APPENDIX 4

GroundSure EnviroInsight Report

CSG Consulting Engineers Ltd

29 Greenlands Business Centre, STUDLEY ROAD,
REDDITCH, B98 7HD

Groundsure Reference:	GS-3924908
Your Reference:	696_1844_Welland_Hospital_Spalding
Report Date	23 May 2017
Report Delivery Method:	Email - pdf

Groundsure Enviro Insight

Address: FORMER WELLAND HOSPITAL, PE11 2NJ

Dear Sir/ Madam,

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

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,



Managing Director
Groundsure Limited

Enc.
Groundsure Enviroinsight

Groundsure Enviro Insight

Address:	**FORMER WELLAND HOSPITAL, PE11 2NJ**
Date:	**23 May 2017**
Reference:	**GS-3924908**
Client:	**CSG Consulting Engineers Ltd**

NW N NE



W E

SW S SE

Aerial Photograph Capture date:	06-Apr-2015
Grid Reference:	525853,323795
Site Size:	1.04ha

Report Reference: GS-3924908
Client Reference: 696_1844_Welland_Hospital_Spalding

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Overview of Findings

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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	7	9	24
1.2 Additional Information – Historical Tank Database	0	2	6	7
1.3 Additional Information – Historical Energy Features Database	0	0	7	4
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	3	0	0	0
1.6 Potentially Infilled Land	0	0	0	17

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	3	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	1	4
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	0	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	1	2
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	1	2
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	1	0	3
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	3
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	2	0	4

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	2	3	Not searched
4.2 Records of Petrol and Fuel Sites	1	0	0	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 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
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 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	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	2	6
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 Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site?	No	No	Yes	No	No	Yes
6.10 Detailed River Network entries within 500m of the site	0	0	4	1	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site?	Yes
7.2 Are there any Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	Yes
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	Medium
7.4 Are there any Flood Defences within 250m of the study site?	Yes
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Not Prone
7.8 What is the 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	0
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	1	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	2	0	0	1	0	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	Moderate
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Moderate
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Negligible
9.1.6 What is the 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 property 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 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	No
10.3 Are there any brine affected areas within 75m of the study site?	No

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.

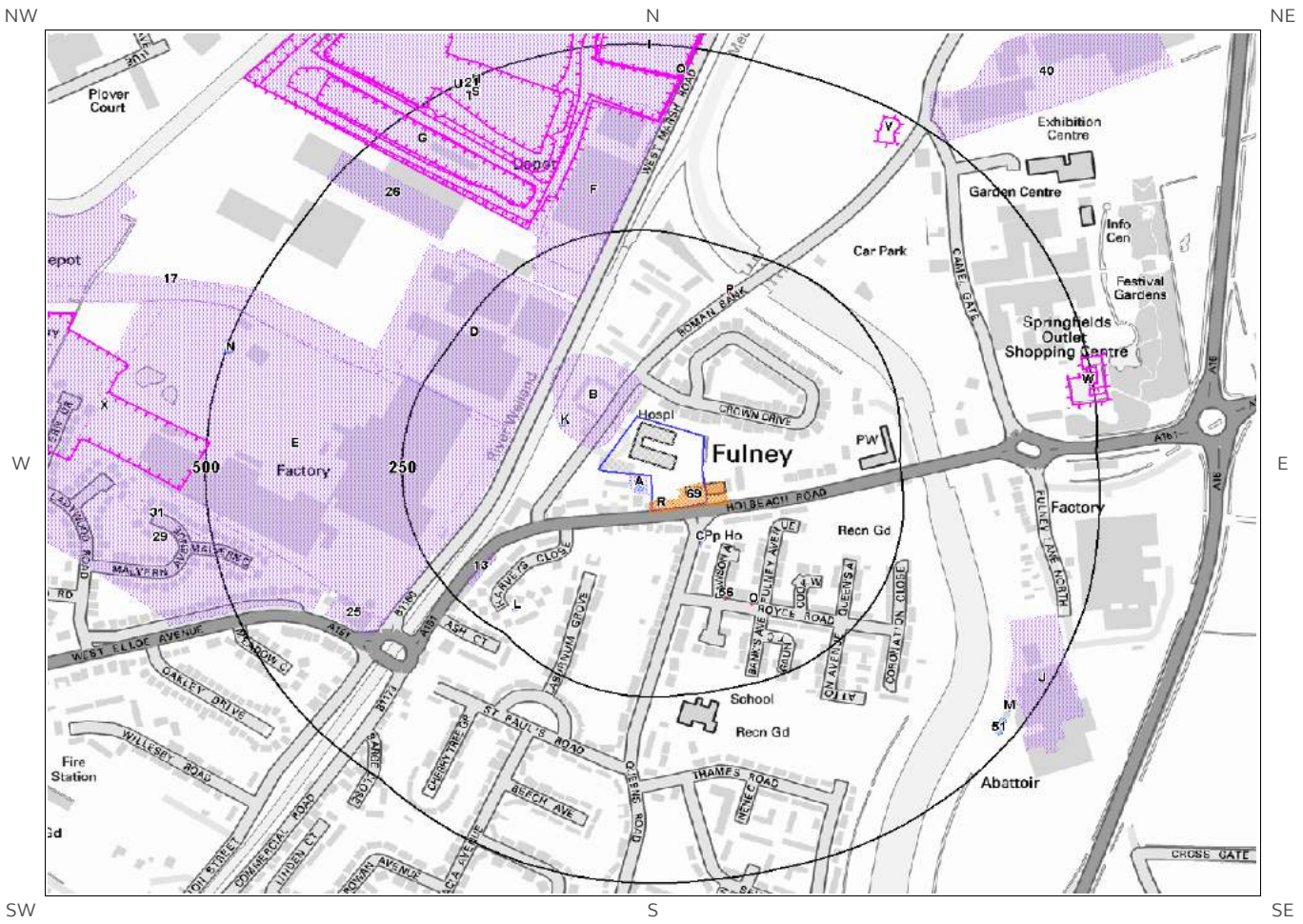
Note: Maps

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: 40

ID	Distance [m]	Direction	Use	Date
1A	3	S	Unspecified Mill	1903
2B	10	NW	Corn Windmill	1887
3A	10	W	Unspecified Tank	1903
4A	10	W	Corn Mill	1887
5B	35	NW	Windmill	1903
6C	41	S	Smithy	1887
7C	41	S	Smithy	1903
8E	116	NW	Unspecified Depot	1987
9D	120	NW	Unspecified Commercial/Industrial	1987
10D	130	NW	Unspecified Works	1971
11E	134	NW	Unspecified Depot	1971
12F	174	NW	Unspecified Factory	1968
13	175	SW	Smithy	1903
14F	175	NW	Canning Factory	1950
15F	198	N	Cannery	1987
16F	199	N	Cannery	1971
17	269	NW	Railway Sidings	1971
18S	288	NW	Sewage Works	1987
19T	295	NW	Sewage Works	1971
20	306	NW	Railway Sidings	1987
21	315	N	Sugar Beet Factory	1950
22G	315	NW	Settling Ponds	1987
23G	316	NW	Settling Ponds	1971
24H	335	N	Settling Ponds	1950
25	340	SW	Unspecified Store	1971
26	344	NW	Unspecified Depot	1987
27U	350	N	Settling Ponds	1987
28H	375	N	Settling Ponds	1971
29	379	SW	Nursery	1971
30J	416	E	Abattoir	1987
31	457	W	Railway Sidings	1971
32I	458	N	Sewage Works	1950
33I	459	N	Sewage Works	1929

34I	459	N	Sewage Works	1929
35I	459	N	Sewage Works	1938
36I	459	N	Sewage Works	1938
37J	463	SE	Abattoir	1971
38N	490	W	Unspecified Tank	1987
39X	496	W	Cemetery	1971
40	497	NE	Nursery	1987

