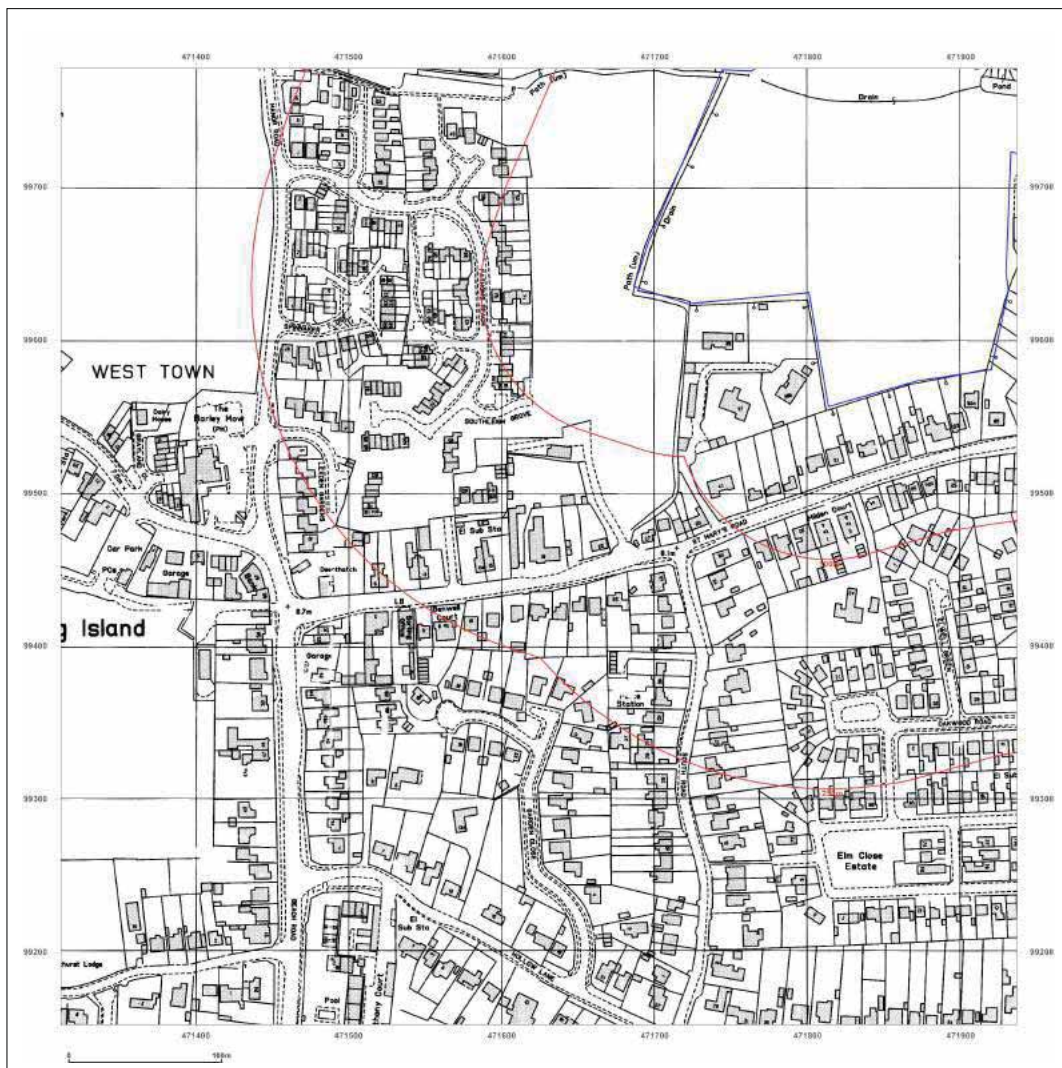


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Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: National Grid

Map date: 1990

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1968
Revised 1989
Edition N/A
Copyright 1990
Levelled N/A



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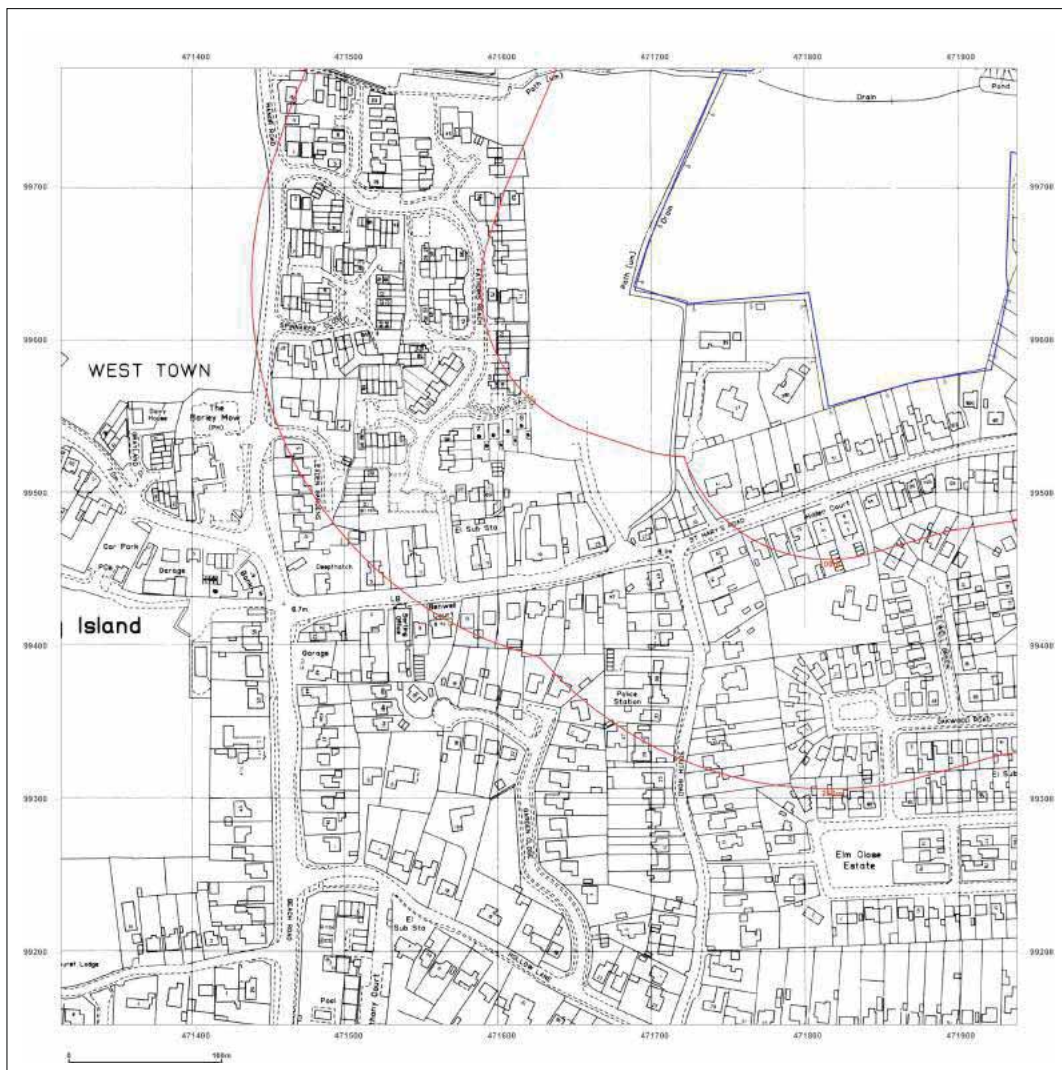


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: National Grid

Map date: 1990

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1990
Revised 1990
Edition N/A
Copyright 1990
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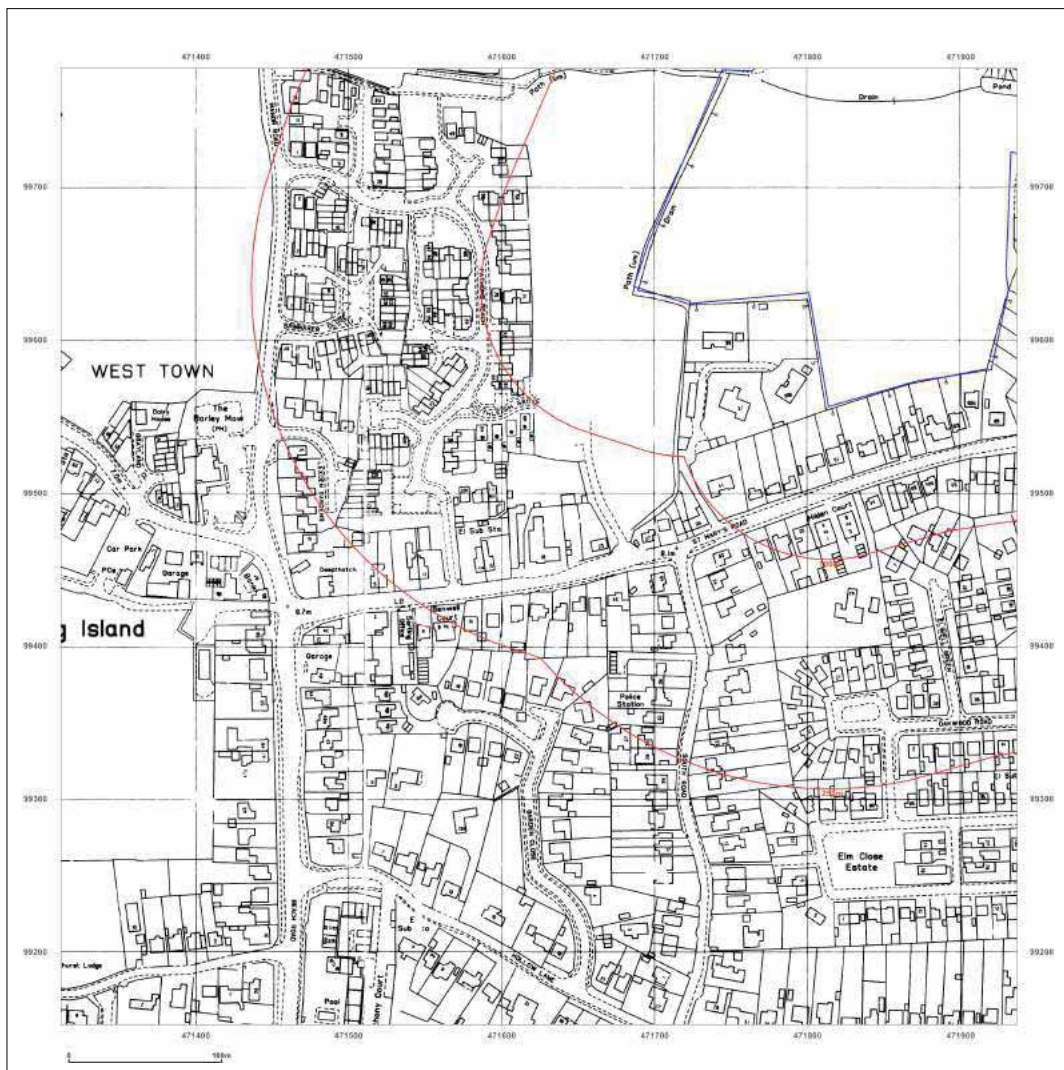


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_1
Grid Ref: 471624, 99465

Map Name: National Grid

Map date: 1991

Scale: 1:2,500

Printed at: 1:2,500



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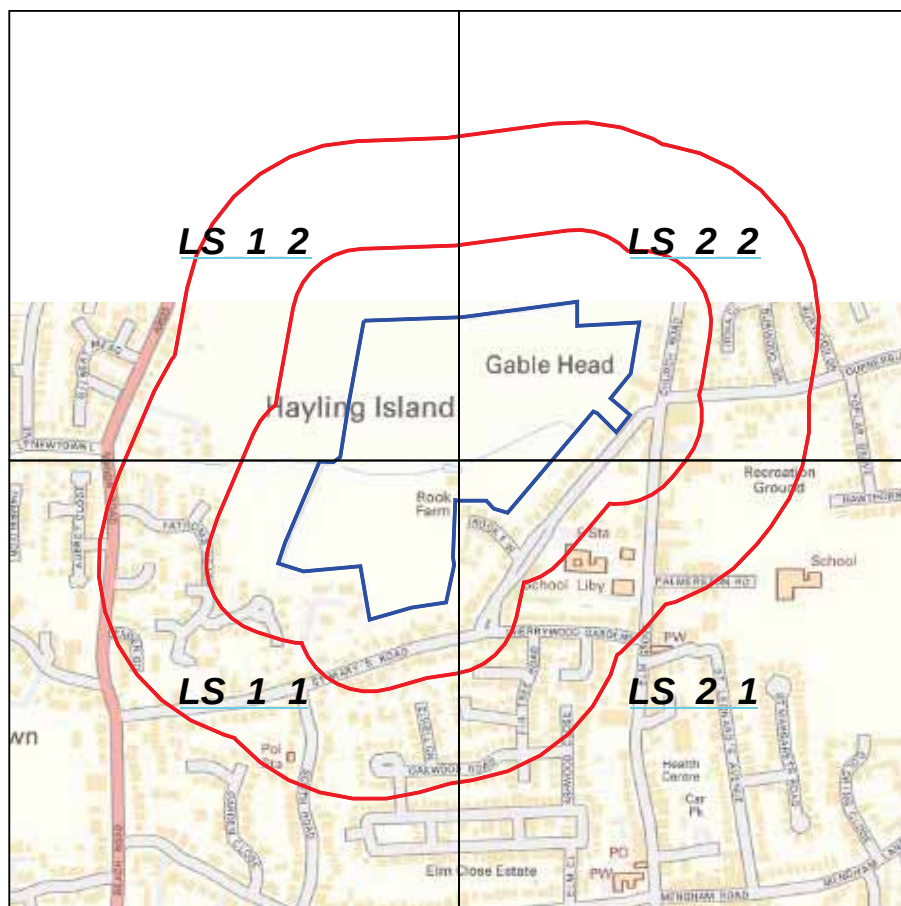


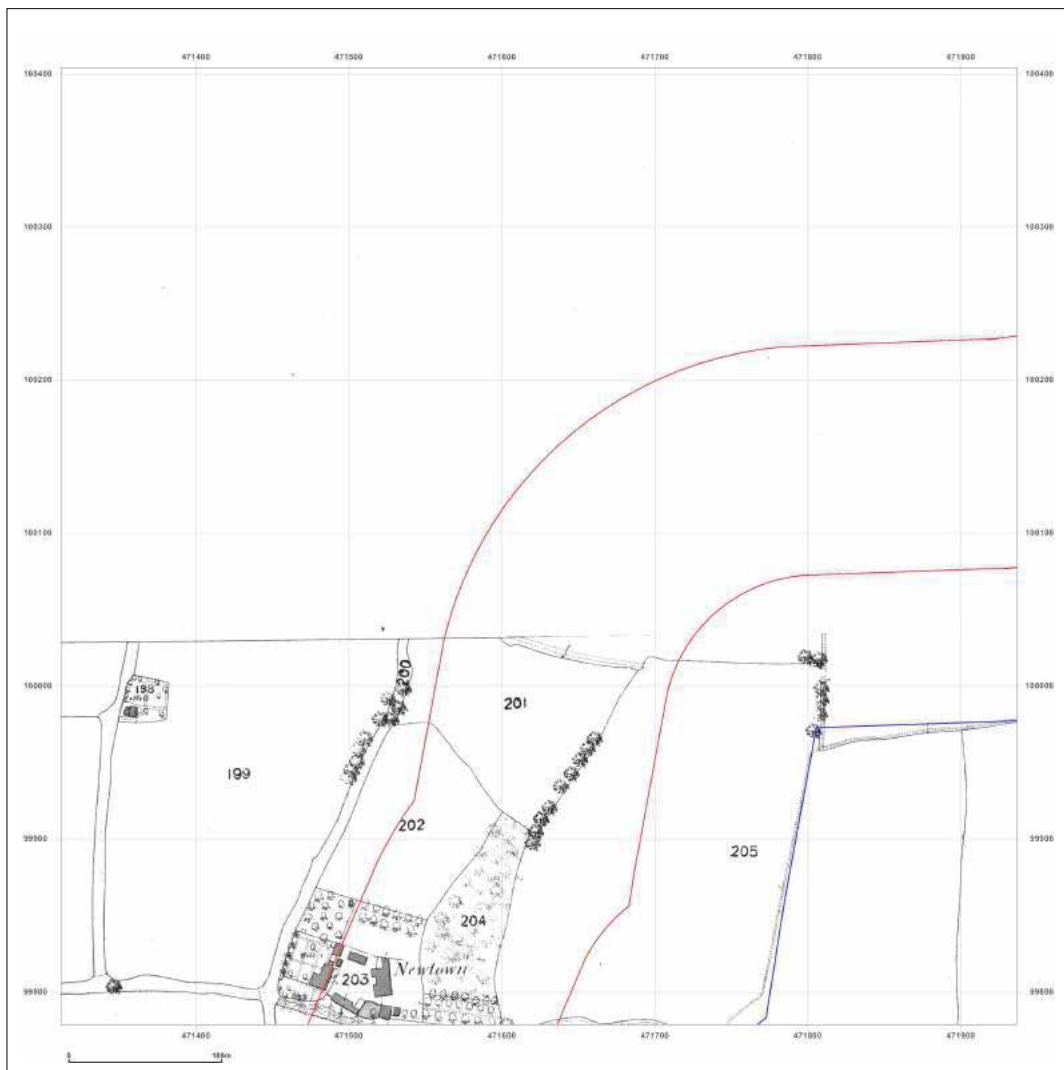
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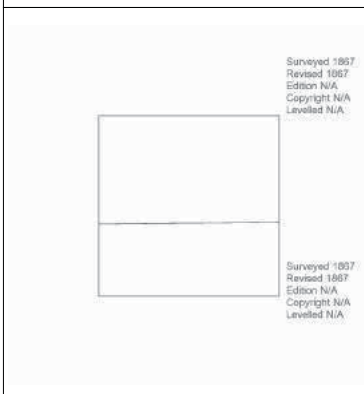
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Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: County Series

Map date: 1867

Scale: 1:2,500

Printed at: 1:2,500



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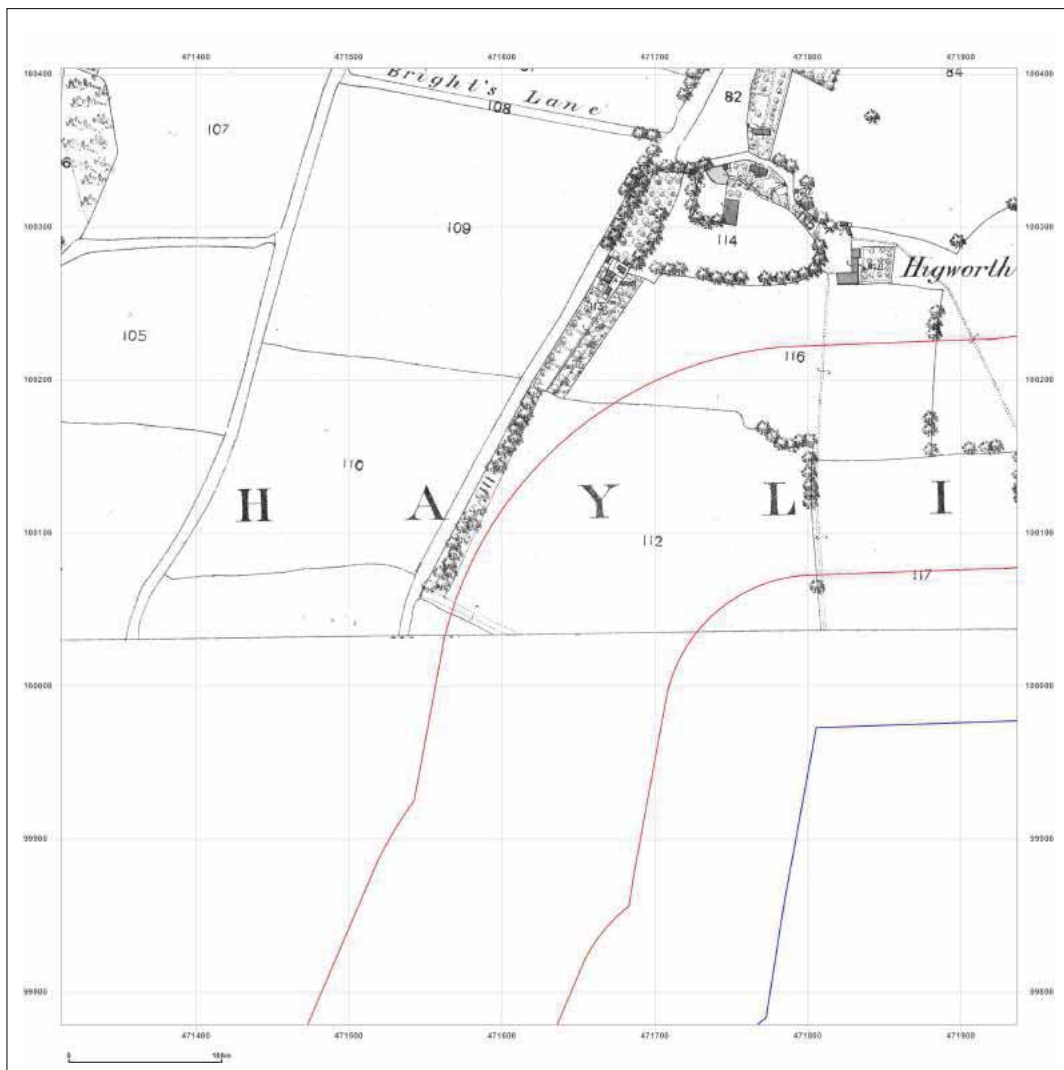


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: County Series

Map date: 1867

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1867
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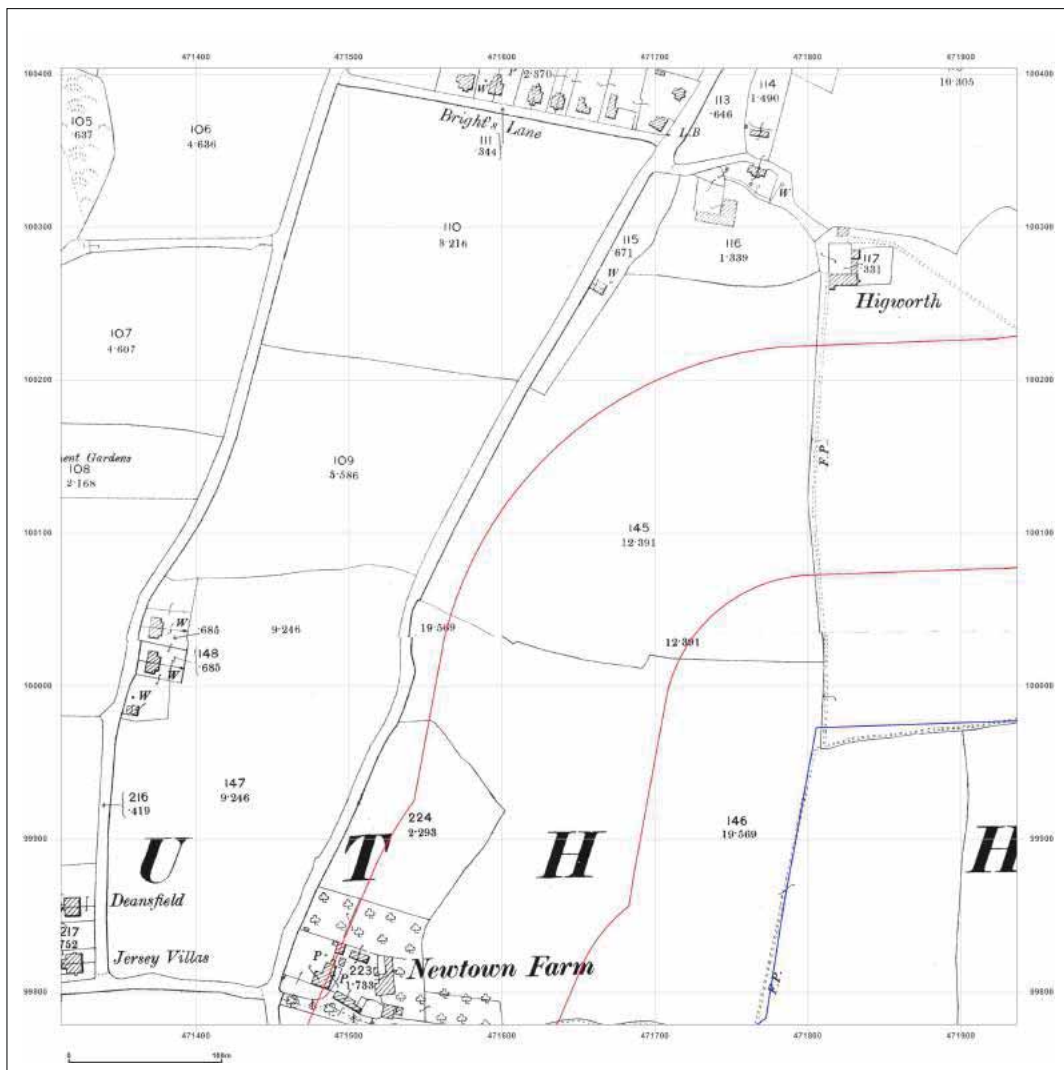


