Enviro Insight

Address:	**CRADGE BANK, SPALDING, PE11 3AB**
Date:	**17 Jun 2018**
Reference:	**GS-5142226**
Client:	**Castledine & Co**

NW N NE



W E

SW S SE

Aerial Photograph Capture date:	06-Apr-2015
Grid Reference:	524151,321197
Site Size:	0.05ha

Report Reference: GS-5142226
Client Reference: Pacca_Spalding

Contents Page

Contents Page 3
Overview of Findings 6
Using this report 10
1. Historical Land Use 11
1. Historical Industrial Sites 12
1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping....12
1.2 Additional Information – Historical Tank Database....13
1.3 Additional Information – Historical Energy Features Database....13
1.4 Additional Information – Historical Petrol and Fuel Site Database....14
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database....15
1.6 Potentially Infilled Land....15
2. Environmental Permits, Incidents and Registers Map 17
2. Environmental Permits, Incidents and Registers 18
2.1 Industrial Sites Holding Licences and/or Authorisations....18
2.1.1 Records of historic IPC Authorisations within 500m of the study site:....18
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:....18
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:....18
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:....18
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:....19
2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site: 19
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:....19
2.1.8 Records of Licensed Discharge Consents within 500m of the study site:....20
2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site: 20
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:....21
2.2 Dangerous or Hazardous Sites....21
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents....21
2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:....21
2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:....21
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990....21
3. Landfill and Other Waste Sites Map 22
3. Landfill and Other Waste Sites 23
3.1 Landfill Sites....23
3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site: 23
3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site: 23
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:....23
3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:....23
3.2 Other Waste Sites....23
3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site: 23
3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site: 24
4. Current Land Use Map 25
4. Current Land Uses 26
4.1 Current Industrial Data....26
4.2 Petrol and Fuel Sites....27
4.3 National Grid High Voltage Underground Electricity Transmission Cables....27
4.4 National Grid High Pressure Gas Transmission Pipelines....27

5. Geology 28
5.1 Artificial Ground and Made Ground 28
5.2 Superficial Ground and Drift Geology 28
5.3 Bedrock and Solid Geology 28
6 Hydrogeology and Hydrology 29
6a. Aquifer Within Superficial Geology 29
6b. Aquifer Within Bedrock Geology and Abstraction Licenses 30
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses 31
6d. Hydrogeology – Source Protection Zones within confined aquifer 32
6e. Hydrology – Watercourse Network and River Quality 33
6.Hydrogeology and Hydrology 34
6.1 Aquifer within Superficial Deposits 34
6.2 Aquifer within Bedrock Deposits 34
6.3 Groundwater Abstraction Licences 34
6.4 Surface Water Abstraction Licences 35
6.5 Potable Water Abstraction Licences 35
6.6 Source Protection Zones 36
6.7 Source Protection Zones within Confined Aquifer 36
6.8 Groundwater Vulnerability and Soil Leaching Potential 36
6.9 River Quality 36
6.9.1 Biological Quality: 36
6.9.2 Chemical Quality: 37
6.10 Ordnance Survey MasterMap Water Network 37
6.11 Surface Water Features 44
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea) 45
7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map 46
7 Flooding 47
7.1 River and Coastal Zone 2 Flooding 47
7.2 River and Coastal Zone 3 Flooding 47
7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating 48
7.4 Flood Defences 48
7.5 Areas benefiting from Flood Defences 48
7.6 Areas benefiting from Flood Storage 48
7.7 Groundwater Flooding Susceptibility Areas 49
7.8 Groundwater Flooding Confidence Areas 49
8. Designated Environmentally Sensitive Sites Map 50
8. Designated Environmentally Sensitive Sites 51
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site: 51
8.2 Records of National Nature Reserves (NNR) within 2000m of the study site: 51
8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site: 51
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site: 51
8.5 Records of Ramsar sites within 2000m of the study site: 51
8.6 Records of Ancient Woodland within 2000m of the study site: 52
8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site: 52
8.8 Records of World Heritage Sites within 2000m of the study site: 52
8.9 Records of Environmentally Sensitive Areas within 2000m of the study site: 52
8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site: 52
8.11 Records of National Parks (NP) within 2000m of the study site: 52
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site: 52
8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site: 53

8.14 Records of Green Belt land within 2000m of the study site:.....53
9. Natural Hazards Findings 54
9.1 Detailed BGS GeoSure Data.....54
9.1.1 Shrink Swell.....54
9.1.2 Landslides.....54
9.1.3 Soluble Rocks.....54
9.1.4 Compressible Ground.....55
9.1.5 Collapsible Rocks.....55
9.1.6 Running Sand.....55
9.2 Radon.....56
9.2.1 Radon Affected Areas.....56
9.2.2 Radon Protection.....56
10. Mining 57
10.1 Coal Mining.....57
10.2 Non-Coal Mining.....57
10.3 Brine Affected Areas 57
Contact Details 58
Standard Terms and Conditions 60

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	0	0	11	30
1.2 Additional Information – Historical Tank Database	0	0	10	0
1.3 Additional Information – Historical Energy Features Database	0	0	10	31
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	6	0
1.6 Potentially Infilled Land	0	0	9	14

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	2	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	4	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	0	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	0	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	0	4

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	1	18	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	1	0
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	0
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	1	4
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)	0	0	0	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	Yes	No	Yes	No
6.10 Ordnance Survey MasterMap Water Network entries within 500m of the site	0	0	34	40	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Enviroment Agency Zone 2 floodplains within 250m of the study site	Identified
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	Identified
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site	Medium
7.4 Flood Defences within 250m of the study site	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	Identified
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site	Not Prone
7.8 BGS confidence rating for the Groundwater Flooding susceptibility areas	Not Applicable

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	0	1
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	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
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	0	0	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	1	0	0	0	2
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	Moderate
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	Moderate
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	Negligible
9.1.6 Maximum Running Sand hazard rating identified on the study site	Moderate
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 not in a Radon Affected Area, as less than 1% 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.

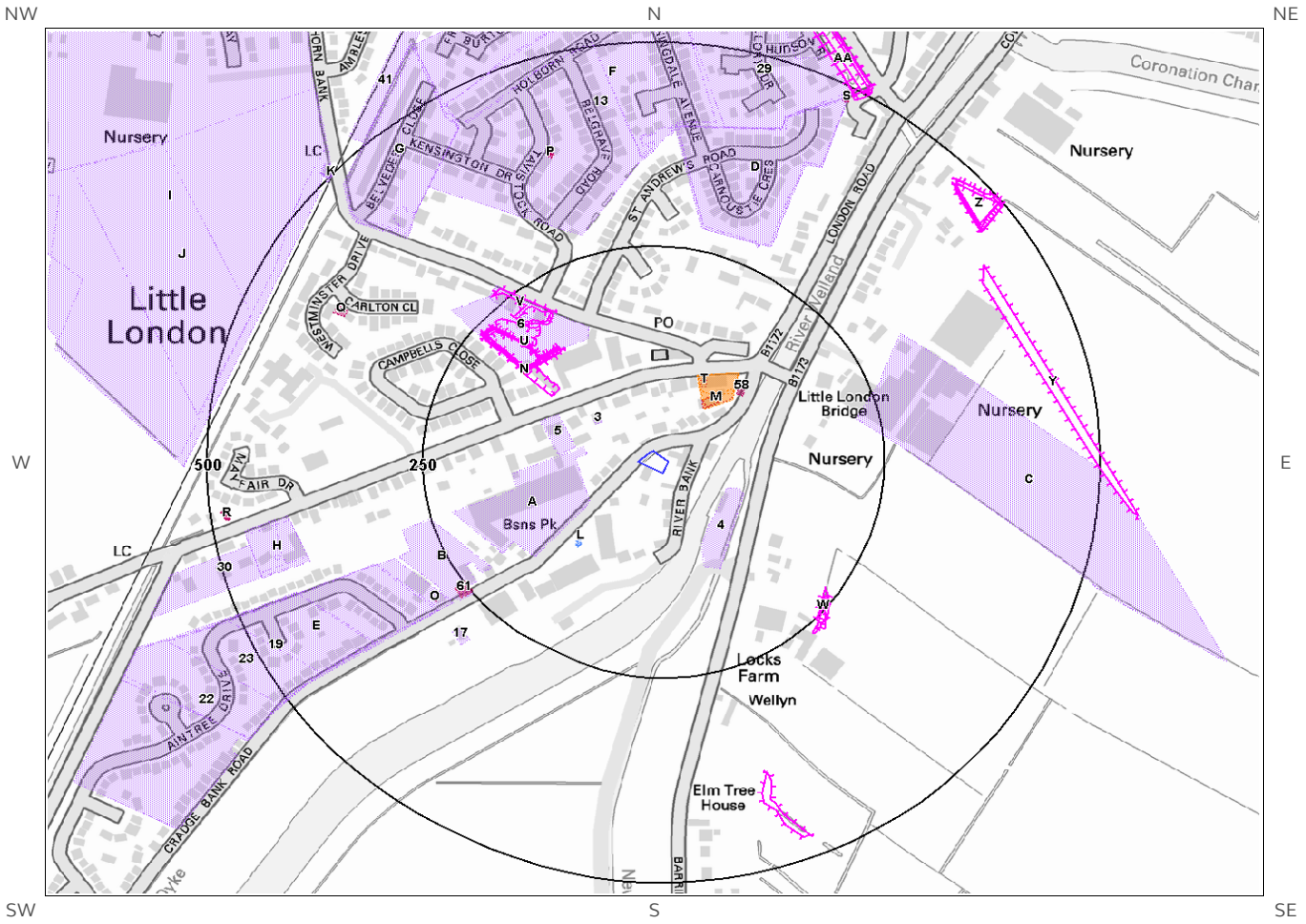
Note: Maps

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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Site Outline

