



# Longfield Solar Farm

Environmental Statement PINS Ref: EN010118

Volume 2

Appendix 16A: Stage 1 – Tier 1: Preliminary Risk Assessment

PART 7 OF 7

Document Reference EN010118/APP/6.2

Revision Number: 1.0

February 2022

Longfield Solar Farm Ltd

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure)  
Regulations 2009

Quality information

Prepared by	Checked by	Verified by	Approved by
MN	KB	EP	NT
Environmental Consultant	Principal Consultant	Associate	Technical Director

Prepared for:

Longfield Solar Farm Ltd

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## ADDITIONAL INFORMATION SHEET

Licence No. Date of completion  
of well catalogue \_\_\_\_\_

Date of publication \_\_\_\_\_

241/107 contd.

Additional Sheet No. \_\_\_\_\_

DATE	*	ADDITIONAL INFORMATION	INFT		
	g	Soil	6"		
		Head	2' 9"		
		Chalky Boulder clay	3' 9"		
		Glacial sand + gnl.	6"		
		London clay	4' 6"		
	h	Soil	9"		
		Head (decalcified boulder clay?)	14' 3"		
		Glacial sand + gnl.	16' 0"		
		L. Clay	4' 0"		
	j	Soil	6"		
		Head (? decalcified boulder clay)	14' 3"		
		Glacial s + gnl.	17' 9"		
		L. Clay	2' 6"		
	k	Soil	6"		
		Head (? decalcified boulder clay)	14' 9"		
		Glacial s + gnl.	16' 6"		
		L. Clay	3' 3"		
FILMED	*	INSERT WELL REFERENCE LETTER IF MORE THAN ONE WELL AT SITE	P.T.		
Section 6	Pumping test	Observe well	Recorder	E.R. by	GEOLOGICAL SURVEY WATER DEPARTMENT SOUTH KENSINGTON LONDON, S.W.7.

TL 71 SE 128 (c)

7536 1412

nr. Sparrow's Farm

Surface level (+ 55.5 m) + 175 ft  
 Water struck at (+ 55.8 m) + 118 ft  
 Shell and auger, 6 inch diam.,  
 November/December 1968

Overburden (8.7 m) 28.5 ft;  
 Mineral (11.0 m) 36 ft;  
 Bedrock (1.0 m) 3.5 ft +

Soil	Description	Thickness		Depth	
		(m)	ft.	(m)	ft.
Soil		(0.6)	2	(0.6)	2
Boulder Clay	Brown from 2 to 22 feet, otherwise grey. No pebbles recorded from 2 to 12 feet. Chalky below 12 feet	(8.1)	26.5	(8.7)	28.5
Glacial Sand and Gravel	Sandy gravel	(11.0)	36	(19.7)	64.5
London Clay	Brown	(1.0 +)	3.5 +	(20.7)	68

%	mm	%	Depth below surface (ft)	Percentage		
				Fines	Sand	Gravel
Gravel 44	+ 64	0	28.5 - 31.5	12	53	35
	- 64 + 16	19	31.5 - 34.5	0	50	50
	- 16 + 4	25	34.5 - 37.5	0	45	55
			37.5 - 40.5	1	42	57
Sand 54	- 4 + 1	14	40.5 - 43.5	1	76	23
	- 1 + 1/4	34	43.5 - 46.5	2	88	10
	- 1/4 + 1/8	6	46.5 - 49.5	0	44	56
			49.5 - 52.5	0	46	54
			52.5 - 55.5	1	32	47
Fines 2	- 1/4	2	55.5 - 58.5	0	45	55
			58.5 - 61.5	0	35	45
			61.5 - 64.5	grading not available		

TL 71 SE 130

7599 1287

n. Portidgepot Hall

Surface level  $(+ 51.2 \text{ m}) = 168 \text{ ft}$   
 No record of groundwater  
 Gyrhon; 12 inch diam.,  
 December 1968

Waste (17.4 m) 57 ft;  
 Bedrock (0.9 m +) 3 ft +

		Thickness		Depth	
		(m)	ft	(m)	ft
Sod		(0.4)	1.5	(0.4)	1.5
Boulder Clay	Brown from 1.5 to 50 feet, otherwise grey	(17.0)	55.5	(17.4)	57
London Clay	Brown from 57 to 59 feet, otherwise blue/grey	(0.9+)	3+	(18.3)	60

TL 71 SW 1(a)

TL 71 SW 1(a)

7995 1400

nr. Lawn's Farm

Surface level (+ 57.0 m) + 187 ft  
 Water not struck  
 With B. I., 8 inch diam,  
 February 1967

Overburden (7.3 m) 24 ft;  
 Mineral (8.2 m) 27 ft;  
 Bedrock (1.6 m) 5 ft.

		Thickness		Depth	
		(m)	ft	(m)	ft
Soil		(0.2)	0.5	(0.2)	0.5
Boulder Clay	Brown	(7.1)	23.5	(7.3)	24
Glacial Sand and Gravel	'Clayey' gravel	(8.2)	27	(15.5)	51
London Clay	Brown	(1.6 +)	5 +	(17.1)	56

	%	mm	%	Depth below surface (ft)	Percentage		
					Fines	Sand	Gravel
Gravel	50	+ 64	0	24 - 26	29	22	49
		- 64 + 16	31	26 - 30	15	24	65
		- 16 + 4	28	30 - 34	5	27	68
Sand	31	- 4 + 1	8	34 - 36.5	9	26	65
		- 1 + 1/2	16	36.5 - 38.5	21	49	50
		- 1/2 + 3/4	7	38.5 - 41	8	35	57
		- 3/4 + 3/8	7	41 - 45	12	38	50
Fines	10	- 3/8	10	45 - 46	2	34	64
		- 3/16	10	46 - 49	3	35	62
		- 1/16	10	49 - 51	5	28	67

TL 71 SW 2

7487 1985

nr. Bird's Farm



TL 71 SW/2

Surface level (+56.4 m) + 185 ft  
 Water not struck  
 with 5" (1.3 inch diam.)  
 February 1967

Waste (12.2 m) 40 ft  
 Bedrock (1.5 m) 5 ft

		Thickness		Depth	
		(m)	ft	(m)	ft
Soil		(0.5)	1.5	(0.5)	1.5
Boulder Clay	Brown. Chalky in parts	(11.7)	38.5	(12.2)	40
London Clay		(1.5+)	5+	(15.7)	45

TL 71 SW/3

TL 71 SW 3

7485 1982

nr. Russell Green Farm

Surface level (+54.9 m) + 180 ft  
 Water not struck  
 with 5" (1.3 inch diam.)  
 February 1967

Waste (11.6 m) 38 ft  
 Bedrock (0.6 m) 2 ft

		Thickness		Depth	
		(m)	ft	(m)	ft
Soil		(0.5)	1	(0.5)	1
Boulder Clay	Brown	(11.3)	37	(11.6)	38
London Clay		(0.6+)	2+	(12.2)	40

TL 71 SW 2

7487 1985

nr. Bird's Farm



TL 71 SW/2

Surface level (+56.4 m) + 185 ft  
 Water not struck  
 with 5 1/2 inch diam.  
 February 1967

Waste (12.2 m) 40 ft  
 Bedrock (1.5 m) + 5 ft +

		Thickness		Depth	
		(m)	ft	(m)	ft
Soil		(0.5)	1.5	(0.5)	1.5
Boulder Clay	Brown. Chalky in parts	(11.7)	38.5	(12.2)	40
London Clay		(1.5 +)	5 +	(15.7)	45

TL 71 SW/3

TL 71 SW 3

7485 1982

nr. Russell Green Farm

Surface level (+54.9 m) + 180 ft  
 Water not struck  
 with 5 1/8 inch diam.  
 February 1967

Waste (11.6 m) 38 ft  
 Bedrock (0.6 m) + 2 ft +

		Thickness		Depth	
		(m)	ft	(m)	ft
Soil		(0.5)	1	(0.5)	1
Boulder Clay	Brown	(11.3)	37	(11.6)	38
London Clay		(0.6 +)	2 +	(12.2)	40



TL 71 SW/46

TL 71 SW 46

7464 1445

nr. Scarlett's Farm

Surface level ( = 37.9 m ) = 190 ft  
 No record of groundwater  
 Gyrthon, 12 inch diam.,  
 December 1958

Overburden (11.9 m) 39 ft;  
 Mineral (5.4 m) 21 ft;  
 Bedrock (0.6 m) 2 ft +

		Thickness		Depth	
		(m)	ft	(m)	ft
Soil		(0.3)	1	(0.3)	1
Boulder Clay	Brown from 1 to 20 feet, otherwise grey. No pebbles recorded from 1 to 12.5 feet. Chalky below 12.5 feet	(11.6)	38	(11.9)	39
Glacial Sand and Gravel	Mainly fine to medium sand and fine gravel	(6.4)	21	(18.3)	60
London Clay		(0.6 +)	2 +	(18.9)	62

Average grading  
 not available

Depth below surface (ft)	Percentage		
	Fines	Sand	Gravel
10 - 42	1	84	55
42 - 60			grading not available

# Appendix D Zetica UXO Map

# UNEXPLODED BOMB RISK MAP

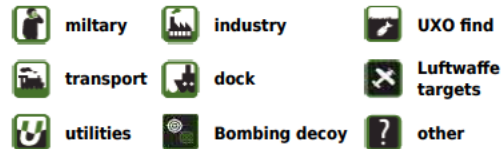
## SITE LOCATION

Location: CM3 3AS,  
Map Centre: 576136,210733



## LEGEND

- High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- Low:** Areas indicated as having 15 bombs per 1000acre or less.



### How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment\* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment\* is necessary.

### What do I do if my site is in a moderate or high risk area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites in a moderate or high UXB risk area.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

**Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.**

### If my site is in a low risk area, do I need to do anything?

If both the map and other research confirms that there is a low potential for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

### If I have any questions, who do I contact?

tel: **+44 (0) 1993 886682**

email: **uxo@zetica.com**

web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: (<https://zeticauxo.com/downloads-and-resources/risk-maps/>)

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgment. The copyright remains with Zetica Ltd.

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

\*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.

# Appendix E Photographic Record

**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
1

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 1.



**Photo No.**  
2

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 1.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
3

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 1.



**Photo No.**  
4

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 1.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
5

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 1.



**Photo No.**  
6

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 1.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
7

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.



**Photo No.**  
8

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.





**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
9

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.



**Photo No.**  
10

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.



**Client Name: Longfield Solar Energy Farm Limited**

**Site Location: Longfield Solar Farm, Essex**

**Project No. 60640215**

**Photo No.**  
11

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.



**Photo No.**  
12

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
13

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.



**Photo No.**  
14

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
15

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.



**Photo No.**  
16

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 2.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
17

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Photo No.**  
18

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
19

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Photo No.**  
20

**Date:**  
10/03/21

**Direction Photo Taken:**

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**Description**

Location 3.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
21

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Photo No.**  
22

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
23

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Photo No.**  
24

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.





**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
25

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Photo No.**  
26

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
27

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Photo No.**  
28

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
29

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 3.



**Photo No.**  
30

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
31

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Photo No.**  
32

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
33

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Photo No.**  
34

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
35

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Photo No.**  
36

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
37

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Photo No.**  
38

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
39

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Photo No.**  
40

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.





**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
41

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 4.



**Photo No.**  
42

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 5.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
43

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 5.



**Photo No.**  
44

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 5.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
45

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 5.