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: County Series

Map date: 1898

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1898.
Revised 1898
Edition N/A.
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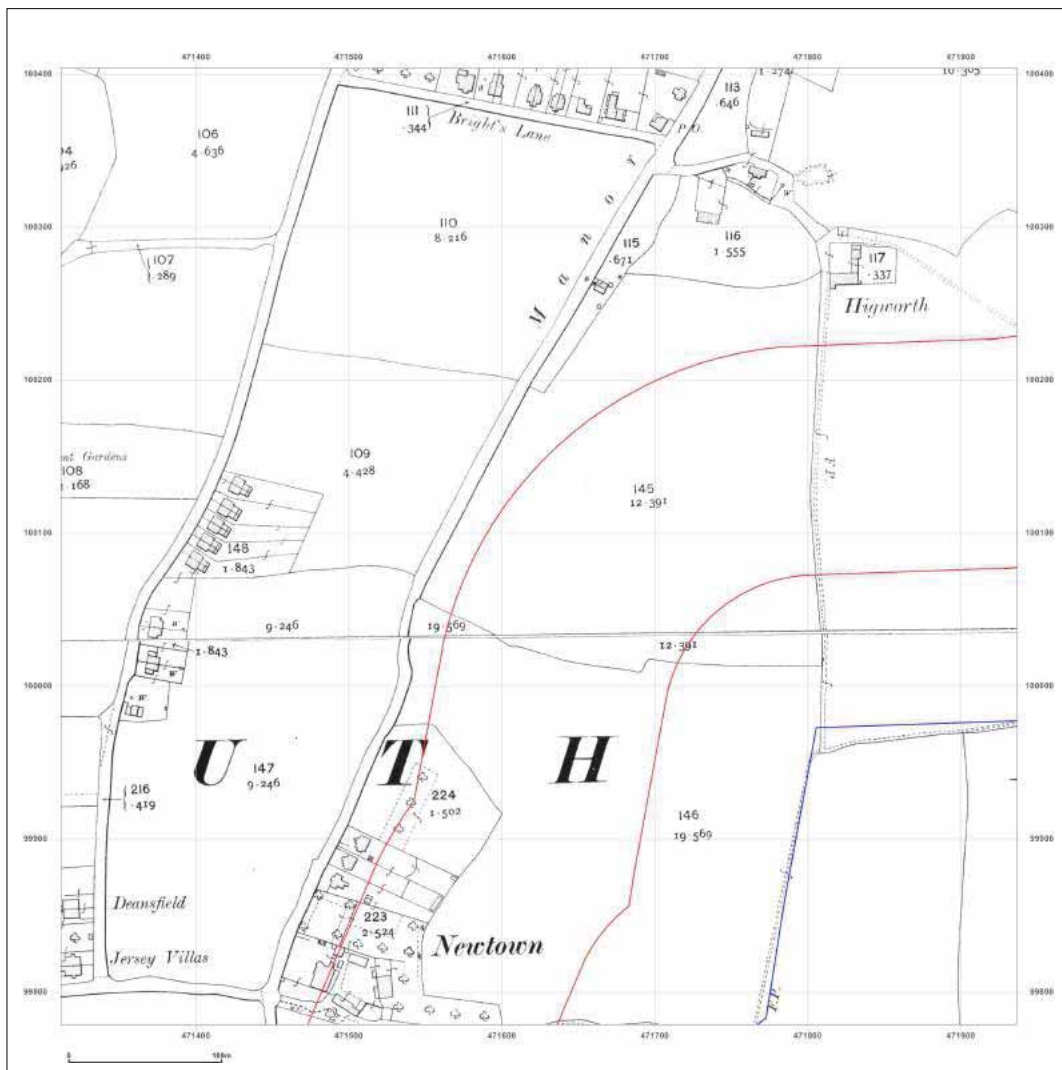


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: County Series

Map date: 1908

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1908.
Revised 1908
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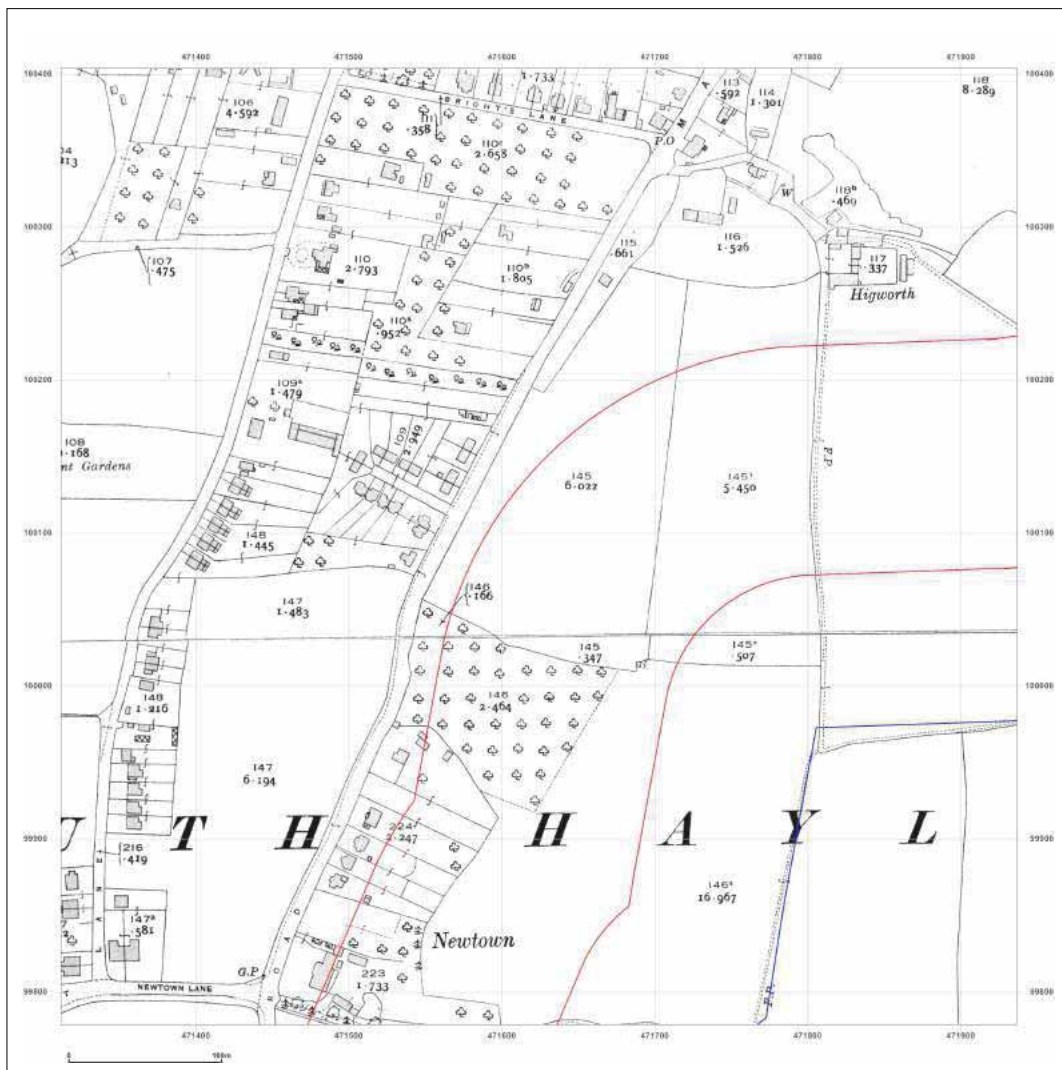


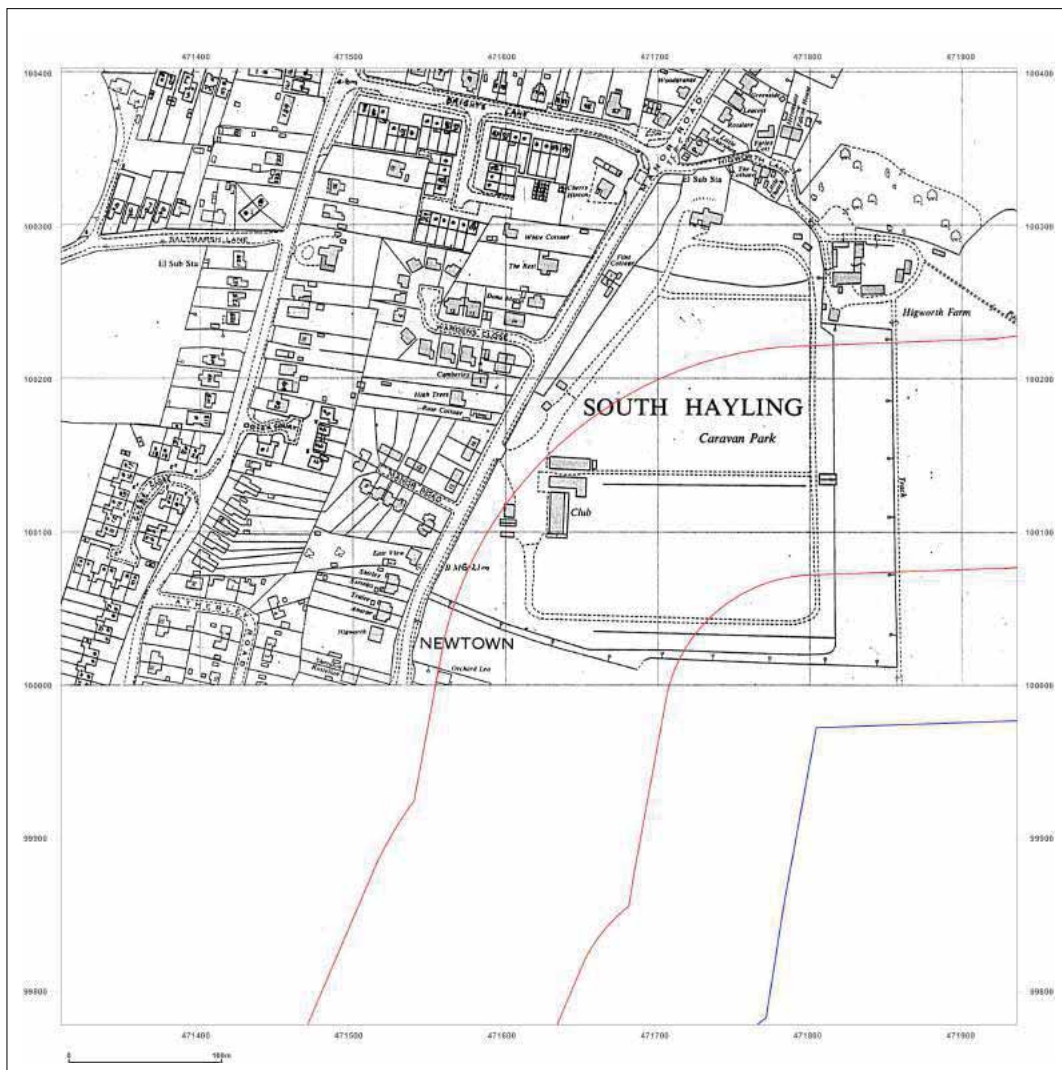
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: National Grid

Map date: 1957

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
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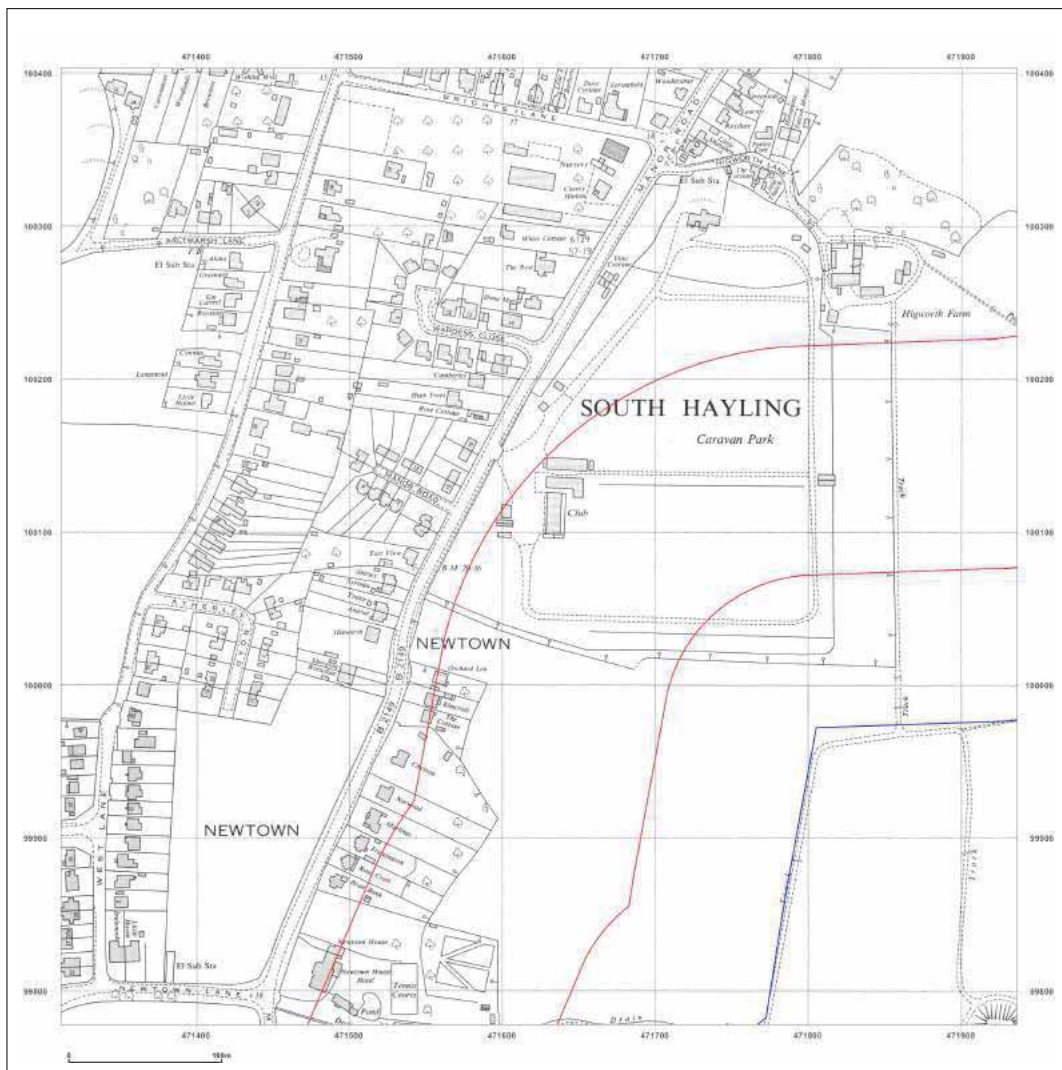


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Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: National Grid

Map date: 1968

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1968
Revised 1968
Edition N/A
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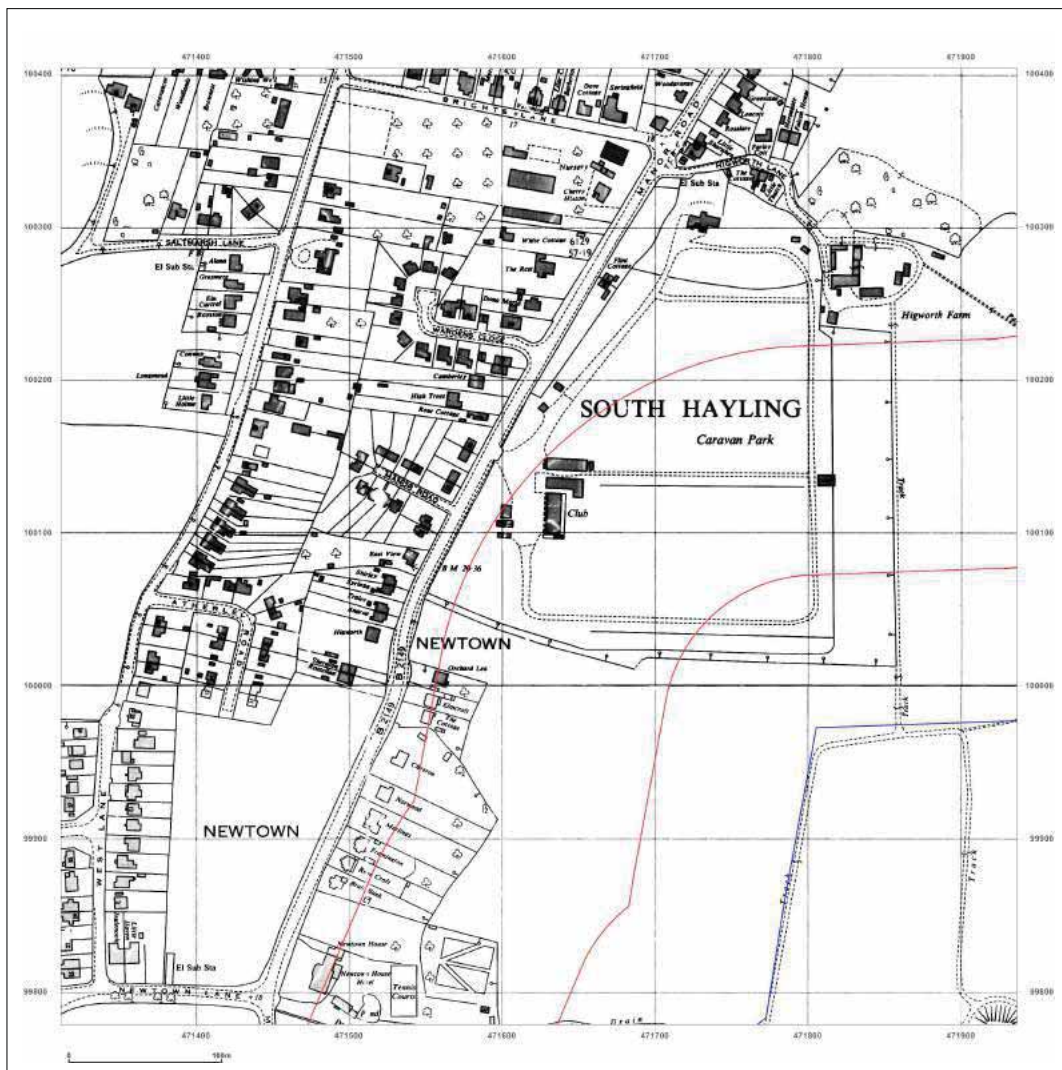


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: National Grid

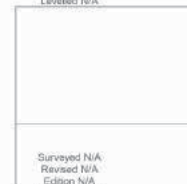
Map date: 1969

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edison N/A
Copyright N/A
Levelled N/A



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Revised N/A
Edison N/A
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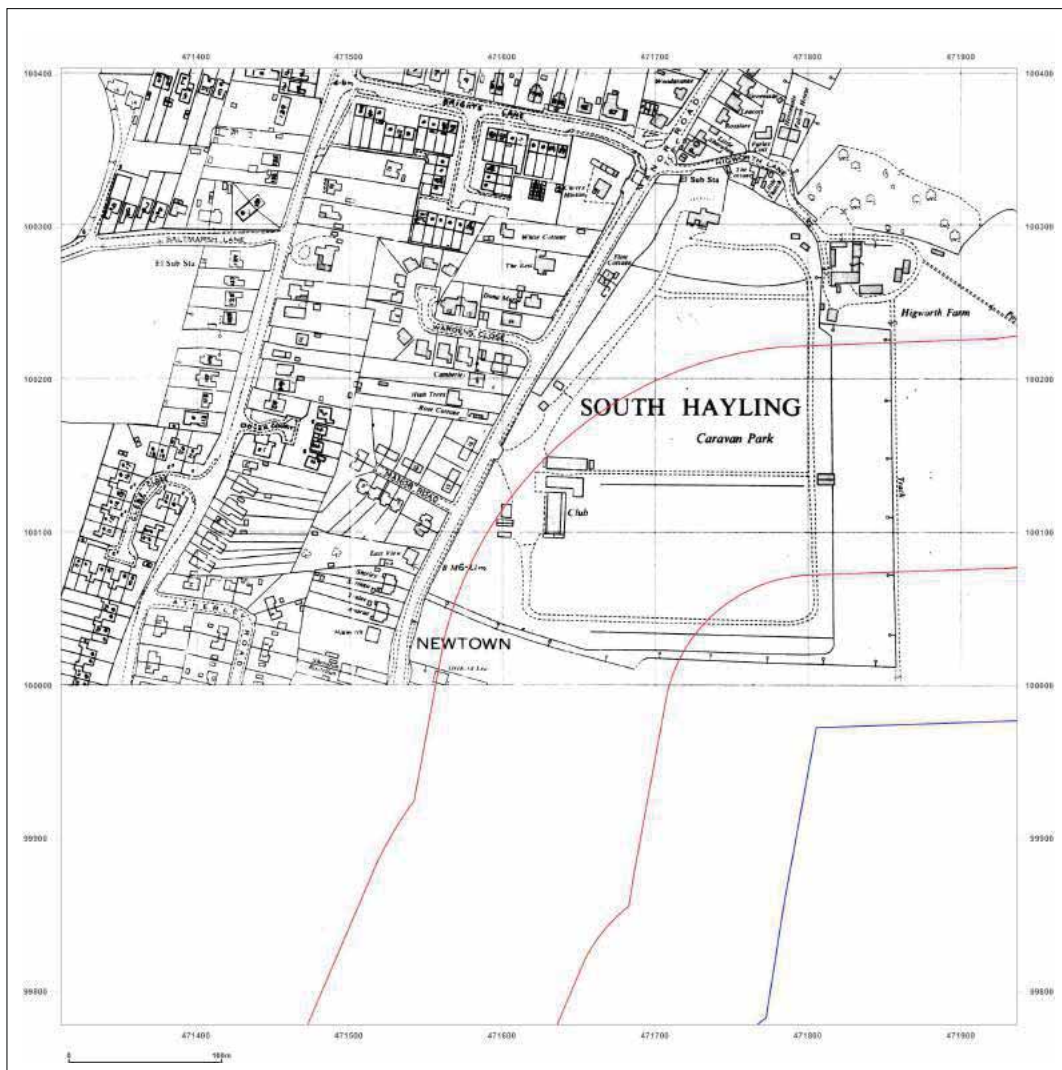


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: National Grid

Map date: 1979

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1979
Levelling 1957



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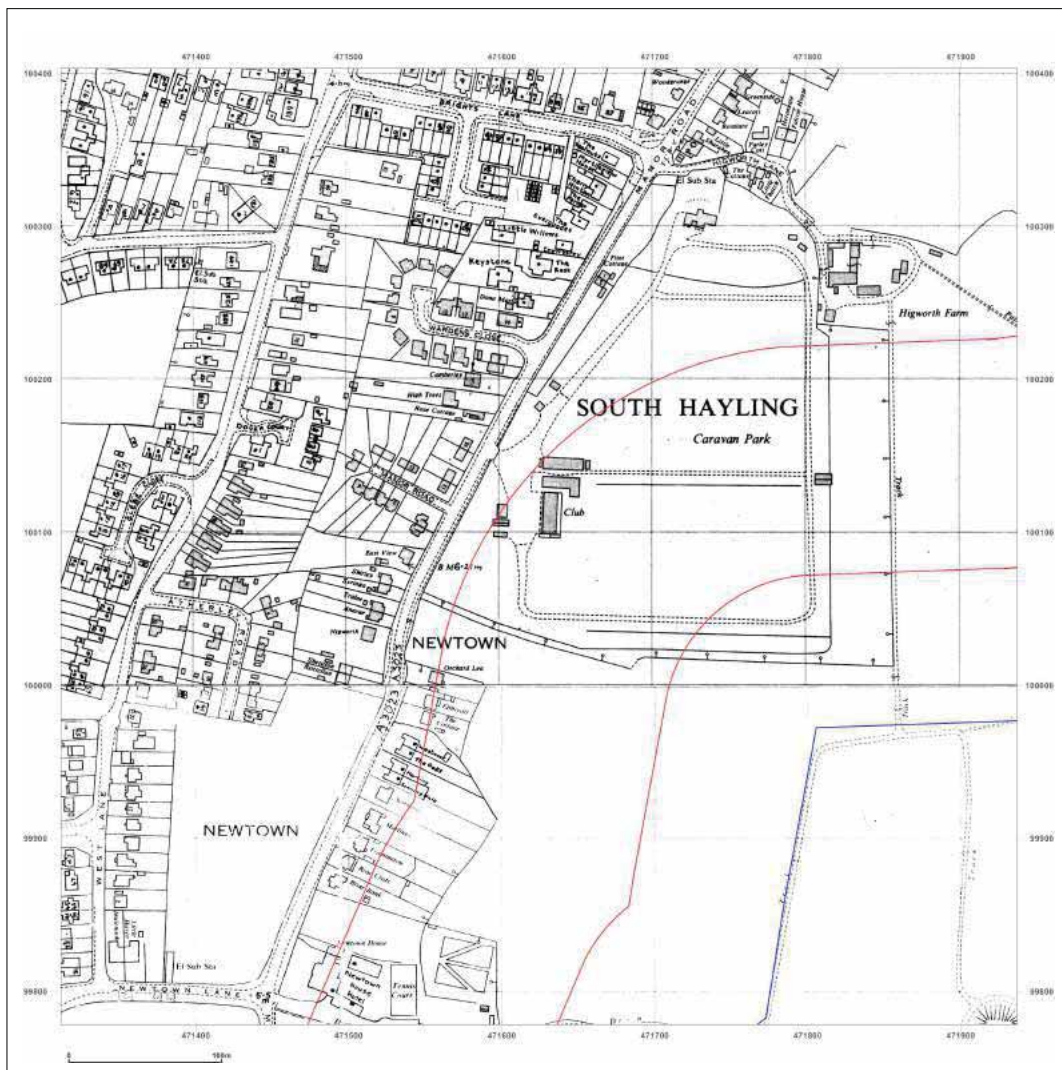


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Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: National Grid

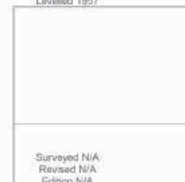
Map date: 1987-1988

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1957
Revised 1988
Edition N/A
Copyright 1988
Levelled 1957



Surveyed N/A
Revised N/A
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Site Details:

Land north of St. Mary's Road, St.
Mary's Road, Hayling Island
, PO11 9DF

Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: National Grid

Map date: 1990

Scale: 1:2,500

Printed at: 1:2,500



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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: National Grid