250
500
Search Buffers (m)

Historical 1:10,000 and 1:10,560 scale mapping

Industrial Land Use

Potentially Infilled Land

Historical 1:2,500, 1:1,250 and 1:500 scale mapping

Energy Features

Petrol Stations

Tanks

Garages

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: 41

ID	Distance [m]	Direction	Use	Date
1A	61	W	Unspecified Depot	1980
2A	61	W	Unspecified Depot	1990
3	65	NW	Smithy	1903
4	75	SE	Corn Mill	1887
5	75	W	Smithy	1903
6	157	NW	Sewage Pumping Station	1932
7V	200	NW	Sewage Pumping Station	1938
8B	213	SW	Unspecified Works	1990
9B	213	SW	Unspecified Works	1980
10C	223	E	Nursery	1980
11C	223	E	Nursery	1990
12E	274	SW	Nurseries	1903
13	276	N	Nursery	1950
14D	276	NE	Nursery	1938
15D	277	N	Nursery	1950
16D	279	N	Nursery	1932
17	289	SW	Boat House	1980
18E	290	SW	Nurseries	1903
19	295	SW	Nursery	1950
20F	358	N	Nursery	1938
21F	360	N	Nursery	1932
22	377	SW	Nursery	1932
23	378	SW	Unspecified Commercial/Industrial	1938
24G	383	NW	Nursery	1950
25G	385	NW	Nursery	1938
26G	398	NW	Nursery	1932
27H	400	W	Corn Windmill	1887
28H	401	W	Windmill	1903
29	405	N	Nursery	1980
30	426	W	Nursery	1990
31H	431	W	Unspecified Windmill	1903
32J	474	NW	Nursery	1903
33I	483	NW	Nursery	1990

34I	483	NW	Nursery	1980
35J	483	W	Nursery	1903
36K	496	NW	Railway Building	1887
37K	497	NW	Railway Building	1903
38K	498	NW	Railway Building	1938
39K	498	NW	Railway Building	1903
40K	499	NW	Railway Building	1932
41	499	NW	Railway Sidings	1887

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: 10

ID	Distance (m)	Direction	Use	Date
42L	114	SW	Unspecified Tank	1986
43L	114	SW	Unspecified Tank	1988
44L	114	SW	Unspecified Tank	1965
45L	116	SW	Unspecified Tank	1995
46L	118	SW	Unspecified Tank	1995
47L	119	SW	Unspecified Tank	1972
48L	119	SW	Unspecified Tank	1965
49L	119	SW	Unspecified Tank	1988
50L	119	SW	Unspecified Tank	1986
51L	119	SW	Unspecified Tank	1965

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: 41

ID	Distance (m)	Direction	Use	Date
52M	75	NE	Electricity Substation	1965
53M	75	NE	Electricity Substation	1986
54M	75	NE	Electricity Substation	1988
55M	79	NE	Electricity Substation	1972
56M	79	NE	Electricity Substation	1965
57T	96	NE	Electricity Substation	1995

58	114	NE	Electricity Substation	1967
59N	169	NW	Electricity Substation	1989
60N	169	NW	Electricity Substation	1992
61	247	SW	Electricity Substation	1967
62O	289	SW	Electricity Substation	1992
63O	289	SW	Electricity Substation	1990
64O	289	SW	Electricity Substation	1989
65P	377	N	Electricity Substation	1965
66P	377	N	Electricity Substation	1988
67P	377	N	Electricity Substation	1986
68P	377	N	Electricity Substation	1965
69P	377	N	Electricity Substation	1972
70P	379	N	Electricity Substation	1995
71Q	384	NW	Electricity Substation	1967
72Q	386	NW	Electricity Substation	1996
73Q	386	NW	Electricity Substation	1997
74Q	387	NW	Electricity Substation	1992
75Q	387	NW	Electricity Substation	1992
76Q	387	NW	Electricity Substation	1990
77Q	387	NW	Electricity Substation	1989
78Q	387	NW	Electricity Substation	1992
79R	478	W	Electricity Substation	1967
80R	479	W	Electricity Substation	1996
81R	479	W	Electricity Substation	1997
82R	481	W	Electricity Substation	1992
83R	481	W	Electricity Substation	1992
84R	481	W	Electricity Substation	1990
85R	481	W	Electricity Substation	1992
86R	481	W	Electricity Substation	1989
87S	481	NE	Electricity Substation	1986
88S	481	NE	Electricity Substation	1988
89S	481	NE	Electricity Substation	1965
90S	481	NE	Electricity Substation	1965
91S	483	NE	Electricity Substation	1972
92S	484	NE	Electricity Substation	1995

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: 6

ID	Distance (m)	Direction	Use	Date
93M	75	NE	Garage	1972
94T	83	NE	Garage	1965
95T	83	NE	Garage	1988
96T	83	NE	Garage	1965
97T	83	NE	Garage	1986
98T	91	NE	Garage	1967

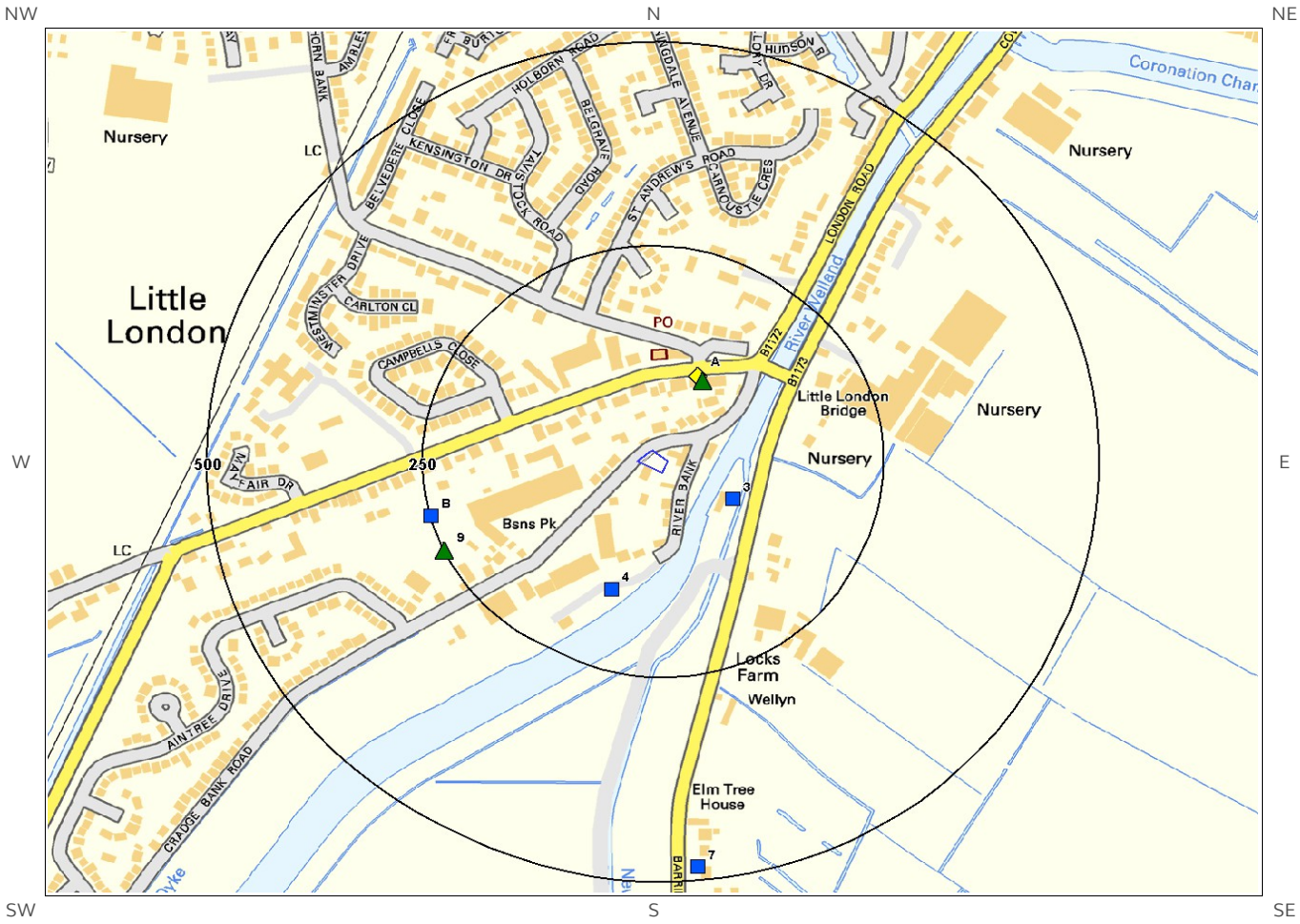
1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 23