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: 15

ID	Distance (m)	Direction	Use	Date
41A	11	W	Unspecified Tank	1889
42A	12	W	Unspecified Tank	1904
43K	68	NW	Tanks	1979
44K	69	NW	Tanks	1986
45L	211	SW	Unspecified Tank	1979
46L	211	SW	Unspecified Tank	1999
47L	213	SW	Unspecified Tank	1992
48L	213	SW	Unspecified Tank	1986
49M	472	SE	Unspecified Tank	1996
50M	473	SE	Unspecified Tank	1996
51	476	SE	Unspecified Tank	1996
52N	492	W	Unspecified Tank	1979
53N	493	W	Unspecified Tank	1999
54N	494	W	Unspecified Tank	1992
55N	494	W	Unspecified Tank	1986

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: 11

ID	Distance (m)	Direction	Use	Date
56	123	S	Electricity Substation	1992
57O	143	SE	Electricity Substation	1979

58O	144	SE	Electricity Substation	1986
59P	191	N	Electricity Substation	1987
60P	191	N	Electricity Substation	1993
61P	191	N	Electricity Substation	1997
62P	191	N	Electricity Substation	1996
63Q	460	N	Electricity Substation	1993
64Q	461	N	Electricity Substation	1987
65Q	461	N	Electricity Substation	1997
66Q	461	N	Electricity Substation	1996

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: 3

ID	Distance (m)	Direction	Use	Date
67R	0	On Site	Garage	1992
68R	0	On Site	Garage	1986
69	0	On Site	Garage	1979

1.6 Potentially Infilled Land

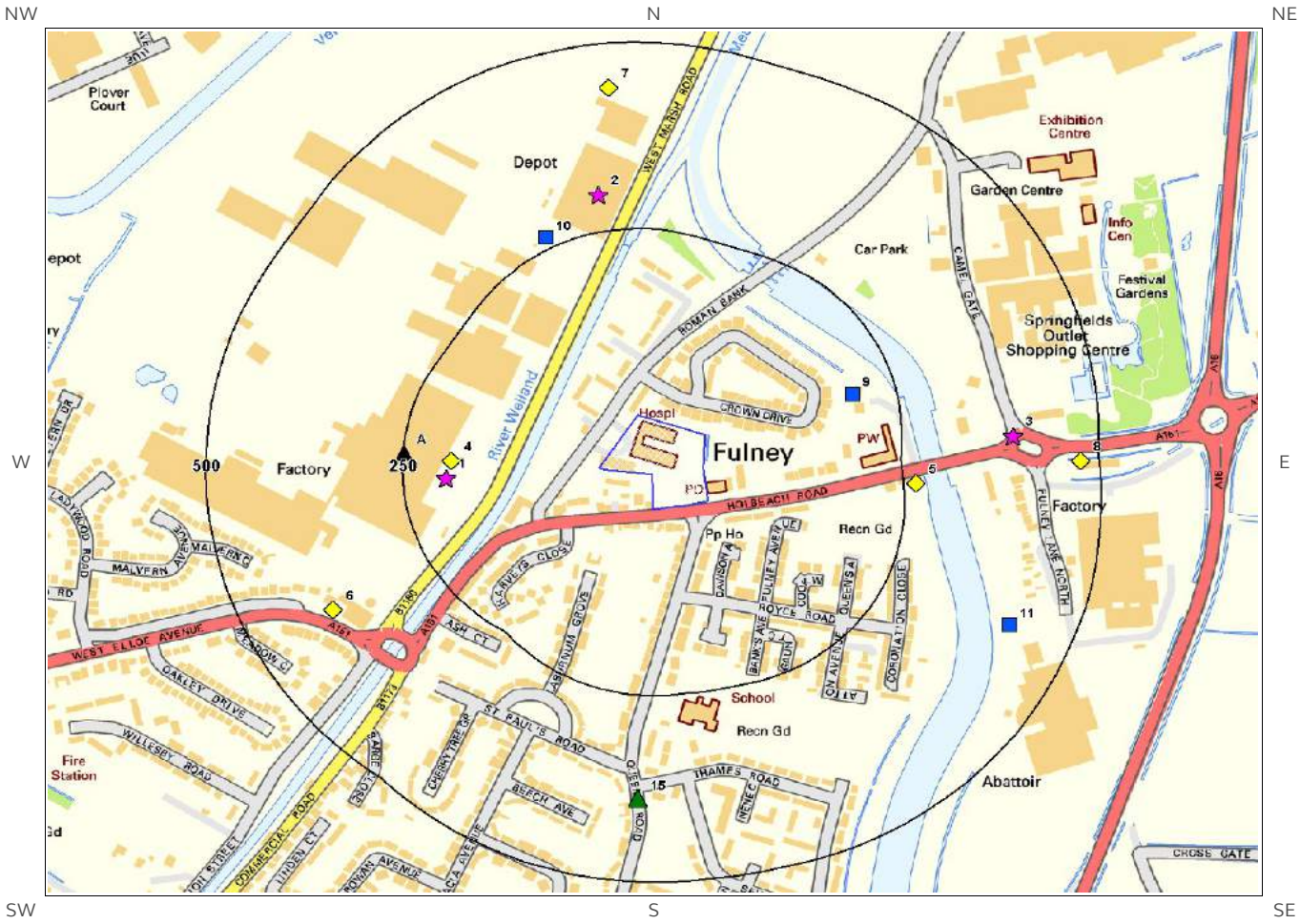
Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 17

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

ID	Distance(m)	Direction	Use	Date
70S	288	NW	Sewage Works	1987
71T	295	NW	Sewage Works	1971
72G	315	NW	Settling Ponds	1987
73G	316	NW	Settling Ponds	1971
74H	335	N	Settling Ponds	1950
75U	350	N	Settling Ponds	1987

76H	375	N	Settling Ponds	1971
77V	454	NE	Ponds	1903
78V	454	NE	Ponds	1887
79I	458	N	Sewage Works	1950
80I	459	N	Sewage Works	1929
81I	459	N	Sewage Works	1929
82I	459	N	Sewage Works	1938
83I	459	N	Sewage Works	1938
84W	470	E	Ponds	1987
85W	470	E	Ponds	1971
86X	496	W	Cemetery	1971

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:

3

The following Part A(1) and IPPC Authorised Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
16A	249	W	525540 323810	Operator: Geest Foods Limited Installation Name: West Marsh Road Food Processor Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D	Permit Number: XP3534LC Original Permit Number: XP3438SB EPR Reference: - Issue Date: - Effective Date: 11/12/2006 Last date noted as effective: 2017-04-01 Status: Surrender Effective
17A	249	W	525540 323810	Operator: Geest Foods Limited Installation Name: West Marsh Road Food Processor Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D	Permit Number: XP3534LC Original Permit Number: XP3438SB EPR Reference: - Issue Date: - Effective Date: 11/12/2006 Last date noted as effective: 2017-04-01 Status: Surrender Effective
18A	249	W	525540 323810	Operator: Geest Foods Limited Installation Name: West Marsh Road Food Processor Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D	Permit Number: XP3438SB Original Permit Number: XP3438SB EPR Reference: - Issue Date: 27/7/2005 Effective Date: 27/7/2005 Last date noted as effective: 2017-04-01 Status: Superceded

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:

5

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	
4	188	W	525600 323800	Name: Geest Foods Ltd Status: Not Active Receiving Water: Na	Authorised Substances: pH
5	264	E	526190 323770	Name: Fulney Launderette Status: Not Active Receiving Water: Na	Authorised Substances: pH
6	388	SW	525450 323600	Name: Imo Car Wash Status: Not Active Receiving Water: Na	Authorised Substances: pH
7	440	N	525800 324300	Name: Christian Salvesen Food & Consumer Div Status: Not Active Receiving Water: Na	Authorised Substances: pH
8	476	E	526400 323800	Name: George Adams & Sons 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:

1

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	
15	391	S	525837 323345	Address: St. Pauls Filling Station, Queens Road, Spalding, PE11 2JQ Process: Petrol Vapour Recovery Status: Historical 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:

3

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

ID	Distance (m)	Direction	NGR	Details	
9	195	E	526110 323890	Address: 67B HOLBEACH ROAD, SPALDING, LINCOLNSHIRE, ., ., PE11 2HY Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF12934 Permit Version: 1	Receiving Water: TRIB OF THE RIVER WELLAND Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 24/06/2003 Effective Date: 13-Jun-2003 Revocation Date: -
10	266	NW	525720 324100	Address: SMEDLEYS LTD, WEST MARSH ROAD, SPALDING Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PR5NF5098 Permit Version: 1	Receiving Water: Fen Drain Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/11/1985 Effective Date: 14-Nov-1985 Revocation Date: -
11	418	SE	526310 323580	Address: CRESCENT HOUSE, FULNEY LANE, SPALDING Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PR5NF5464 Permit Version: 1	Receiving Water: Coronation Channel Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 16/12/1987 Effective Date: 16-Dec-1987 Revocation Date: 26/02/1992

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:

3

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

ID	Distance (m)	Direction	NGR	Details	
1	195	W	525593 323777	Incident Date: 04-Dec-2002 Incident Identification: 124539 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2	300	N	525786 324157	Incident Date: 19-Aug-2002 Incident Identification: 101575 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Ammonia/Amine Odour	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
3	390	E	526313 323834	Incident Date: 10-Apr-2002 Incident Identification: 70277 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Blood and Offal	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

0

Database searched and no data found.

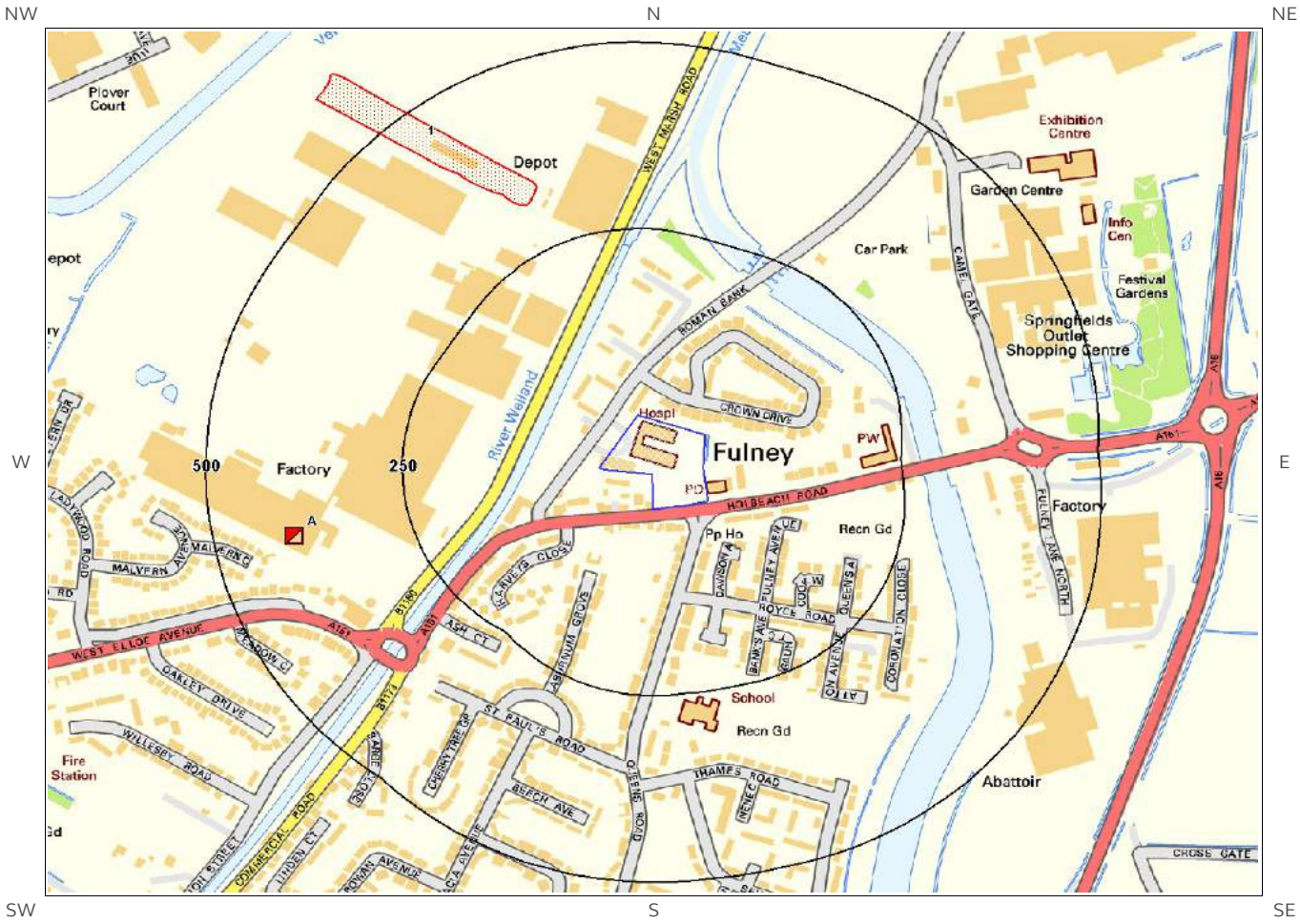
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many 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:

4

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	315	NW	525500 324200	Site Address: Spalding Sugar Beet Factory, Spalding, Lincolnshire Waste Licence: Yes Site Reference: L115, RD7 032/2, RD7-70-01/89, SH-70-01/89, 2500/5312 Waste Type: Inert, Household, Liquid, sludge Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 24-Apr-1990 Licence Surrendered: Licence Holder Address: PO Box 26, Oundle Road, Peterborough Operator: British Sugar Plc Licence Holder: British Sugar Plc First Recorded: - Last Recorded: -
Not shown	1418	W	524300 324000	Site Address: Woolram Wygate, Spalding, Lincolnshire Waste Licence: - Site Reference: RD7-71-01/89, SH-71-01/89, 2500/5041 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
Not shown	1451	W	524300 324000	Site Address: Woolram Wygate, Spalding, Lincolnshire Waste Licence: - Site Reference: RD7-71-01/89, SH-71-01/89, 2500/5041 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	1485	W	524300 324000	Site Address: Woolram Wygate, Spalding, Lincolnshire Waste Licence: - Site Reference: RD7-71-01/89, SH-71-01/89, 2500/5041 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - 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:

3

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

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
Not shown	1038	N	525891 324931	Refuse Tip	1967 mapping	Polygon
Not shown	1171	N	526047 325069	Refuse Tip	1967 mapping	Polygon
Not shown	1444	S	526173 322307	Refuse Tip	1967 mapping	Polygon

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:

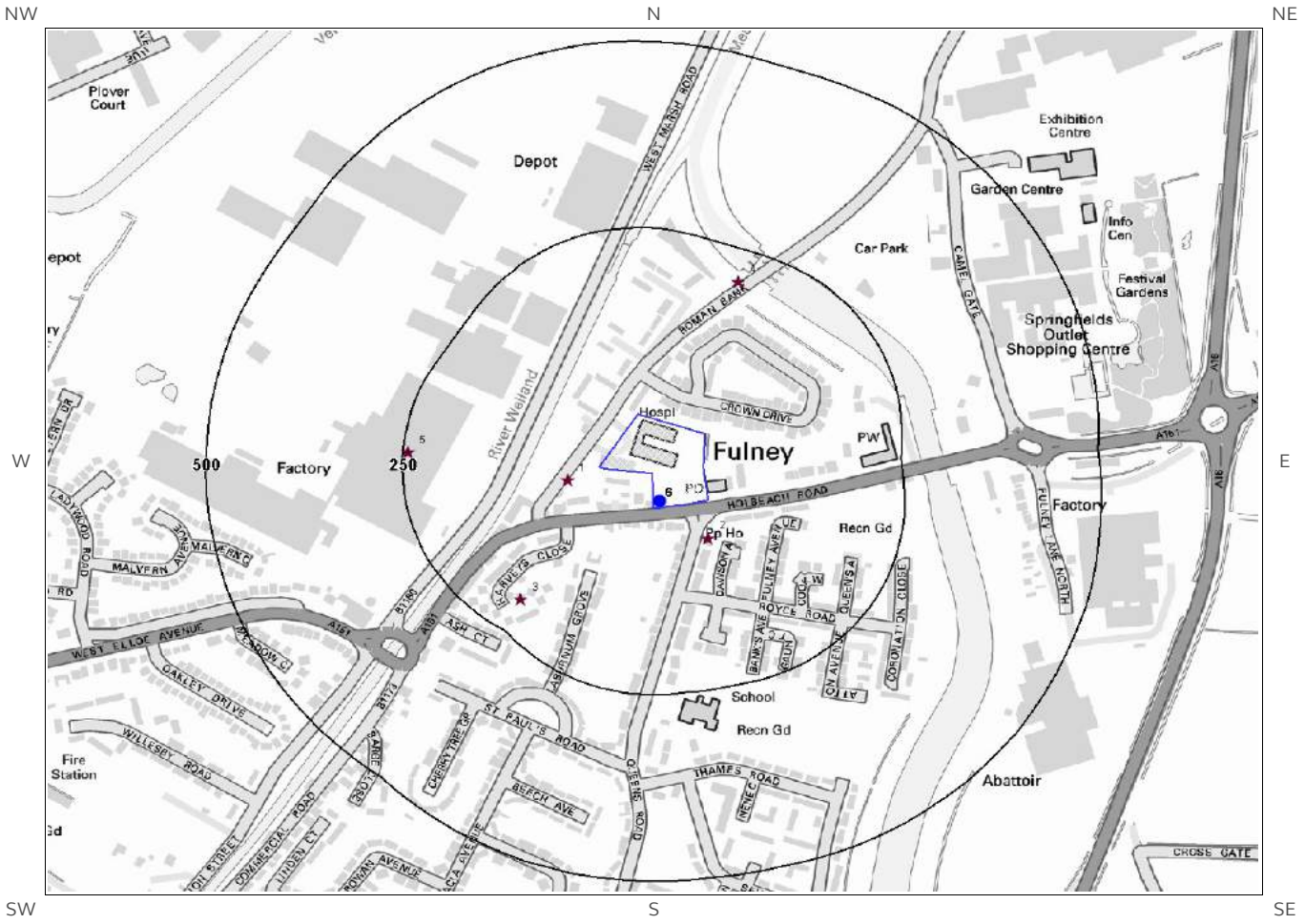
6

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	
5A	399	W	525400 323700	Site Address: Albion Street, Spalding, Lincolnshire, PE11 2AY Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TRA004 EPR reference: EA/EPR/QP3394NT/S002 Operator: Transco Waste Management licence No: 73048 Annual Tonnage: 25000.0	Issue Date: 26/05/1994 Effective Date: - Modified: - Surrendered Date: 29/02/2000 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Spalding Depot Correspondence Address: -
6A	399	W	525400 323700	Site Address: Albion Street, Spalding, Linconshire, PE11 2AY Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TRA003 EPR reference: - Operator: Transco Waste Management licence No: 73048 Annual Tonnage: 0.0	Issue Date: 26/05/1994 Effective Date: - Modified: - Surrendered Date: 29/02/2000 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Spalding Depot Correspondence Address: -
Not shown	1099	N	526200 324900	Site Address: Lincwaste Ltd, West Marsh Road, Spalding, Lincolnshire, PE11 2BB Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LIN012 EPR reference: - Operator: Sundourne Products (llanidioes) Ltd Waste Management licence No: 70996 Annual Tonnage: 5000.0	Issue Date: 16/09/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Spalding Hwrc Correspondence Address: Lincwaste Ltd, Park Avenue, Aberystwyth, Ceredigion, SY23 1PG
Not shown	1099	N	526200 324900	Site Address: Lincwaste Ltd, West Marsh Road, Spalding, Lincolnshire, PE11 2BB Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LIN039 EPR reference: - Operator: Lincolnshire County Council Waste Management licence No: 70996 Annual Tonnage: 5000.0	Issue Date: 16/09/1993 Effective Date: 01/04/2004 Modified: 31/12/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Spalding Hwrc Correspondence Address: City Hall, Lincoln, Lincolnshire, Ln1 1dn, -
Not shown	1132	N	526104 324962	Site Address: Lincwaste Ltd, Land / Premises At, West Marsh Road, Spalding, Lincolnshire, PE11 2BB Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LIN039 EPR reference: EA/EPR/GP3498NT/T002 Operator: Lincolnshire County Council Waste Management licence No: 70996 Annual Tonnage: 5000.0	Issue Date: 16/09/1993 Effective Date: 01/04/2004 Modified: 31/12/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Spalding Household Waste Recycling Centre Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
Not shown	1265	N	526100 325100	Site Address: Anglian Water Services Ltd, Enterprise House, Westmarsh Road, Spalding, Lincolnshire, PE11 2BB Type: Transfer Station taking Non-Biodegradable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ANG010 EPR reference: EA/EPR/UP3998NT/V002 Operator: Anglian Water Services Ltd Waste Management licence No: 70954 Annual Tonnage: 85000.0	Issue Date: 05/01/1993 Effective Date: - Modified: - Surrendered Date: 06/04/2010 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Anglian Water Spalding Depot 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: 5

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	43	SW	Electricity Sub Station	525748 323774	Electricity Sub Station, PE11	Electrical Features	Infrastructure and Facilities
2	49	S	Pumping House	525926 323696	Pumping House, PE11	Water Pumping Stations	Industrial Features
3	203	SW	Tank	525688 323614	Tank, PE11	Tanks (Generic)	Industrial Features
4	208	N	Electricity Sub Station	525965 324040	Electricity Sub Station, PE11	Electrical Features	Infrastructure and Facilities
5	244	W	Bakkavor	525544 323811	Bakkavor, West Marsh Road, Spalding, PE11 2BB	Catering and Non Specific Food Products	Foodstuffs

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
6	0	On Site	525865 323745	Obsolete	Ray Bettinson, Holbeach Road, Holbeach Road, Spalding, Lincolnshire, PE11 2HX	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
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

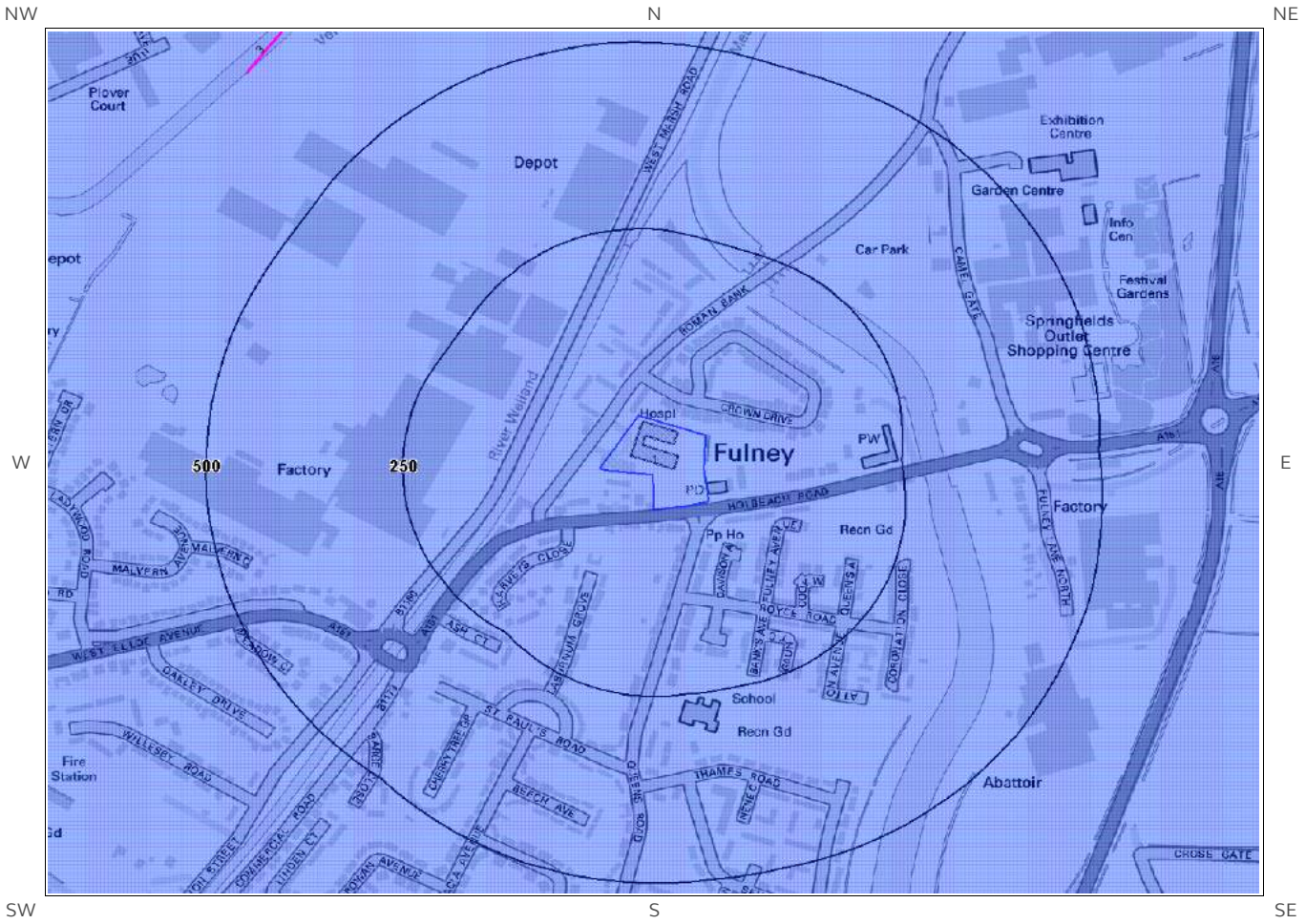
Secondary (B) Aquifer - Lower Permeability Layers