**Photo No.**  
46

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
47

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Photo No.**  
48

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
49

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Photo No.**  
50

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
51

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Photo No.**  
52

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
53

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Photo No.**  
54

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Client Name: Longfield Solar Energy Farm Limited**

**Site Location: Longfield Solar Farm, Essex**

**Project No. 60640215**

**Photo No.**  
55

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Photo No.**  
56

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.





**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
57

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 6.



**Photo No.**  
58

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 7.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
59

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 7.



**Photo No.**  
60

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 7.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
61

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 7.



**Photo No.**  
62

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 7.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
63

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 7.



**Photo No.**  
64

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 7.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
65

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 8.



**Photo No.**  
66

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 8.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
67

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 8.



**Photo No.**  
68

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 9.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
69

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 9.



**Photo No.**  
70

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 9.



**Client Name:** Longfield Solar Energy Farm Limited

**Site Location:** Longfield Solar Farm, Essex

**Project No.** 60640215

**Photo No.**  
71

**Date:**  
10/03/21

**Direction Photo Taken:**

See location plan for location ID and directions of photos.

**Description**

Location 9.



**Photo No.**  
72

**Date:**  
10/03/21

**Direction Photo Taken:**

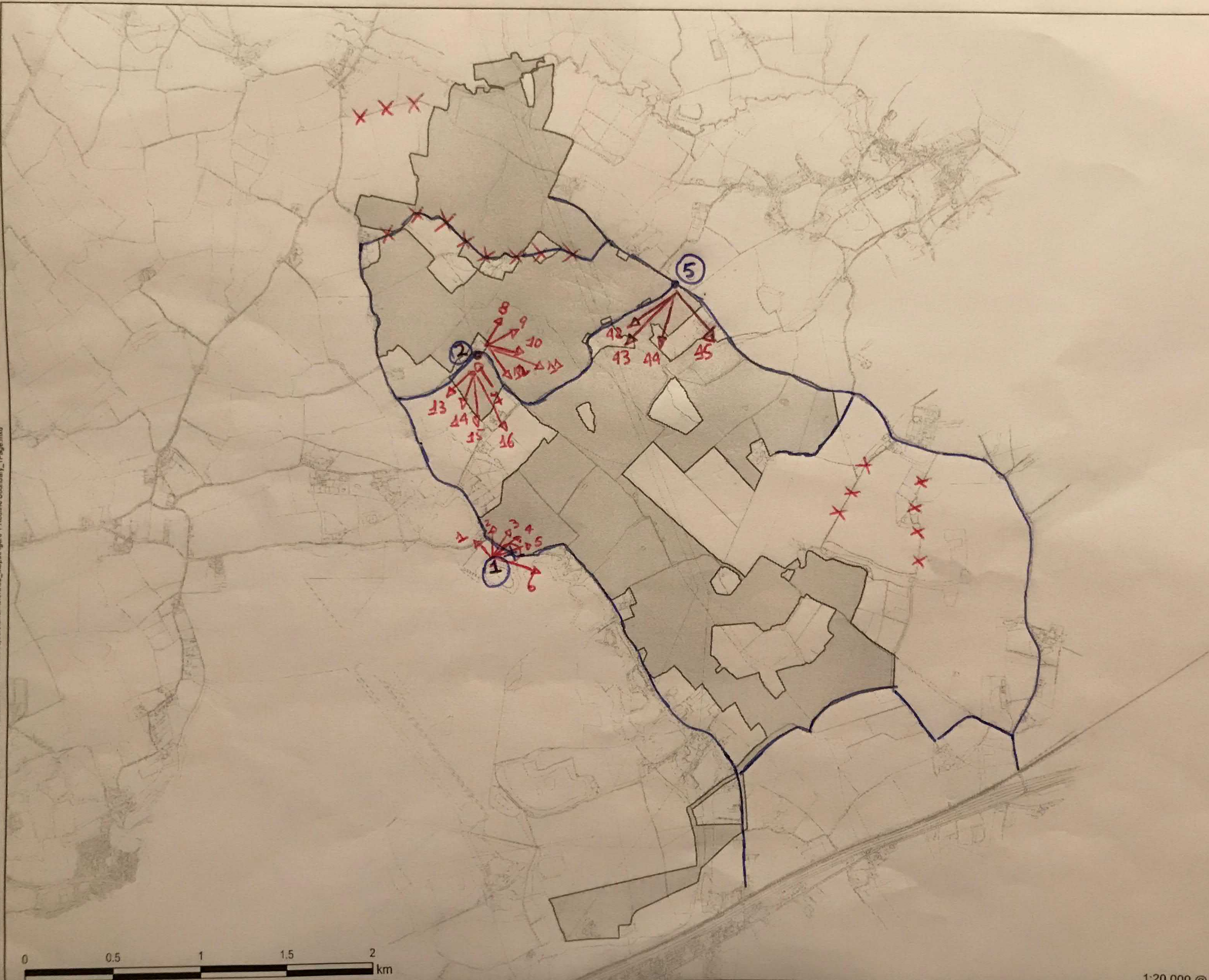
See location plan for location ID and directions of photos.

**Description**

Location 9.







# AECOM

**PROJECT**

Longfield  
Solar Farm,  
Essex

**CLIENT**

Longfield  
Solar Energy  
Farm Limited

**CONSULTANT**

AECOM Limited  
3rd Floor Portwall Place  
Portwall Lane  
Bristol, BS1 6NA  
T: +44 1173150548  
www.aecom.com

**LEGEND**

Site Boundary

XXX NO ACCESS

**NOTES**

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Licence number 0100031673

**ISSUE PURPOSE**

FINAL

**PROJECT NUMBER**

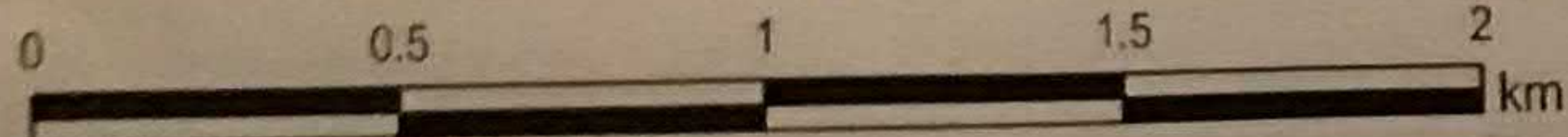
60624362

**SHEET TITLE**

Redline Boundary

**SHEET NUMBER**

Figure 1



1:20,000 @ A3

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# AECOM

**PROJECT**

Longfield  
Solar Farm,  
Essex

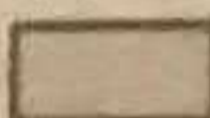
**CLIENT**

Longfield  
Solar Energy  
Farm Limited

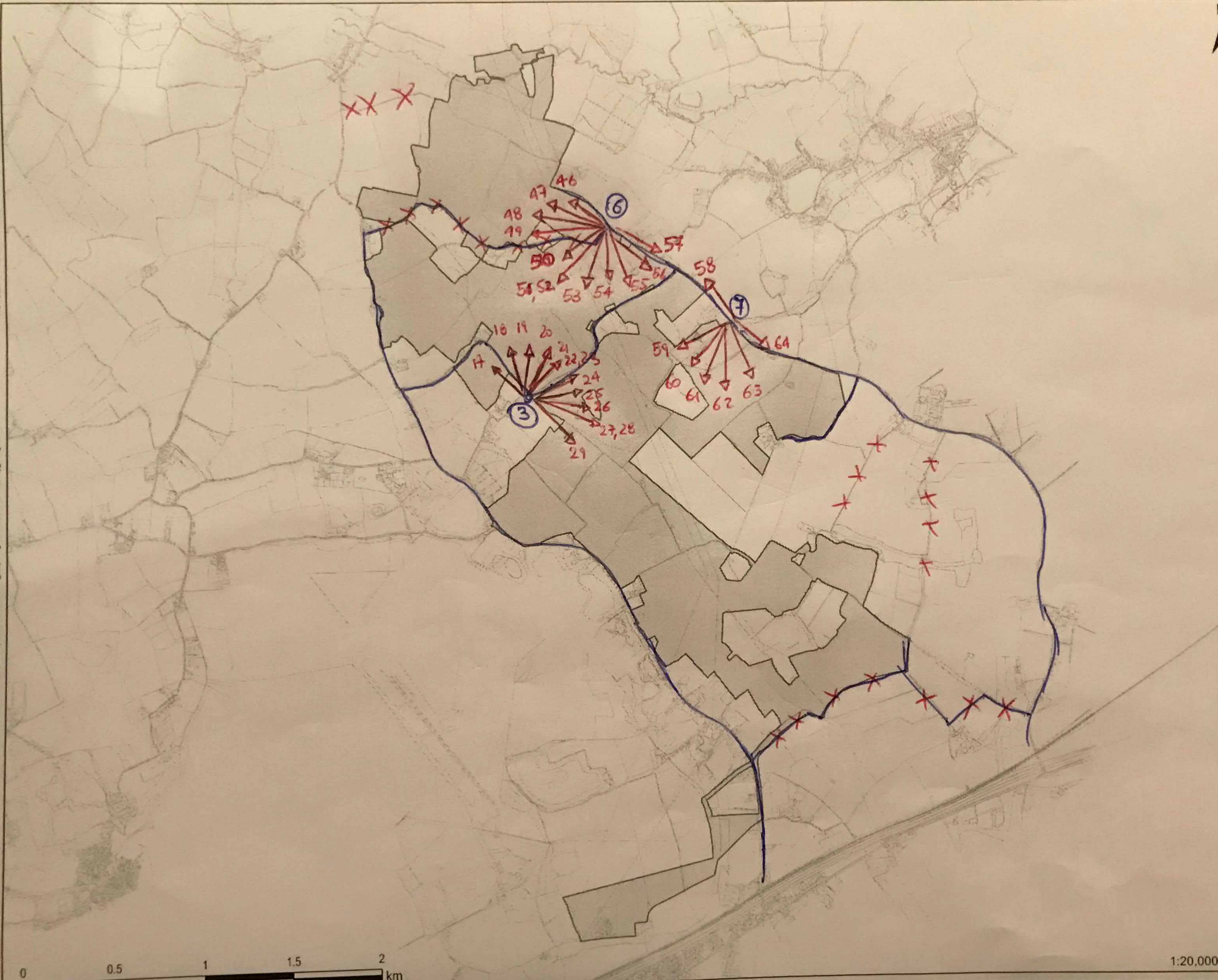
**CONSULTANT**

AECOM Limited  
3rd Floor Portwall Place  
Portwall Lane  
Bristol, BS1 6NA  
T: +44 1173150548  
www.aecom.com