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

ID	Distance(m)	Direction	Use	Date
99U	127	NW	Ponds	1887
100U	161	NW	Pond	1903
101U	161	NW	Pond	1938
102U	161	NW	Pond	1903
103U	163	NW	Pond	1950
104U	164	NW	Pond	1932
105V	200	NW	Pond	1903
106W	235	SE	Pond	1938
107W	240	SE	Pond	1887
108X	383	S	Ponds	1990
109X	383	S	Ponds	1980
110Y	425	NE	Ponds	1980
111Y	425	NE	Ponds	1990
112Z	458	NE	Pond	1887
113Z	459	NE	Pond	1903
114Z	461	NE	Pond	1990
115Z	461	NE	Pond	1980
116Z	461	NE	Pond	1950
117Z	463	NE	Pond	1932
118AA	488	NE	Pond	1887
119AA	492	NE	Pond	1950
120AA	499	NE	Pond	1980
121AA	499	NE	Pond	1990

2. Environmental Permits, Incidents and Registers Map



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- Site Outline
- Search Buffers (m) — 250 / 500
- Recorded Pollution Incident
- Dangerous Substances (List 1)
- Dangerous Substances (List 2)
- Water Industry Referrals
- Licenced Discharge Consents
- Red List Discharge Consents
- RAS 3 & 4 Authorisations
- Part A(1) Authorised Processes and Historic IPC Authorisations
- Part A(2) and Part B Authorised Processes
- COMAH / NIHHS Sites
- Sites Determined as Contaminated Land
- Hazardous Substance Consents and Enforcements

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:

2

The following List 2 Dangerous Substance Inventory Site records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
1A	104	NE	524200 321300	Name: Little London Service Station Status: Not Active Receiving Water: Na	Authorised Substances: pH
2A	104	NE	524200 321300	Name: Acco Uk Ltd Status: Not Active Receiving Water: Na	Authorised Substances: pH

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

2

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	
8A	101	NE	524204 321293	Address: Little London Service Station (Malthurst Petroleum Ltd), London Road, Little London, Spalding, Lincolnshire, PE11 2TW Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
9	251	SW	523906 321085	Address: Hope Cement Ltd (Previously Lafarge Redland Readymix Ltd), Cradge Bank, Spalding, Lincolnshire, PE11 3AB Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements 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:

5

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	87	SE	524240 321150	Address: LOCKSMILL HOUSE, THE ISLAND, COWBIT RD, SPALDING, LINCS, PE12 6AA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF09915 Permit Version: 1	Receiving Water: New River Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 Issue date: 12/12/1995 Effective Date: 12-Dec-1995 Revocation Date: -
4	154	SW	524100 321040	Address: WELLAND YACHT CLUB, RIVER BANK, SPALDING, PE11 3AA Effluent Type: UNSPECIFIED Permit Number: PR5LF3041 Permit Version: 1	Receiving Water: Land Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 Issue date: 01/08/1997 Effective Date: 01-Aug-1997 Revocation Date: 01/08/1997
5B	249	W	523890 321130	Address: LAFARGE READYMIX SPALDING, CRADGE BANK, SPALDING, LINCOLNSHIRE, ., PE11 3AB Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF04494 Permit Version: 1	Receiving Water: Trib River Welland Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 Issue date: 13/09/1991 Effective Date: 13-Sep-1991 Revocation Date: 08/05/1994
6B	249	W	523890 321130	Address: LAFARGE READYMIX SPALDING, CRADGE BANK, SPALDING, LINCOLNSHIRE, ., PE11 3AB Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF04494 Permit Version: 2	Receiving Water: tributary River Welland Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 Issue date: 09/05/1994 Effective Date: 09-May-1994 Revocation Date: -
7	484	S	524200 320700	Address: ST JOSEPH'S HOUSE, BARRIER BANK, COWBIT ROAD, SPALDING Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PR5LF5020 Permit Version: 1	Receiving Water: LAND Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 07/12/1984 Effective Date: 07-Dec-1984 Revocation Date: -

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:

0

Database searched and no data found.

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

0

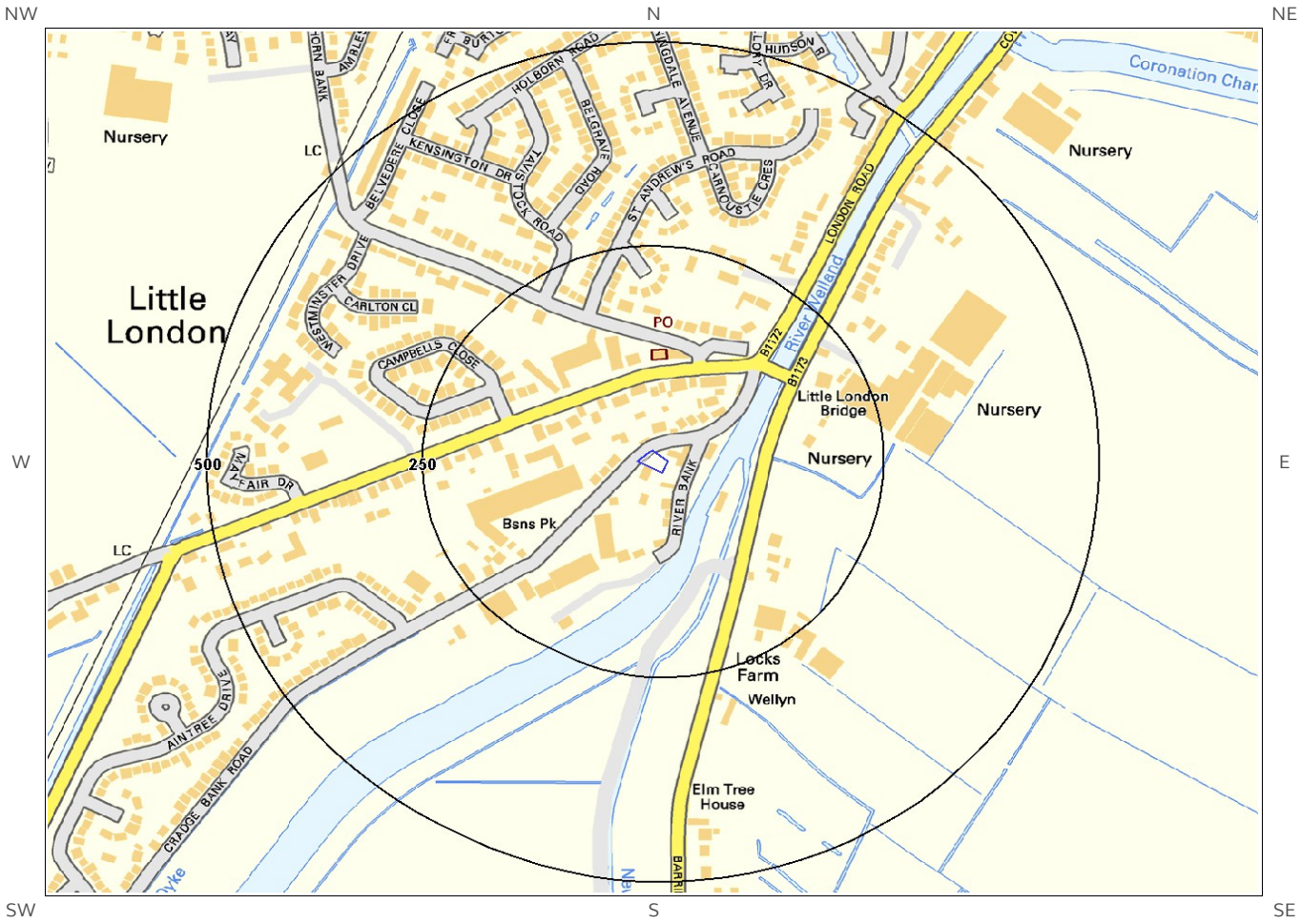
Database searched and no data found.

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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Site Outline

250 / 500 Search Buffers (m)

EA/NRW Active Landfill

EA/NRW Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

EA/NRW Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

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:

0

Database searched and no data found.

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.