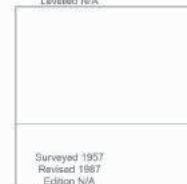
Map date: 1987-1991

Scale: 1:2,500

Printed at: 1:2,500



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



Surveyed 1957
Revised 1987
Edition N/A
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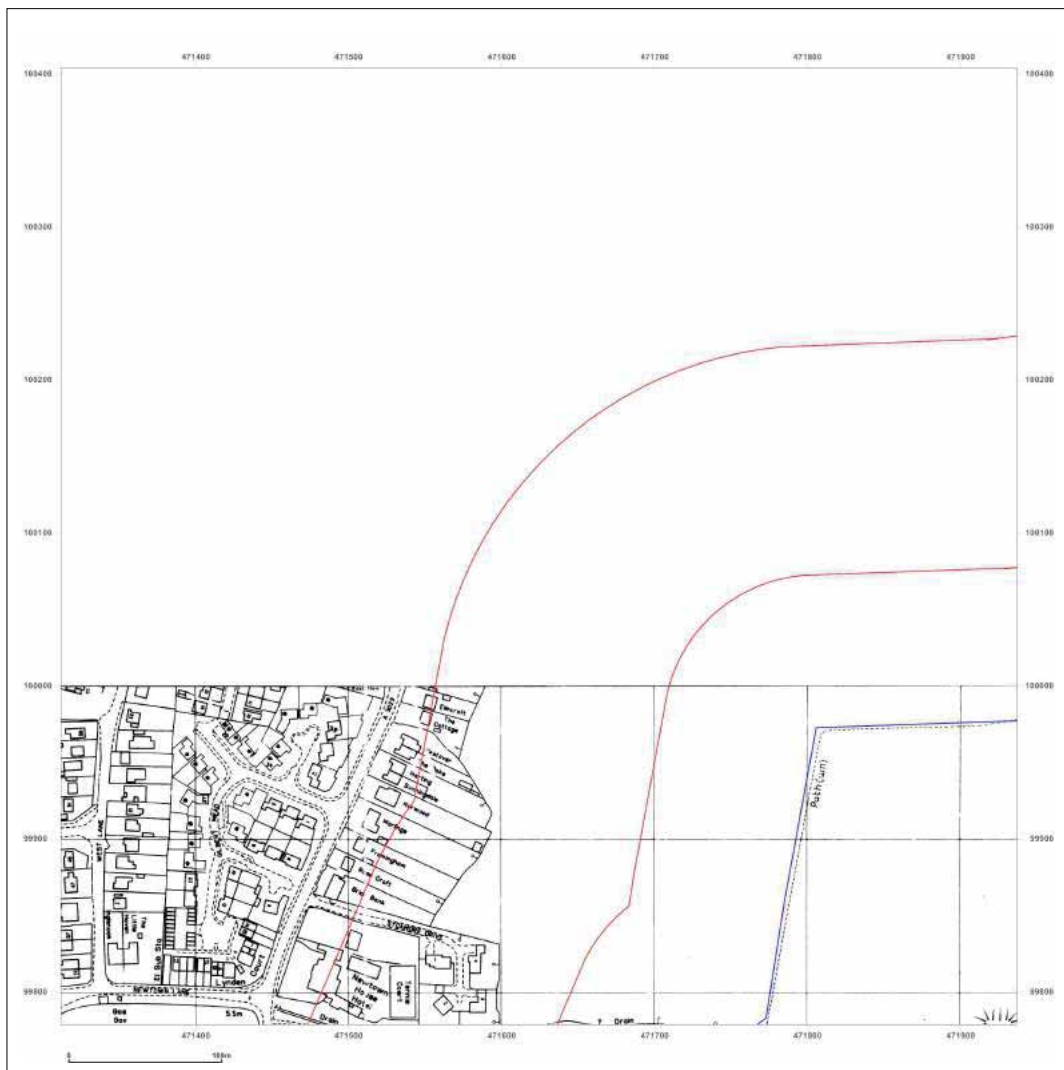


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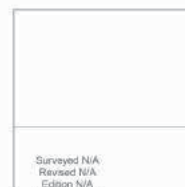
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Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: National Grid

Map date: 1991

Scale: 1:2,500

Printed at: 1:2,500



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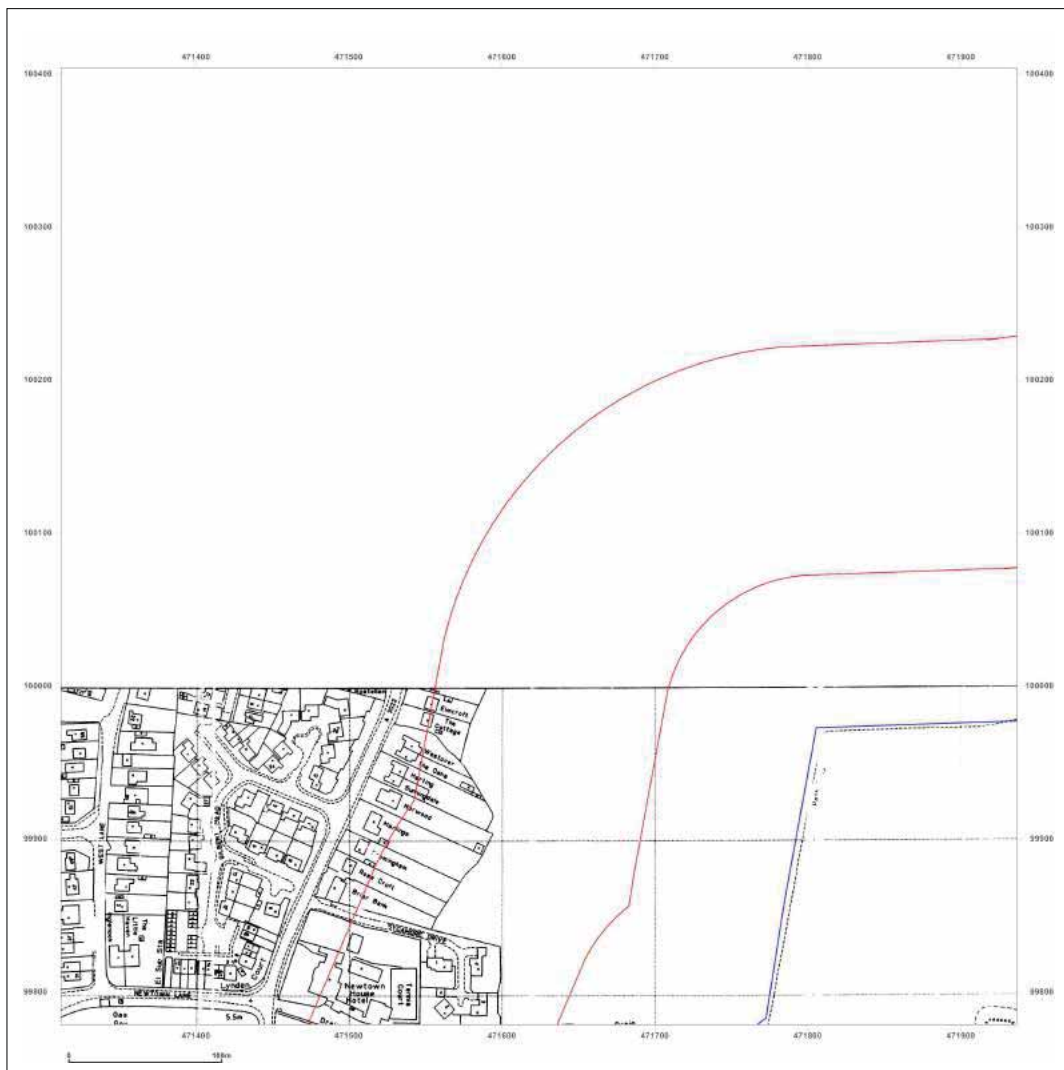


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_1_2
Grid Ref: 471624, 100091

Map Name: National Grid

Map date: 1993

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1993
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Edition N/A
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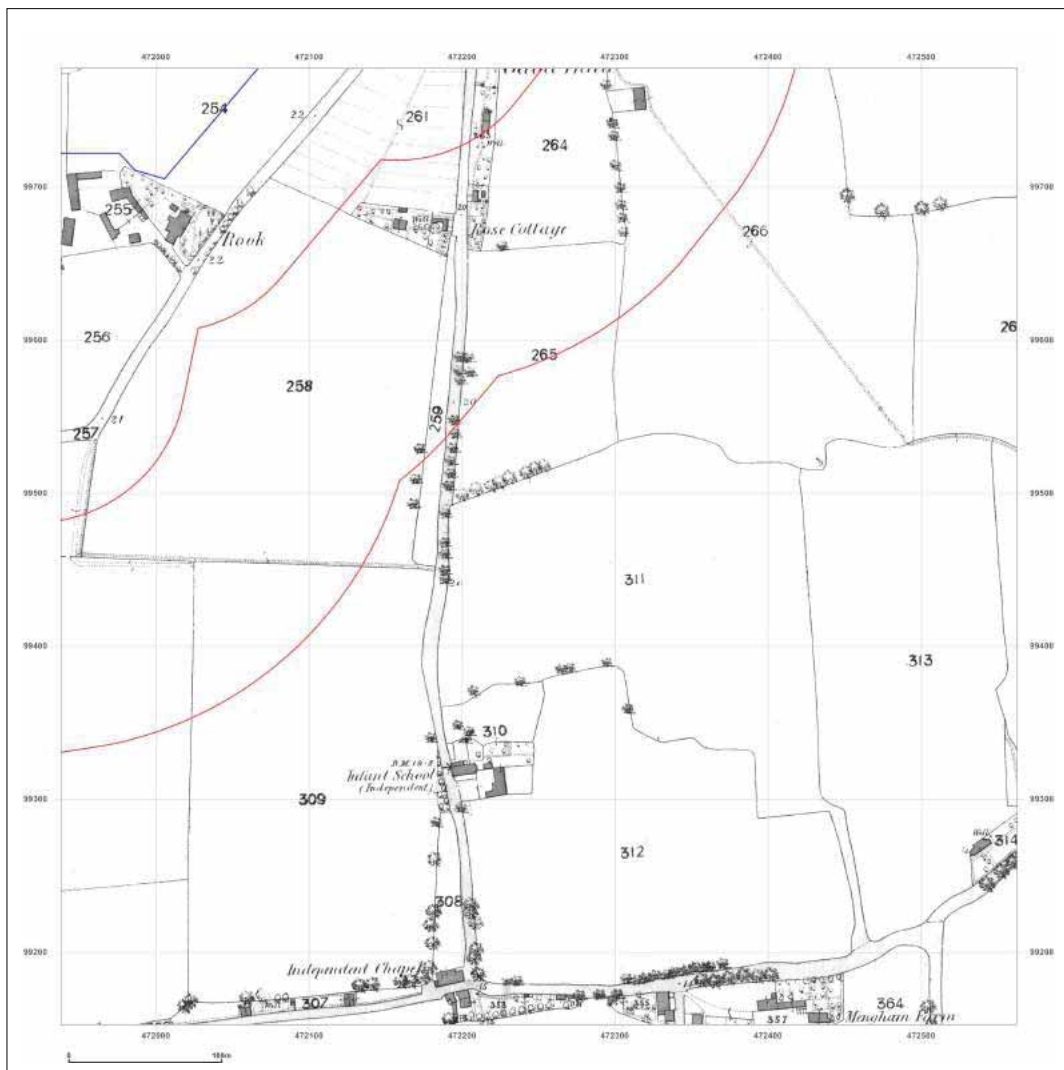


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: County Series

Map date: 1867

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1867
Revised 1867
Edition N/A
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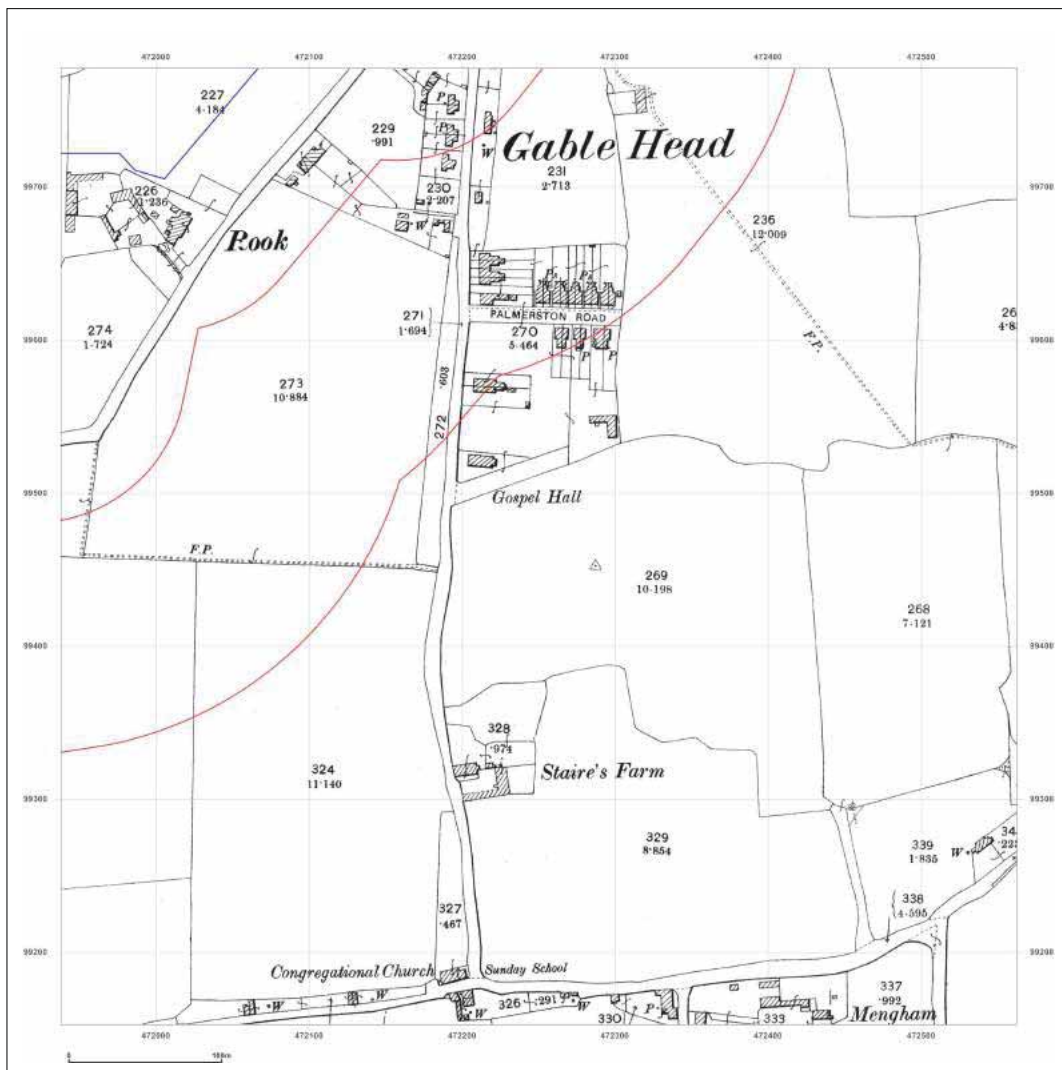


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: County Series

Map date: 1898

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1898
Revised 1898
Edition N/A
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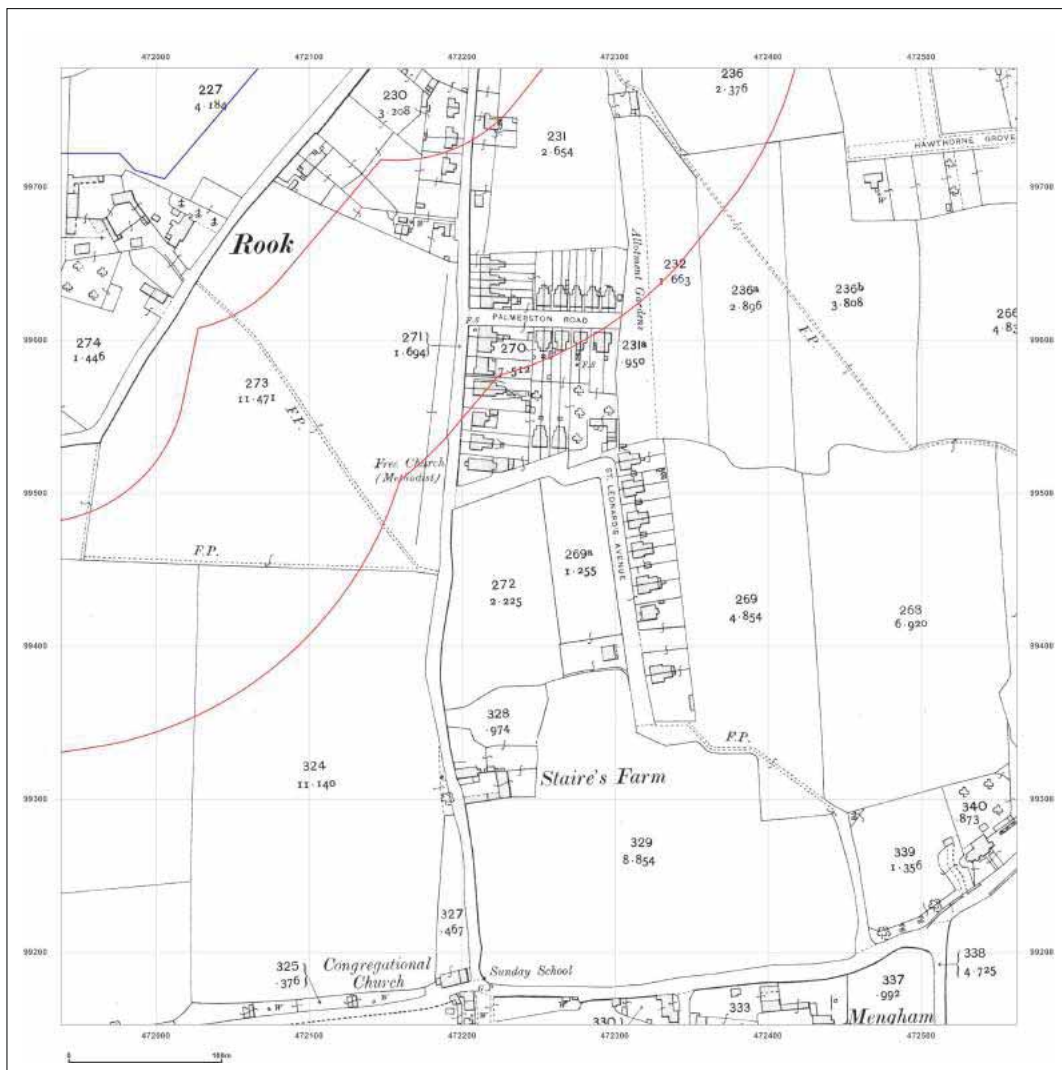


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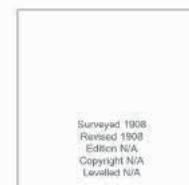
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Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: County Series

Map date: 1908

Scale: 1:2,500

Printed at: 1:2,500



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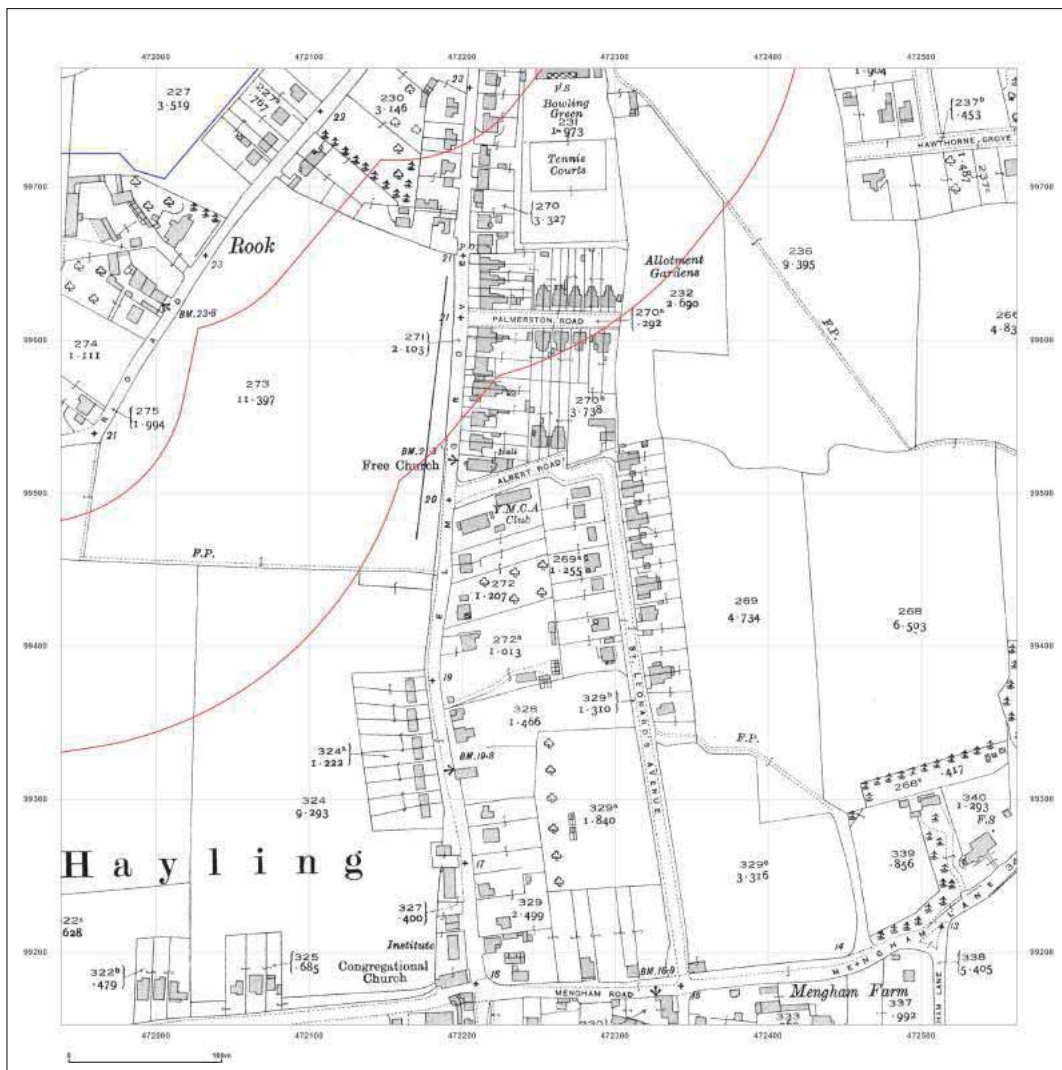


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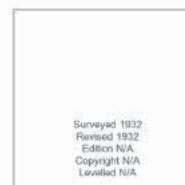
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Grid Ref: 472250, 99465

Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500



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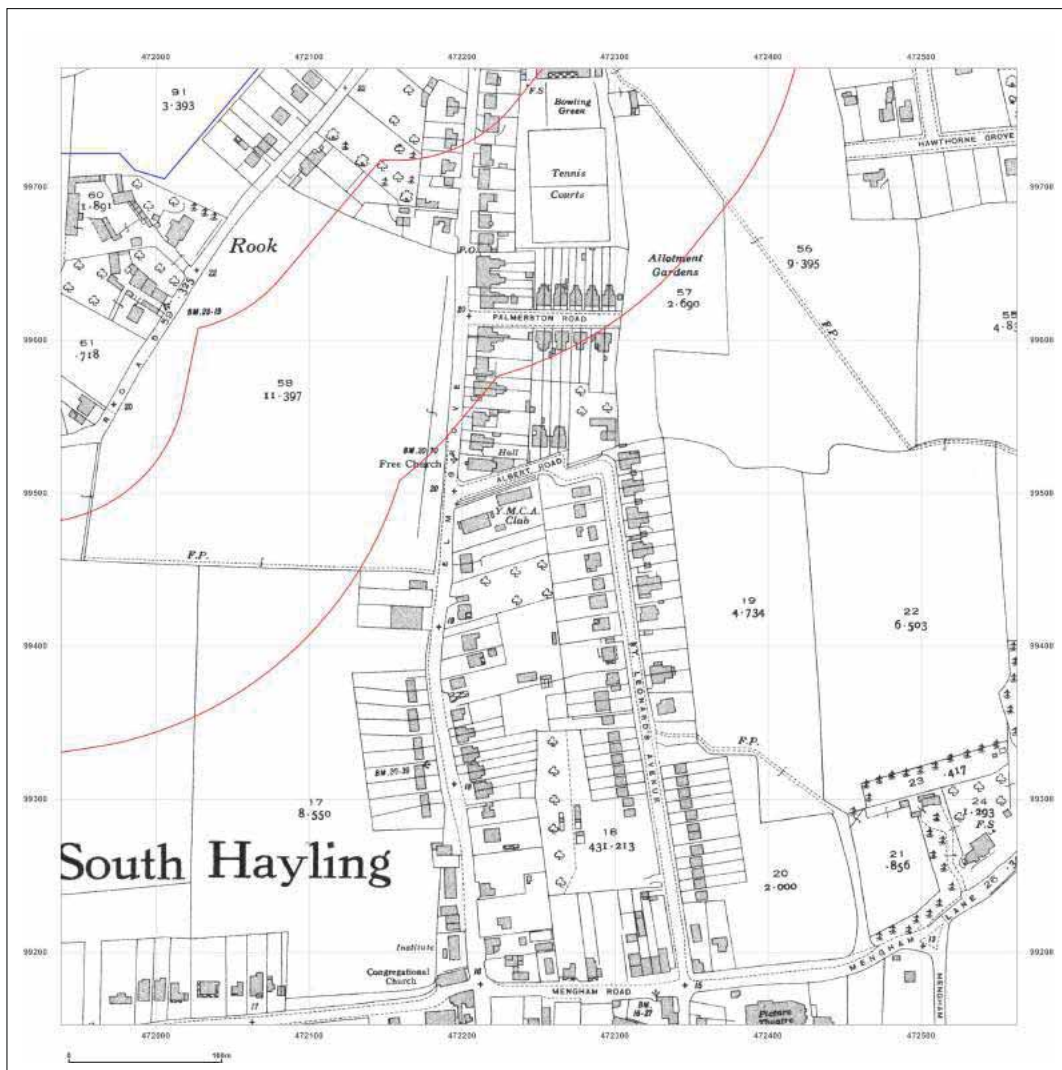