**LEGEND**

 Site Boundary

XXX NO ACCESS



**NOTES**

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**ISSUE PURPOSE**

FINAL

**PROJECT NUMBER**

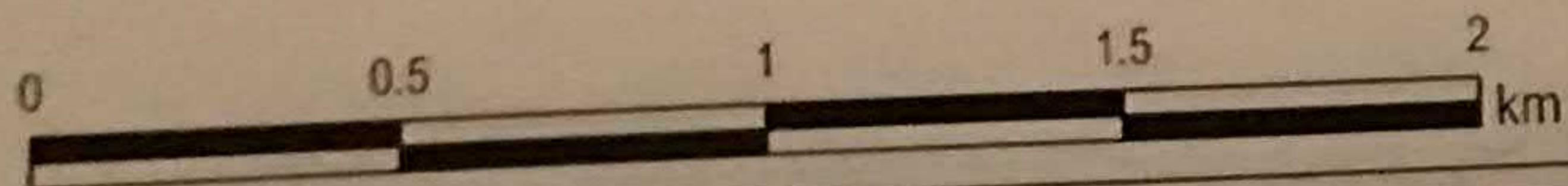
60624362

**SHEET TITLE**

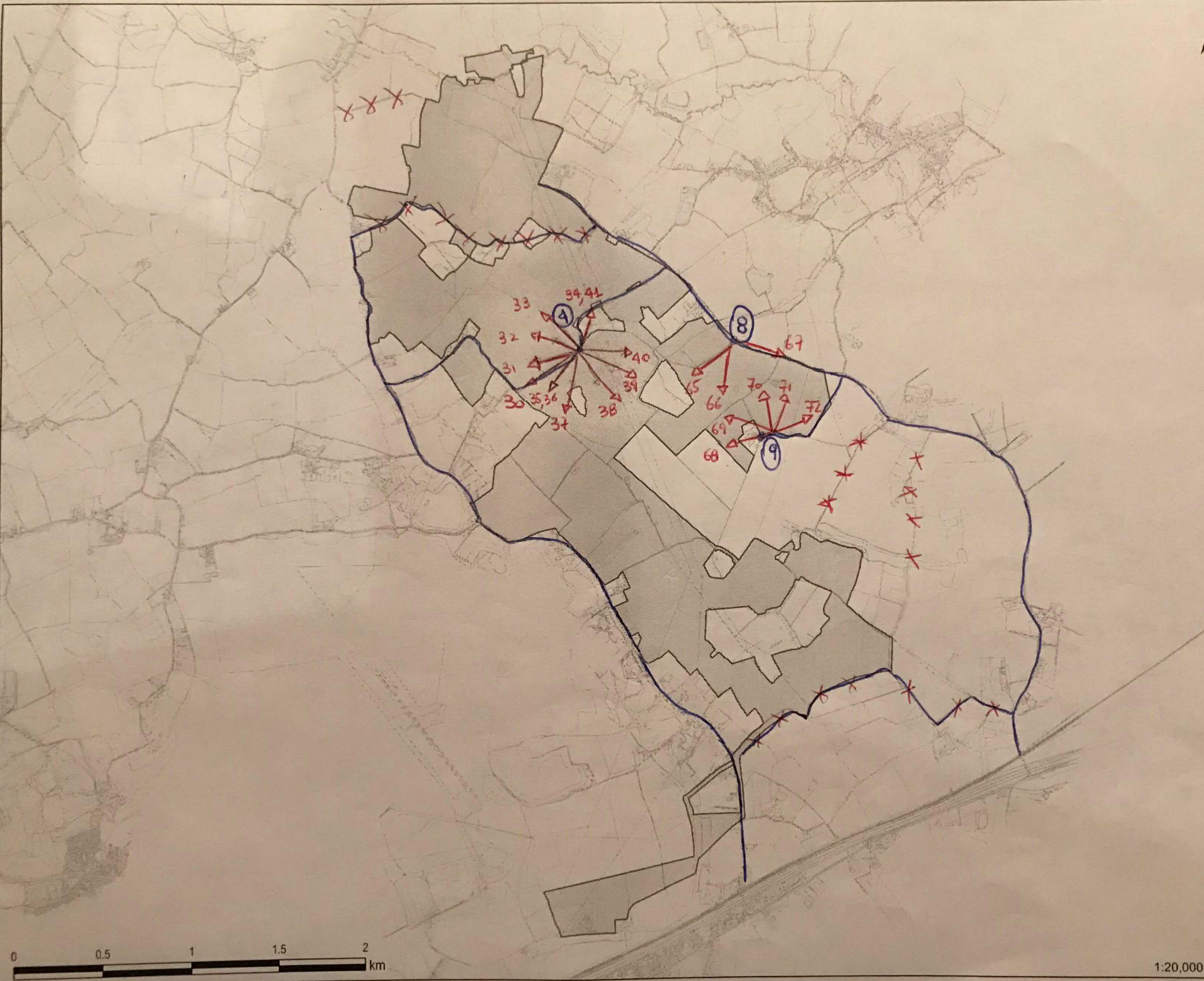
Redline Boundary

**SHEET NUMBER**

Figure 1



1:20,000 @ A3



# AECOM

**PROJECT**  
 Longfield  
 Solar Farm,  
 Essex

**CLIENT**  
 Longfield  
 Solar Energy  
 Farm Limited

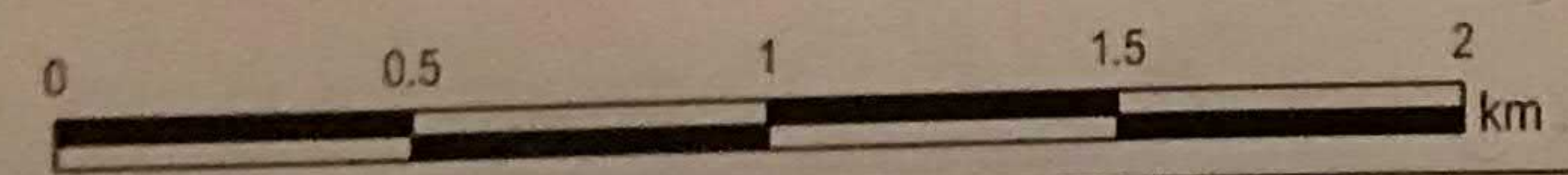
**CONSULTANT**  
 AECOM Limited  
 3rd Floor Portwall Place  
 Portwall Lane  
 Bristol, BS1 6NA  
 T +44 1173150548  
 www.aecom.com

**LEGEND**  
 [Grey Box] Site Boundary  
 XXX NO ACCESS

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**ISSUE PURPOSE**  
 FINAL  
**PROJECT NUMBER**  
 60624362  
**SHEET TITLE**  
 Redline Boundary

**SHEET NUMBER**  
 Figure 1

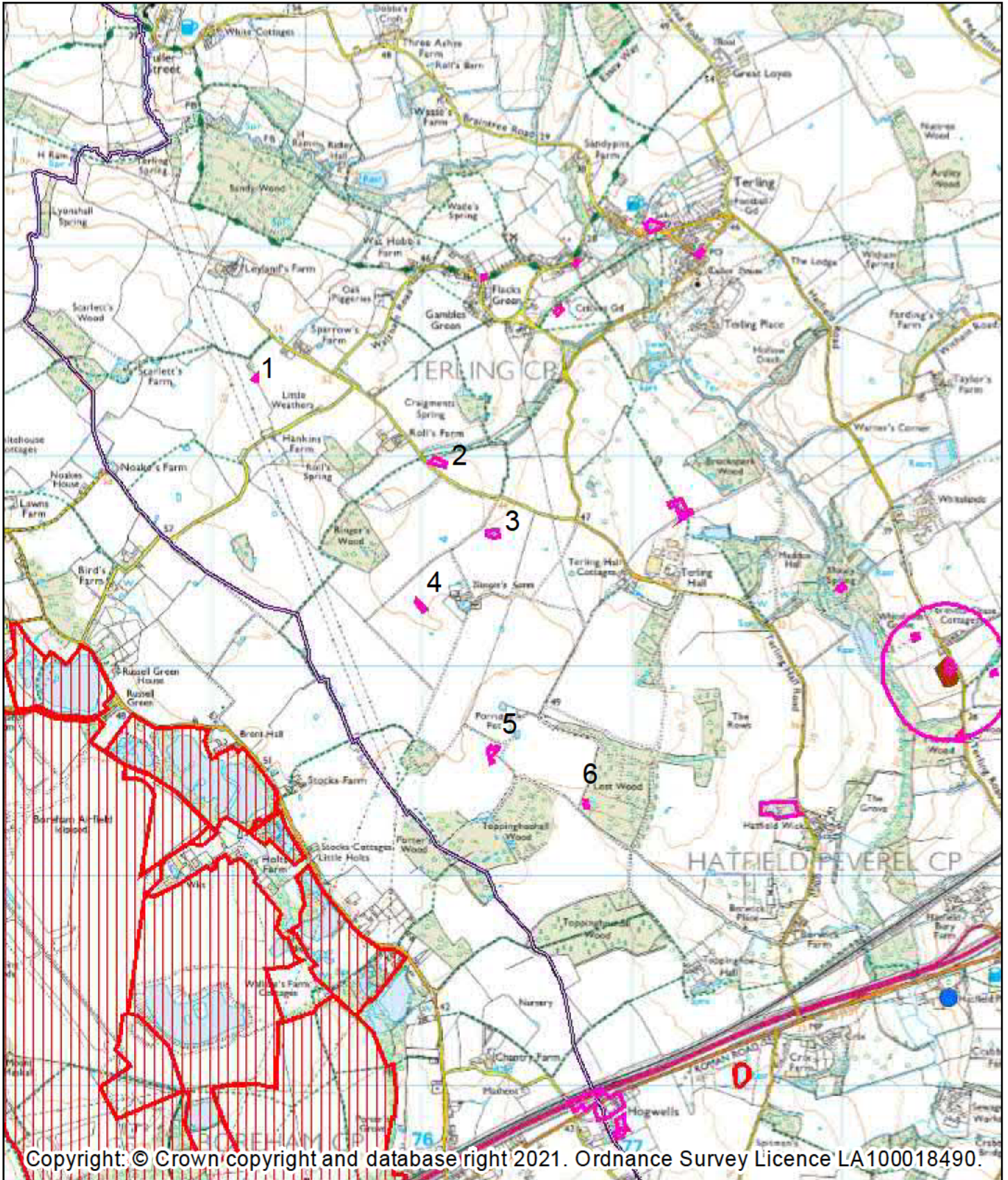


1:20,000 @ A3

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# Appendix F Braintree District Council Contaminated Land Record

# Title: small unknown infill sites Longfield Solar Project



Scale: 1:25,000

0.0 0.175 0.35 0.7 1.05 1.4 km

Date: 02 Apr 2021

Author: ArcGIS Web AppBuilder



# Appendix G Argyll Environmental (2020) Due Diligence Report

## SiteSolutions Combined



Contaminated Land

**PASSED** ✓



Flooding

**PASSED** ✓



Argyll's Overview

**Contaminated Land :** No significant contaminant linkage has been identified. Accordingly soil and groundwater liabilities are unlikely to occur. No further action with respect to contaminated land Liability is required.

**Flood Risk :** The Site is located within an area which may be susceptible to flooding, particularly during an extreme flooding event. However, in most cases, buildings and contents insurance should be available and affordable.

**Environmental Hazards :** The following have been identified in the immediate vicinity of the Site: Ground Instability Hazard.

**Operational Permits :** One or more authorisations, licences, consents or enforcements have been identified at or within 25m of the Site. Please refer to "Current Operations" section for further details.