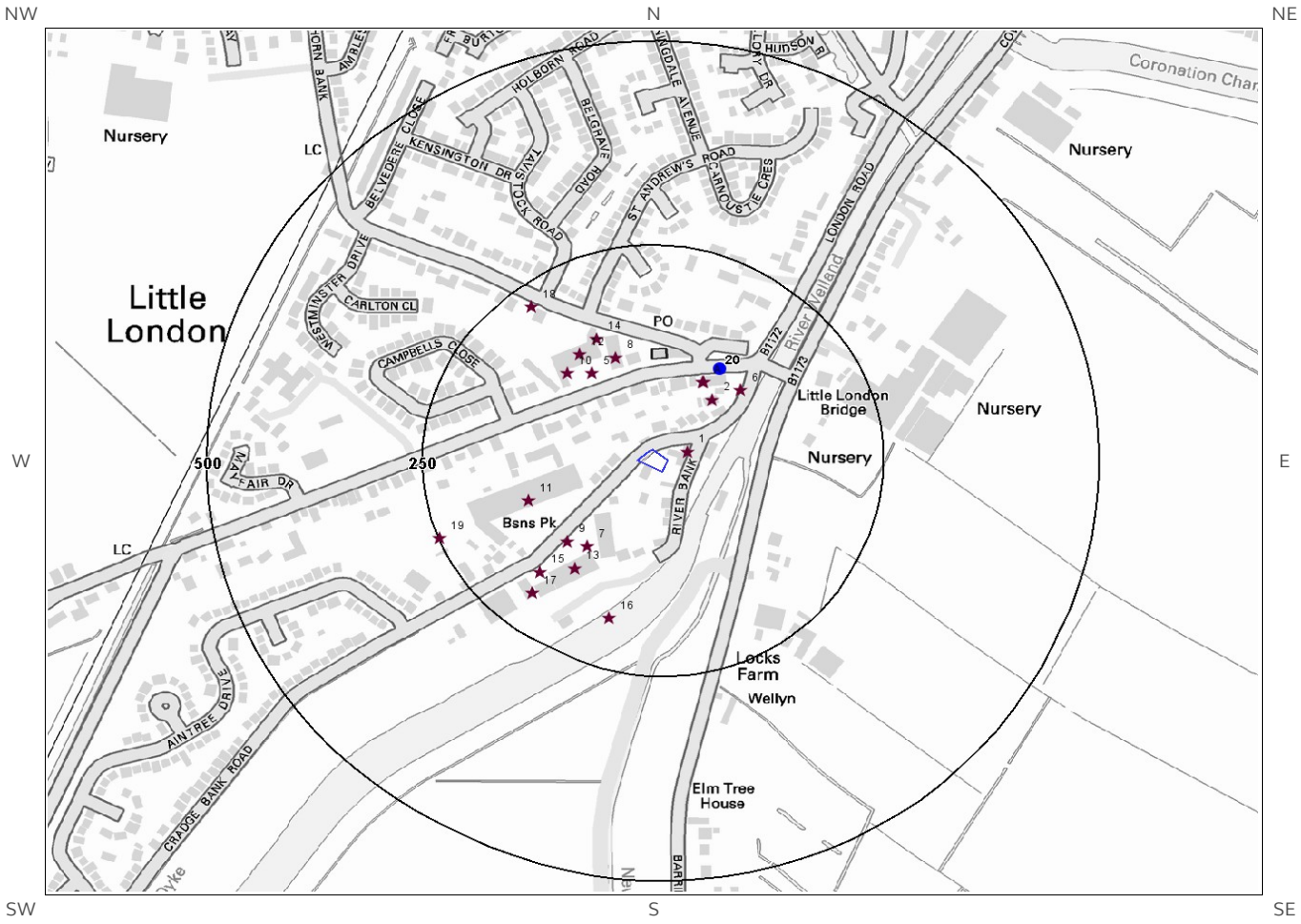
3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

4

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	1108	E	525200 320800	Site Address: Boswell Mr D.A., Land/ Premises At, Clay Lake, Spalding, Lincolnshire, PE12 6BL Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BOS001 EPR reference: EA/EPR/SP3598NQ/A001 Operator: Mr D A Boswell - T/a: S.g.boswell & Sons. Waste Management licence No: 70918 Annual Tonnage: 5000.0	Issue Date: 19/05/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: The Ranch Scrapyard (transfer) Correspondence Address: -
Not shown	1108	E	525200 320800	Site Address: Boswell Mr D.A., Clay Lake, Spalding, Lincolnshire, PE12 6BL Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BOS001 EPR reference: - Operator: Mr D A Boswell Waste Management licence No: 70918 Annual Tonnage: 5000.0	Issue Date: 19/05/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: The Ranch Scrapyard (transfer) Correspondence Address: Boswell Mr D.A., Clay Lake, Spalding, Lincolnshire, PE12 6BL
Not shown	1108	E	525200 320800	Site Address: The Ranch Scrapyard, Clay Lake, Spalding, Lincolnshire, PE12 6BL Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: RAN002 EPR reference: EA/EPR/PP3892NN/A001 Operator: Mr D A Boswell Waste Management licence No: 73063 Annual Tonnage: 25000.0	Issue Date: 27/03/1997 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: The Ranch Scrapyard Correspondence Address: -
Not shown	1271	E	525400 321500	Site Address: Street Mr T J, Elvander, Clay Lake, Spalding, Lincolnshire, PE12 6BL Type: Metal Recycling Site (Vehicle Dismantler) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR002 EPR reference: EA/EPR/TP3198NV/A001 Operator: Street Mr T J Waste Management licence No: 71027 Annual Tonnage: 5000.0	Issue Date: 09/09/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Bridge Cottage, Clay Lake Correspondence Address: -

4. Current Land Use Map



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Site Outline

Search Buffers (m)
250
500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 19

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	25	NE	4 W D Services	524187 321207	8, River Bank, Spalding, PE11 3AA	Vehicle Repair, Testing and Servicing	Repair and Servicing
2	90	NE	Motor Repairs	524216 321271	Cradge Bank, Spalding, PE11 3AB	Vehicle Repair, Testing and Servicing	Repair and Servicing
3A	101	NE	Spalding Service Station	524205 321293	Little London, Spalding, PE11 2UA	Petrol and Fuel Stations	Road and Rail
4A	101	NE	MRH Spalding	524206 321293	London Road, Little London, Spalding, Lincolnshire, PE11 2UE	Petrol and Fuel Stations	Road and Rail
5	118	NW	Saw Mill	524077 321304	PE11	Wood Products Including Charcoal, Paper, Card and Board	Industrial Products
6	120	NE	Electricity Sub Station	524249 321283	PE12	Electrical Features	Infrastructure and Facilities
7	120	SW	Tank	524071 321092	PE11	Tanks (Generic)	Industrial Features
8	121	N	Spalding Signs Ltd	524104 321323	Unit 2 Little London, Spalding, PE11 2UJ	Signs	Industrial Products
9	128	SW	Tank	524048 321098	PE11	Tanks (Generic)	Industrial Features
10	135	NW	Works	524048 321304	PE11	Unspecified Works Or Factories	Industrial Features
11	136	W	Rooke's Pet Products Ltd	524003 321148	Cradge Bank, Spalding, PE11 3AB	Animal Feeds, Pet Foods, Hay and Straw	Foodstuffs
12	144	NW	Factory	524063 321327	PE11	Unspecified Works Or Factories	Industrial Features
13	151	SW	Warehouse	524057 321065	PE11	Container and Storage	Transport, Storage and Delivery
14	151	NW	Crane	524082 321346	PE11	Travelling Cranes and Gantries	Industrial Features
15	177	SW	Transport Depot	524016 321061	PE11	Container and Storage	Transport, Storage and Delivery
16	188	S	Slipway	524097 321004	PE11	Moorings and Unloading Facilities	Water
17	203	SW	Works	524008 321035	PE11	Unspecified Works Or Factories	Industrial Features
18	225	NW	Pumping Station	524006 321385	PE11	Water Pumping Stations	Industrial Features

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
19	249	W	Hopper	523900 321102	PE11	Hoppers and Silos	Farming

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 1

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
20	125	NE	524225 321308	BP	Mrh Spalding, London Road, London Road, Cradge Bank Road, Little London, Spalding, Lincolnshire, PE11 2TP	No	Open

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
TFD-XCZ	TIDAL FLAT DEPOSITS	CLAY AND SILT

5.3 Bedrock and Solid Geology

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

Lex Code	Description	Rock Type
OXC-MDST	OXFORD CLAY FORMATION	MUDSTONE

(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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Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