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

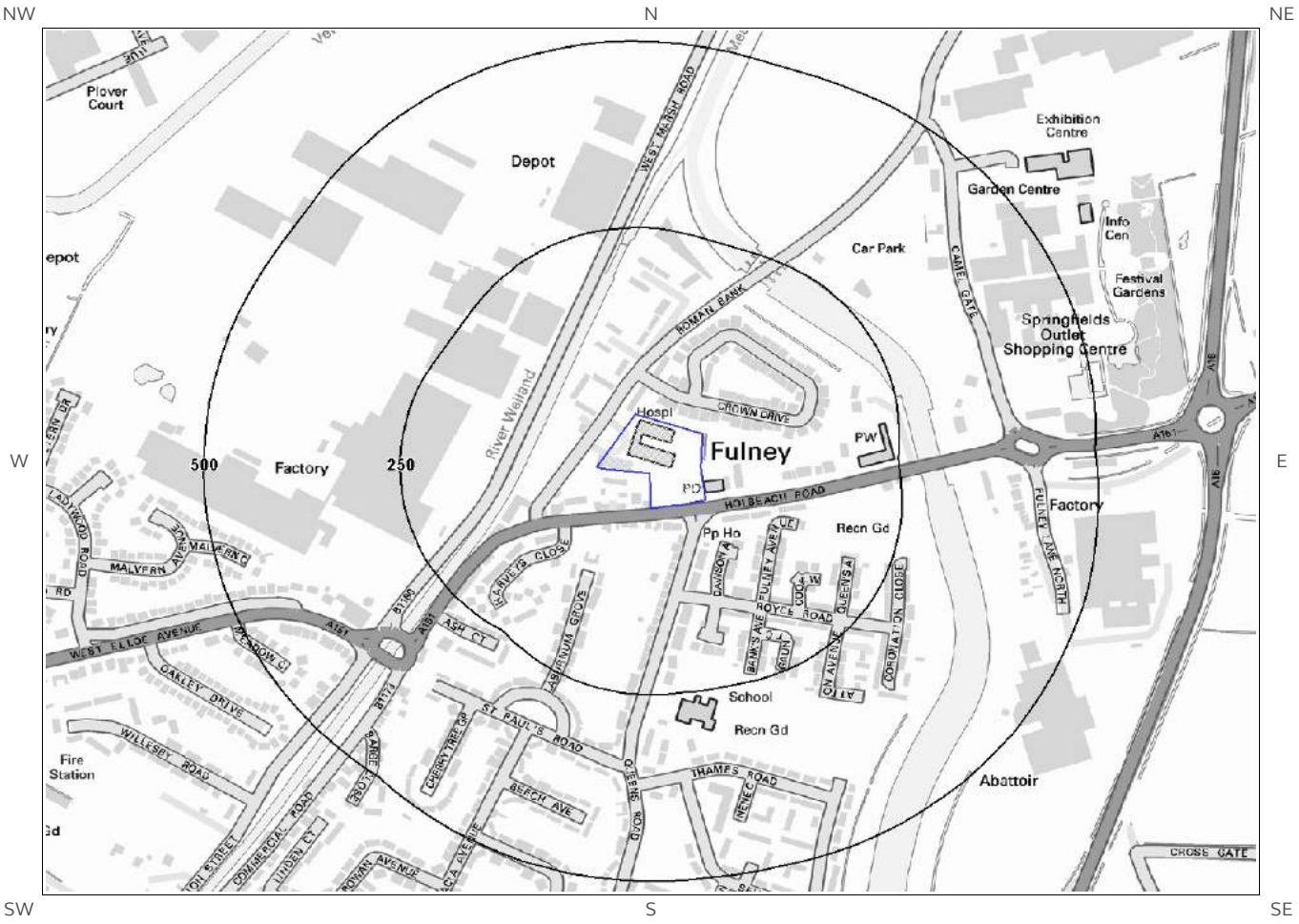
Secondary Aquifer - Undifferentiated Layers

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 Search Buffers (m)
500

Source Protection Zone 1 - Inner Catchment

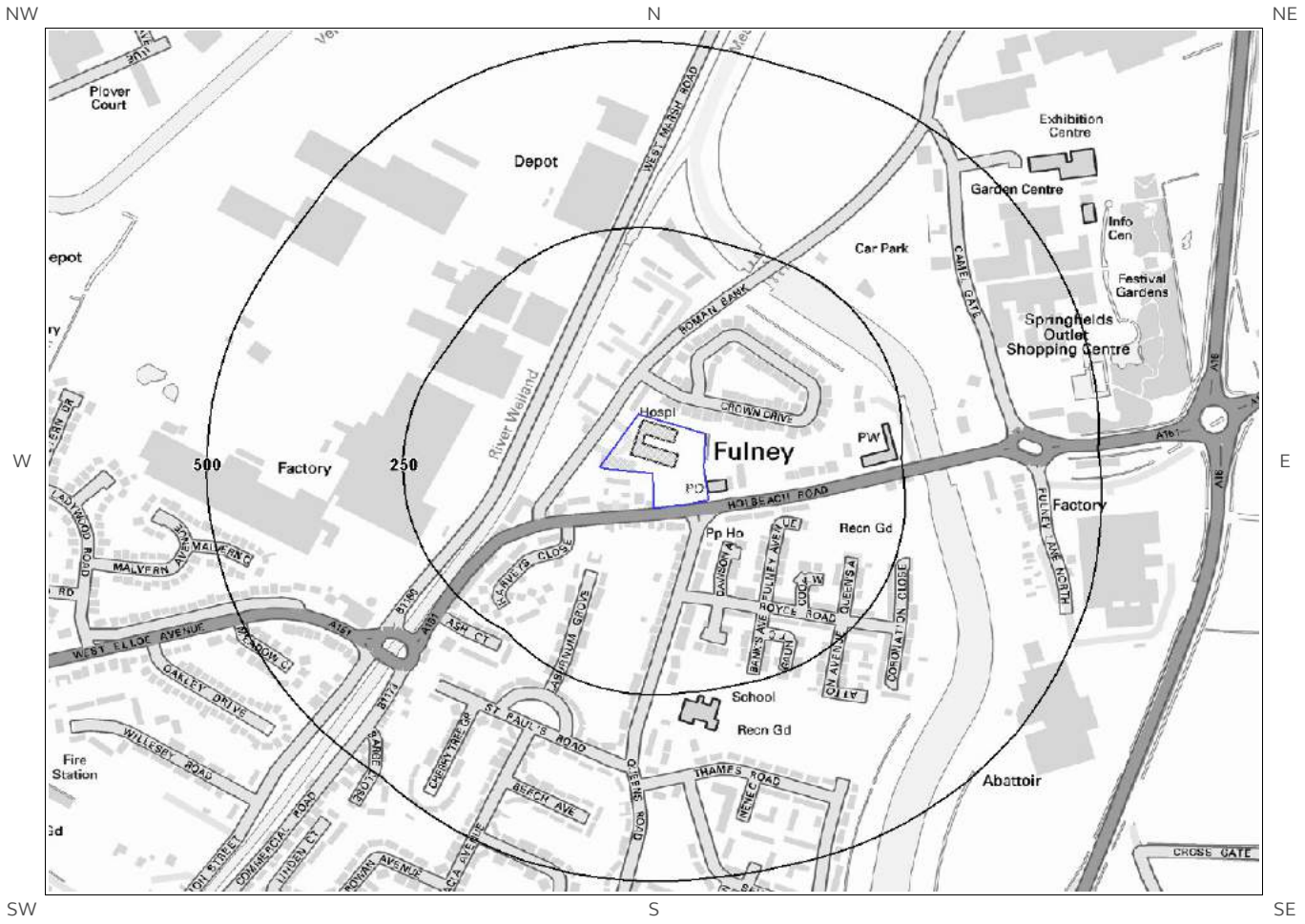
Source Protection Zone 2 - Outer Catchment