Report on:

**Land at Leylands and Porridge Pot Farms, Terling, CM3 2BZ**

**Report prepared for:**

CMS Cameron McKenna  
Nabarro Olswang LLP

**Client Reference:**

NAWH/EDF002.00116

**Report Reference:**

AEL-4706-TSC-1004523

**National Grid Reference:**

576457,212763

**Report date:**

24th June 2020



## Site Location

### Report prepared on

Land at Leylands and Porridge Pot Farms, Terling, CM3 2BZ

### Site Area (m<sup>2</sup>)

4623278m<sup>2</sup>

### Current Use

Agricultural/Farming

### Proposed Use

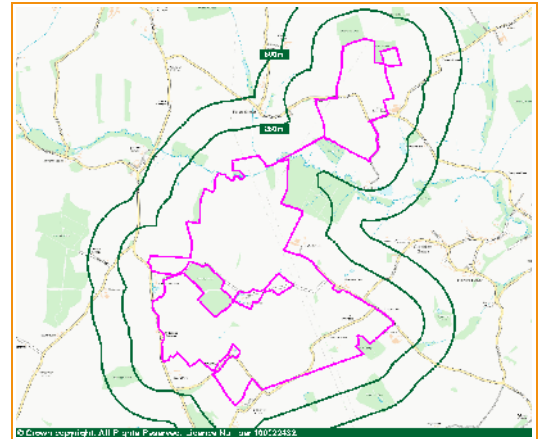
Undisclosed (Assumed Continued Use)

### Report Author

Lauren Sharpe

Telephone: 0330 036 6115

E-mail: [orders@argyllenviro.com](mailto:orders@argyllenviro.com)







# Executive Summary

Risk	Evaluation
 Contaminated Land	 Passed



## Liability Assessment

Within the scope of this assessment no Liabilities have been identified. No further action is required.

What is the overall on-site risk?	Low to Moderate
What is the overall off-site risk?	Moderate
What is the environmental sensitivity rating?	High



## Recommendations

None required.



## Consultant's Comment

Data suggest that there are features which may present a flood risk to the site and its occupants during an extreme flood event. However, buildings and contents insurance should easily be available in most cases. It would be prudent to consider the measures outlined in the Recommendations section.

- |   |  |            |
|---|--|------------|
| 1 | If development is proposed would a detailed Flood Risk Assessment be required?             | Yes (Full) |
| 2 | What is the overall risk of flooding, assuming defences fail or are absent or over-topped? | High       |
| 3 | Are there existing flood defences that might benefit the Site?                             | Yes        |
| 4 | What is the risk of flooding when these defences are operational?                          | Moderate   |

## Insurance

Although the property is within an area with some risk of flooding, in most cases insurance should be readily available.



## Recommendations

1. The property is at risk during extreme storm events. To prepare for flooding we recommend you:

- Sign up to the Environment Agency's Flood Warning and Flood Alert Service.
- Design a flood evacuation plan with training for all employees
- Prepare a business continuity plan. This should cover actions to reduce disruption and assist with recovery.

The 'Know Your Flood Risk' website provides more guidance -

2. Ask the seller whether flooding has occurred in the area before. If it has, please contact us for advice.

3. Finally, establish the availability of buildings and contents insurance before exchanging contracts.



# Contaminated Land Risk Analysis

## Investigation Commentary



### On-site sources

A review of historical maps shows the Site had formed mixed agricultural land and woodland from the earliest mapping, dated 1874, with residential properties and agricultural outbuildings in the centre, a residential property in the north east, and land associated with Toppinghoe Hall encroaching in the south.

Nurseries appeared to occupy two separate parts of the south c.1922, and buildings associated with Brent Hall were developed along the eastern periphery c.1953. The nurseries were no longer labelled by the 1955 map edition. Woodland in the centre of the Site was cleared in the 1960s, and the Brent Hall buildings had predominantly been cleared by the late 1970's, leaving a single structure in the area.

A number of ponds across the Site had also been filled in the the 1970's with ponds in the south and west infilled c.1993. The remaining Brent Hall building had been cleared c.1999. Minor footprint changes were observed to the remaining buildings on Site, though it remained in agricultural and residential use in all subsequent map editions.

We have identified the following regulated processes on Site: a (revoked) discharge Consent. However, this appears to relate to off Site operations.

We understand the Site is currently in agricultural/farming use, with an undisclosed proposed use. For the purposes of this report, we have assumed that the Site will continue in its current use.

A planning review was undertaken as part of this risk assessment. Please refer to the additional sources of information section below for further details.

### Argyll's Comment



As a result of the historical and current use of the Site, there is a **low to moderate risk** of contaminants being present.



### Off-site sources

A review of historical maps dating from 1874 shows the following potentially contaminative uses within 100m of the Site: railways adjacent south, gravel pits 10m and 80m east (overgrown rather than infilled), tanks 10m, 25m and 70m east and 20m west, nurseries from (closest) adjacent south and west, a silo associated with Roll's Farm 60m north, infilled ponds adjacent south and 25m north, worked ground 35m south, and sand and gravel pits (later infilled with water) as part of a wider industrial quarry from 10m west. Trade directories within 25m of the Site include: fireplaces and mantelpieces (25m south west).

We have identified the following regulated processes in proximity to the Site: a Discharge Consent 13m south west, and a Licensed Waste Management Facility 156m south west.

### Argyll's Comment



The historical and current use of the surrounding area is therefore considered to present a **moderate risk** of affecting the Site.



### Pathways and receptors

The general area appears to be in agricultural use, with residential properties located on Site.

The superficial hydrogeology underlying the Site is classified as a Secondary (B) Aquifer (formations with limited permeability), a Secondary (A) Aquifer (deposits with moderate permeability), and a Secondary (Undifferentiated) Aquifer (deposits with variable/limited permeability). The bedrock hydrogeology is classified as an Unproductive Stratum (deposits of negligible permeability).

The Environment Agency have stated the Site does not lie within a groundwater Source Protection Zone (SPZ).

There are seven abstraction licences located within 500m. The closest of these are a surface water abstraction (on Site) for general agriculture: spray irrigation - direct use, and a well and borehole abstraction (on Site) for agriculture (general) use.

A number of water features are located on Site. Finally the following designated eco-receptors were identified at the Site: River Ter (Site of Special Scientific Interest).

### Argyll's Comment



Overall, the Site is therefore considered to have a **high environmental sensitivity**.

---

**Additional  
Sources of  
Information**

---

A review of Essex County Council's planning portal was conducted and no pertinent applications were identified.



## Argyll's Conclusion

Considering the information reviewed during this assessment, no significant contaminant linkages have been identified. Accordingly soil and groundwater liabilities are unlikely to occur.

Please refer to risk analysis methodology section for further guidance and definition of terms.



## Current Operations

### Environmental Damage Regulations 2009 (EDR)

Potential for owner/operation to incur a Liability under the EDR

Argyll's  
Comment



The Site is in close proximity to a potentially sensitive receptor as set out in the EDR. It would therefore be prudent to ensure that operations on the site are audited on a regular basis to minimise the risk of causing environmental damage that could result in liability under the EDR. In addition, the presence of such receptors should be considered as part of any future development or activity. Please refer to the risk analysis methodology section for further guidance and definition of terms.

### Regulatory Compliance Within 25m of the Site

Type	Details	Distance
Discharge Consent	Operator: Lord Rayleighs Farms, Location: Leylands Farm Estate, Terling, Essex, Authority: Environment Agency, Anglian Region, Permit Ref: Pr2nfe13569, Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995).	On Site
Discharge Consent	Operator: Lord Rayleighs Farm'S Ltd, Location: Stocks Cottages Nos 1&2, Waltham Road, Boreham, Essex, Cm3 3ay, Authority: Environment Agency, Anglian Region, Permit Ref: Prenf15420, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995).	13m

### Additional Considerations

Item	Summary	Suggested Action
<b>Asbestos (Continued use)</b>	If the buildings at the Site were constructed or renovated pre-2000, then the fabric of these buildings may contain asbestos in a variety of forms.	Check the Asbestos Register and Management Plan
<b>Energy Performance Certificate</b>	Under the Energy Performance of Buildings (England and Wales) Regulations 2012 and the Energy Performance of Buildings (Scotland) Regulations 2008, there is a requirement for all buildings to have an Energy Performance Certificate (EPC) upon their construction, sale or lease (and in some cases when the building is modified).	Check for EPC or conduct energy assessment
<b>Sensitive Land Uses</b>	If areas subject to statutory designations are located either on or in proximity to the Site, there may be land management implications or restrictions to planned developments. You are located inside/within 500m of a Nitrate Vulnerable Zone, and a Site of Special Scientific Interest.	Contact local planning authority or speak with planning consultant
<b>Change of Use Redevelopment</b>	Proposed changes in land use require permission from the Local Authority and are subject to conditions as part of the statutory planning process.	Contact local planning authority or speak with planning consultant

Argyll's  
Comment



Whilst this assessment is primarily a desktop assessment of potential soil and groundwater liabilities, the above potential liability considerations that fall outside the scope of the Contaminated Land Risk Analysis Methodology have been identified.

Additional sources of information may be available for the Site. These sources could include previous environmental reports (including audits, contaminated land investigation and remediation reports), valuation reports (including property observation checklists), a Land Quality Record, and property deeds. Argyll Environmental would be pleased to review any reports that are available and revise this report accordingly. This may entail additional fees depending upon the volume and complexity of information available. Please contact us for further information.



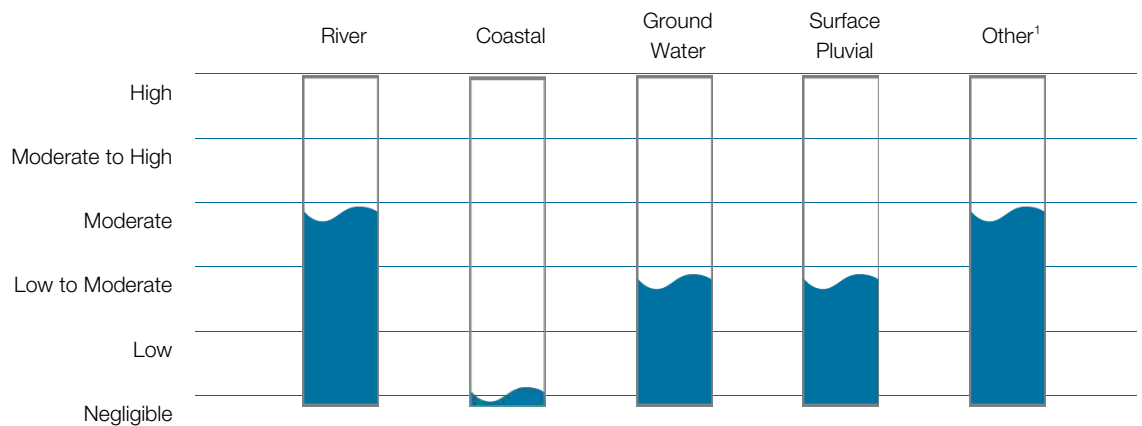
# Flood Risk Screening

	Risk	Issue	Evaluation
1	Development	If development is proposed would a detailed Flood Risk Assessment be required?	Yes (Full)
2	Flooding	What is the overall risk of flooding, assuming defences fail or are absent or over-topped?	High
3	Flood Defences	Are there existing flood defences that might benefit the Site?	Yes
4	Effect	What is the risk of flooding when these defences are operational?	Moderate

## Insurance

Although the property is within an area with some risk of flooding, in most cases insurance should be readily available.

## Flood Analysis



## Argyll's Comment



As the River Ter is located on Site the Site is modelled at a high risk of flooding. Although defences are located in the wider area, a small area of the Site (less than 0.3% of the total Site) remains at a high defended risk. However, as the area is restricted to a northern section of the Site away from any buildings we have downgraded the risk to moderate.

Low lying areas across the Site are at a moderate and moderate to high risk of surface water flooding. But as this risk combined corresponds to 1% of the total Site area, we have downgraded the risk to low to moderate.

<sup>1</sup>Other factors influencing flood risk include historic flood events, geological indicators of flooding, proximate surface water features and elevation above sea level.



## Recommendations

1. The property is at risk during extreme storm events. To prepare for flooding we recommend you:

- Sign up to the Environment Agency's Flood Warning and Flood Alert Service.
- Design a flood evacuation plan with training for all employees
- Prepare a business continuity plan. This should cover actions to reduce disruption and assist with recovery.