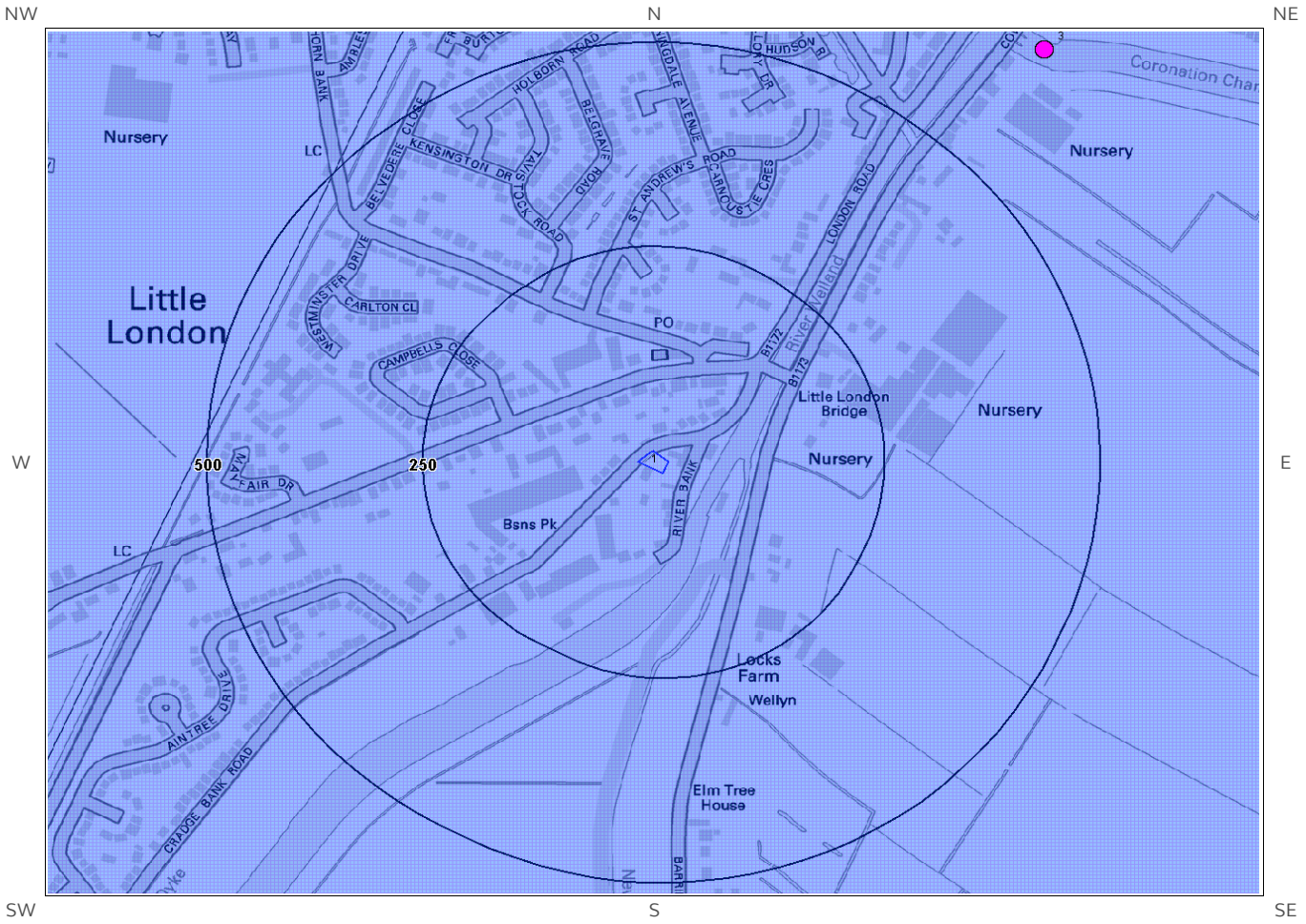
Secondary (B) Aquifer - Lower Permeability Layers

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

6b. Aquifer Within Bedrock Geology and Abstraction Licenses



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Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Groundwater Abstraction Licence

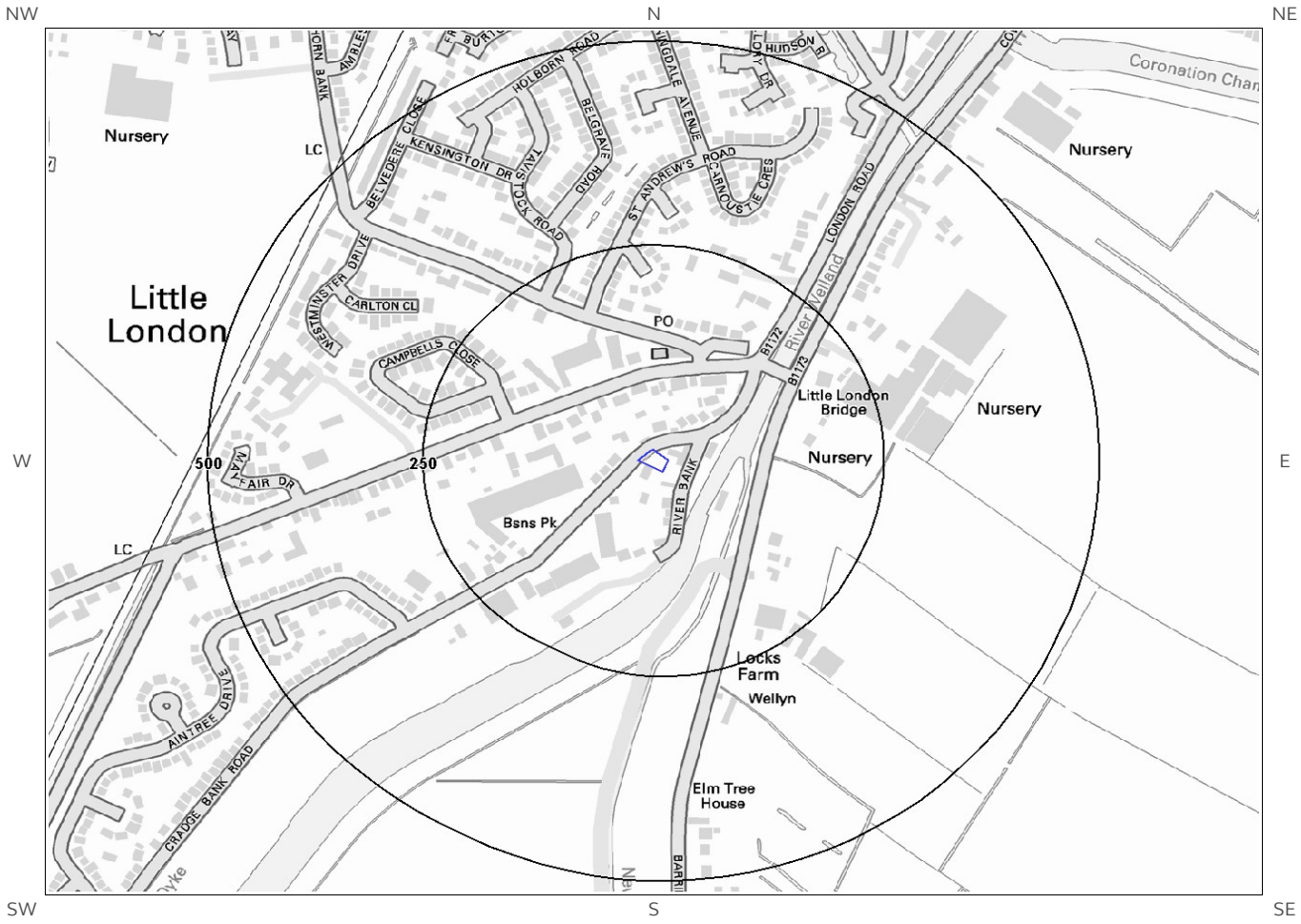
Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

Surface Water Abstraction Licence

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



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Site Outline

250
500
Search Buffers (m)