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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Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

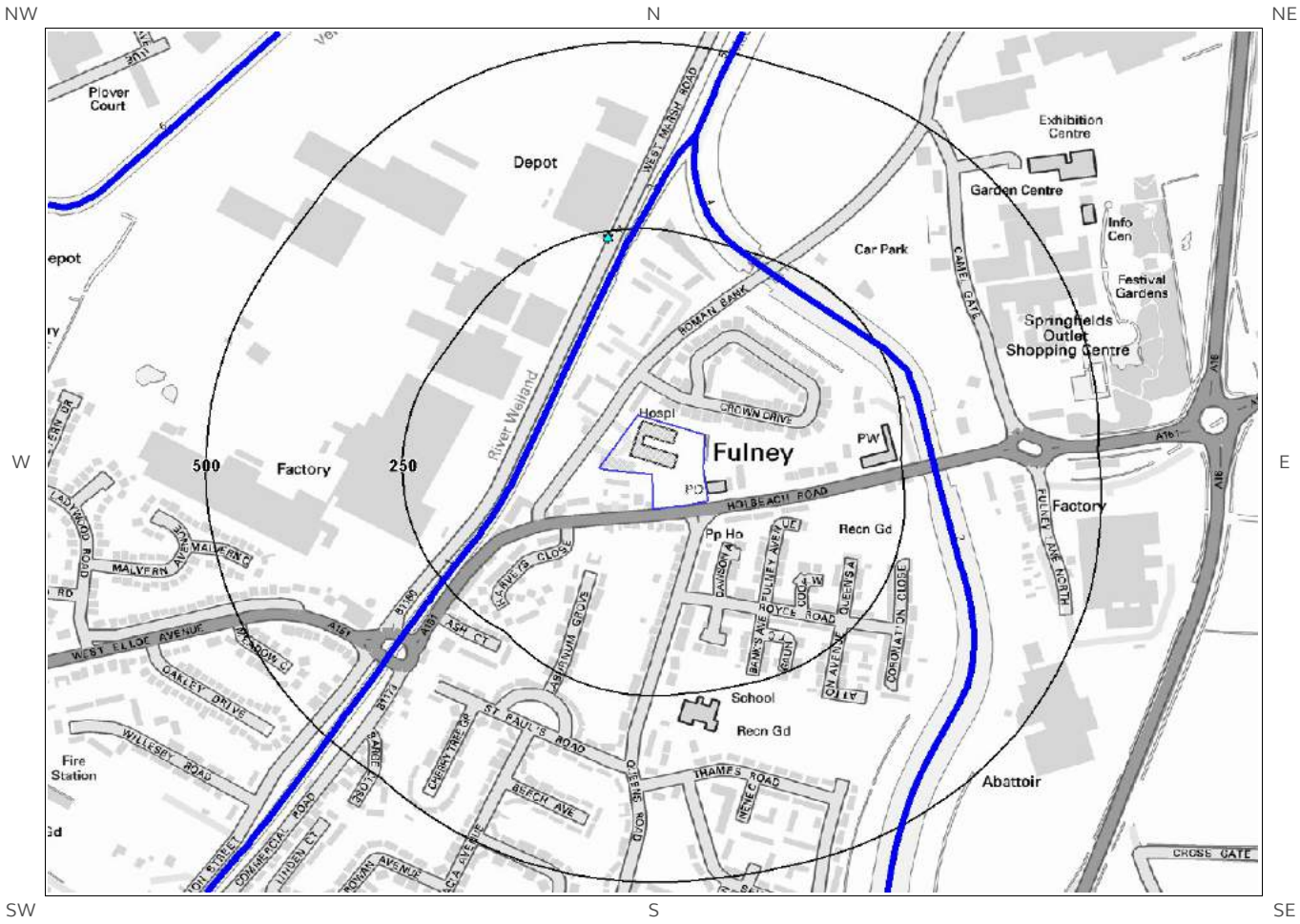
Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

Site Outline

250
500
Search Buffers (m)

6e. Hydrology – Detailed River Network and River Quality



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Site Outline

250
500
Search Buffers (m)

Primary River
Secondary River
Tertiary River
Lake/Reservoir
Underground River (inferred)
General Quality Assessment: Biology
General Quality Assessment: Chemistry

Canal
Canal Tunnel
Culvert
Multiple Channel Culvert
Underground River (Potential Sewer)
Underground River (local knowledge)

6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there 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

Are there 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

Are there any Groundwater Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site? Yes

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	676	NW	525340 324320	Status: Active Licence No: 5/31/14/*S/0014 Details: Non-Evaporative Cooling Direct Source: Surface Water Source Of Supply Point: Vernatts Drain Data Type: Line Name: SPALDING ENERGY CO LTD	Annual Volume (m^3): 2727660 Max Daily Volume (m^3): 22912 Application No: NS967 Original Start Date: 1/1/1966 Expiry Date: - Issue No: 101 Version Start Date: 2/2/2002 Version End Date:
Not shown	839	N	525800 324700	Status: Historical Licence No: 5/31/14/*S/0014 Details: Non-Evaporative Cooling Direct Source: Surface Water Source Of Supply Point: Vernatts Drain Data Type: Point Name: BRITISH SUGAR PLC	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: - Original Start Date: 1/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/1/1966 Version End Date:
Not shown	1480	N	526190 325300	Status: Active Licence No: 5/31/14/*S/0247 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: Vernatts Drain a - B Data Type: Line Name: LINCOLNSHIRE FIELD PRODUCTS LTD	Annual Volume (m^3): 135000 Max Daily Volume (m^3): 8000 Application No: NS761 Original Start Date: 27/11/1998 Expiry Date: - Issue No: 1 Version Start Date: 27/11/1998 Version End Date:
Not shown	1480	N	526190 325300	Status: Active Licence No: 5/31/14/*S/0247 Details: General Farming & Domestic Direct Source: Surface Water Source Of Supply Point: Vernatts Drain a - B Data Type: Line Name: LINCOLNSHIRE FIELD PRODUCTS LTD	Annual Volume (m^3): 135000 Max Daily Volume (m^3): 8000 Application No: NS761 Original Start Date: 27/11/1998 Expiry Date: - Issue No: 1 Version Start Date: 27/11/1998 Version End Date:
Not shown	1738	N	525810 325600	Status: Active Licence No: 5/31/14/*S/0247 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: Blue Gowt c - D Data Type: Line Name: LINCOLNSHIRE FIELD PRODUCTS LTD	Annual Volume (m^3): 135000 Max Daily Volume (m^3): 8000 Application No: NS761 Original Start Date: 27/11/1998 Expiry Date: - Issue No: 1 Version Start Date: 27/11/1998 Version End Date:
Not shown	1805	S	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	1899	W	523900 324000	Status: Active Licence No: 5/31/14/*S/0117 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: Vernatts Drains - South Holland Data Type: Line Name: C W DOBBS & SON LTD	Annual Volume (m^3): 5455 Max Daily Volume (m^3): 1027 Application No: N1226 Original Start Date: 1/3/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/11/2001 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1936	S	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:

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? No

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

Is there any Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site? No

Database searched and no data found.