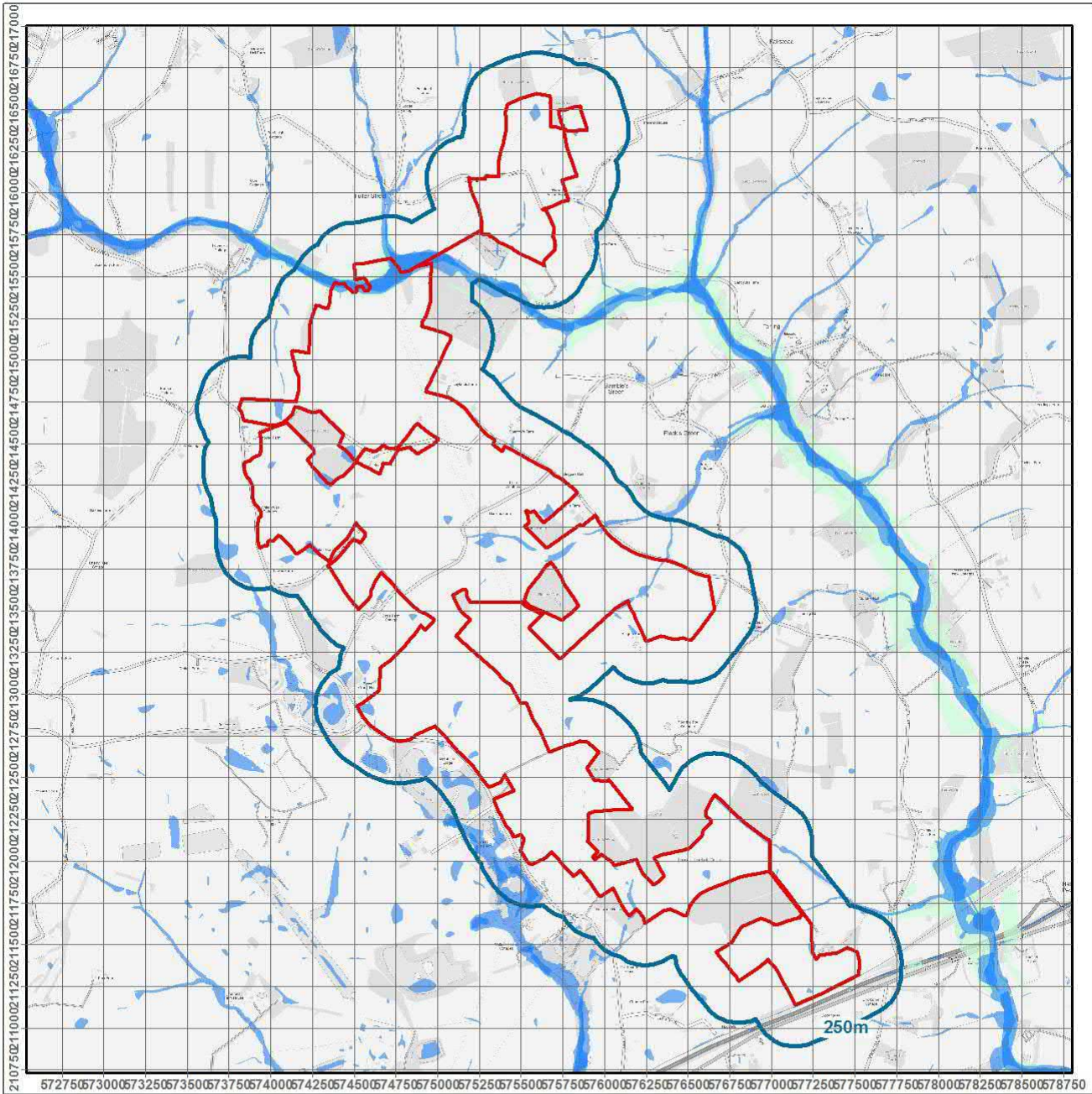
The 'Know Your Flood Risk' website provides more guidance -

[REDACTED]

2. Ask the seller whether flooding has occurred in the area before. If it has, please contact us for advice.

3. Finally, establish the availability of buildings and contents insurance before exchanging contracts.





# Current Flood Risk



210750211000211250211500211750212000212250212500212750213000213250213500213750214000214250214500214750215000215250215500215750216000216250216500216750217000

572750573000573250573500573750574000574250574500574750575000575250575500575750576000576250576500576750577000577250577500577750578000578250578500578750

## Flood and Groundwater Risk

-  Client Site
-  Area at risk of flooding from one source
-  Area at risk of flooding from more than one source
-  Area at risk of groundwater flooding

metres  
0 200  


\* - Not all features in legend may be present in above map

Nominal scale at A4 paper size - 1:38,000

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## Additional Flooding Considerations

### Riparian Ownership

Is there a water feature located within or adjacent to the Site? **Yes**

### Argyll's Comment



A riparian owner describes anyone who owns a property where there is a watercourse within or adjacent to the boundaries of their property.

Under common law, a riparian owner has rights and responsibilities relating to the stretch of watercourse that falls within or beside the boundaries of their land. Their primary responsibility is to keep the watercourse free of any obstructions that could hinder normal water flow. If the riparian owner fails to carry out their responsibilities, this could result in civil action.

A riparian owner should also check before carrying out any works near to the edge of a river, as such works may be subject to byelaws. If infringed, this could lead to enforcement action by the Environment Agency.

There is a presumption that the boundary between properties abutting a watercourse is the centre line of that watercourse. To confirm whether this is the case, a solicitor should check the deeds or the Index Map.

The Environment Agency has published useful guidance "Living on the edge" for owners of land or property alongside a watercourse. Sometimes, the Environment Agency or other organisations managing flood risk, may have statutory rights of access to properties which adjoin a watercourse. This may be for maintenance, repair or rebuilding of any part of the watercourse or for access to or repair of monitoring equipment.

### Development Control

Is there a water feature located within 250m of the Site? **Yes**

### Argyll's Comment



Sites which lie close to (but do not adjoin) a watercourse, may be subject to planning controls should redevelopment be considered. The Environment Agency are normally consulted regarding any development within 20m of a Main River and Internal Drainage Boards should be similarly contacted regarding developments close to drainage channels. Navigation authorities are normally consulted regarding any development within 250m of a canal, although this varies on a site by site basis. Please see The Environment Agency website to check if there is a Main River within 20m of your property.

The Environment Agency should also be contacted with regards to development (other than minor development) in Flood Zones 2 and 3.

### Sewer Flooding

In times of extreme rainfall events sewers can overflow and cause local flooding. Ofwat's 'DG5 - At Risk Registers' record properties that have flooded from sewers and are at risk of flooding again, with separate registers for internal and external flooding. The At Risk Registers are maintained by each of the ten water and sewerage companies in England and Wales and details of properties subject to sewer flooding are normally kept for between two and five years. These registers are not necessarily complete as not all episodes of past flooding may be recorded.

### Dam and Reservoir Failure

Could the Site be affected by dam or reservoir failure? **Yes**

### Argyll's Comment



The answer is based on detailed models provided by JBA Risk Management. These predict the areas liable to flood around approximately 1700 key dams and reservoirs across England and Wales (if that dam or reservoir were to fail).

## Flood Risk Management Options

Flooding can usually be managed by the installation of flood protection measures either on/within the building(s) or across the Site. Flood protection measures can be divided into two categories; flood resistance and flood resilience. Both flood resistance and flood resilience solutions can be integrated with design proposals for new build properties or retro-fitted to existing properties. Specific flood protection packages can often include both resistance and resilience measures. What is suitable will depend on a number of factors including flood source, likely flood depths, property design and age.

Research conducted by CLG Sustainable Buildings Division and The Environment Agency revealed that installing flood resistance measures may be inappropriate where likely flooding will be deep. Certain types of building construction are unable to resist the pressure load placed on the exterior skin of the building by retained flood waters. Generally a flood depth between 0.6m and 1.0m above ground level is used as a benchmark to decide whether to consider flood resilience measures rather than rely on flood resistance measures. This is dependent on the age and construction of the property.

### Guideline Costs for Resistance Measure

Building Feature	Cost Estimate for Baffles (+ VAT)
Standard (900mm) single door	£750
Standard (1800mm) double entrance door	£950
Large roller shutter door (up to 2,745mm span)	£1,420 (inc channel)
Standard garage door	£1,400 - £1,575
Standard window (up to 1,240mm span)	£750
Large window (1,240mm to 2,150mm span)	£550 - £700
Single air brick	£60 / £90
Double air brick	£80 - £230
Building Feature	Cost Estimate for Tanking (+ VAT)
Tanking (of basement, walls or floors)	£25 - £50 per metre <sup>2</sup>
System Component	Cost Estimate for Plumbing (+ VAT)
Simple non-return valve	£35 / £170
Sophisticated non-return valve	£670 / £900

The costs above are for indicative budget purposes only. They are based on installing components of a standard design and colour. If the Site requires bespoke products, these are likely to cost more (for example, if the Site is in a conservation area, different colours may be required). See our recommendation in the executive summary section for next steps.



## Environmental Hazards

	Risk	Recommendation
	COMAH	No Control of Major Accident Hazards (COMAH) sites are located within 500m.

---

### Argyll's Comment



This report is primarily a desktop assessment of potential soil and groundwater liabilities. We also comment whether the above Environmental Hazards are relevant. Contact details are provided at the end of this report.



## Contents of the Data Section

Section	Description
<b>Tabular Summary</b>	<p>This section presents a tabular summary of information found for the Site and surrounding area. The data is presented in three buffer zones for ease of reference: data found at the Site, from 1-250m and from 251-500m.</p> <p>If a database has been searched the number of records found will be displayed under the relevant search band. If a database is not available or has not been searched, this will be represented by the abbreviation N/A under the relevant search band.</p>
<b>Current Land Use Mapping</b>	<p>This section provides information on current land uses and is divided into three sections, statutory information, waste and current industrial uses. It is preceded by two maps.</p>
<b>Statutory Information</b>	<p>This section presents detailed statutory information for the Site and surrounding area (up to 500m depending upon dataset). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
<b>Waste</b>	<p>This section presents detailed information on waste and landfill sites for the Site and surrounding area (up to 500m depending upon dataset). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
<b>Current Industrial Land Use</b>	<p>This section presents detailed information on current land use for the Site and surrounding area (0-250m). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
<b>Historical Land Use Mapping</b>	<p>The Historical Land Use Map presents 1:10,000 scale and selected 1:2,500 scale (tanks and energy facilities) historical land use information within 250m of the Site boundary.</p>
<b>Historical Land Use</b>	<p>This section presents selected information on historical land use for the Site and surrounding area (0-250m). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
<b>Aquifer Designations and Geology</b>	<p>This section is preceded by two maps that present information relating to the aquifer designations beneath the Site. The first of these maps indicates the designation of the Superficial geology. The second map presents the aquifer designation of the solid geology.</p> <p>These maps are followed by detailed information in relation to aquifer designations/groundwater vulnerability and geology at the Site and surrounding area (0-500m).</p> <p>If no data is identified then the section will be omitted.</p>
<b>Environmental Sensitivity</b>	<p>This section presents detailed information on the environmental sensitivity of the Site and surrounding area (up to 500m depending upon dataset) and is preceded by two maps. The first shows areas with statutory designations, the second shows source protection zones. The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.</p> <p>If no data is identified then the section will be omitted.</p>
<b>Natural and Mining Related Hazards</b>	<p>This section contains information on natural and mining related hazards which may affect the Site. These include subsidence, radon and mining.</p>
<b>Flooding</b>	<p>This section contains information on the risks associated with flooding. It includes maps and data associated with river, coastal, groundwater, and surface water flooding, as well as historical flooding and water features.</p>