Source Protection Zone 1 - Inner Catchment

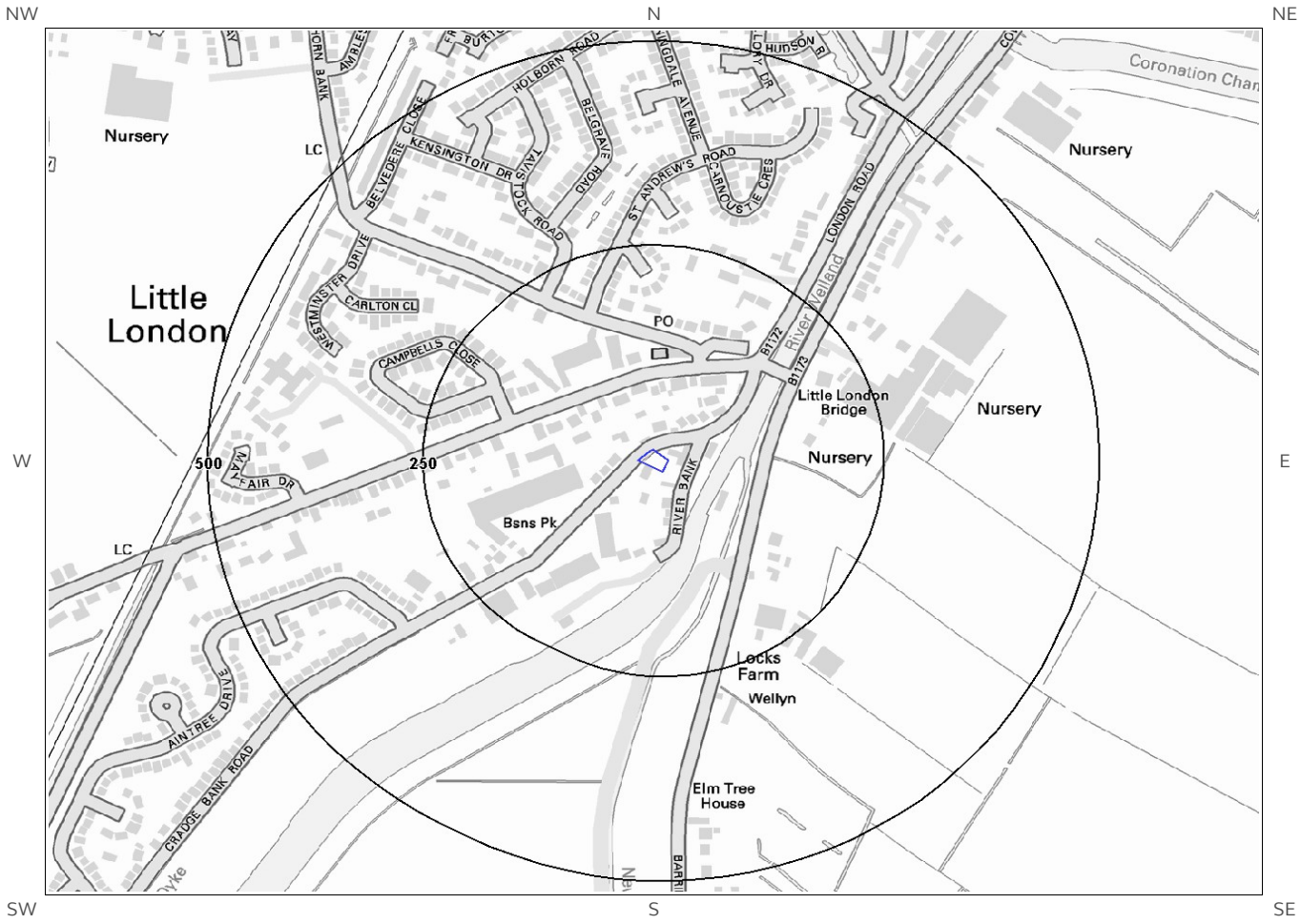
Source Protection Zone 2 - Outer Catchment

Source Protection Zone 3 - Total Catchment

Source Protection Zone 4 - Zone of Special Interest

Potable Water Abstraction Licence

6d. Hydrogeology – Source Protection Zones within confined aquifer



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Site Outline

250
500
Search Buffers (m)

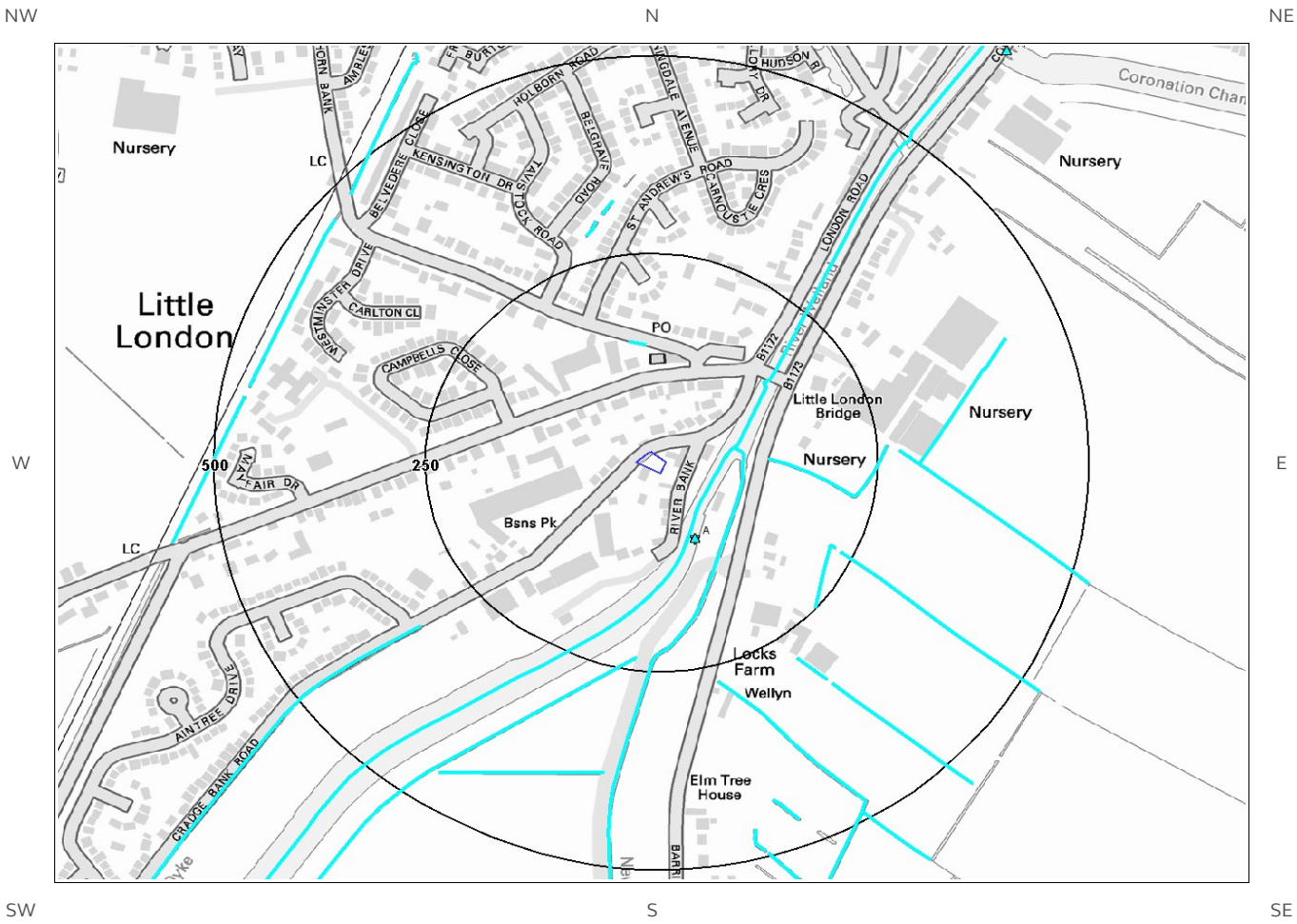
Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

6e. Hydrology – Watercourse Network and River Quality



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Site Outline

250
500
Search Buffers (m)

Tidal River
Inland River
Underground or Elevated Tidal River
Underground or Elevated Inland River
Foreshore
General Quality Assessment: Chemistry

Canal
Underground or Elevated Canal
Lock or Flight of Locks
Lake, Reservoir, or Marsh
Drain or Transfer
General Quality Assessment: Biology

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	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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
1	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

6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site None identified

Database searched and no data found.

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	
3	665	NE	524600 321700	Status: Historical Licence No: 5/31/14/*S/0113 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: R Welland (coronation Channel) Data Type: Point Name: C SLOOTEN LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 1/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/2/1966 Version End Date:
Not shown	1265	SW	523500 320100	Status: Active Licence No: 5/31/14/*S/0020 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: R Welland & Drains,cowbit Wash Data Type: Point Name: R CHAPPELL & SONS	Annual Volume (m^3): 1364 Max Daily Volume (m^3): 545.53 Application No: - Original Start Date: 1/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2004 Version End Date:
Not shown	1742	E	525800 321800	Status: Historical Licence No: 5/31/14/*S/0157 Details: Make-Up or Top Up Water Direct Source: Surface Water Source Of Supply Point: Coronation Channel Data Type: Point Name: LINCOLNSHIRE TRUST FOR NATURE CONSERVATION	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 1/1/1982 Expiry Date: - Issue No: 100 Version Start Date: 1/12/1992 Version End Date:
Not shown	1837	NE	525850 321930	Status: Active Licence No: 5/31/14/*S/0157 Details: Make-Up Or Top Up Water Direct Source: Surface Water Source Of Supply Point: Coronation Channel - Spalding Data Type: Point Name: LINCOLNSHIRE WILDLIFE TRUST	Annual Volume (m^3): 2500 Max Daily Volume (m^3): 224 Application No: NS968 Original Start Date: 1/1/1982 Expiry Date: - Issue No: 101 Version Start Date: 8/5/2007 Version End Date:
Not shown	1857	SW	522900 319800	Status: Active Licence No: 5/31/14/*S/0158 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: South Drove Drain Data Type: Line Name: BRANTON	Annual Volume (m^3): 28000 Max Daily Volume (m^3): 1200 Application No: - Original Start Date: 1/6/1983 Expiry Date: - Issue No: 100 Version Start Date: 1/6/1983 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 — None identified

Database searched and no data found.