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: County Series

Map date: 1937

Scale: 1:2,500

Printed at: 1:2,500



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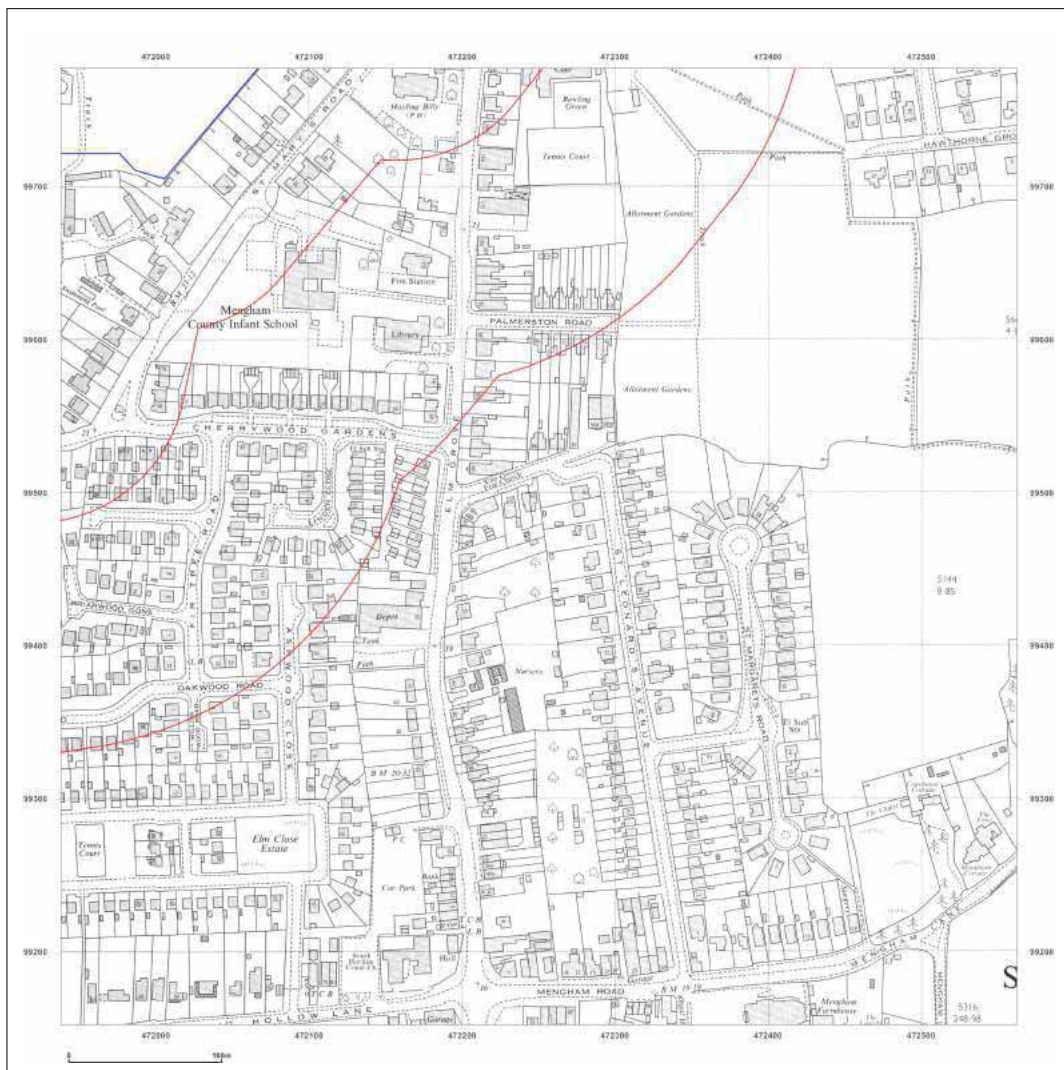


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1968

Scale: 1:2,500

Printed at: 1:2,500



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Surveyed 1968
Revised 1968
Edition N/A
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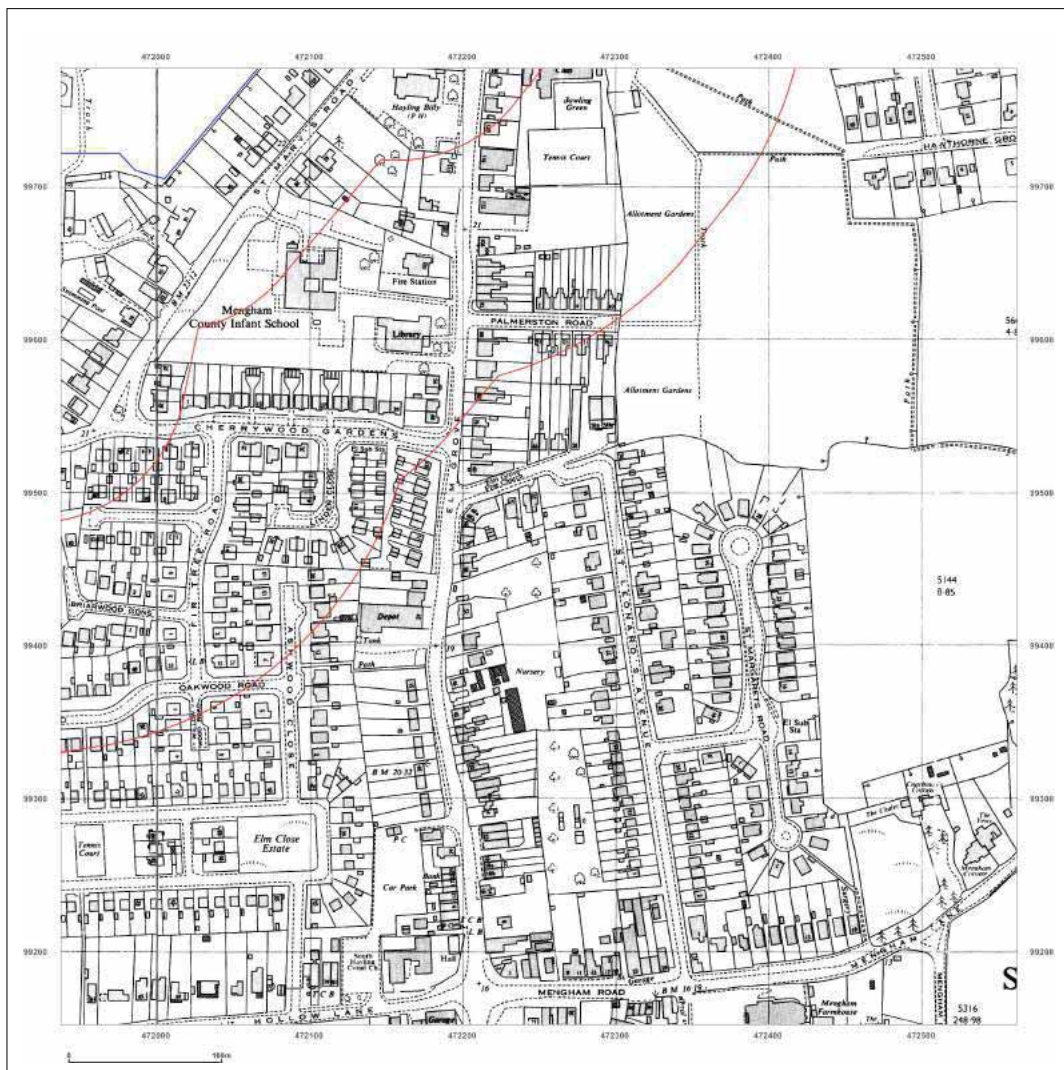


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1969-1970

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
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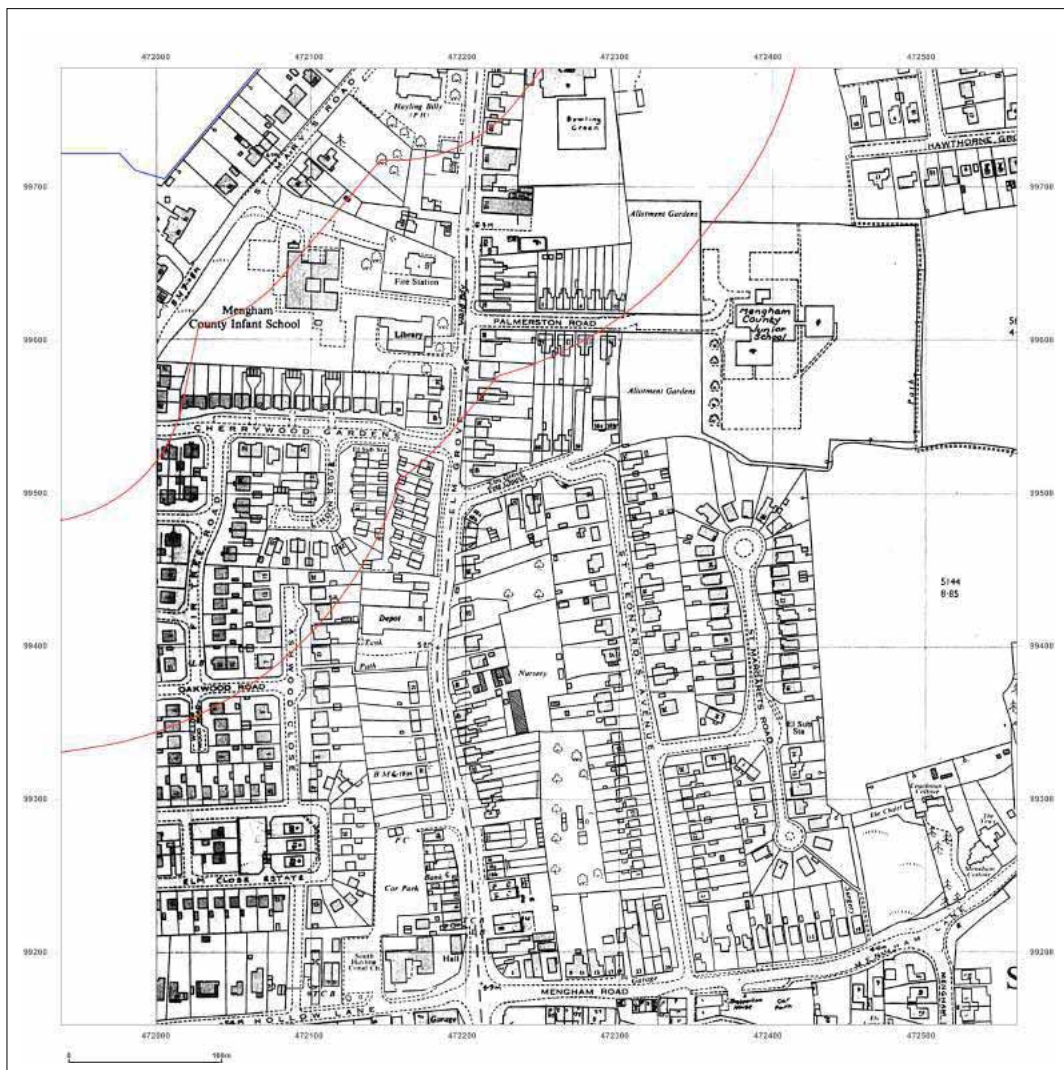


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1979

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1957
Revised 1979
Edition N/A
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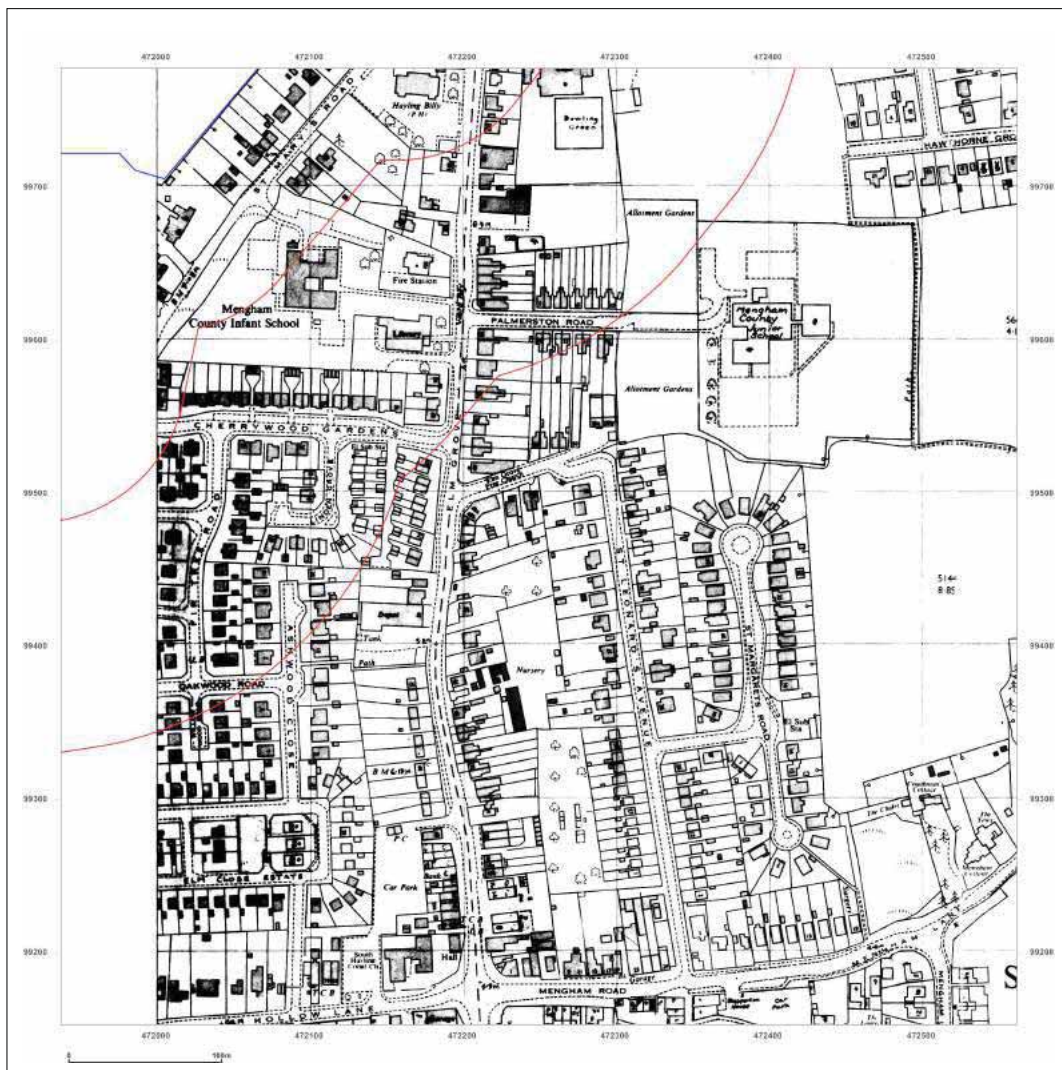


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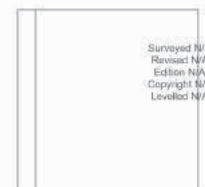
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Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1979

Scale: 1:2,500

Printed at: 1:2,500



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Revised N/A
Edition N/A
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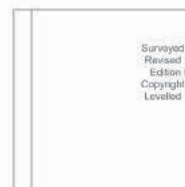
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Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1979

Scale: 1:2,500

Printed at: 1:2,500



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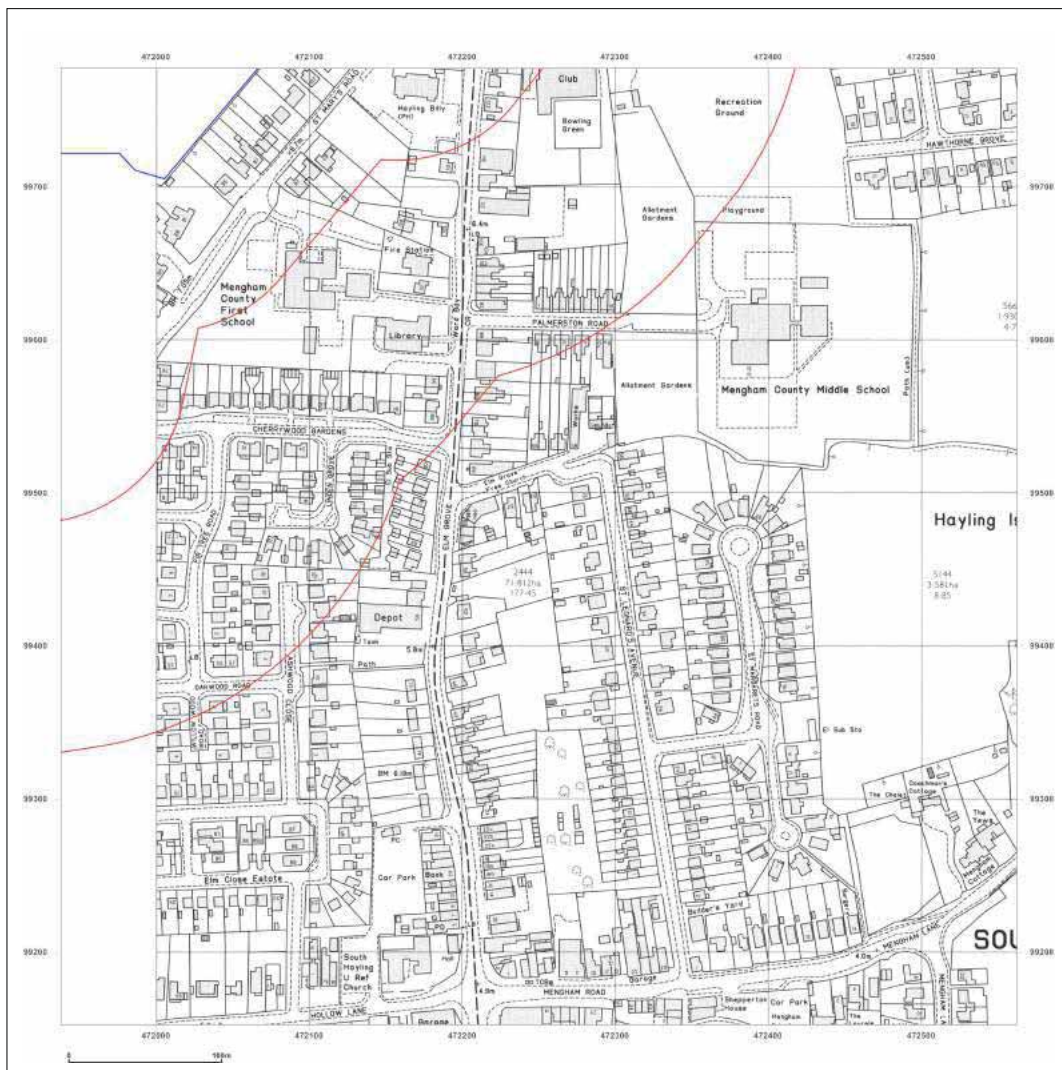


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, PO11 9DF

Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1980

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1980
Revised 1980
Edition N/A
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1982-1987

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
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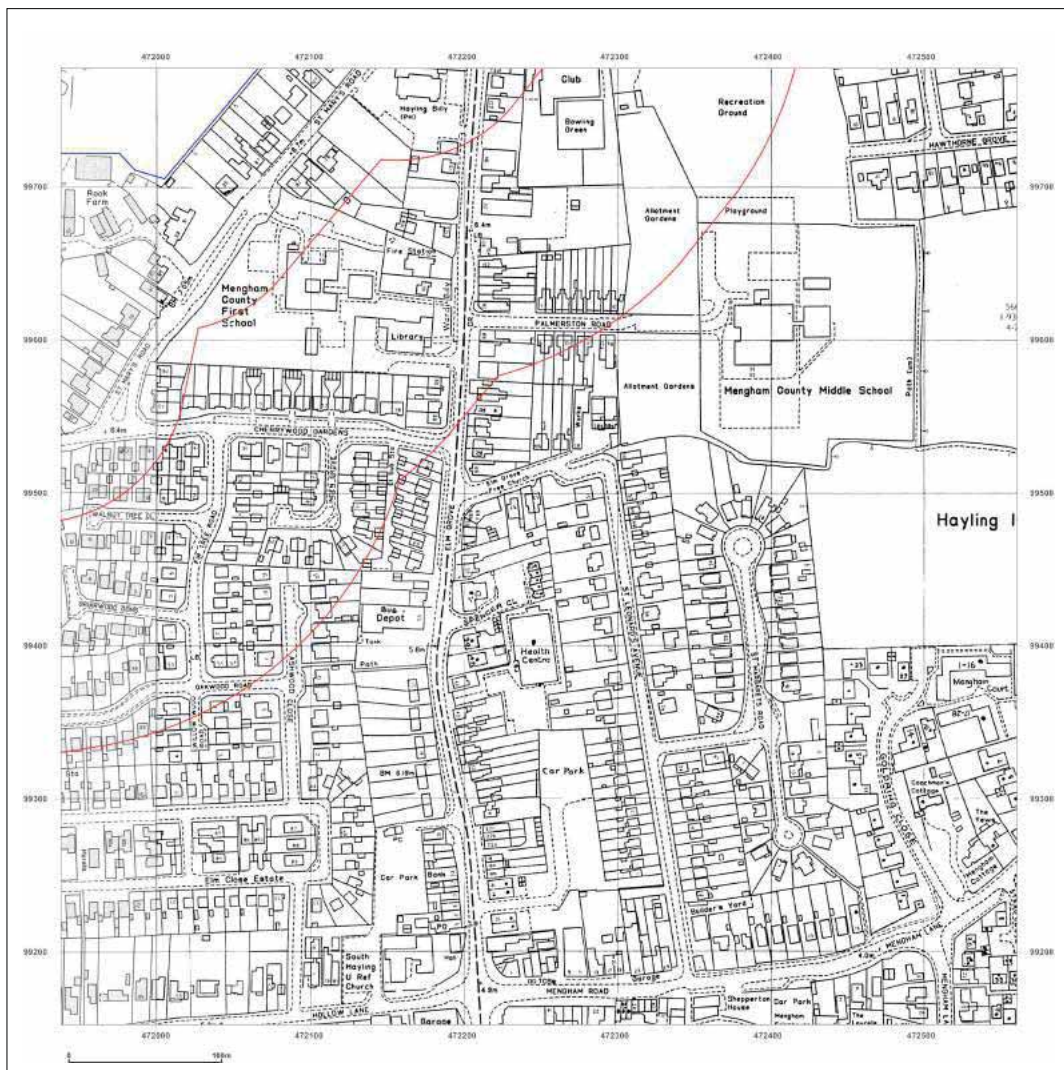


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1986-1989

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
Copyright 1989
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Surveyed 1957
Revised 1986
Edition N/A
Copyright 1986
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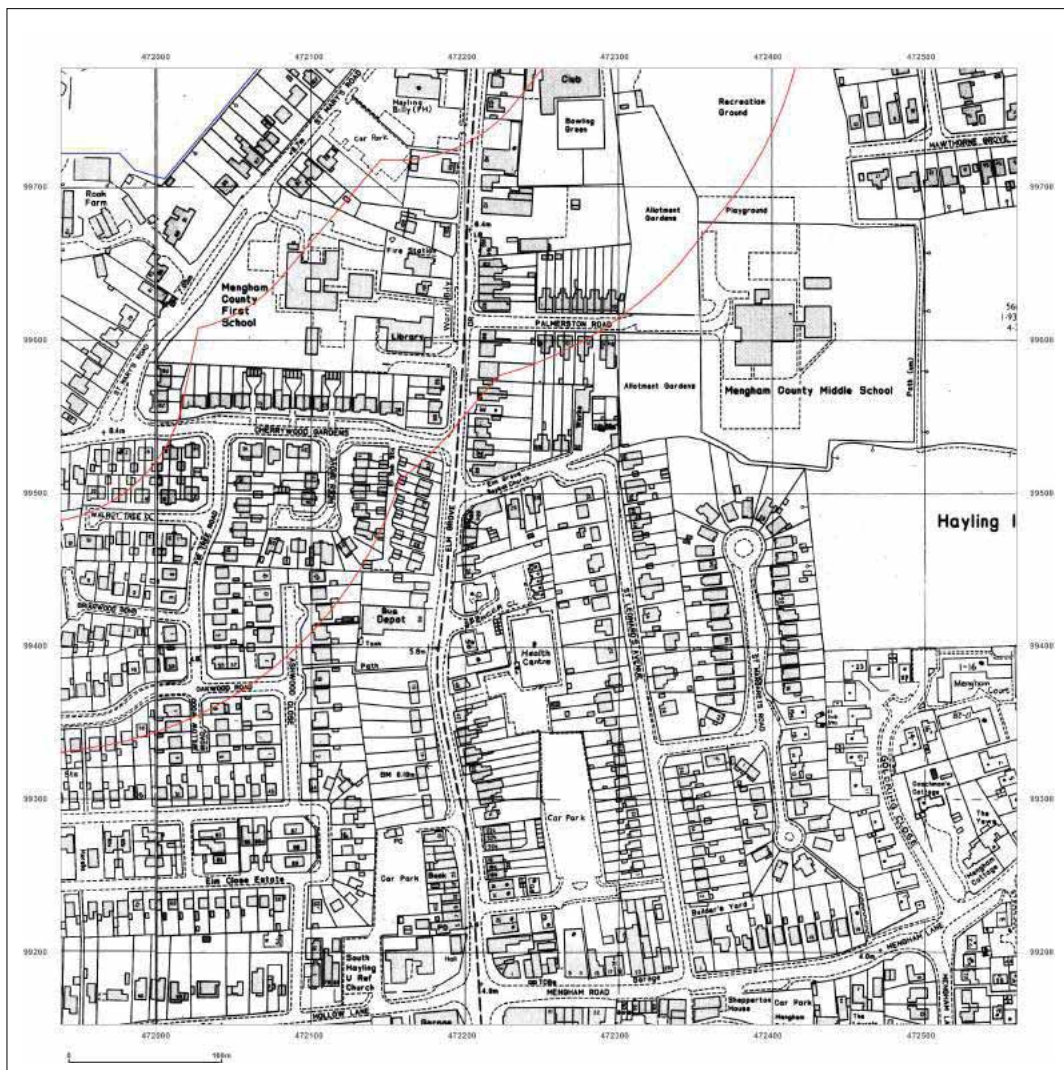


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1989-1990

Scale: 1:2,500

Printed at: 1:2,500



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 Edition N/A
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 Levelled N/A