6.9 River Quality

Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site? Yes

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
8A	241	N	525800 324100	River Name: Welland (coronation Cut) Reach: New River Spalding...tidal Limit (2) End/Start of Stretch: End of Stretch NGR	B	B	B	B	B
Not shown	1266	SW	525000 322800	River Name: Welland (coronation Cut) Reach: New River Spalding...tidal Limit (2) End/Start of Stretch: Start of Stretch NGR	B	B	B	B	B
Not shown	1266	SW	525000 322800	River Name: Welland (coronation Cut) Reach: New River Spalding...tidal Limit (1) End/Start of Stretch: End 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):

ID	Distance (m)	Direction	NGR	River Quality Grade	Chemical Quality Grade				
					2005	2006	2007	2008	2009
11A	241	N	525800 324100	River Name: Welland Reach: New River Spalding Tidal Limit (2) End/Start of Stretch: End of Stretch NGR	C	C	B	B	B
Not shown	1266	SW	525000 322800	River Name: Welland Reach: New River Spalding Tidal Limit (2) End/Start of Stretch: Start of Stretch NGR	C	C	B	B	B
Not shown	1266	SW	525000 322800	River Name: Welland Reach: New River Spalding Tidal Limit (1) End/Start of Stretch: End of Stretch NGR	C	C	B	B	B

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site? Yes

The following Detailed River Network records are represented on the Hydrology Map (6e):

ID	Distance (m)	Direction	Details	
1	92	NW	River Name: River Welland Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
2	225	NE	River Name: Coronation Channel Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
3	228	N	River Name: River Welland Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
4	239	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
5	382	N	River Name: River Welland Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

6.11 Surface Water Features

Are there any surface water features within 250m of the study site? Yes

The following surface water records are not represented on mapping:

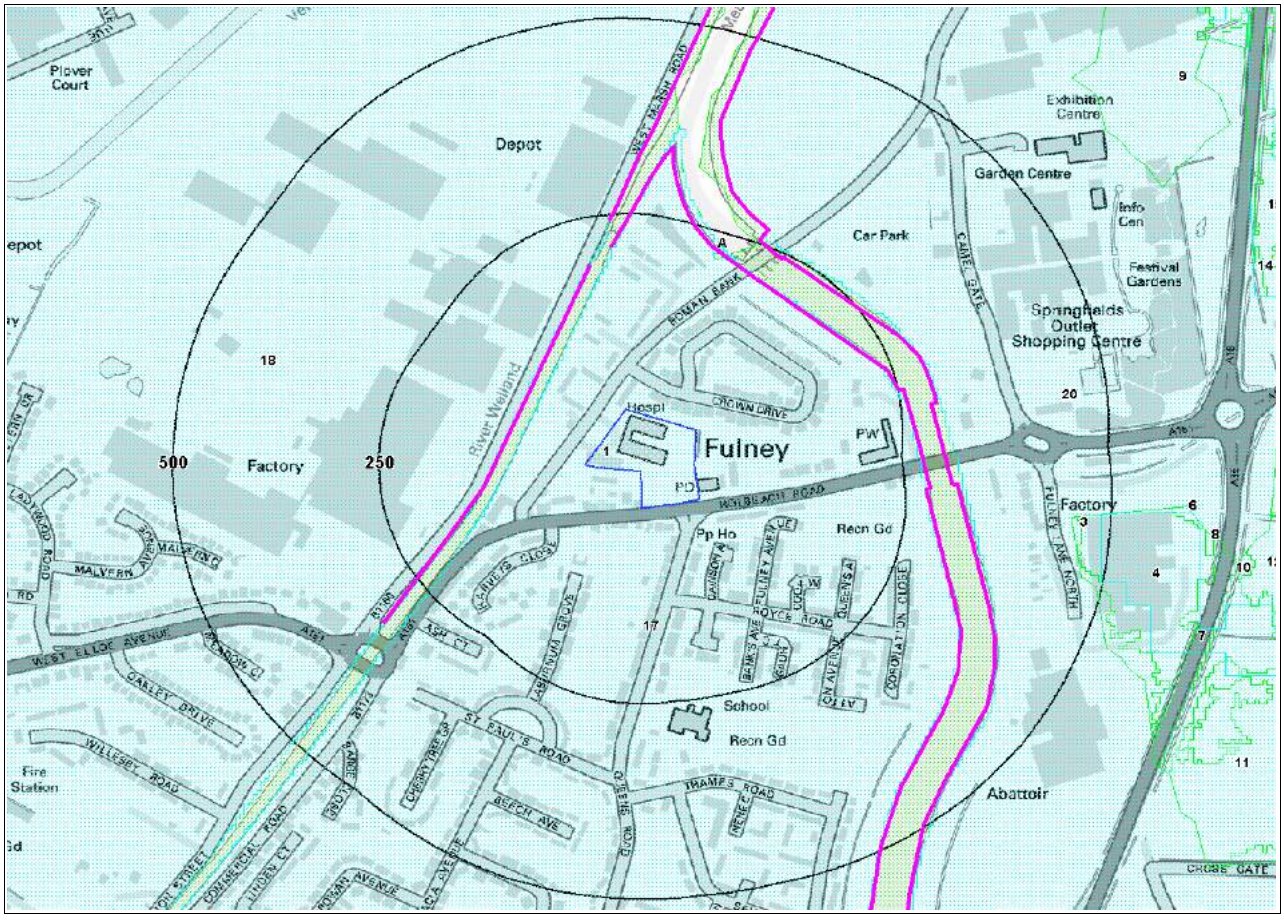
Distance (m)	Direction
223	N
85	NW
169	NE
200	NE

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

NW N NE

W E

SW S SE



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Site Outline

100
250
Search Buffers (m)