6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site — Identified

6.9.1 Biological Quality:

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Biological Quality Grade				
					2005	2006	2007	2008	2009
38A	92	SE	524200 321100	River Name: Welland (coronation Cut) Reach: New River Spalding...tidal Limit (1) End/Start of Stretch: Start of Stretch NGR	B	B	B	B	B

6.9.2 Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (6e):

					Chemical Quality Grade				
ID	Distance (m)	Direction	NGR	River Quality Grade	2005	2006	2007	2008	2009
39A	92	SE	524200 321100	River Name: Welland Reach: New River Spalding Tidal Limit (1) End/Start of Stretch: Start of Stretch NGR	C	C	B	B	B
40A	92	SE	524200 321100	River Name: Welland Reach: Folly River New River Spalding End/Start of Stretch: End of Stretch NGR	B	C	B	B	B
41	656	NE	524568 321715	River Name: Welland Reach: New River Spalding Tidal Limit (1) End/Start of Stretch: Sample Point NGR	C	C	B	B	B

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	59 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 18.2
21	59 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 18.2
2	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
3	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
4	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
5	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
6	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
7	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
22	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
23	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
24	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
25	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
26	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
27	79 SE	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 38.9
8	82 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 14.2

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
9	82 E	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 18.2
28	82 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 14.2
29	82 E	River Welland	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 18.2
10	120 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
30	120 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
11	130 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
31	130 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland 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	132 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.1
32	132 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.1
13	134 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
33	134 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
14	220 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland 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
34	220 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
15	233 S	Soke Dyke	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.7
16	233 S	Soke Dyke	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.7
35	233 S	Soke Dyke	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.7
36	233 S	Soke Dyke	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.7
17	234 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
37	234 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
18	270 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.5
Not shown	270 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.5
19	275 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
39	275 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
20	282 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.3

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
Not shown	282 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.3
21	283 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
41	283 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
22	291 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.3
23	291 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.5
Not shown	291 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.3
Not shown	291 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.5
24	300 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
25	300 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
44	300 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
45	300 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
26	305 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.5

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
Not shown	305 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.5
27	328 SW	River Welland Soke Dyke	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
47	328 SW	River Welland Soke Dyke	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
28	333 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland 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	333 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
29	383 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.7
Not shown	383 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.7
30	432 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.2
Not shown	432 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.2
31	455 NW	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
Not shown	455 NW	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
32	462 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.6

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
Not shown	462 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.6
33	471 W	Railway Delph Drain	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
Not shown	471 W	Railway Delph Drain	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
34	479 NW	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
Not shown	479 NW	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
35	489 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
36	489 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.3
Not shown	489 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland 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	489 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.3
37	495 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.4
Not shown	495 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.4

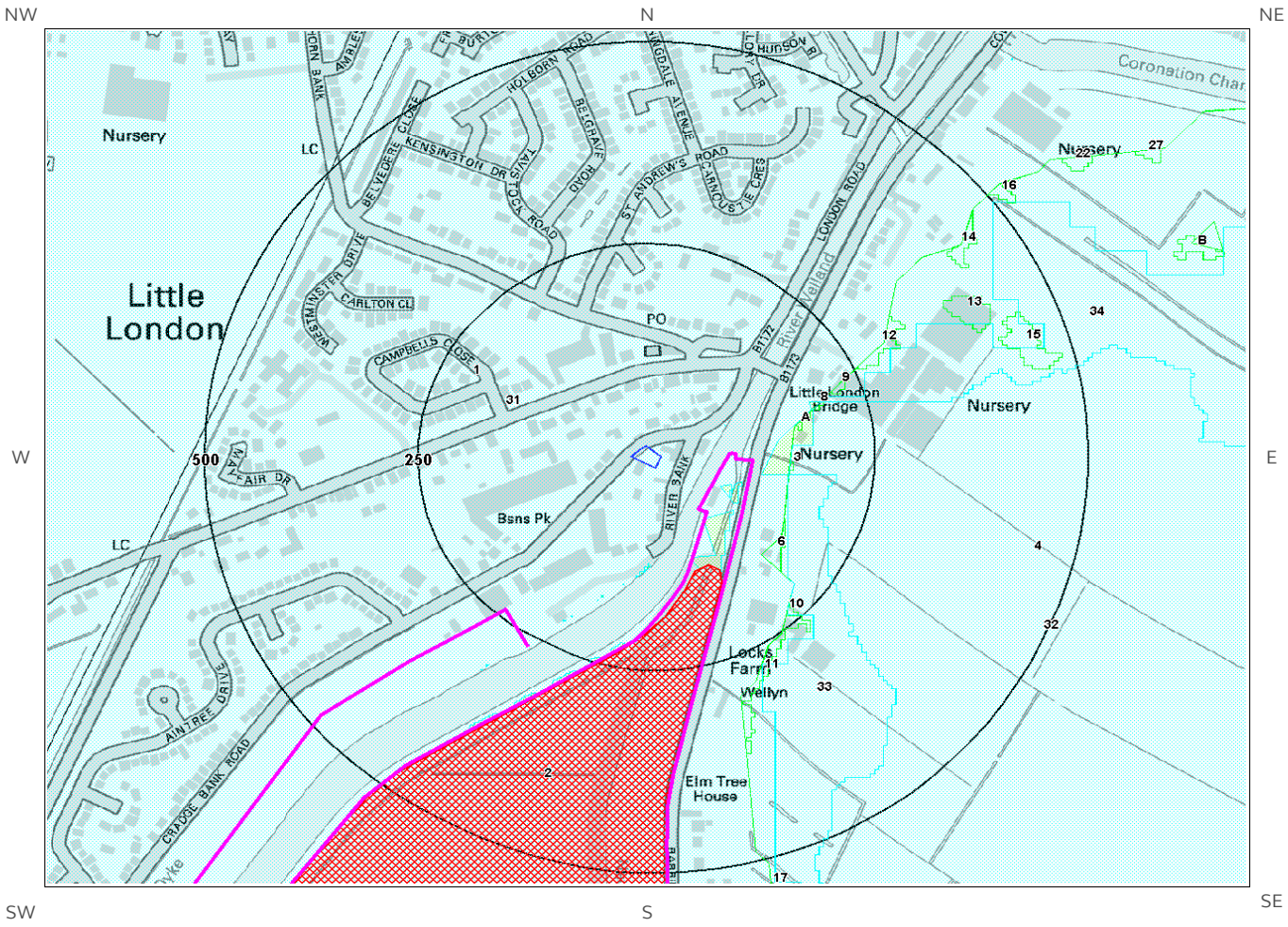
6.11 Surface Water Features

Surface water features within 250m of the study site | Identified

The following surface water records are not represented on mapping:

Distance (m)	Direction
49	SE
68	SE
120	E
130	SE
134	N
169	NE
220	SE
232	S
234	SE

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



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Site Outline

Search Buffers (m)