Surveyed 1957
 Revised 1989
 Edition N/A
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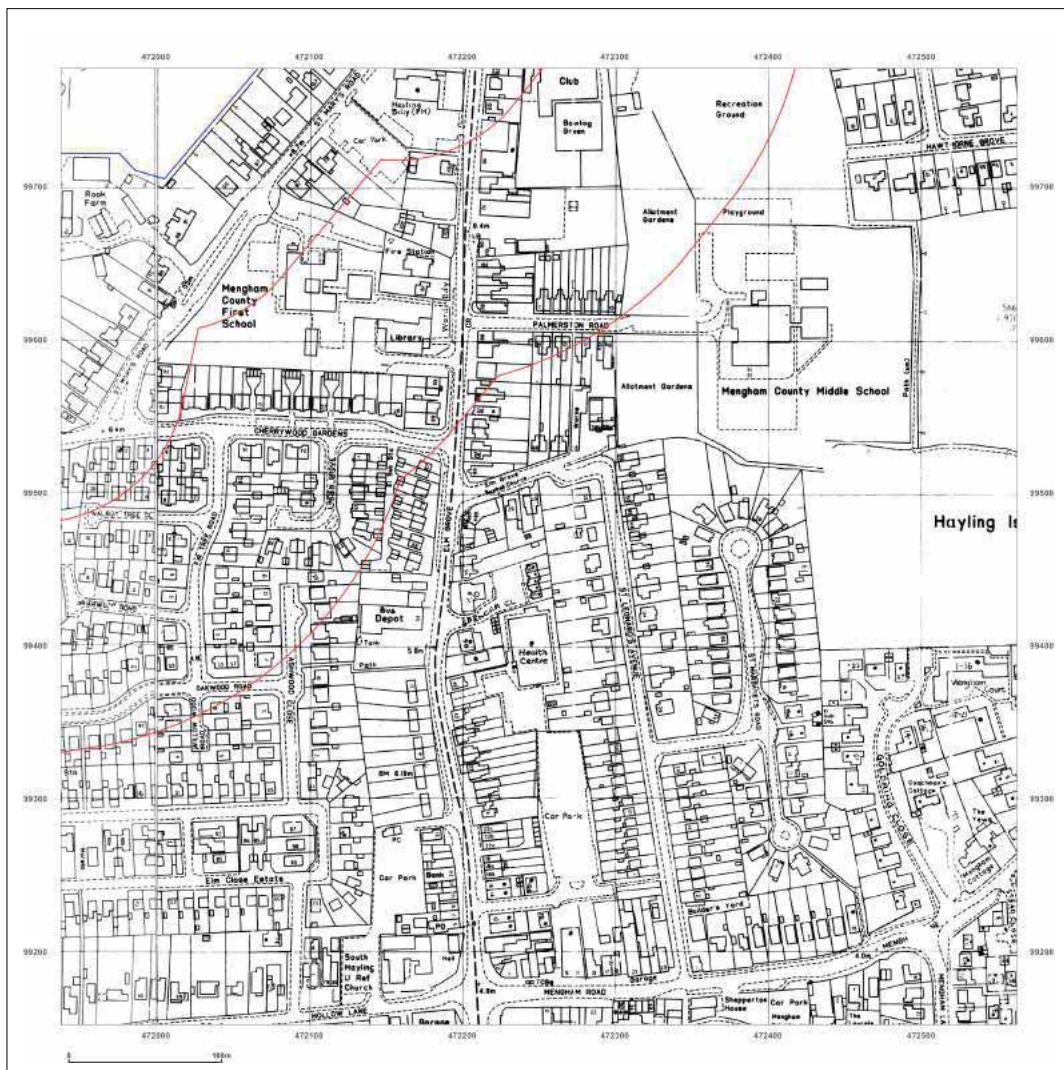


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1990

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1980
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Revised N/A
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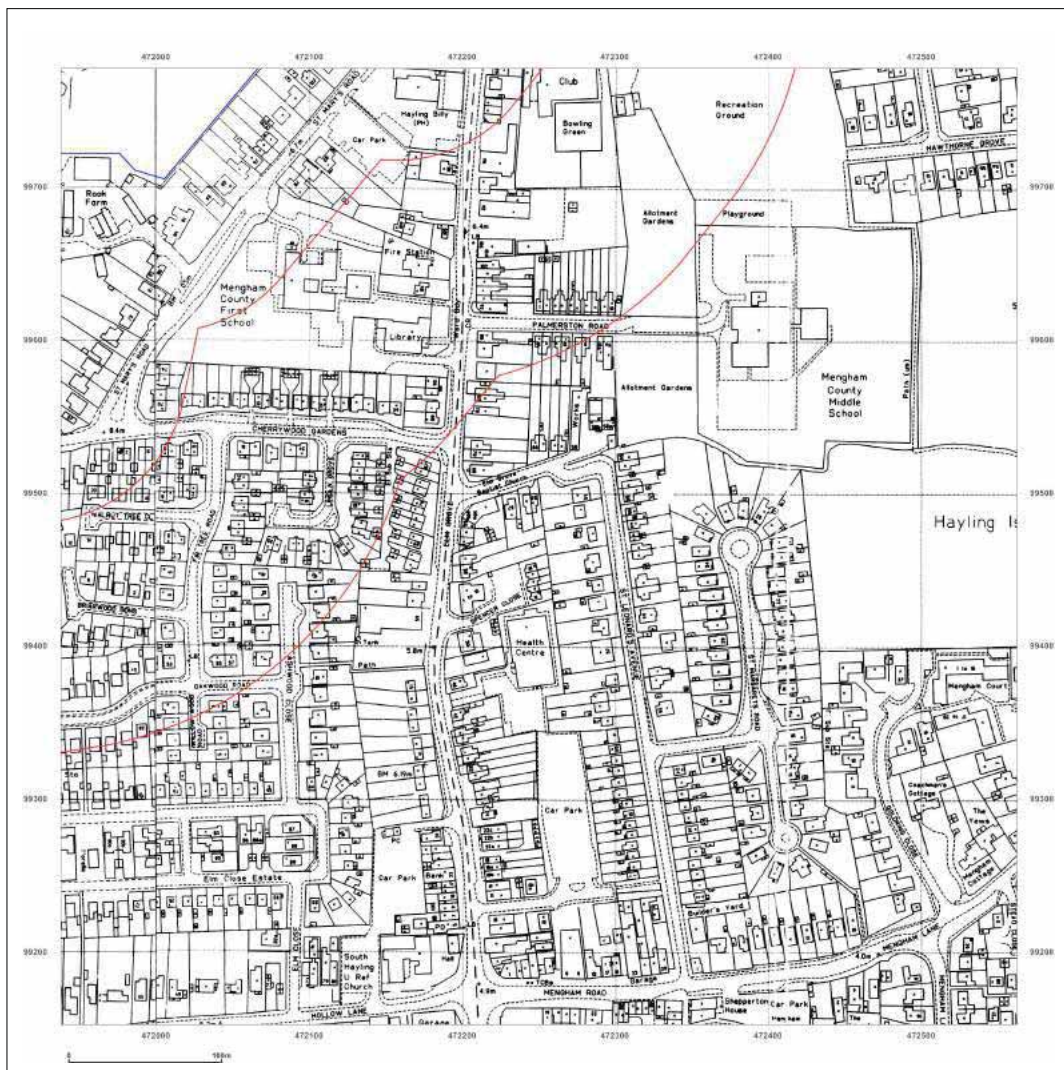


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_1
Grid Ref: 472250, 99465

Map Name: National Grid

Map date: 1991-1993

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
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Edition N/A
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Levelled N/A

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Edition N/A
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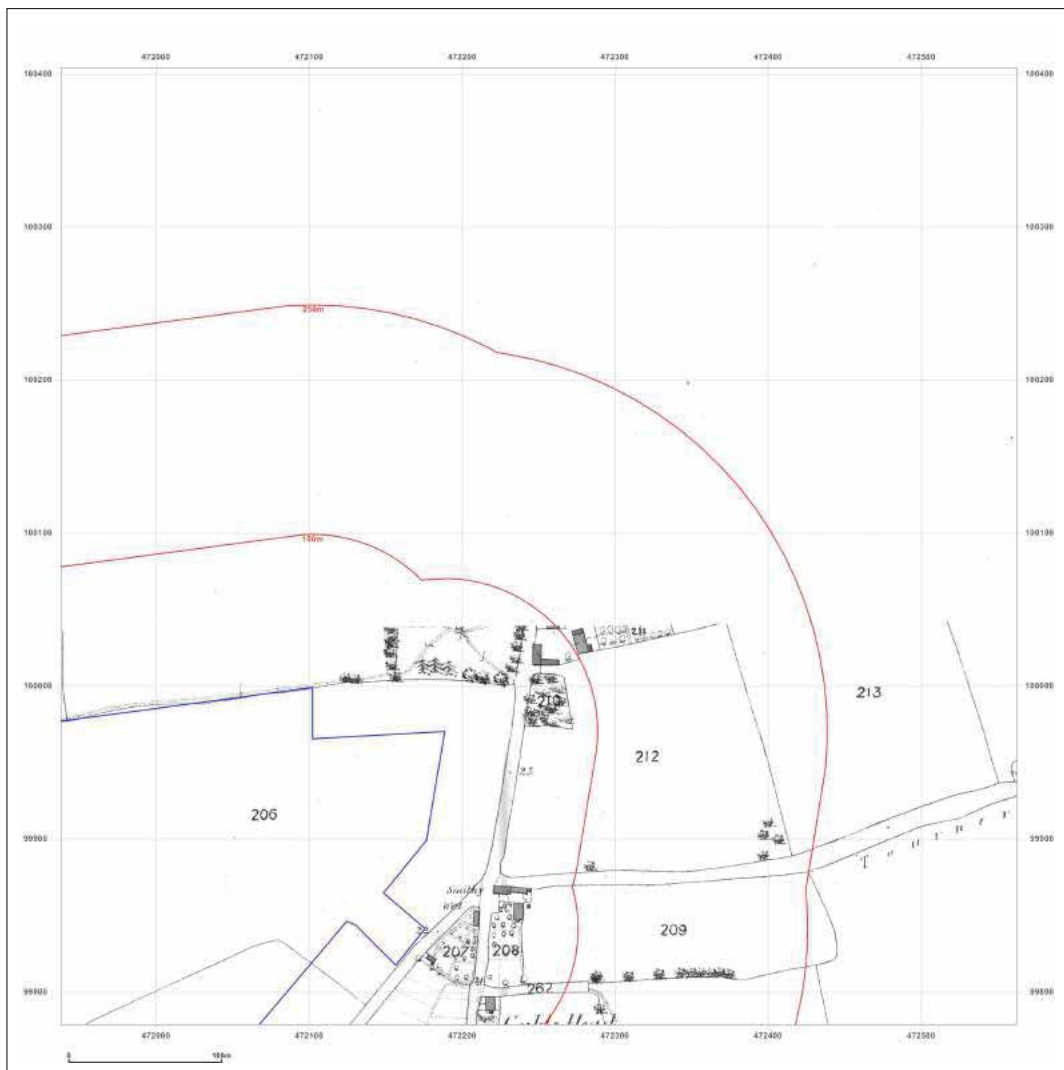


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: County Series

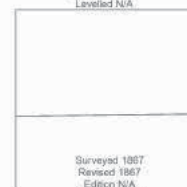
Map date: 1867

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1867
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Edition N/A
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Levelled N/A



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Revised 1867
Edition N/A
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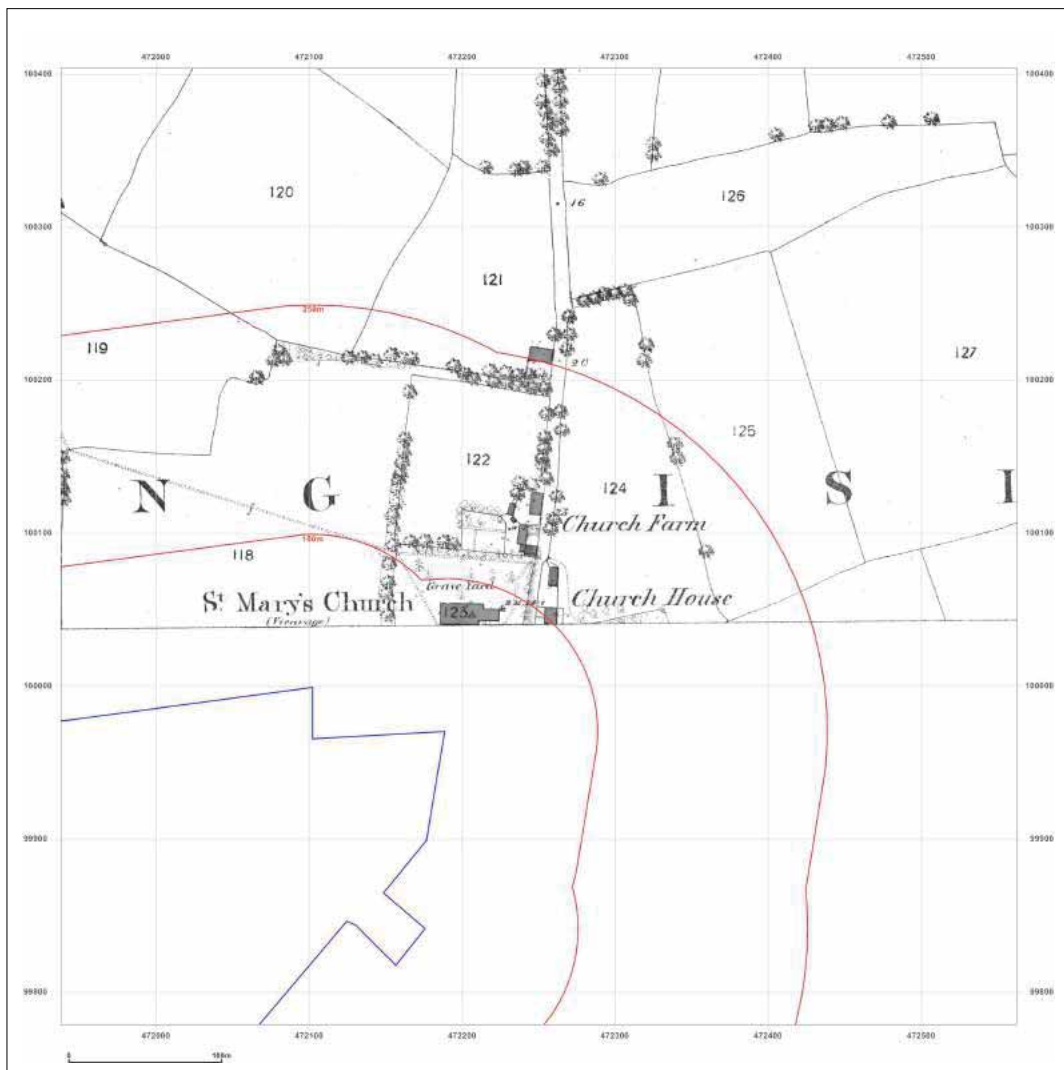


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Mary's Road, Hayling Island
, PO11 9DF

Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: County Series

Map date: 1867

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
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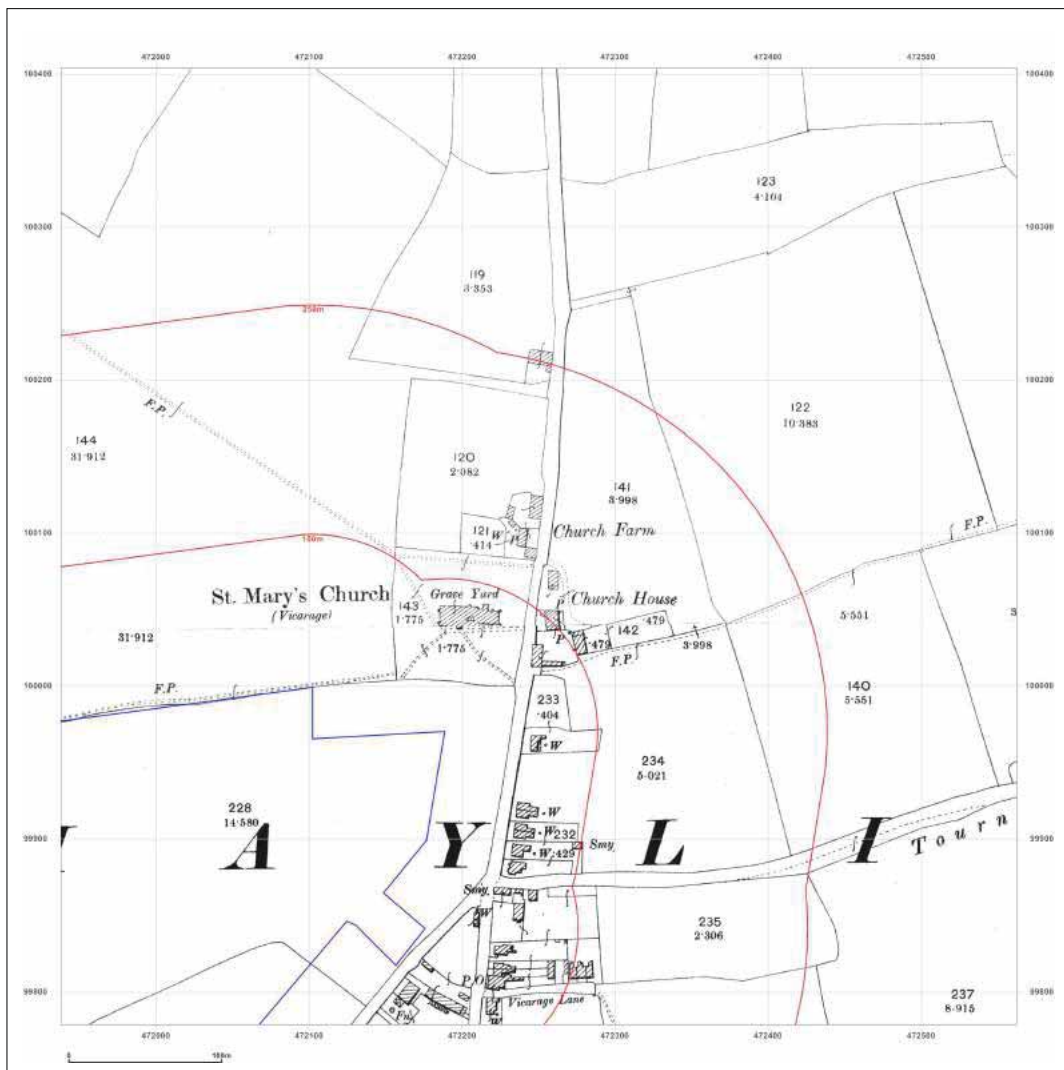


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: County Series

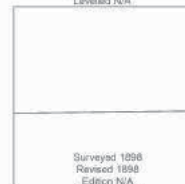
Map date: 1898

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
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Edition N/A
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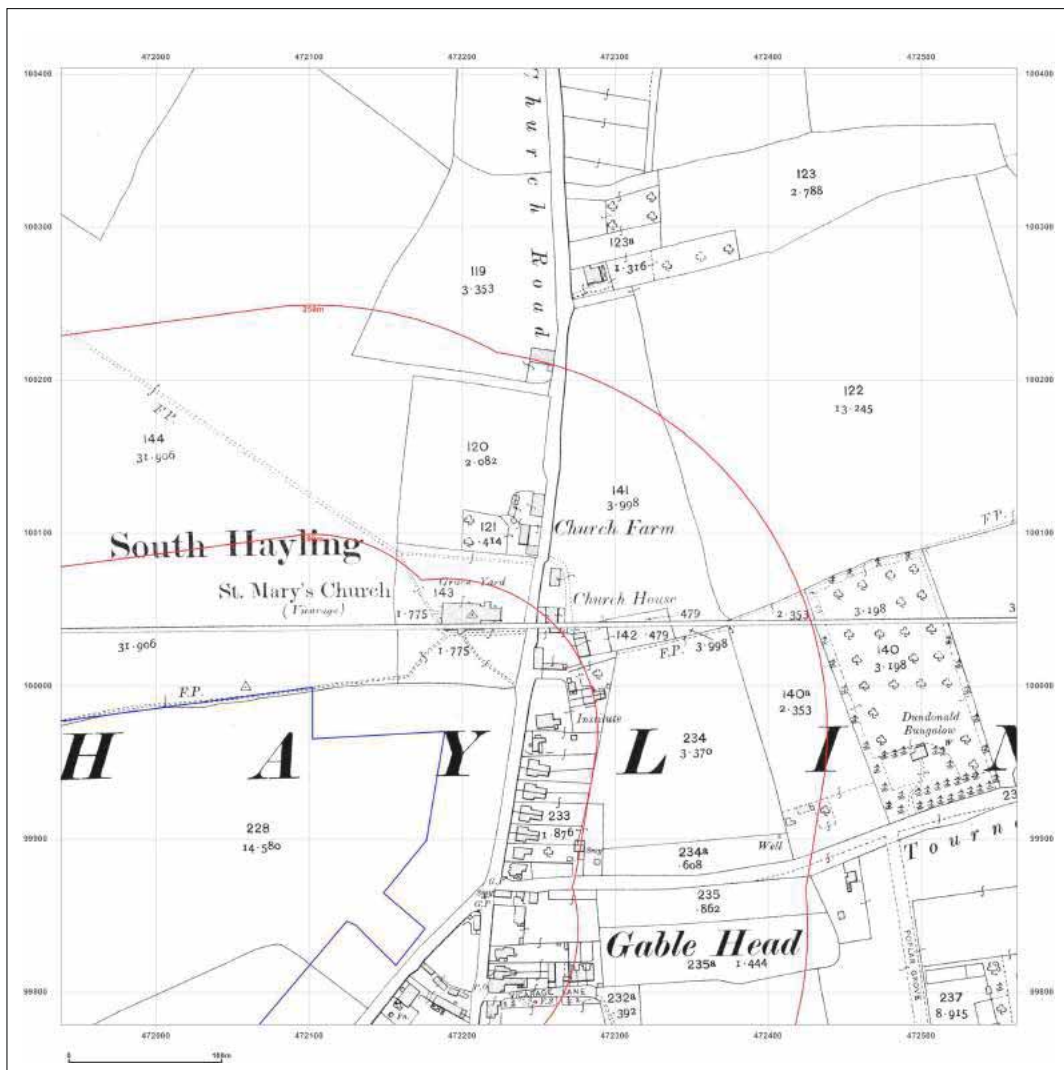


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Site Details:

Land north of St. Mary's Road, St.
Mary's Road, Hayling Island
, PO11 9DF

Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: County Series

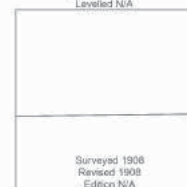
Map date: 1908

Scale: 1:2,500

Printed at: 1:2,500



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Revised 1908
Edition N/A
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Levelled N/A



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Revised 1908
Edition N/A
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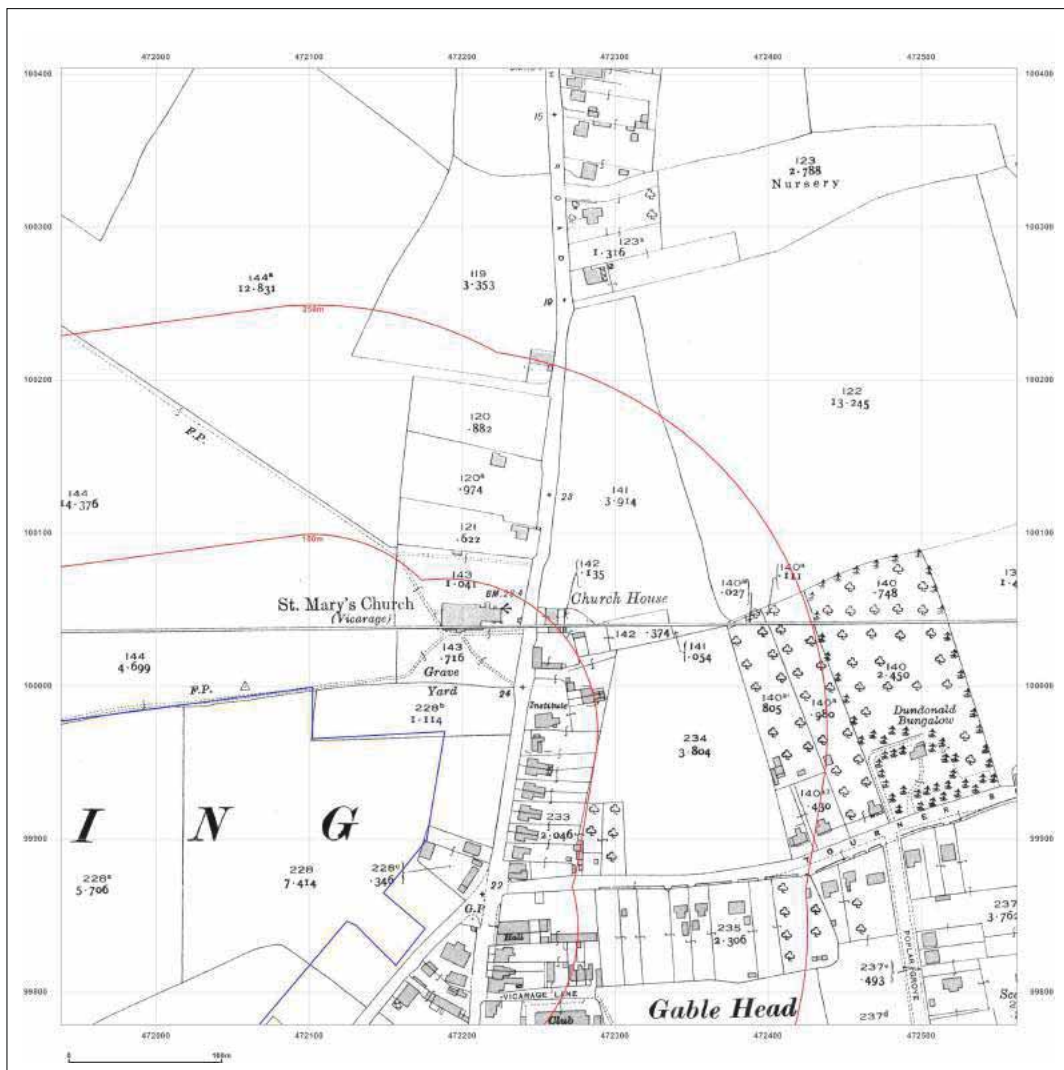


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Site Details:

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Mary's Road, Hayling Island
, PO11 9DF

Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: County Series

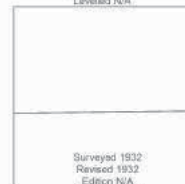
Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
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Revised 1932
Edition N/A
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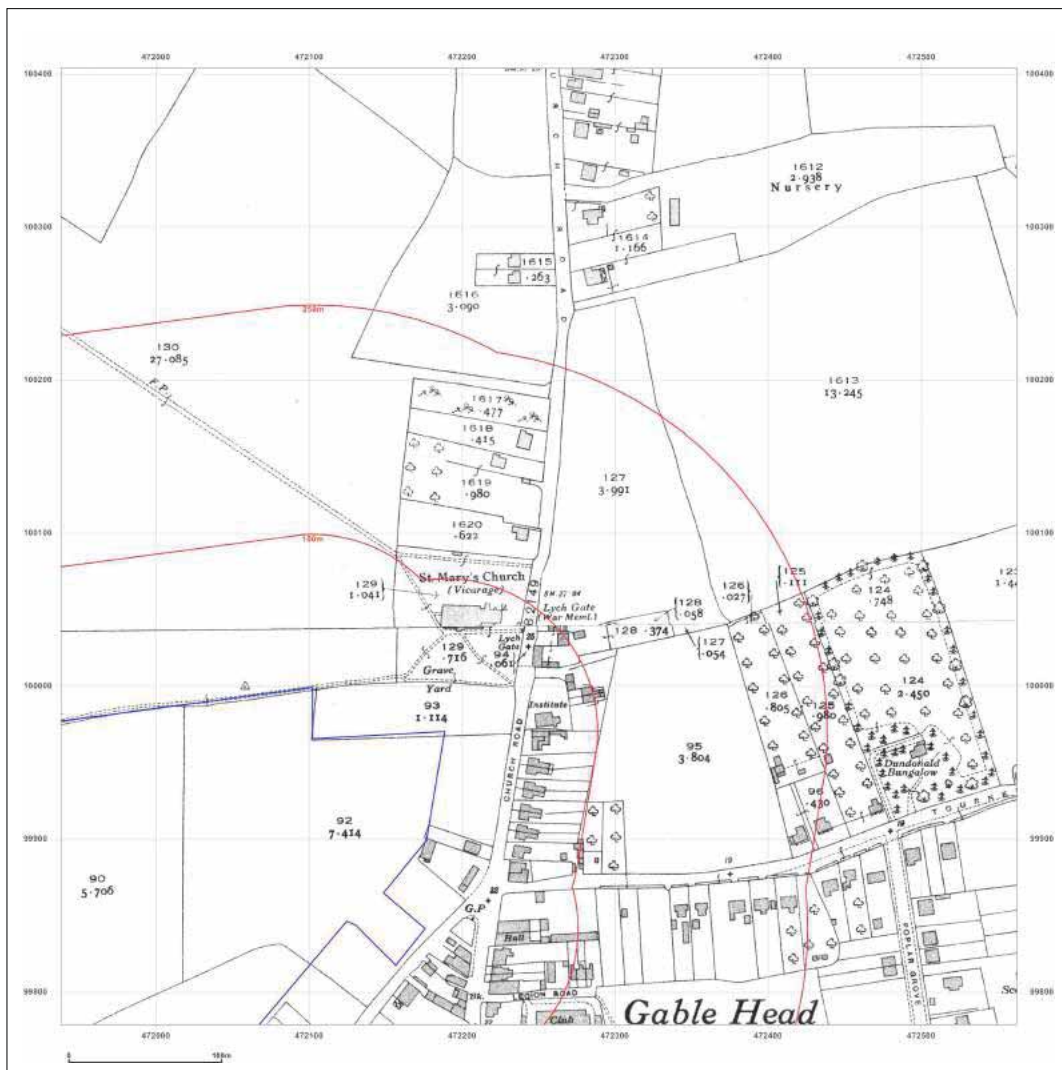


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, PO11 9DF

Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: County Series

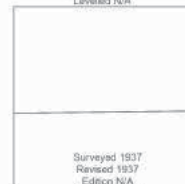
Map date: 1937-1940

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
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Surveyed 1937
Revised 1937
Edition N/A
Copyright N/A
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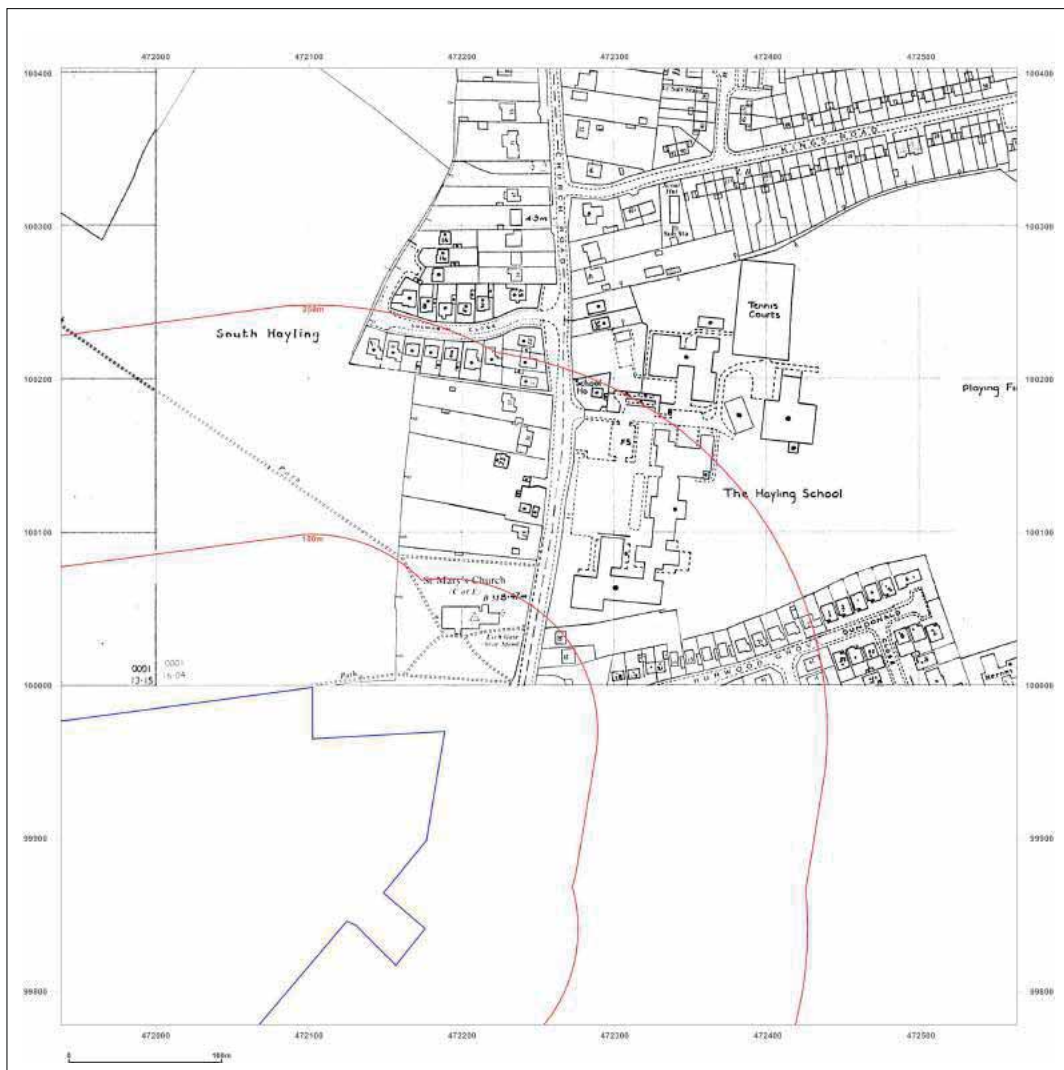


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1957

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
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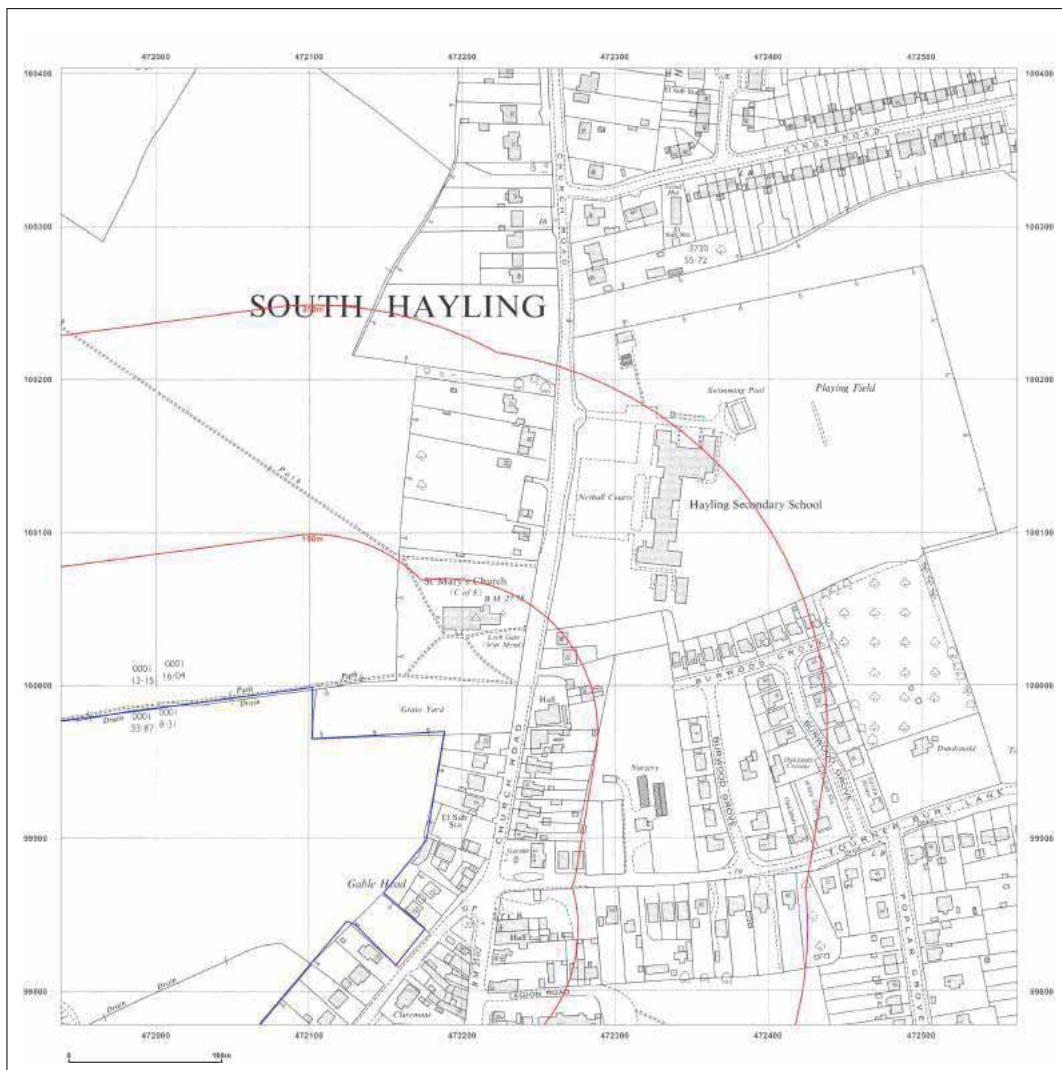


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Mary's Road, Hayling Island
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1968

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1968 Revised 1968 Edition N/A Copyright 1969 Levelled 1957	Surveyed 1968 Revised 1968 Edition N/A Copyright 1969 Levelled 1957
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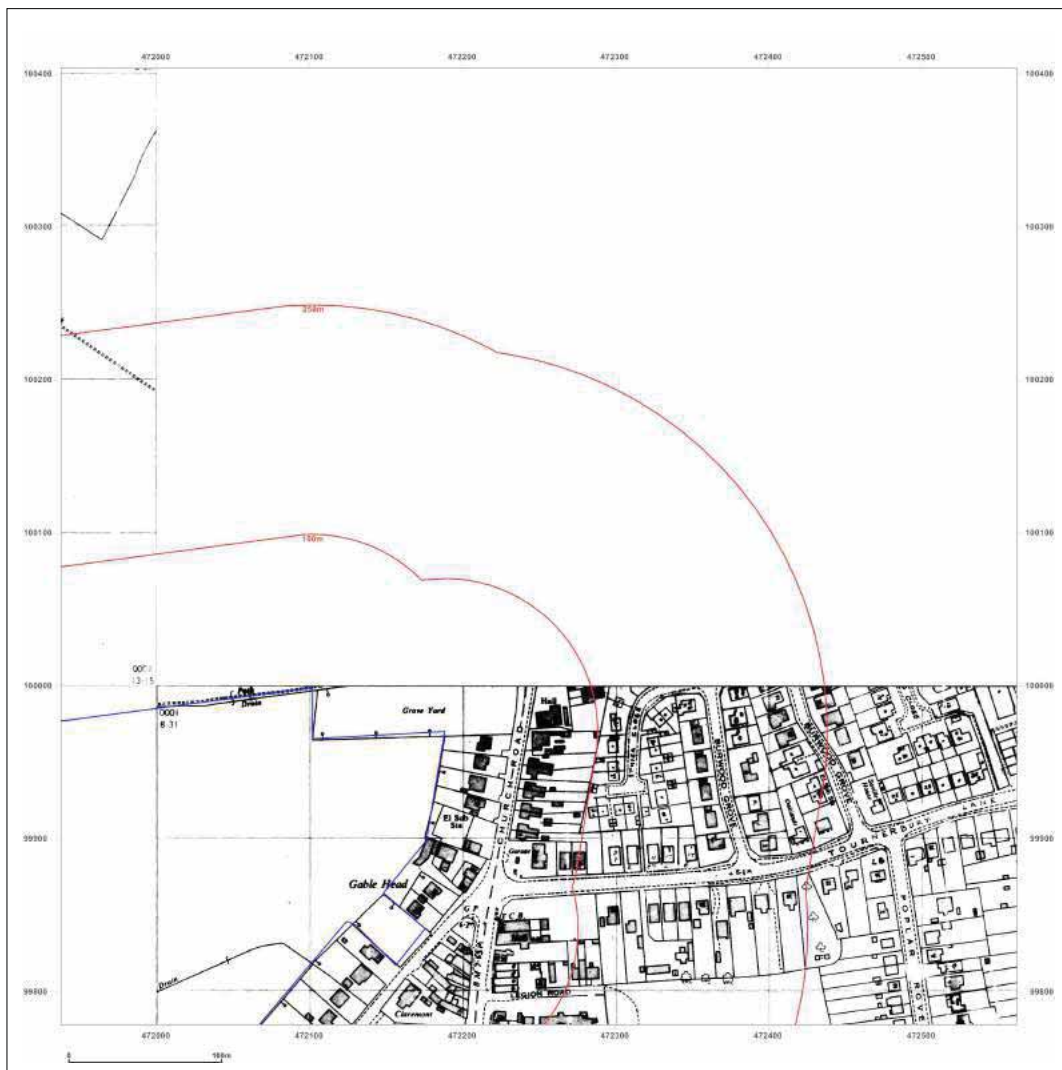


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1979

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1979
Levelled 1907



Surveyed N/A
Revised N/A
Edition N/A
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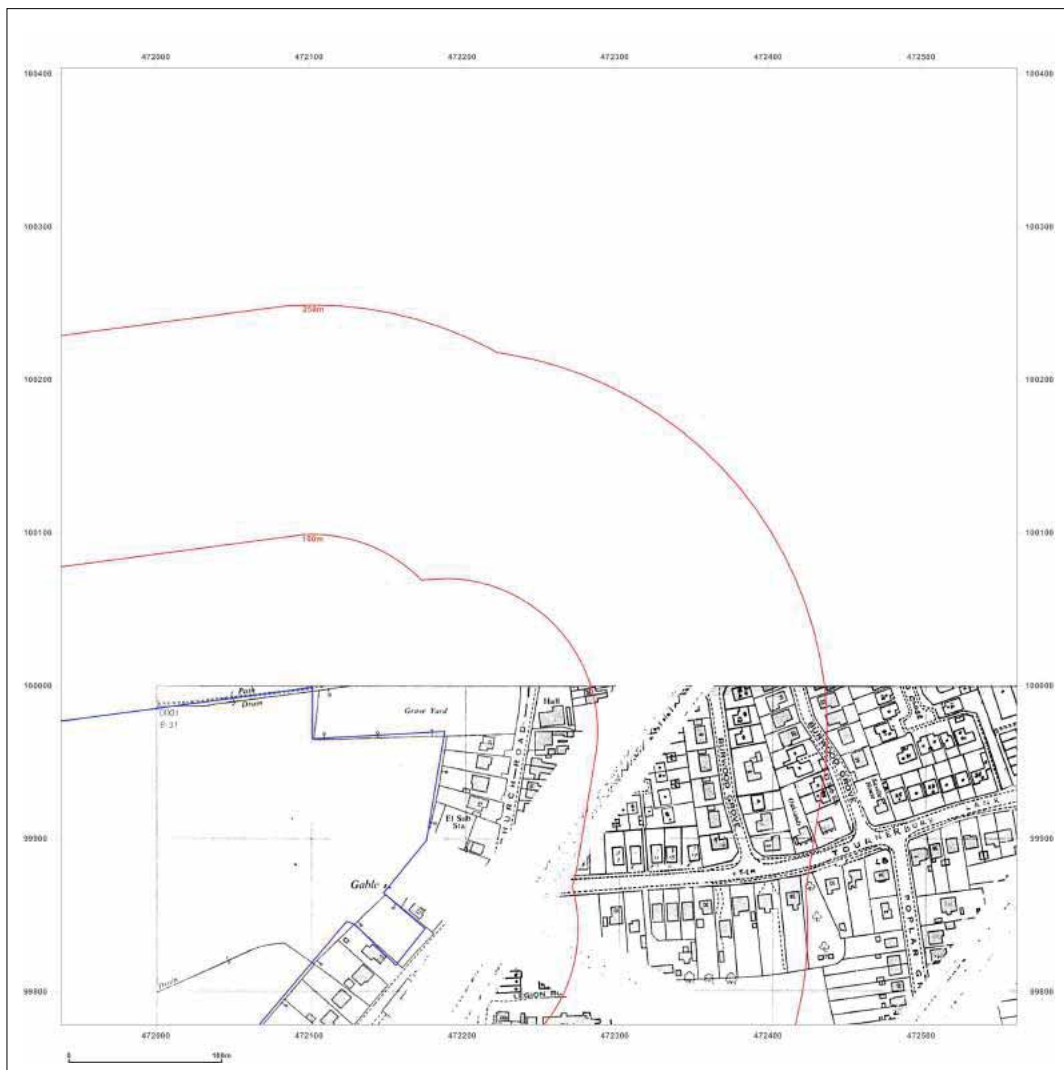


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Mary's Road, Hayling Island
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1979

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1957
Revised 1979
Edition 1/1A
Copyright 1979
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1980

Scale: 1:2,500

Printed at: 1:2,500



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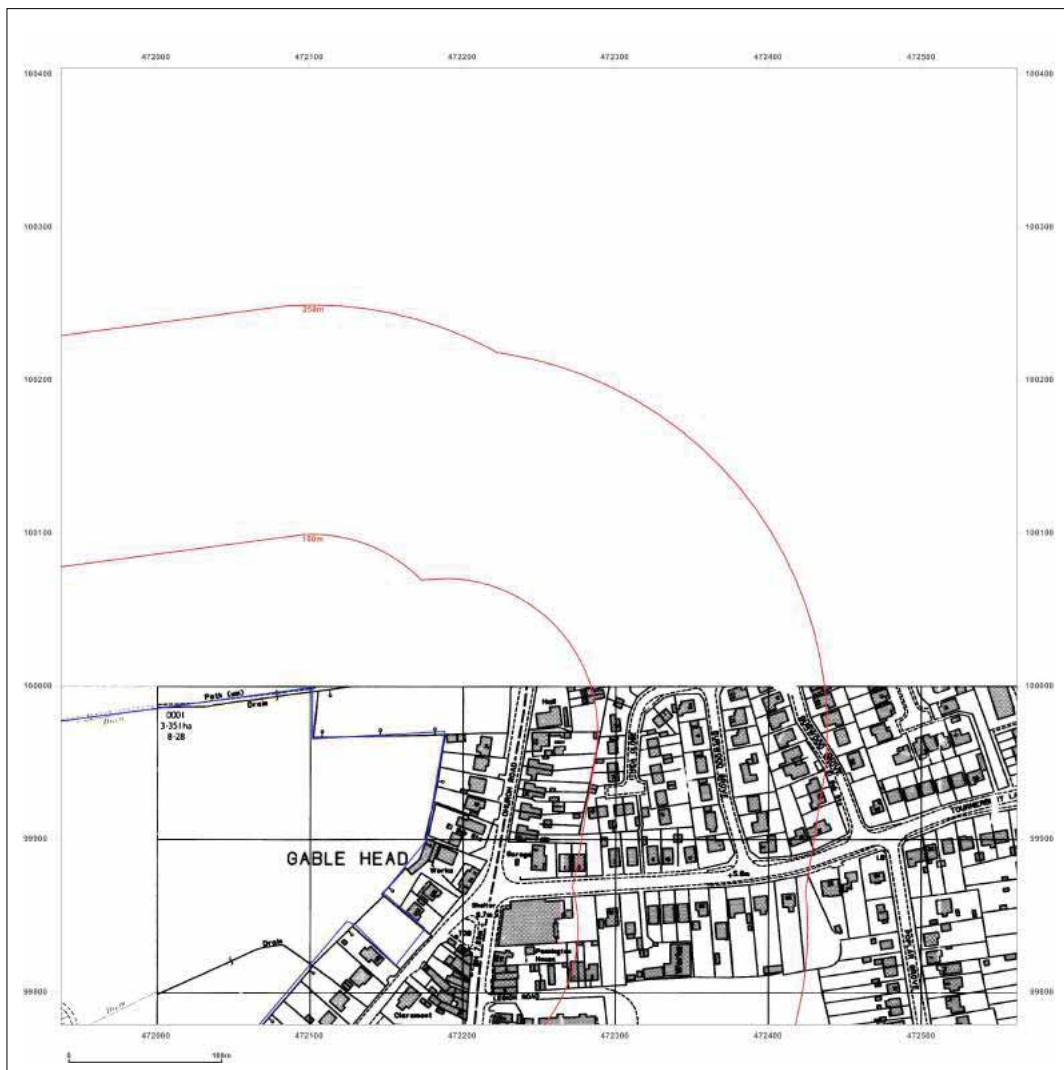


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Mary's Road, Hayling Island
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1982-1987

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
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Revised N/A
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1986-1990

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1957 Revised 1988 Edition N/A Copyright 1988 Levelled 1957	Surveyed 1957 Revised 1990 Edition N/A Copyright 1990 Levelled 1957
Surveyed 1957 Revised 1987 Edition N/A Copyright 1987 Levelled 1957	Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A



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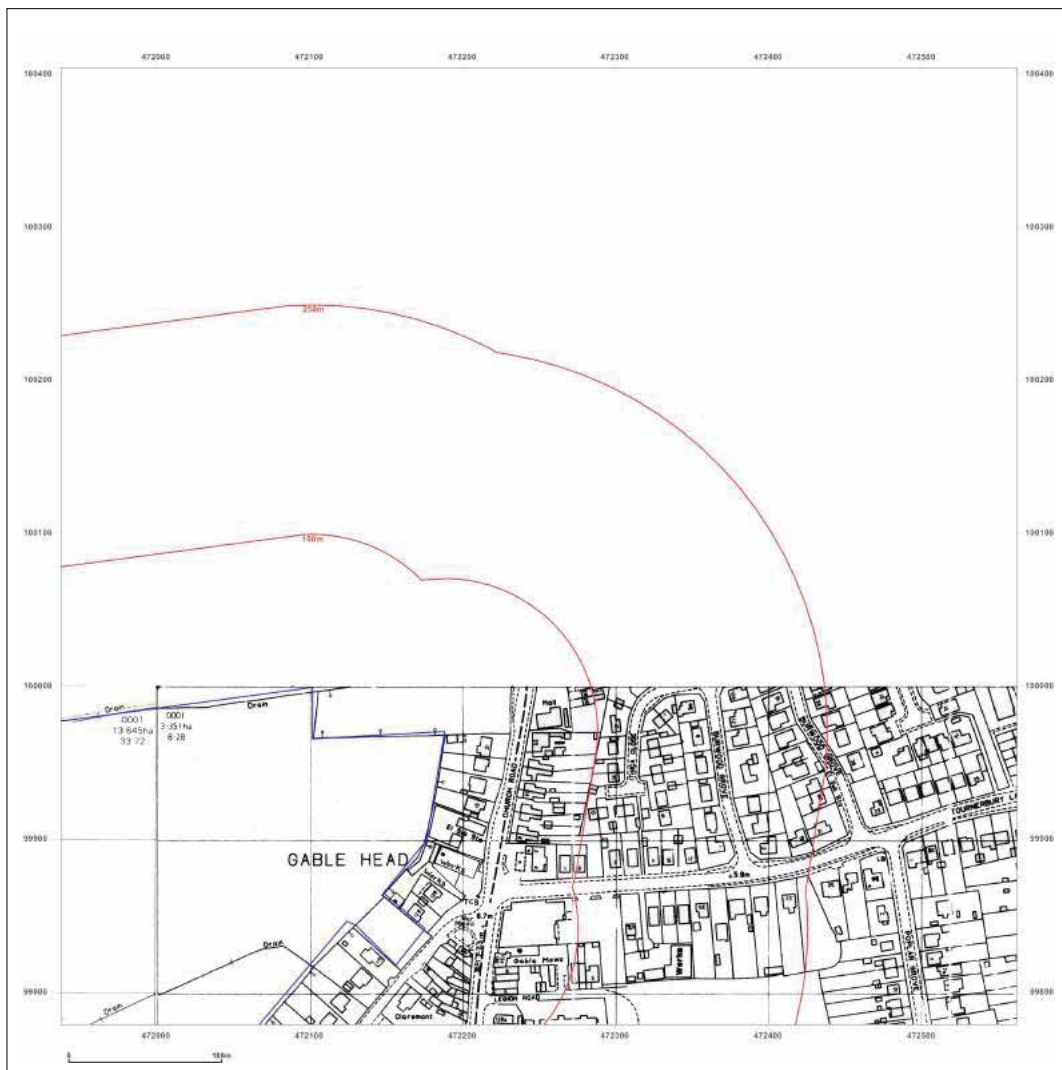


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1990

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1990	Surveyed N/A
Revised 1990	Revised N/A
Edition N/A	Edition N/A
Copyright 1990	Copyright N/A
Levelled N/A	Levelled N/A



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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1986-1991

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A Revised N/A Edition N/A Copyright 1991 Levelled N/A	Surveyed 1957 Revised 1990 Edition N/A Copyright 1990 Levelled 1957
Surveyed 1989 Revised 1989 Edition N/A Copyright 1989 Levelled N/A	Surveyed 1957 Revised 1986 Edition N/A Copyright 1986 Levelled 1957