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## Tabular Summary - North

### Statutory Information

Authorisations	On-site	1-250m	251-500m
Local Authority Pollution Prevention and Controls	0	0	0
Local Authority Integrated Pollution Prevention and Controls	0	0	0
Integrated Pollution Controls	0	0	0
Integrated Pollution Prevention And Control	0	0	0
Registered Radioactive Substances	0	0	0
Discharges	On-site	1-250m	251-500m
Discharge Consents	1	9	13
Water Industry Act Referrals	0	0	0
Hazardous Sites	On-site	1-250m	251-500m
Control of Major Accident Hazards Sites	0	0	0
Explosive Sites	0	0	0
Notification of Installations Handling Hazardous Substances	0	0	0
Planning Hazardous Substance Consents	0	0	0
Contraventions	On-site	1-250m	251-500m
Contaminated Land Register Entries and Notices	0	0	0
Local Authority Pollution Prevention and Control Enforcements	0	0	0
Enforcement and Prohibition Notices	0	0	0
Planning Hazardous Substance Enforcements	0	0	0
Substantiated Pollution Incident Register	0	0	0
Prosecutions Relating to Authorised Processes	0	0	0
Prosecutions Relating to Controlled Waters	0	0	0

### Waste

Waste/Landfill Sites	On-site	1-250m	251-500m
BGS Recorded Landfill Sites	0	0	0
Integrated Pollution Control Registered Waste Sites	0	0	0
Licensed Waste Management Facilities (Landfill Boundaries)	0	0	0
Licensed Waste Management Facilities (Locations)	0	0	0
Local Authority Recorded Landfill Sites	0	0	0 (0) *
Registered Landfill Sites	0	0	0 (0) *
Registered Waste Transfer Sites	0	0	0
Registered Waste Treatment or Disposal Sites	0	0	0
Historical Landfill Sites	0	0	0

### Current Land Use

Current Potentially Contaminative Uses	On-site	1-250m	251-500m
Contemporary Trade Directory Entries	0	2	2
Fuel Station Entries	0	0	0
Other Features	On-site	1-250m	251-500m
Overhead Transmission Lines	0	0	0
Gas Pipelines	0	0	0
Gas Feeders	0	0	0

### Historical Land Use

Historical Potentially Contaminative Uses	On-site	1-250m	251-500m
Historical Tanks And Energy Facilities	0	4	3
Potentially Infilled Land	On-site	1-250m	251-500m
Former Marshes	0	0	0
Potentially Infilled Land (Non-Water)	0	0	1
Potentially Infilled Land (Water)	0	0	0

## Groundwater Vulnerability

Hydrogeology	On-site	1-250m	251-500m
Superficial Aquifer Designations	14	4	2
Bedrock Aquifer Designations	4	0	0
Geology	On-site	1-250m	251-500m
BGS 1:50,000 Bedrock Geology	1	0	0
BGS 1:50,000 Superficial Deposits	12	4	4
BGS 1:50,000 Geological Mapping Coverage	1	0	0
BGS 1:625,000 Solid Geology	1	N/A	N/A
BGS Borehole Logs	7	3	N/A

## Environmental Sensitivity

Environmental Sensitivity	On-site	1-250m	251-500m
Areas of Outstanding Natural Beauty	0	0	0
Environmentally Sensitive Areas	0	0	0
Forest Parks	0	0	0
Local Nature Reserves	0	0	0 (0) *
Marine Nature Reserves	0	0	0 (0) *
National Nature Reserves	0	0	0 (0) *
National Parks	0	0	0
National Scenic Areas	0	0	0
Nitrate Sensitive Areas	0	N/A	N/A
Nitrate Vulnerable Zones	2	N/A	N/A
Ramsar Sites	0	0	0 (0) *
River Quality Biology Sampling Points	0	0	0
River Quality Chemistry Sampling Points	0	0	0
Nearest Surface Water Feature	1	0	0
Sites of Special Scientific Interest	1	0	0 (0) *
Special Areas of Conservation	0	0	0 (0) *
Special Protection Areas	0	0	0 (0) *
Water Abstractions	2	1	4 (0)*
Source Protection Zones	0	0	1

## Natural and Mining Related Hazards

Subsidence	On-site	1-250m	251-500m
Collapsible Ground Stability Hazards	1	1 <sup>2</sup>	N/A
Compressible Ground Stability Hazards	1	1	N/A
Ground Dissolution Stability Hazards	1	0	N/A
Landslide Ground Stability Hazards	1	0	N/A
Running Sand Ground Stability Hazards	1	1	N/A
Shrinking or Swelling Clay Subsidence Hazards	1	1	N/A
Non-Coal Mining Hazards	0	0	N/A
Radon	On-site	1-250m	251-500m
Radon Potential	1	N/A	N/A
Radon Protection Measures	1	N/A	N/A
Mining	On-site	1-250m	251-500m
Brine Compensation Areas	0	N/A	N/A
Coal Mining Affected Areas	0	N/A	N/A
Natural and Mining Cavities	0	0	0
Mining Instability	0	0	N/A
BGS Recorded Mineral Sites	0	0	1

<sup>2</sup>Ground stability hazards are only searched to a radius of 50m from the Site boundary.

## Flooding

Current Flood Risk	On-site	1-250m	251-500m
Flooding From Rivers or Sea	1	0	0
Flooding From Rivers or Sea (in an Extreme Flood)	1	0	0
Areas Benefiting from Flood Defences	0	0	0
Flood Storage Areas	0	0	0
Flood Defences	1	0	0
Risk of Flooding from Rivers and Sea	3	0	0
Groundwater Flood Risk	2	0	0
Surface Water Flooding (1:75 year rainfall event)	3	0	0
Surface Water Flooding (1:200 year rainfall event)	3	0	0
Surface Water Flooding (1:1,000 year rainfall event)	3	0	0
Historical Flooding	On-site	1-250m	251-500m
Historical Flood Events	0	0	0
Geological Indicators of Flooding	2	0	0
Other Flood Information	On-site	1-250m	251-500m
MasterMap Water Network	12	71	79
Surface Water Features	8	39	22
Dam or Reservoir Failure	1	0	0
Site Information	Response		
Height of Site Above Sea Level	51.03m		
Distance of Site Boundary to Nearest Water Feature	0m		

### Tabular Summary Explanation

Argyll has carefully selected a range of datasets which are considered appropriate for the intended use of this report. Each dataset is searched to a set radius from the Site boundary and the tabular summary is divided into different search bands accordingly. If a database is searched and information is found, then the number of records available are detailed in the table above. If the database was searched and no data was found, then a zero will be present. If a database was not searched then the abbreviation N/A will be found, indicating this information was not available at the radius searched.

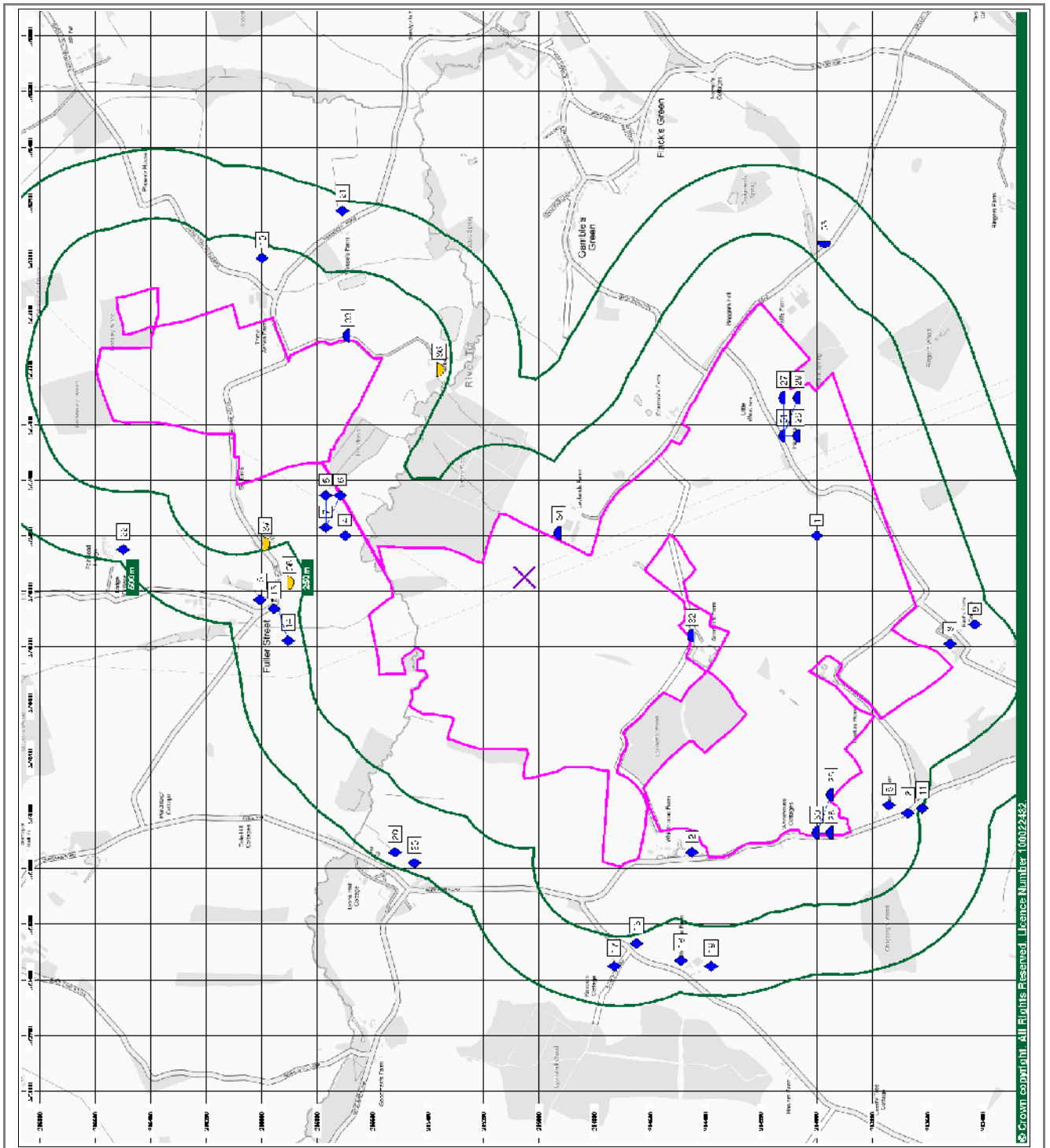
### Landfill Site Information

Registered landfill site boundaries (where available), are shown on the map as a red diagonal hatched polygon and referred to in the map legend as Registered Landfill Sites. At present no complete national dataset exists for landfill site boundaries, therefore a point grid reference provided by the data supplier is used for some landfill sites. The point grid references supplied provide only an approximate position, and can vary from the site entrance to the centre of the site. A point cannot properly define landfill boundaries therefore Landmark constructs a 250 metre or 100 metre "buffer" zone around the point to warn of the possible presence of landfill. The "buffer" zone is shown on the map as an orange crosshatched area and is referred to in the map legend as Potential Landfill Buffer.