Zone 2 Floodplain

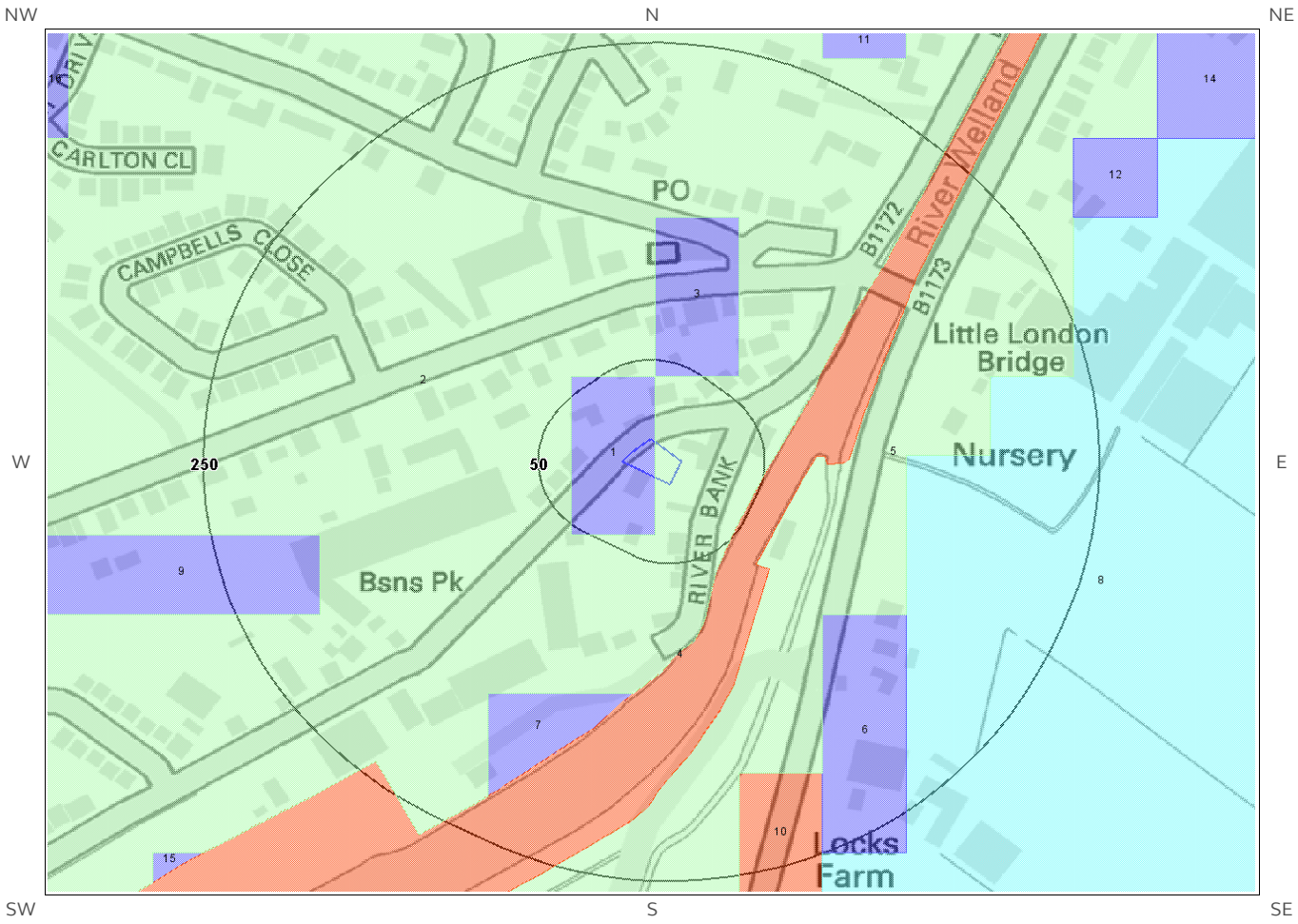
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

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



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Site Outline

100
250
Search Buffers (m)

RoFRaS Rating

- Very Low
- Low
- Medium
- High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m — 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:

ID	Distance (m)	Direction	Update	Type
1	0	On Site	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
2	135	SE	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
3	150	E	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
4	150	E	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
5A	161	E	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
6	162	SE	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
7A	174	E	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
8	186	E	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
9	214	E	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
10	228	SE	29-May-2018	Zone 2 - (Fluvial /Tidal Models)
11	237	SE	29-May-2018	Zone 2 - (Fluvial /Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m — 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.

ID	Distance (m)	Direction	Update	Type
1	0	On Site	30-May-2018	Zone 3 - (Fluvial Models)

2	150	E	30-May-2018	Zone 3 - (Fluvial Models)
3	150	E	30-May-2018	Zone 3 - (Fluvial Models)
4	199	E	30-May-2018	Zone 3 - (Fluvial Models)

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

Highest risk of flooding onsite — Medium

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 Medium (greater than 1 in 100 but less than 1 in 30) chance of flooding in any given year.

Any relevant data within 250m is represented on the RoFRaS Flood map. Data to 50m is reported in the table below.

ID	Distance (m)	Direction	RoFRas flood Risk
1	0.0	On Site	Medium
2	0.0	On Site	Very Low
3	40.0	N	Medium
4	48.0	SE	High

7.4 Flood Defences

Flood Defences within 250m of the study site — Identified

The following flood defence records are represented as lines on the Flood Map:

ID	Distance (m)	Direction	Update
42	67	SE	11-May-2018
43	239	SW	11-May-2018

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 — 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 — None identified

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

Not Prone

The area is not considered to be prone to groundwater flooding based on rock type.

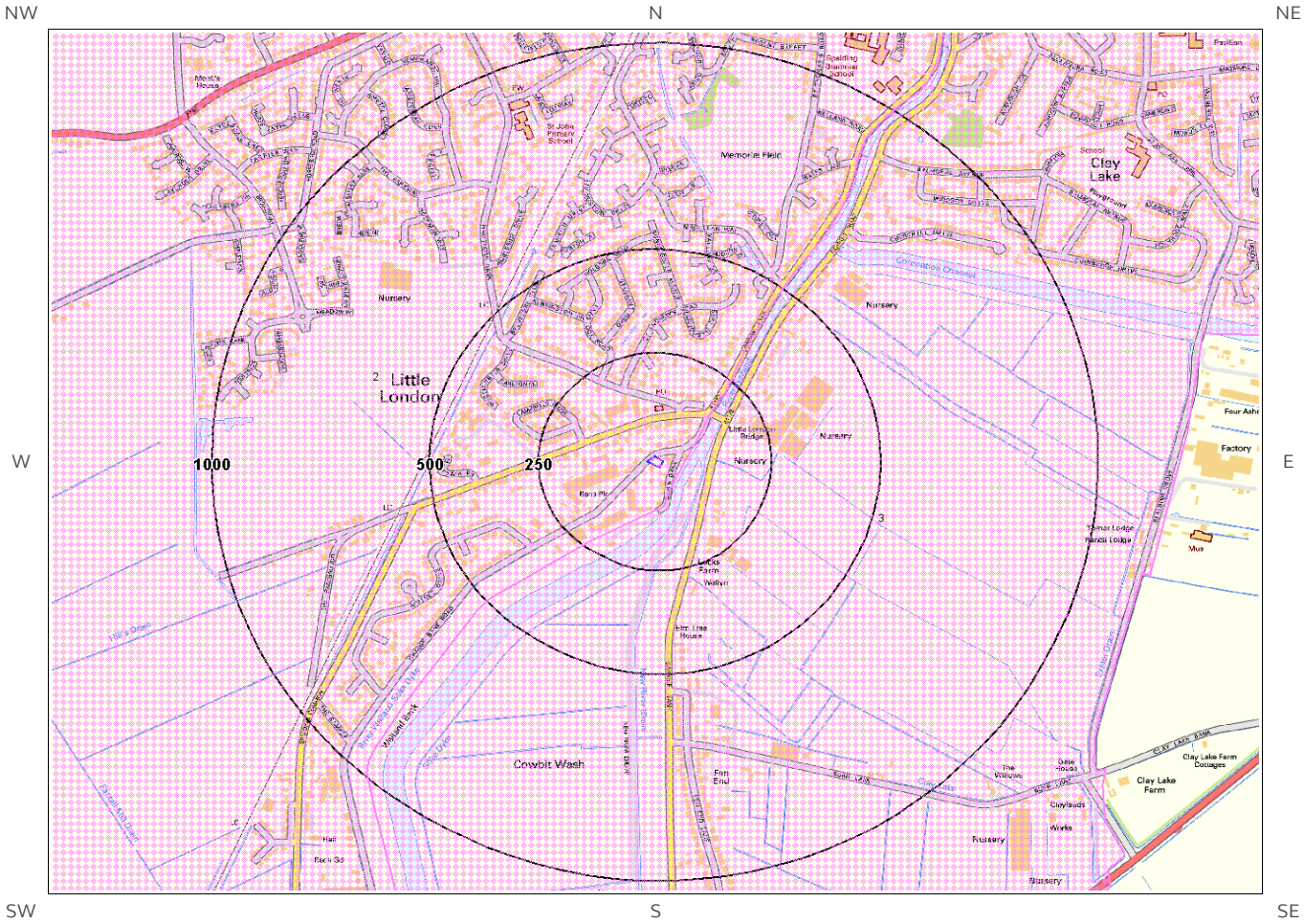
7.8 Groundwater Flooding Confidence Areas

British Geological Survey confidence rating in this result — Not Applicable

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:

1

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
Not shown	1760	S	Cowbit Wash	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:

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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:

0

Database searched and no data found.

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:

0

Database searched and no data found.

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:

4

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
2	0	On Site	Existing	DEFRA
3	45	SE	Existing	DEFRA
Not shown	1182	S	Existing	DEFRA
Not shown	1312	SW	Existing	DEFRA

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

0

Database searched and no data found.

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 — Moderate

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

Hazard
Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

9.1.5 Collapsible Rocks

Maximum Collapsible 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
No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

Maximum Running Sand*[*] hazard rating identified on the study site — Moderate

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

Hazard
Significant potential for running sand problems with relatively small changes in ground conditions. Avoid large amounts of water entering the ground (for example through pipe leakage or soak-aways). Do not dig (deep) holes into saturated ground near the property without technical advice. For new build consider the consequences of soil and groundwater conditions during and after construction. For existing property possible increase in insurance risk from running sand, for example, due to water leakage, high rainfall events or flooding.

* 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 not in a Radon Affected Area, as less than 1% 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.

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