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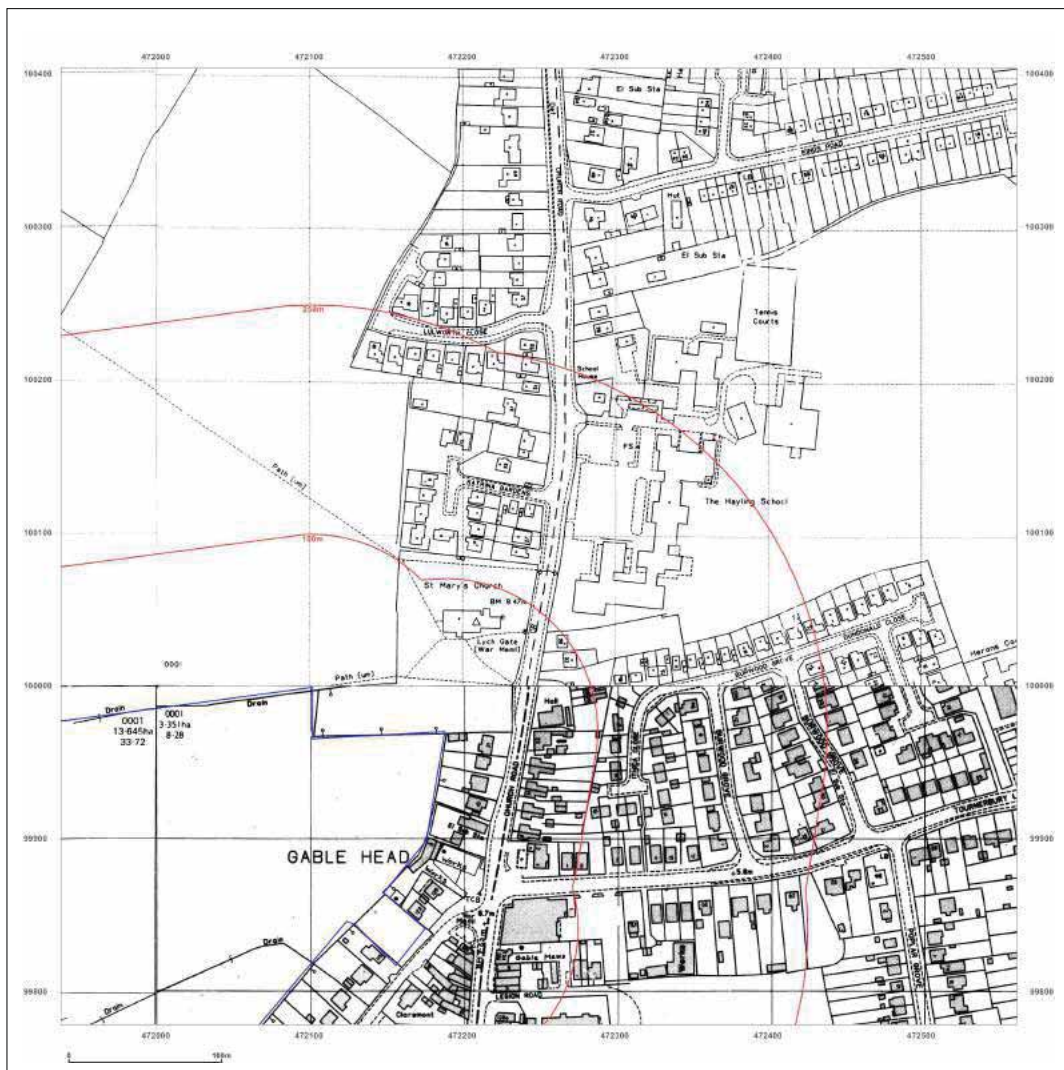


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Mary's Road, Hayling Island
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1989-1993

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A	Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A
Surveyed 1988 Revised 1989 Edition N/A Copyright 1989 Levelled N/A	Surveyed 1957 Revised 1989 Edition N/A Copyright 1989 Levelled 1957



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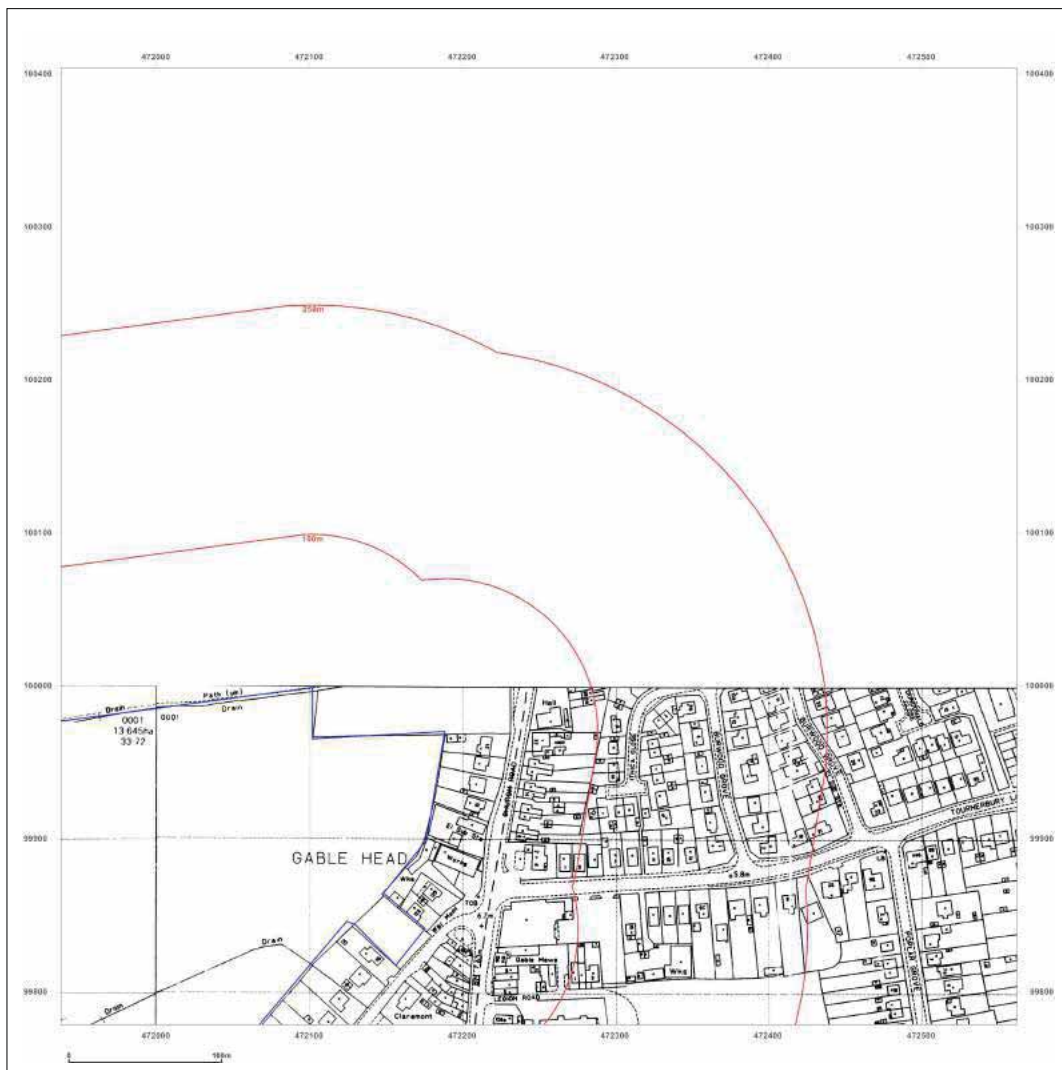


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Mary's Road, Hayling Island
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850_LS_2_2
Grid Ref: 472250, 100091

Map Name: National Grid

Map date: 1991-1993

Scale: 1:2,500

Printed at: 1:2,500



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

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



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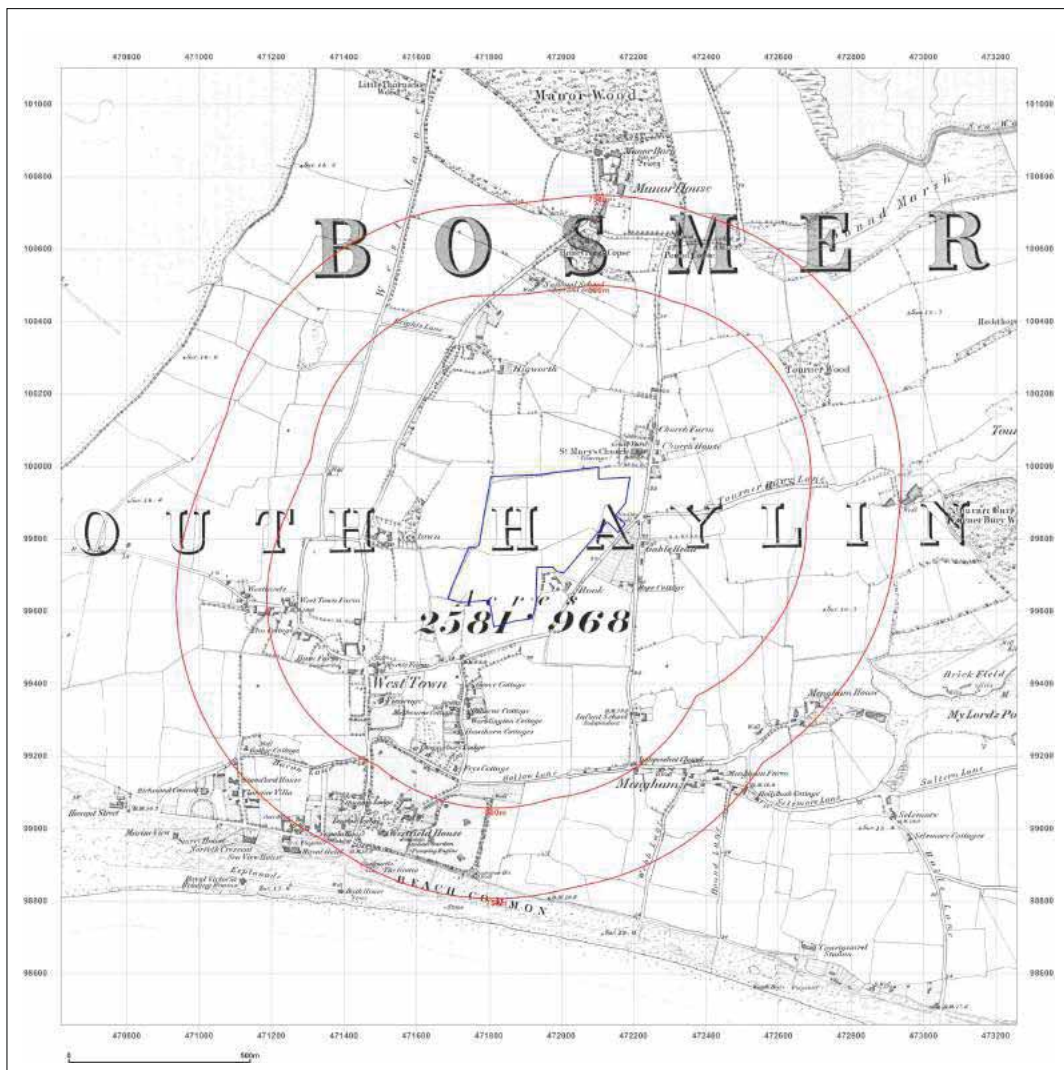


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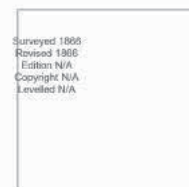
Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: County Series

Map date: 1866

Scale: 1:10,560

Printed at: 1:10,560



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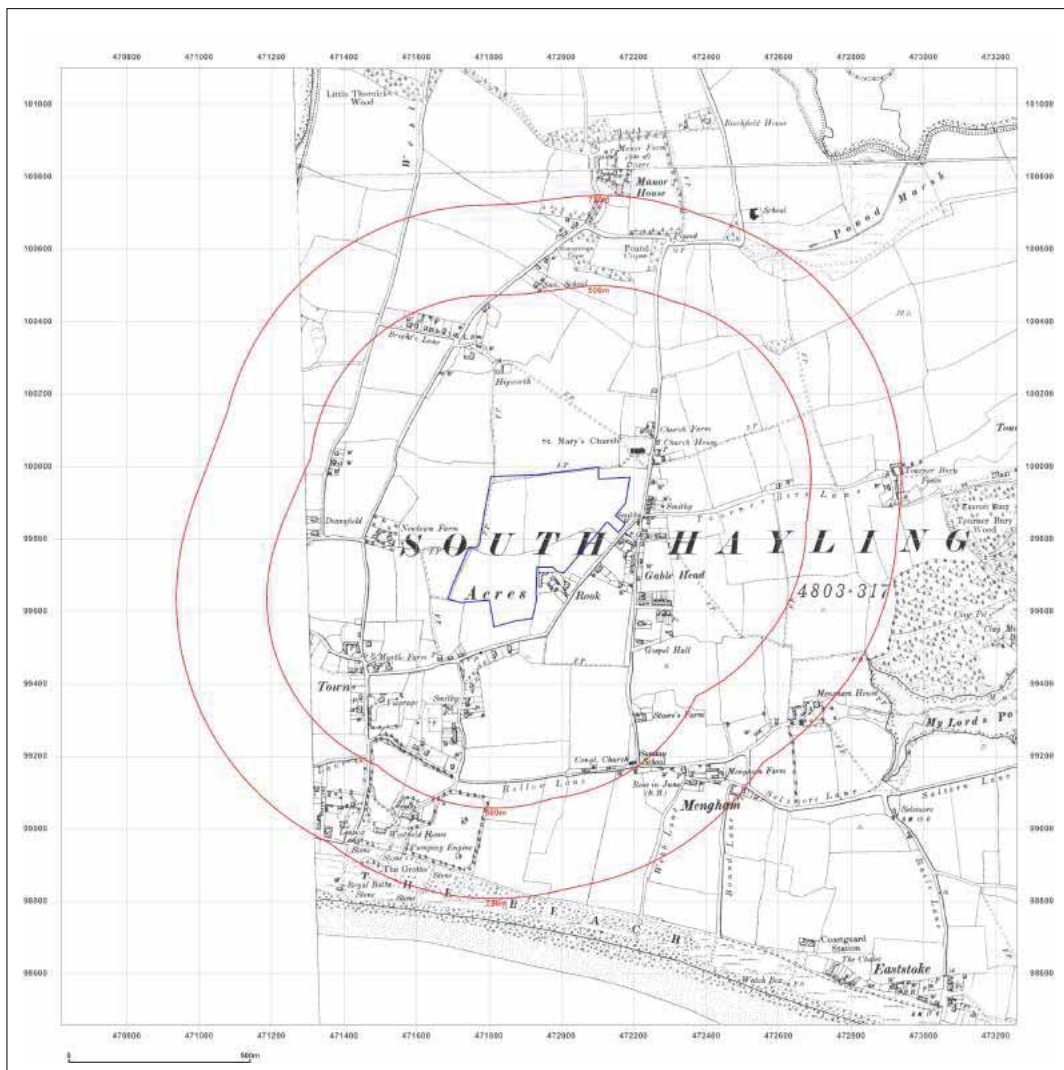


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: County Series

Map date: 1896

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1873.
Revised 1896
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Surveyed 1873.
Revised 1896
Edition N/A.
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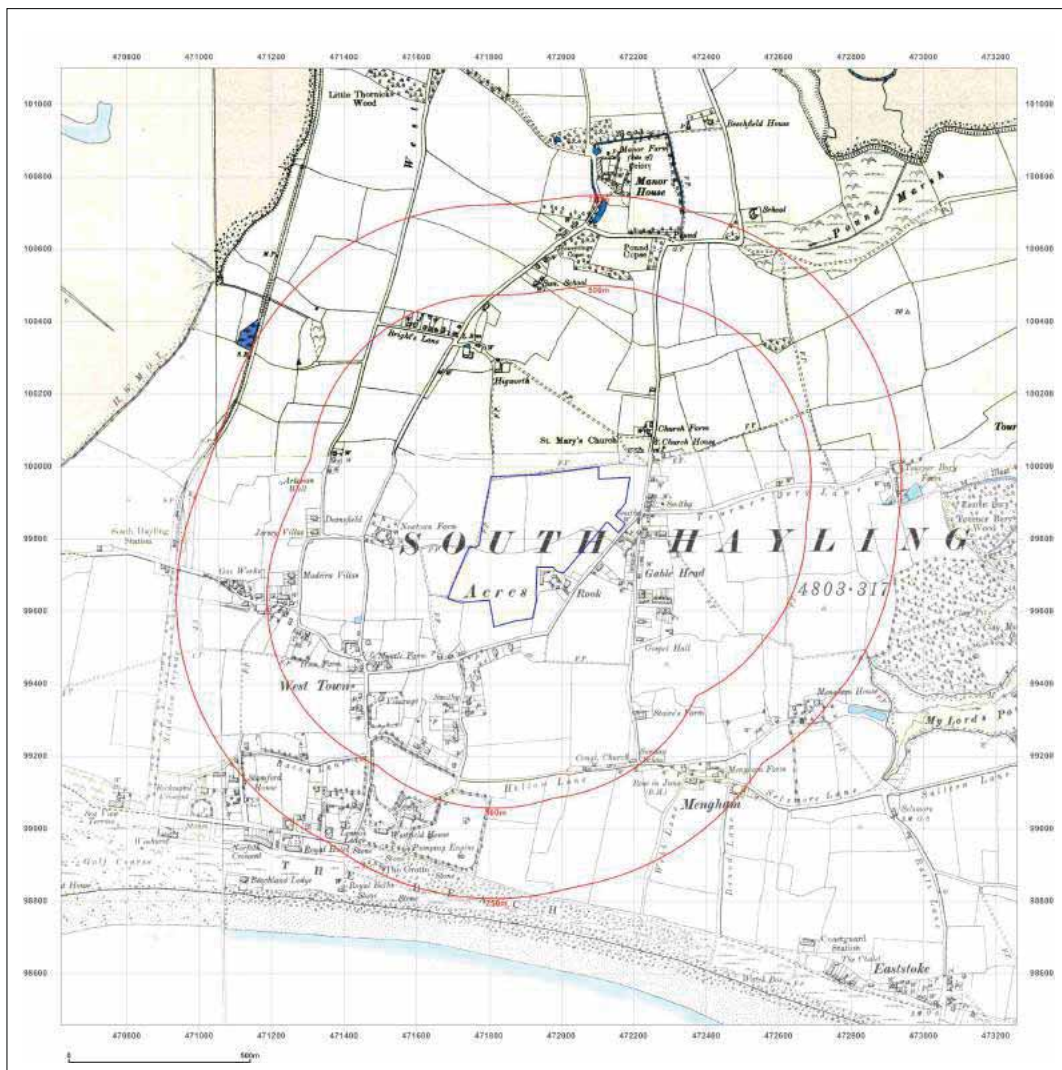


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: County Series

Map date: 1896-1898

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1868
 Revised 1896
 Edition N/A
 Copyright N/A
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Surveyed 1873
 Revised N/A
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1866
 Revised 1896
 Edition N/A
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 Levelled N/A

Surveyed 1875
 Revised 1896
 Edition N/A
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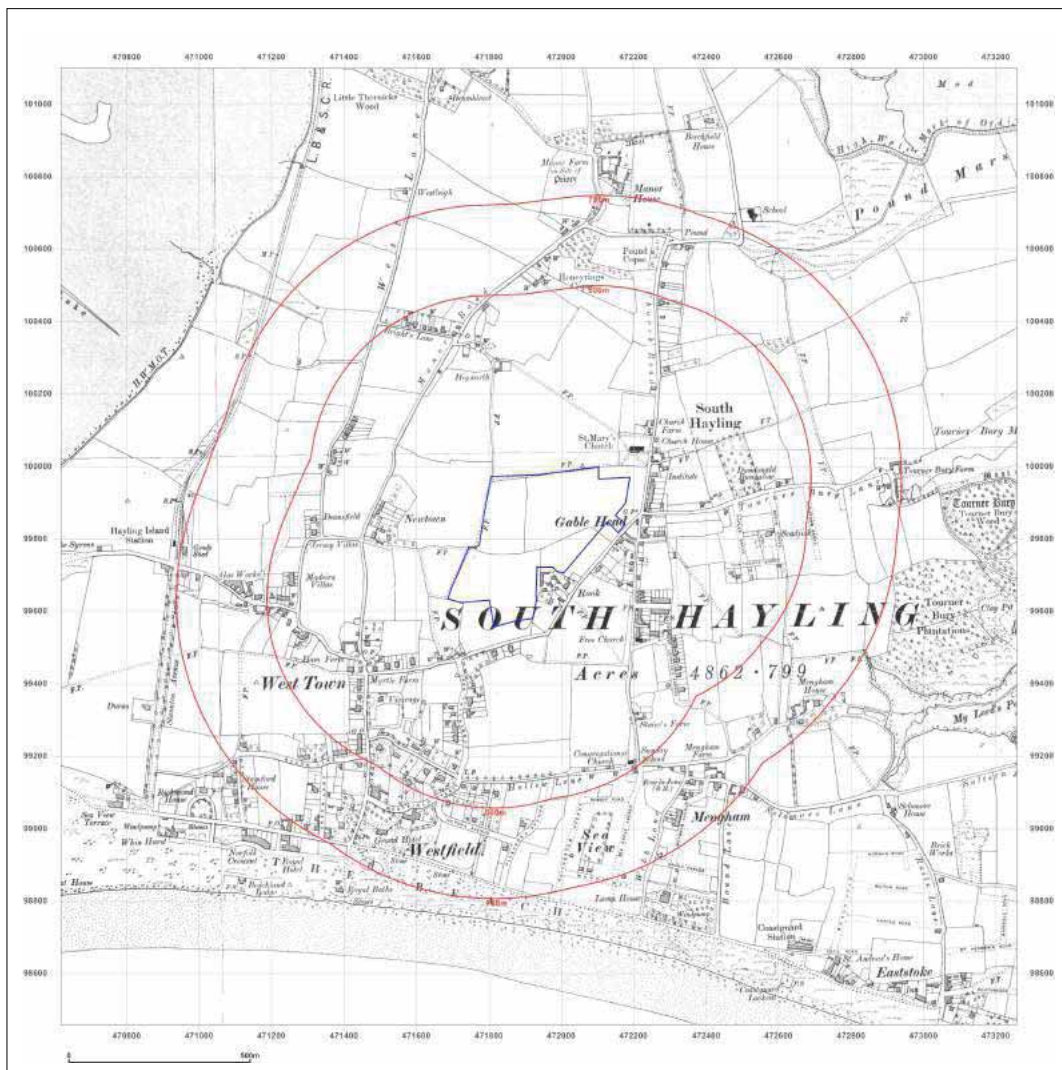


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: County Series

Map date: 1907

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1858 Revised 1907 Edition N/A Copyright N/A Levelled N/A	Surveyed 1855 Revised 1907 Edition N/A Copyright N/A Levelled N/A
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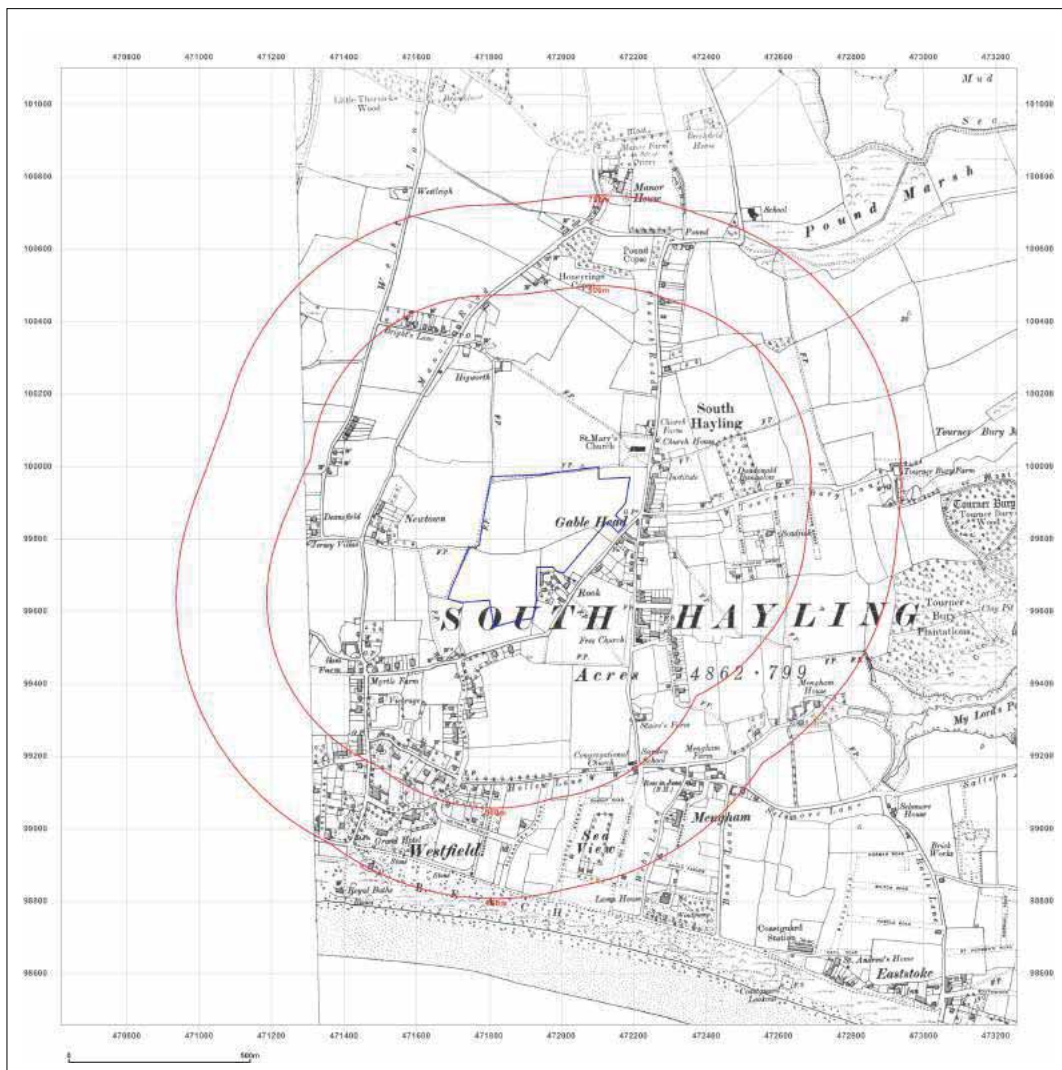


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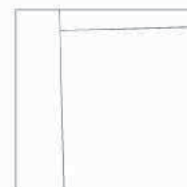
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Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: County Series

Map date: 1909-1911

Scale: 1:10,560

Printed at: 1:10,560



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Surveyed 1873.
 Revised 1911
 Edition N/A
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 Levelled N/A