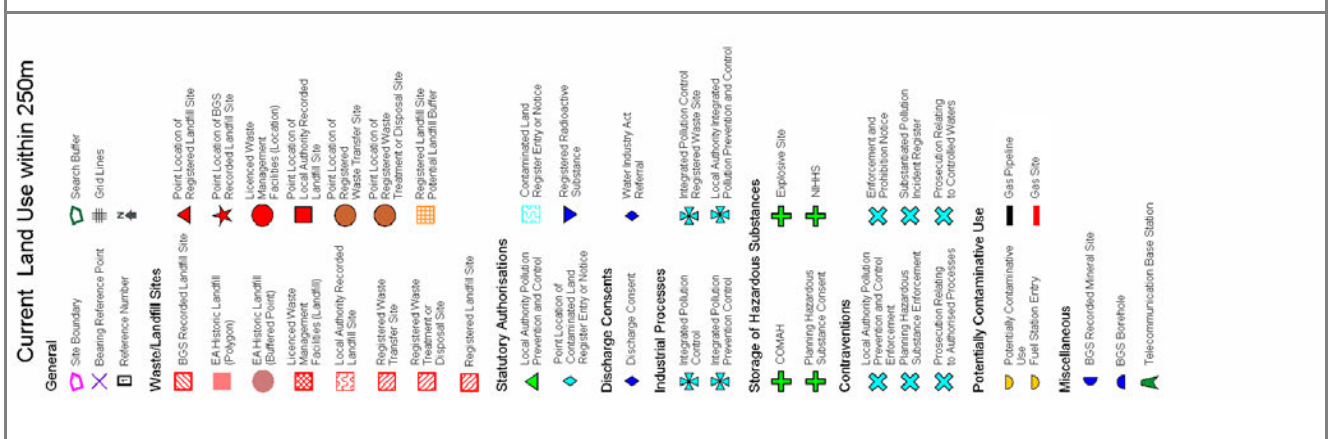
Local Authority landfill data is sourced from individual local authorities that were able to provide information on sites operating prior to the introduction of the Control of Pollution Act (COPA) in 1974. Appropriate authorities are listed under Local Authority Landfill Coverage with an indication of whether or not they were able to make landfill data available. Details of any records identified are disclosed. You should be aware that if the local authority had landfill data but passed it to the relevant Environment Agency office, it does not necessarily mean that local authority landfill data is now included in our other Landfill datasets. In addition if no data has been made available for all or part of the search area, you should be aware that a negative response under 'Local Authority Recorded Landfill Sites' does not necessarily confirm that no local authority landfills exist.

### Subsidence Hazards

Information on subsidence hazards is provided by the British Geological Survey (BGS). Information present within 250m of the Site is reported under Natural and Mining Related Hazards. Due to the level of detail of this data and the complexities of the real world, the BGS recommends a precautionary approach when using this information and advises taking the worst reading noted for each dataset within the vicinity of a property. Therefore, Argyll reports the presence of a ground stability or non-coal related mining hazard in the Risk Analysis section based on the highest reading found within 50m of the Site boundary.



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# Statutory Information

## Discharges

### Discharge Consents

Map ID	Details	Distance	Direction
1	Operator: Lord Rayleighs Farms, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Leylands Farm Estate, Terling, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: Not Given, Permit Ref: Pr2nfe13569, Permit Version: 1, Effective Date: 28th May 1970, Issued Date: 28th May 1970, Revocation Date: 18th June 2009, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Ter, Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Approximate location provided by supplier.	On Site	S
2	Operator: Mr Riley, Property Type: Domestic Property (Multiple), Location: Whitehouse Farm Cottages 1&2 Boreham Road, Little Waltham, Chelmsford, Essex, Cm3 3nf, Authority: Environment Agency, Anglian Region, Catchment Area: River Ter (Terling), Permit Ref: Prenf11781, Permit Version: 1, Effective Date: 13th July 1999, Issued Date: 18th August 1999, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary Of River Ter, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 100m.	44m	SW
3	Operator: Mrs Nicola Rogers, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Headlands Little Waltham, Chelmsford, Chelmsford, Essex, Cm3 3ne, Authority: Environment Agency, Anglian Region, Catchment Area: Lower River Chelmer (Boreham), Permit Ref: Prenf19843, Permit Version: 1, Effective Date: 27th January 2006, Issued Date: 26th January 2006, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Ditch Trib Of The Chelmer, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	53m	S
4	Operator: Braintree D.C., Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Fuller Street Stw, Fairstead, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfe01854, Permit Version: 1, Effective Date: 6th April 1954, Issued Date: 6th April 1954, Revocation Date: 27th February 1992, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Not Supplied, Receiving Water: Not Supplied, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 100m.	59m	N
5	Operator: F.A.O.R T Smith, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Heybridge, Maldon, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfe11169, Permit Version: 1, Effective Date: 15th July 1969, Issued Date: 15th July 1969, Revocation Date: 28th February 1992, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Not Supplied, Receiving Water: Not Supplied, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	105m	N
6	Operator: Braintree D.C., Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Fuller Street Stw, Fairstead, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: River Ter (Terling), Permit Ref: Pr2nfe00278, Permit Version: 1, Effective Date: 26th January 1978, Issued Date: 26th January 1978, Revocation Date: 7th March 1995, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Trib River Ter, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 100m.	105m	N

## Discharge Consents

Map ID	Details	Distance	Direction
7	Operator: Mr Mark Butcher, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Fuller Street Stw, Fairstead, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: River Ter (Terling), Permit Ref: Pr2nfe00278, Permit Version: 2, Effective Date: 8th March 1995, Issued Date: 8th March 1995, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Trib River Ter, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	105m	N
8	Operator: Dr Sarah Raybould, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Lawns Farm Boreham Road, Little Waltham, Cm3 3nf, Cm3 3nf, Authority: Environment Agency, Anglian Region, Catchment Area: Not Given, Permit Ref: Prenf11322, Permit Version: 1, Effective Date: 15th May 1998, Issued Date: 15th May 1998, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary Boreham Brook, Status: Post National Rivers Authority Legislation where issue date > 31/08/1989, Positional Accuracy: Located by supplier to within 100m.	153m	SW
9	Operator: Mr Adrian Groves, Property Type: Domestic Property (Single), Location: Birds Farm Cottage Terling Road, Little Waltham, Nr Chelmsford, Essex, Cm3 3ne, Authority: Environment Agency, Anglian Region, Catchment Area: Not Given, Permit Ref: Prenf11055, Permit Version: 1, Effective Date: 15th August 1997, Issued Date: 15th August 1997, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary Boreham Brook, Status: Post National Rivers Authority Legislation where issue date > 31/08/1989, Positional Accuracy: Located by supplier to within 100m.	166m	S
10	Operator: Mr A E Parris, Property Type: Domestic Property (Single), Location: Hillside House Fuller Street, Fairstead, Chelmsford, Essex, Cm3 2az, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2lfs19668, Permit Version: 1, Effective Date: 20th September 1968, Issued Date: 20th September 1968, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Land/Soakaway, Receiving Water: Land, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Approximate location provided by supplier.	197m	NE
11	Operator: Victoria Paterson, Property Type: Domestic Property (Single), Location: Lawns Farm Bungalow Boreham Road, Little Waltham, Chelmsford, Essex, Cm3 3nf, Authority: Environment Agency, Anglian Region, Catchment Area: Lower River Chelmer (Boreham), Permit Ref: Pr2lfs18072, Permit Version: 1, Effective Date: 7th August 1972, Issued Date: 7th August 1972, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Land/Soakaway, Receiving Water: Land, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	255m	SW
12	Operator: Mr & Mrs Mileman, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Lawns Farm Bungalow Boreham Road, Little Waltham, Little Waltham, Essex, Cm3 3nf, Authority: Environment Agency, Anglian Region, Catchment Area: River Ter (Terling), Permit Ref: Prenf20228, Permit Version: 1, Effective Date: 3rd November 2006, Issued Date: 3rd November 2006, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary Of Boreham Brook, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	264m	SW

## Discharge Consents

Map ID	Details	Distance	Direction
13	Operator: Mrs Foster, Property Type: Domestic Property (Single), Location: Peacheys Cottage, Gt. Leighs, Essex, Cm3 3nh, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfa2170, Permit Version: 1, Effective Date: 2nd January 1900, Issued Date: 2nd January 1900, Revocation Date: 20th June 1991, Discharge Type: Unknown, Discharge Environment: Not Supplied, Receiving Water: Not Supplied, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	283m	W
14	Operator: Mr & Mrs M Alden, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: The Old Stores Fuller Street, Fairstead, Chelmsford, Essex, Cm3 2az, Authority: Environment Agency, Anglian Region, Catchment Area: River Ter (Terling), Permit Ref: Prenf20004, Permit Version: 1, Effective Date: 23rd June 2006, Issued Date: 23rd June 2006, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Ditch Trib Of River Ter, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	327m	N
15	Operator: Mr & Mrs Cockburn, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Herons Fuller Street, Fuller Street, Great Leighs, Essex, Cm3 1bb, Authority: Environment Agency, Anglian Region, Catchment Area: River Ter (Terling), Permit Ref: Prenf15804, Permit Version: 1, Effective Date: 2nd July 2003, Issued Date: 2nd July 2003, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Trib Of The River Ter, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	343m	N
16	Operator: Philip And Susan Webb, Property Type: Domestic Property (Single), Location: Lichfield House Fuller Street, Fairstead, Chelmsford, Essex, Cm3 2az, Authority: Environment Agency, Anglian Region, Catchment Area: River Ter (Terling), Permit Ref: Npswqd009939, Permit Version: 1, Effective Date: 9th December 2009, Issued Date: 9th December 2009, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary Of River Ter, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	353m	N
17	Operator: Tritton Family Trustees, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Lyons Hall Estate 1-4 Daisleys Lane, Great Leighs, Chelmsford, Essex, Cm3 3nq, Authority: Environment Agency, Anglian Region, Catchment Area: River Ter (Terling), Permit Ref: Prenf13709, Permit Version: 1, Effective Date: 19th July 2001, Issued Date: 13th September 2001, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary River Ter, Status: New Consent, by Application (Water Resources Act 1991, Section 88), Positional Accuracy: Located by supplier to within 10m.	358m	W
18	Operator: Mr L Singleton, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Wakerings Farm House, Gt. Leighs, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfa2159, Permit Version: 1, Effective Date: 2nd January 1900, Issued Date: 2nd January 1900, Revocation Date: 20th June 1991, Discharge Type: Unknown, Discharge Environment: Not Supplied, Receiving Water: Not Supplied, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	388m	W
19	Operator: A G Tritton, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Wakerings Farm Buildings, Gt. Leighs, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfa2160, Permit Version: 1, Effective Date: 2nd January 1900, Issued Date: 2nd January 1900, Revocation Date: 20th June 1991, Discharge Type: Unknown, Discharge Environment: Not Supplied, Receiving Water: Not Supplied, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	394m	SW