Zone 2 Floodplain

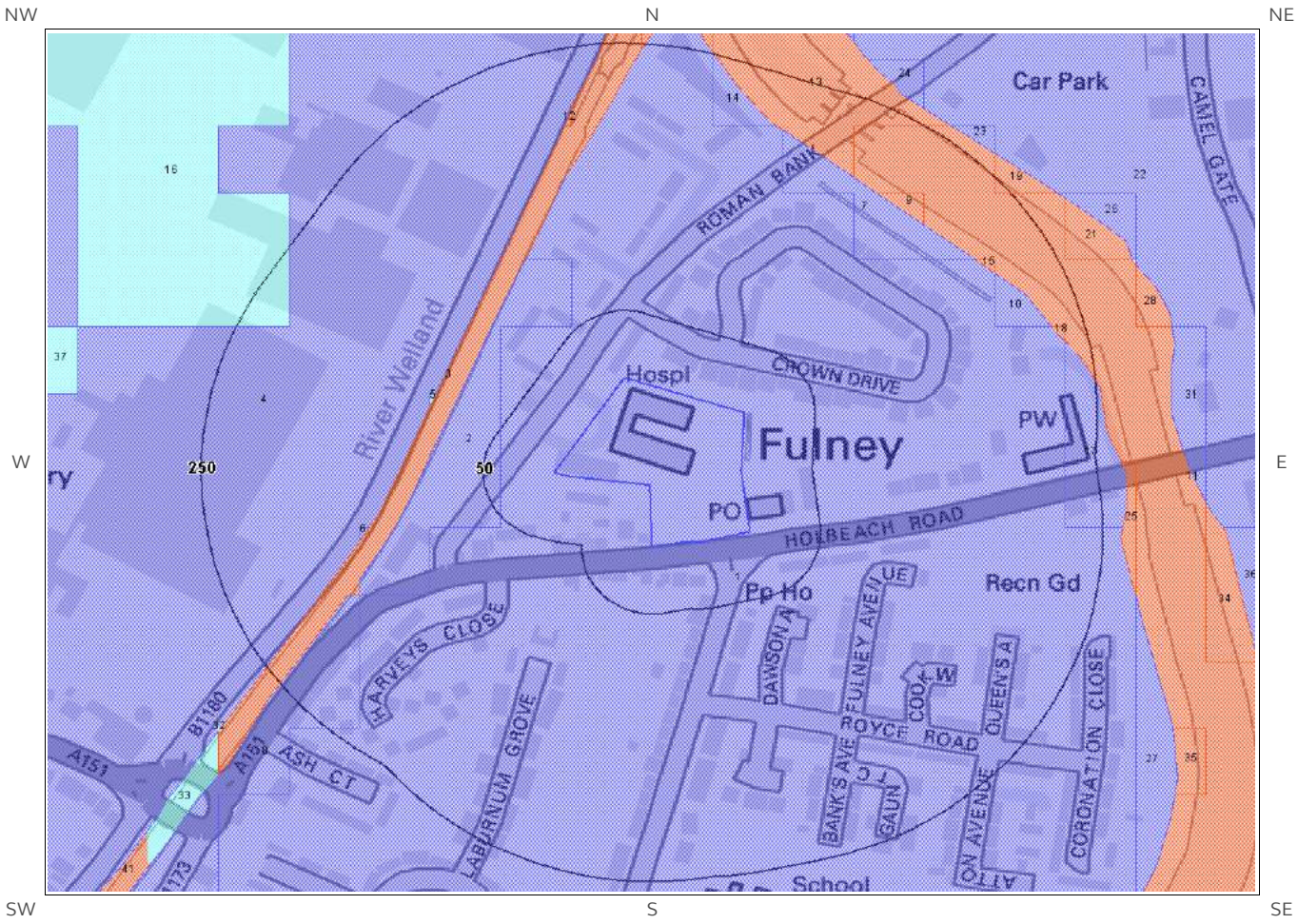
Zone 3 Floodplain

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

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 2 floodplain? Yes

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	01-Feb-2017	Zone 2 - (Fluvial /Tidal Models)
2A	215	N	01-Feb-2017	Zone 2 - (Fluvial /Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 3 floodplain? Yes

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	01-Feb-2017	Zone 3 - (Fluvial Models)
2A	98	NW	01-Feb-2017	Zone 3 - (Fluvial Models)
	221	N	01-Feb-2017	Zone 3 - (Fluvial Models)
	249	NE	01-Feb-2017	Zone 3 - (Fluvial Models)

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

What is the 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	38.0	W	Medium

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? Yes

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

ID	Distance (m)	Direction	Update
22	100	NW	31-Jan-2017
23	199	NE	31-Jan-2017
24	241	NE	31-Jan-2017
25	242	N	31-Jan-2017

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? No

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 What is the 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.

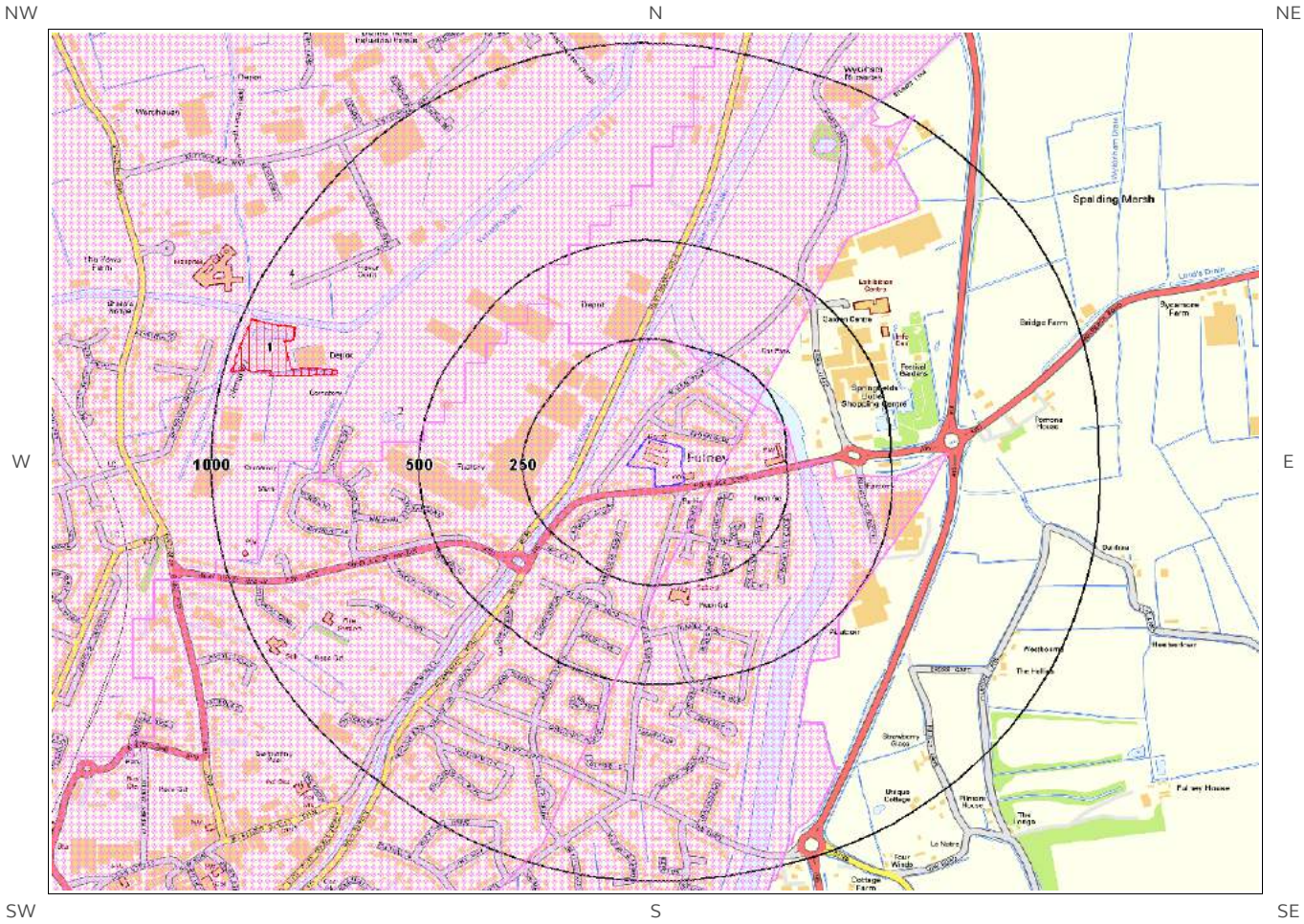
7.8 Groundwater Flooding Confidence Areas

What is the 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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Site Outline

100
250
Search Buffers (m)

AONB

National Park

SSSI

Special Protection Areas

Nitrate Vulnerable Zones

Green Belt

Environmentally Sensitive Areas

Special Areas of Conservation

World Heritage Sites

Nitrate Sensitive Areas

Ancient Woodland

National Nature Reserve

Local Nature Reserves

Ramsar Sites

8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?	Yes

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

0

Database searched and no data found.

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:

1

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
1	734	W	Vernatts	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:

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:

3

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	New	DEFRA
3	0	On Site	Existing	DEFRA
4	407	NW	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

What is the 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

What is the 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

What is the 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

What is the 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

What is the 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

What is the 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.

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 property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

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

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

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? No

Database searched and no data found.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No
Guidance: No Guidance Required.

Contact Details

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