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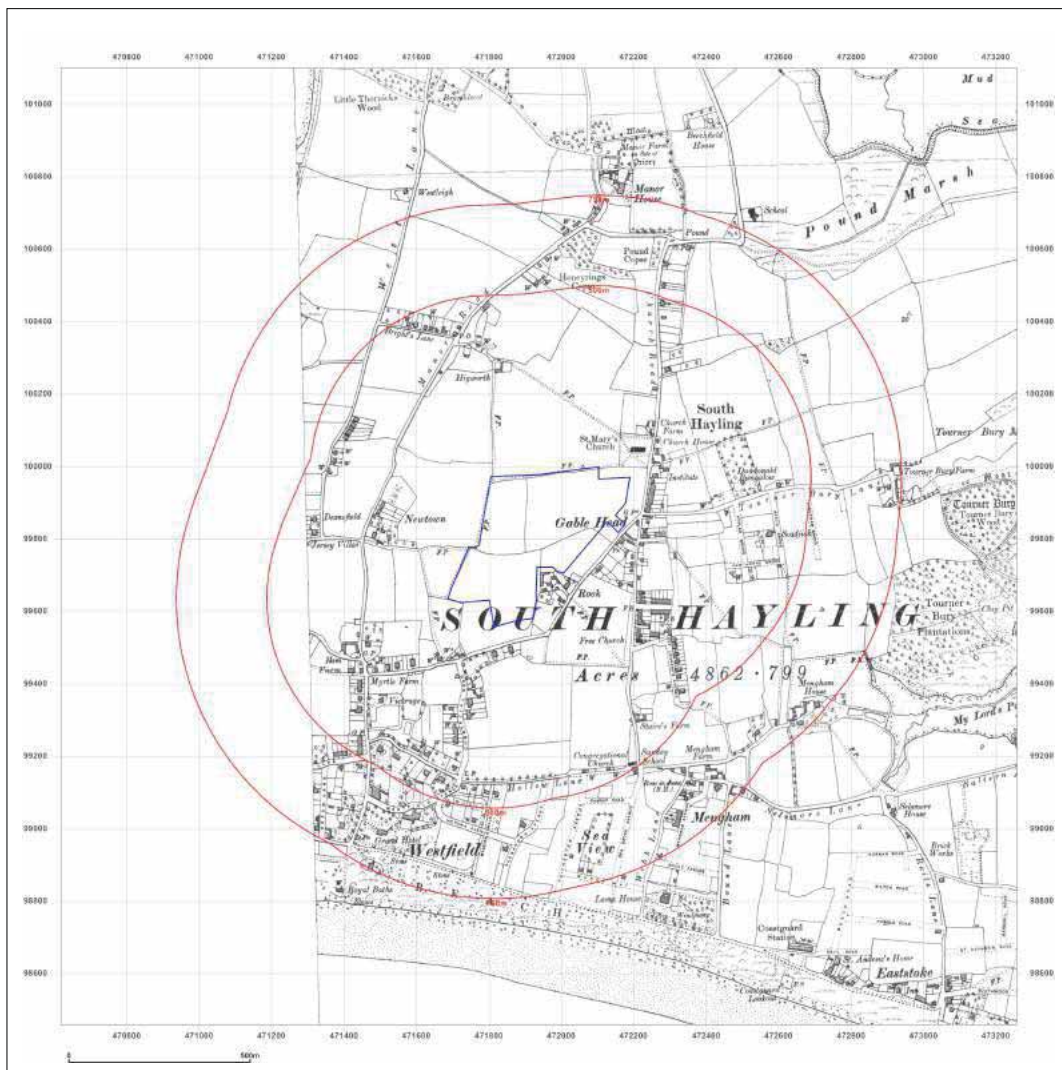


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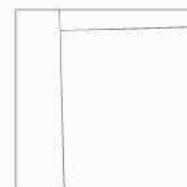
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Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: County Series

Map date: 1909-1913

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1873.
Revised 1909
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Levelled N/A

Surveyed 1873.
Revised 1913
Edition 1913
Copyright N/A
Levelled N/A



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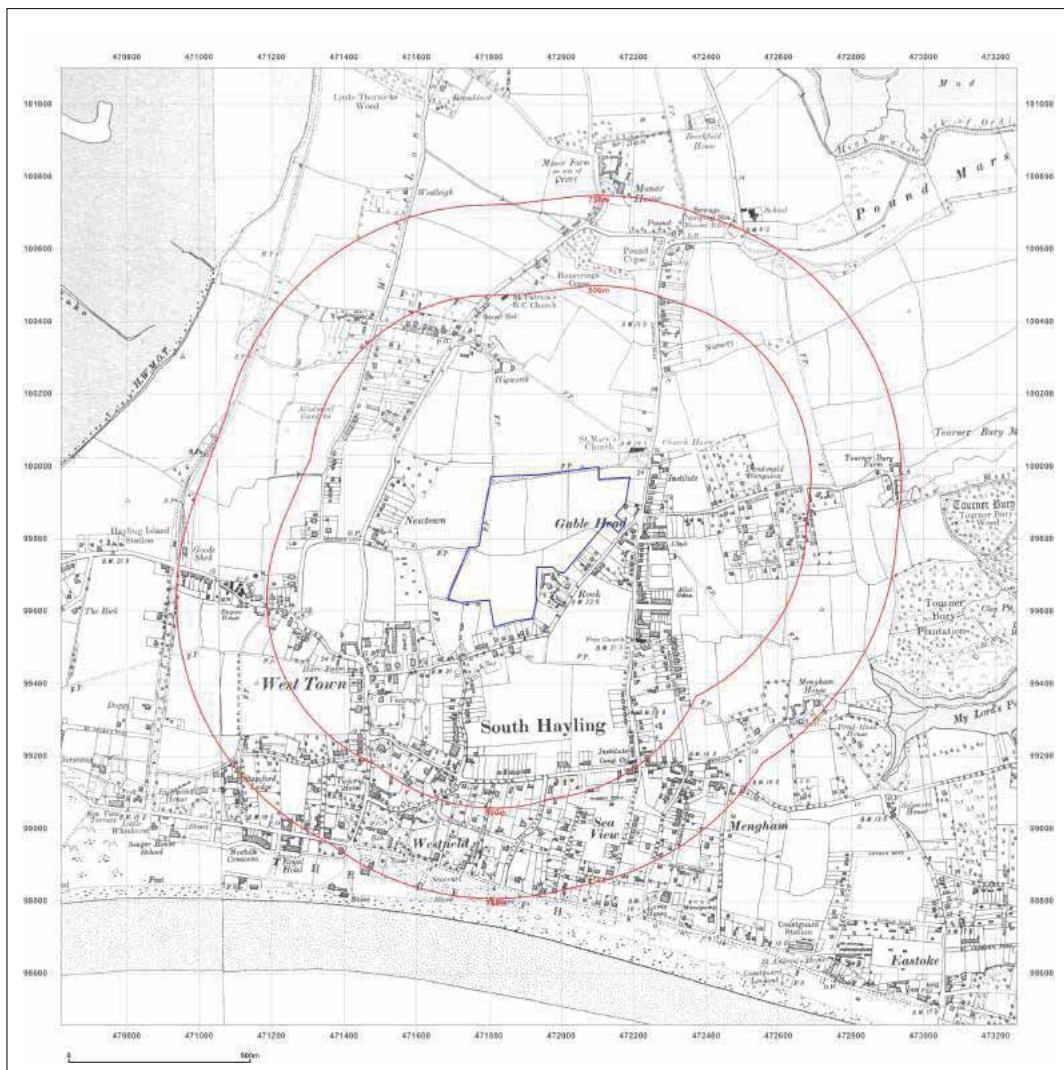


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: County Series

Map date: 1931

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1858
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1855
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1858
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1855
Revised 1931
Edition N/A
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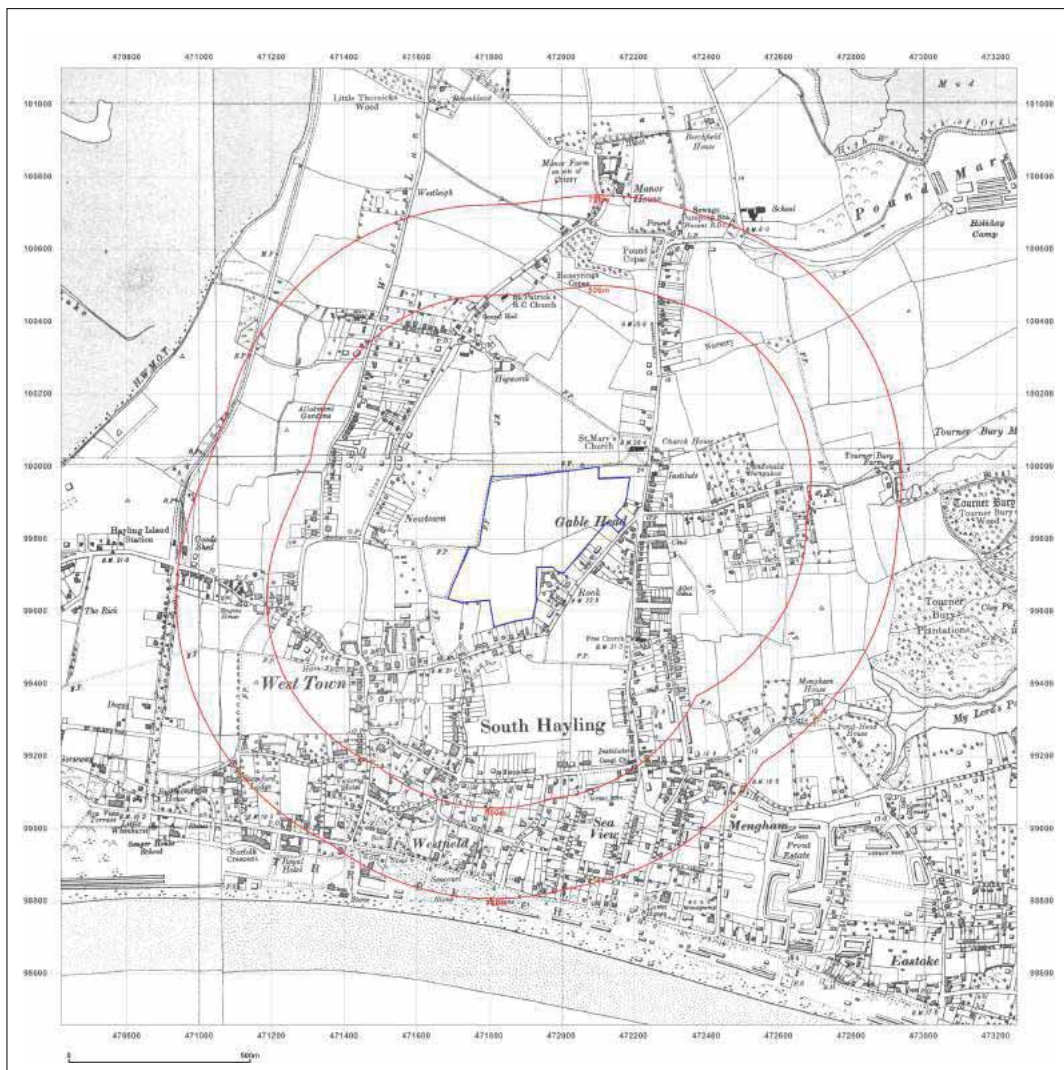


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: County Series

Map date: 1938-1942

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1858
 Revised 1942
 Edition N/A
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 Levelled N/A

Surveyed 1855
 Revised 1930
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1850
 Revised 1936
 Edition N/A
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Mary's Road, Hayling Island
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: Provisional

Map date: 1957

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1957
Revised 1957
Edition N/A
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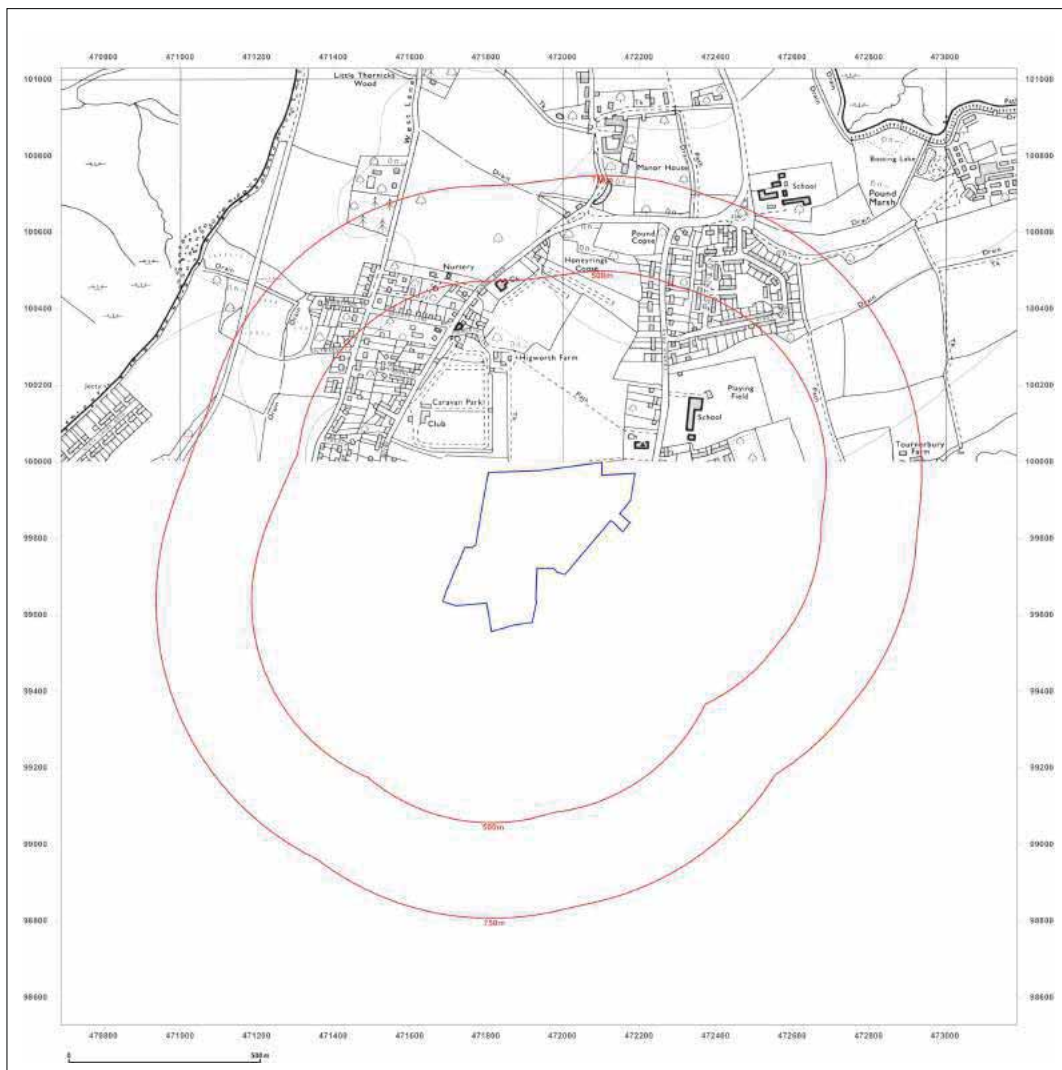


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Site Details:

Land north of St. Mary's Road, St.
Mary's Road, Hayling Island
, PO11 9DF

Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: National Grid

Map date: 1972

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1968
Revised 1972
Edition N/A
Copyright 1972
Levelled 1971



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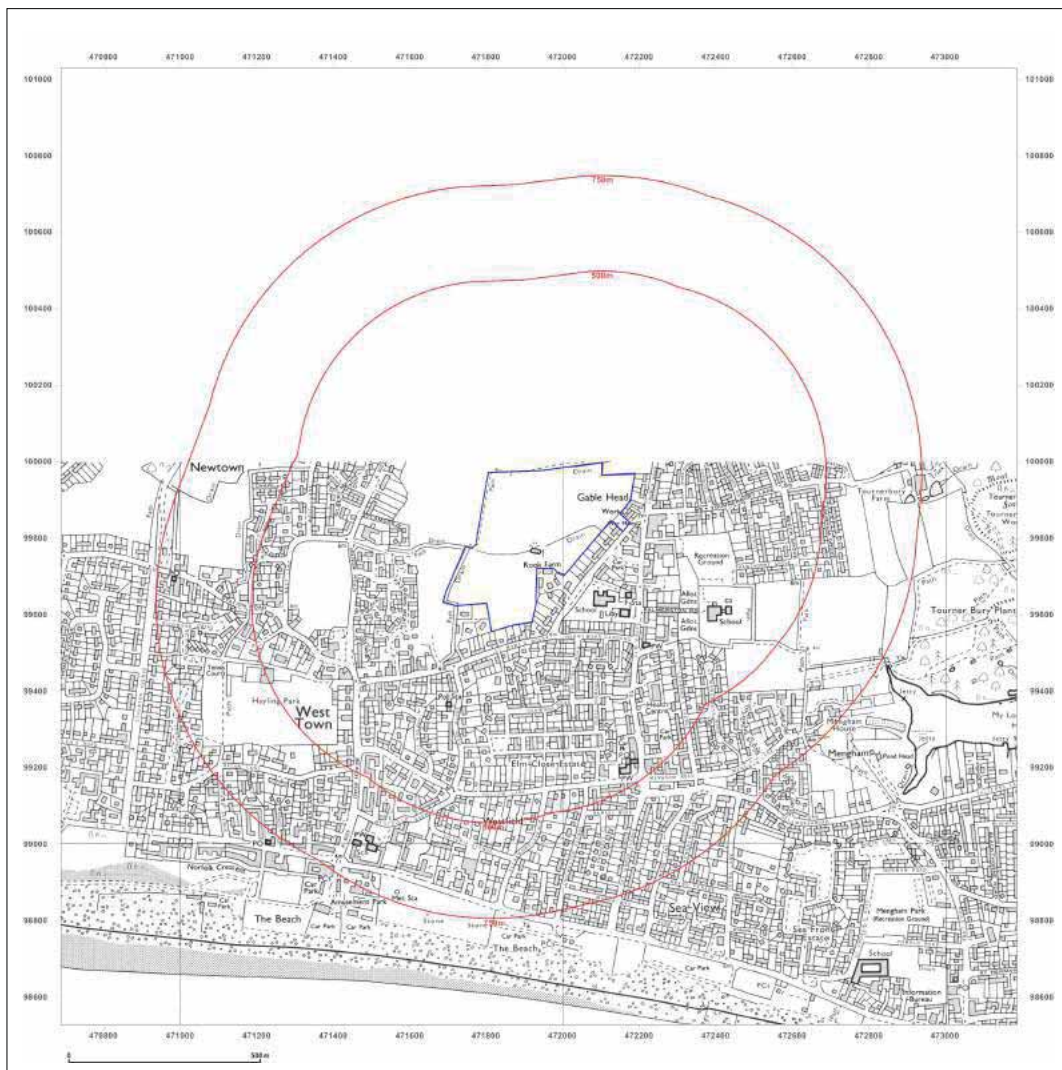


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Site Details:

Land north of St. Mary's Road, St. Mary's Road, Hayling Island, PO11 9DF

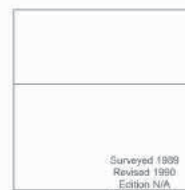
Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: National Grid

Map date: 1990

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1989
 Revised 1990
 Edition N/A
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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



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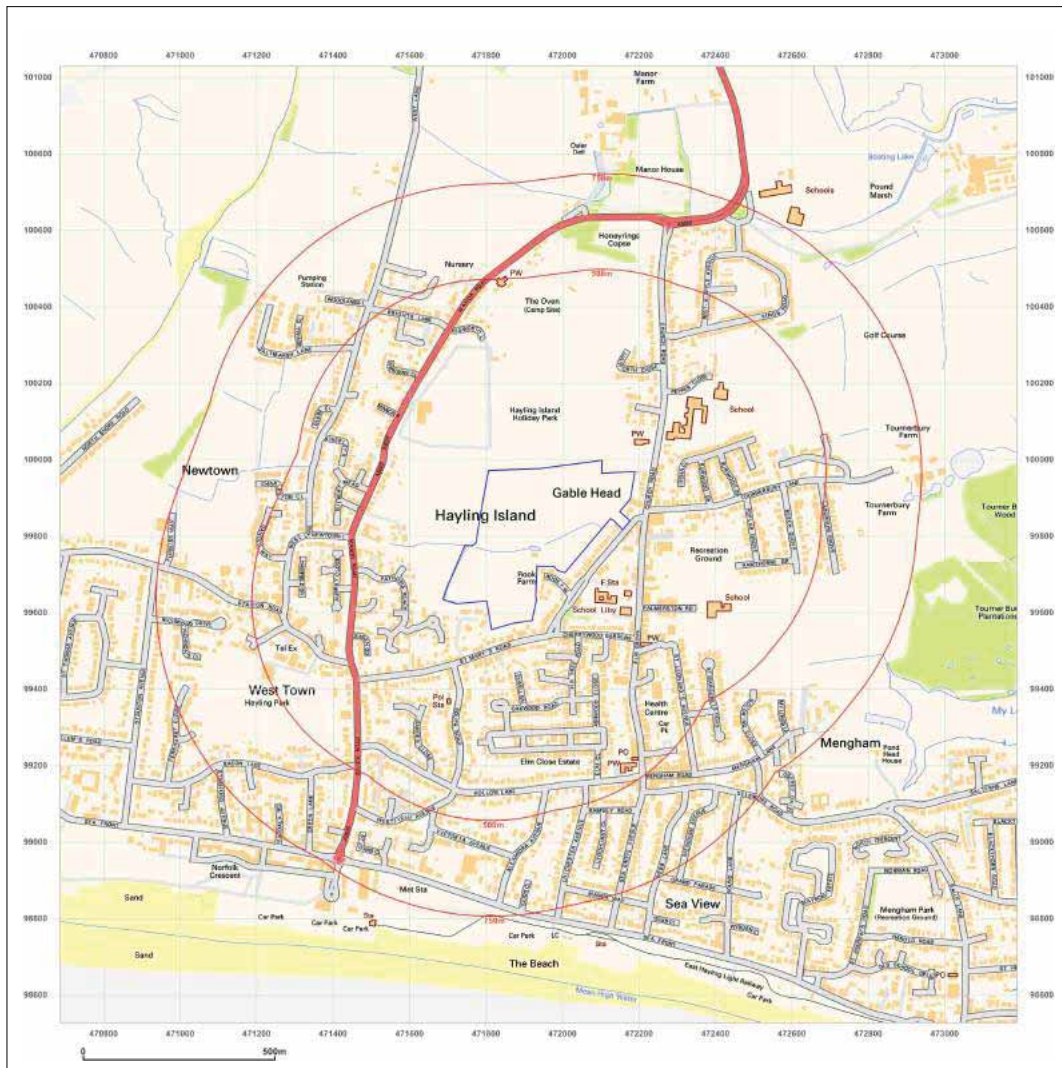


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



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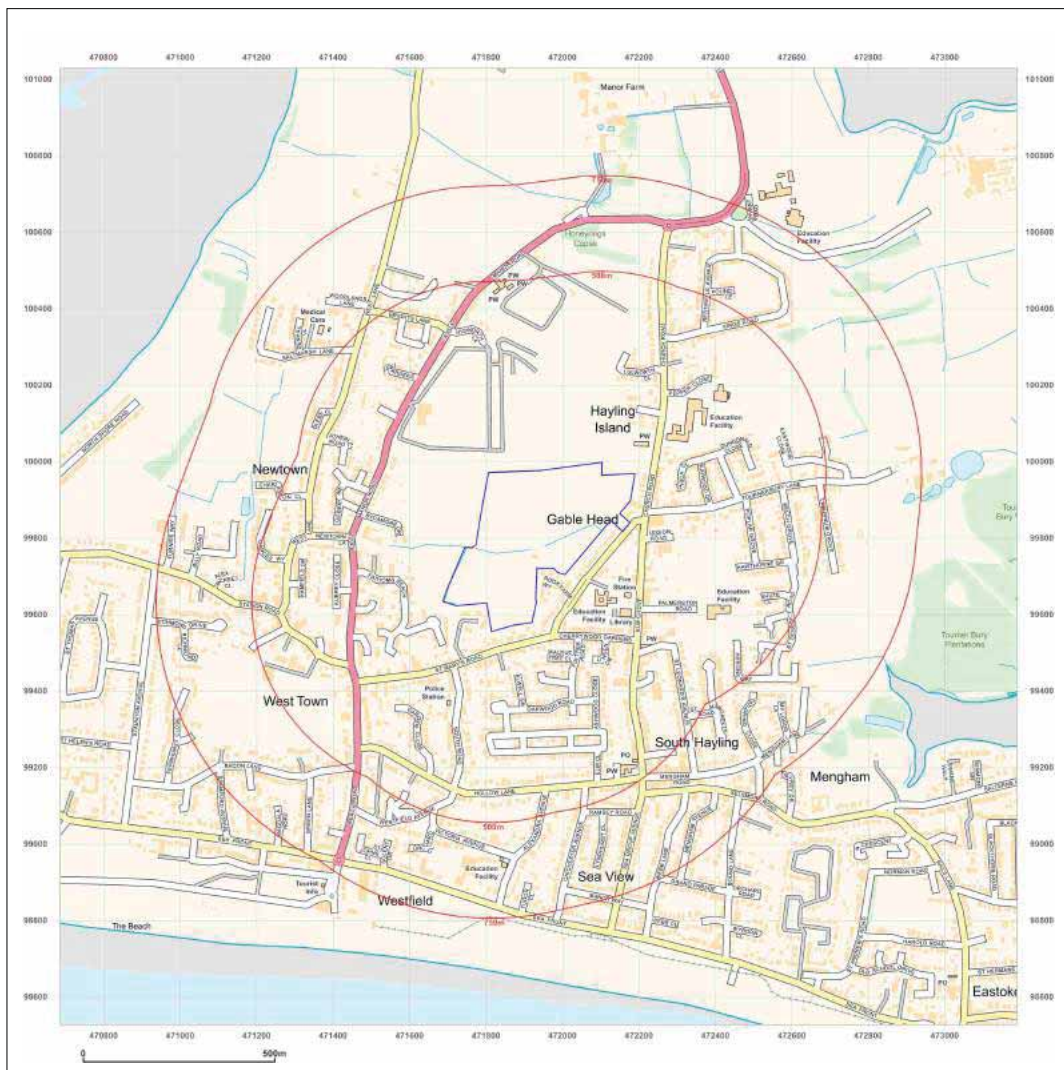


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Client Ref: EMS_481373_645850
Report Ref: EMS-481373_645850
Grid Ref: 471937, 99778

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

Printed at: 1:10,000



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