## Discharge Consents

Map ID	Details	Distance	Direction
20	Operator: A G Tritton, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Church Cottage, Gt. Leighs, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfa2167, Permit Version: 1, Effective Date: 2nd January 1900, Issued Date: 2nd January 1900, Revocation Date: 20th June 1991, Discharge Type: Unknown, Discharge Environment: Not Supplied, Receiving Water: Not Supplied, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	452m	NW
21	Operator: G P Glibbery, Property Type: Domestic Property (Single), Location: Oak Cottage Braintree Rd, Terling, Essex, Cm3 2ar, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Prenf10797, Permit Version: 1, Effective Date: 20th January 1997, Issued Date: 20th January 1997, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary River Ter, Status: Post National Rivers Authority Legislation where issue date > 31/08/1989, Positional Accuracy: Located by supplier to within 10m.	459m	NE
22	Operator: Ralph William Chapman, Property Type: Arable Farming, Location: Fairstead Lodge Farm Fuller Street, Fairstead, Chelmsford, Essex, Cm3 2bd, Authority: Environment Agency, Anglian Region, Catchment Area: Catchment 29 Unknown Detail, Permit Ref: Gwelf50505, Permit Version: 1, Effective Date: 1st April 1999, Issued Date: 18th May 2000, Revocation Date: Not Supplied, Discharge Type: Trade Discharge - Agricultural And Surface, Discharge Environment: Onto Land, Receiving Water: Groundwater, Status: Deemed Groundwater Regulations Authorisation, Positional Accuracy: Located by supplier to within 10m.	459m	N
23	Operator: A G Tritton, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Lyons Hall Farm Buildings, Gt. Leighs, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfa2156, Permit Version: 1, Effective Date: 2nd January 1900, Issued Date: 2nd January 1900, Revocation Date: 20th June 1991, Discharge Type: Unknown, Discharge Environment: Not Supplied, Receiving Water: Not Supplied, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	464m	W

## Waste

### Waste/Landfill Sites

#### Local Authority Landfill Coverage

Essex County Council - Has supplied landfill data

Chelmsford Borough Council - Has no landfill data to supply

Braintree District Council - Has no landfill data to supply

#### Licensed Waste Management Facilities (Locations)

Map ID	Details	Distance	Direction
24	Licence Number: 100759, Location: Stevens V W Dismantlers, Drakes Lane, Boreham, Essex, CM3 3BE, Operator: Stevens Gary, Operator Location: Not Supplied, Authority: Environment Agency - Anglian Region, Eastern Area, Site Category: Vehicle depollution facility, Licence Status: Issued, Issued Date: 2nd February 2009, Last Modified: Not Supplied, Expiry Date: Not Supplied, Suspended Date: Not Supplied, Revoked Date: Not Supplied, Surrendered Date: Not Supplied, IPPC Reference: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	596m	SW

## Current Land Use

### Current Potentially Contaminative Uses

#### Contemporary Trade Directory Entries

Map ID	Details	Distance	Direction
36	Medical Waste Disposal, Name: Healthcare Waste Disposal, Status: Active, Location: Ridley Hall, Braintree Road, Terling, Chelmsford, CM3 2AX, Positional Accuracy: Automatically positioned to the address.	210m	E
37	Machinery - Industrial & Commercial, Name: Industrial Spray Wash Ltd, Status: Active, Location: 9, White Cottages, Fuller Street, Fairstead, CHELMSFORD, CM3 2AY, Positional Accuracy: Automatically positioned to the address.	230m	N
38	Garage Services, Name: Hillside Motors, Status: Active, Location: Fuller Street, Fairstead, Chelmsford, CM3 2AY, Positional Accuracy: Automatically positioned to the address.	309m	N
39	Veterinary Pharmacies, Name: Vetfactor, Status: Inactive, Location: Russell Green House, Russell Green, Boreham, Chelmsford, CM3 3BD, Positional Accuracy: Automatically positioned to the address.	496m	S

## Historical Land Use

### Historical Potentially Contaminative Uses

#### Historical Tanks and Energy Facilities

Map ID	Details	Distance	Direction
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1972.	67m	SE
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	77m	NE
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	209m	E
	Potential Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1974.	247m	N
	Electrical Sub Station Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	272m	E
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	403m	E
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	489m	E

#### Potentially Contaminative Industrial Uses (Past Land Use)

Map ID	Details	Distance	Direction
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1881.	315m	SE

### Potentially Infilled Land

#### Potentially Infilled Land (Non-Water)

Map ID	Details	Distance	Direction
	Unknown Filled Ground (Pit, quarry etc), Date of Mapping: 1978.	315m	SE

## Historical Maps

The following maps have been manually reviewed by a consultant and presented in the Risk Analysis section at the front of this report:

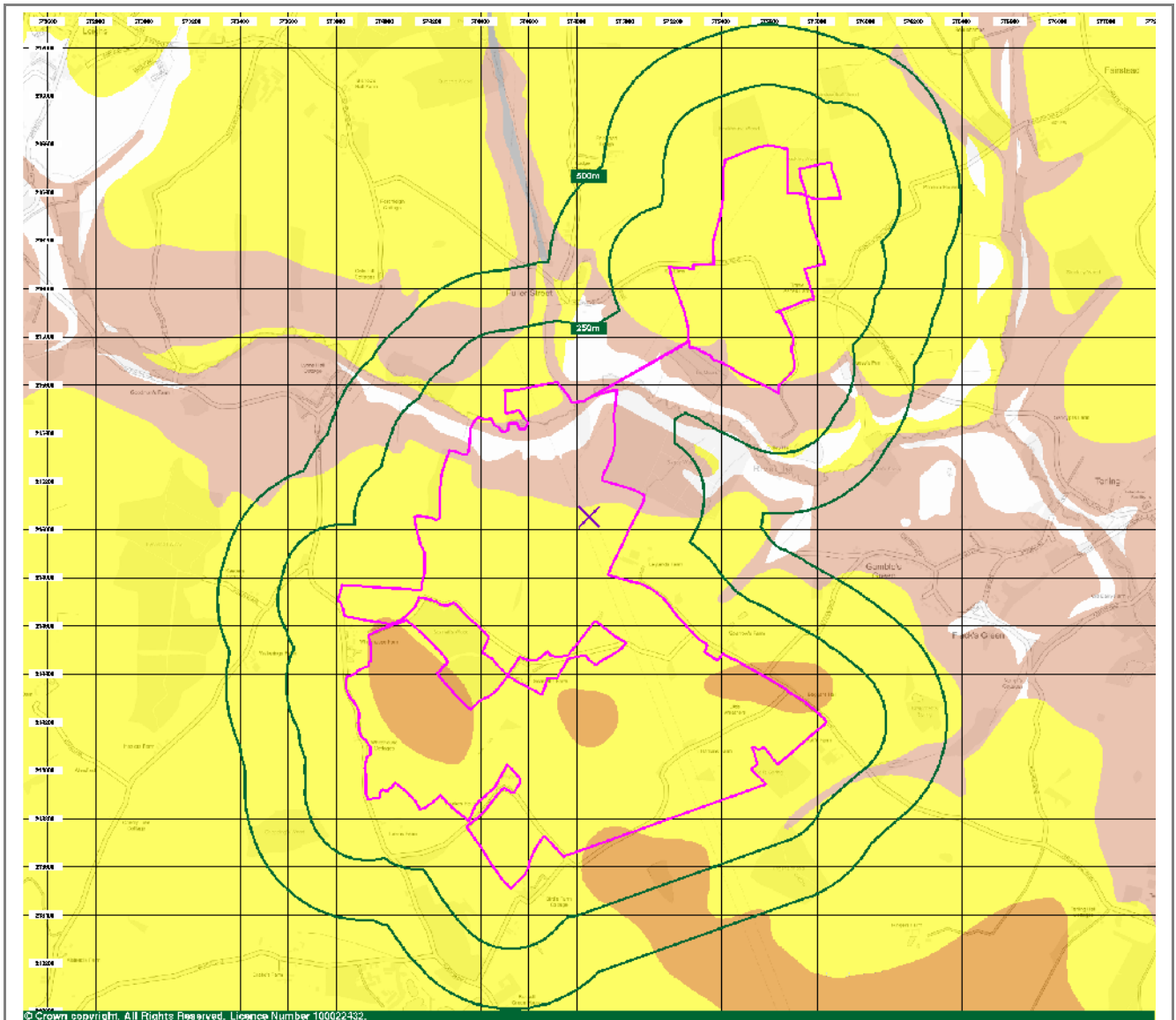
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1:2,500	Essex 034_14	1874
1:2,500	Essex 044_02	1874
1:2,500	Essex 034_10	1875
1:2,500	Essex 034_13	1875
1:2,500	Essex 044_01	1875
1:2,500	Essex 044_05	1875
1:2,500	Essex 044_06	1877
1:2,500	Essex 034_10	1897
1:2,500	Essex 034_13	1897
1:2,500	Essex 034_14	1897
1:2,500	Essex 044_01	1897
1:2,500	Essex 044_02	1897
1:2,500	Essex 044_05	1897
1:2,500	Essex 044_06	1897
1:2,500	Essex 044_08	1922
1:2,500	Essex 044_12	1922
1:2,500	Essex 044_16	1922
1:2,500	Essex 045_05	1922
1:2,500	Essex 045_09	1922
1:2,500	Essex 045_13	1922
1:2,500	National Grid TL7313	1952
1:2,500	National Grid TL7314	1952
1:2,500	National Grid TL7315	1952
1:2,500	National Grid TL7415	1952
1:2,500	National Grid TL7513	1952
1:2,500	National Grid TL7514	1952

Scale	Map Sheet	Published Date
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1:2,500	National Grid TL7414	1953
1:2,500	National Grid TL7416	1953
1:2,500	National Grid TL7515	1953
1:2,500	National Grid TL7516	1953
1:2,500	National Grid TL7613	1953
1:2,500	National Grid TL7614	1953
1:2,500	National Grid TL7615	1953
1:2,500	National Grid TL7616	1953
1:2,500	National Grid TL7313	1967
1:2,500	National Grid TL7413	1967
1:2,500	National Grid TL7513	1967
1:2,500	National Grid TL7414	1972
1:2,500	National Grid TL7514	1972
1:2,500	National Grid TL7416	1974
1:2,500	National Grid TL7516	1974
1:2,500	National Grid TL7314	1978
1:2,500	National Grid TL7315	1978
1:2,500	National Grid TL7415	1978
1:2,500	National Grid TL7515	1978
1:2,500	National Grid TL7614	1978
1:2,500	National Grid TL7615	1978
1:2,500	National Grid TL7616	1978
1:2,500	National Grid TL7513	1978
1:2,500	National Grid TL7313	1993
1:2,500	National Grid TL7314	1993
1:2,500	National Grid TL7315	1993
1:2,500	National Grid TL7413	1993
1:2,500	National Grid TL7414	1993
1:2,500	National Grid TL7415	1993
1:2,500	National Grid TL7416	1993
1:2,500	National Grid TL7513	1993
1:2,500	National Grid TL7514	1993
1:2,500	National Grid TL7515	1993
1:2,500	National Grid TL7516	1993
1:2,500	National Grid TL7613	1993
1:2,500	National Grid TL7614	1993
1:2,500	National Grid TL7615	1993
1:2,500	National Grid TL7616	1993
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1:2,500	National Grid TL7613	1953
1:2,500	National Grid TL7615	1953
1:2,500	National Grid TL7313	1967
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1:10,560	Essex 034_SW	1897
1:10,560	Essex 044_NW	1897
1:10,560	Essex 044_00	1924
1:10,560	Essex 045_NW	1924
1:10,560	Essex 045_SW	1924
1:10,560	Essex 044_00	1951
1:10,560	National Grid TL71NE	1955
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Scale	Map Sheet	Published Date
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1:10,000	National Grid TL71SW	1979
1:10,000	National Grid TL71NE	1978
1:10,000	National Grid TL71SE	1978
1:10,000	National Grid TL71NW	1979
1:10,000	National Grid TL71SW	1993
1:10,000	National Grid TL71NE	2014
1:10,000	National Grid TL71NW	2014
1:10,000	National Grid TL71SE	2014
1:10,000	National Grid TL71SW	2014

# Aquifer Designation (Superficial)

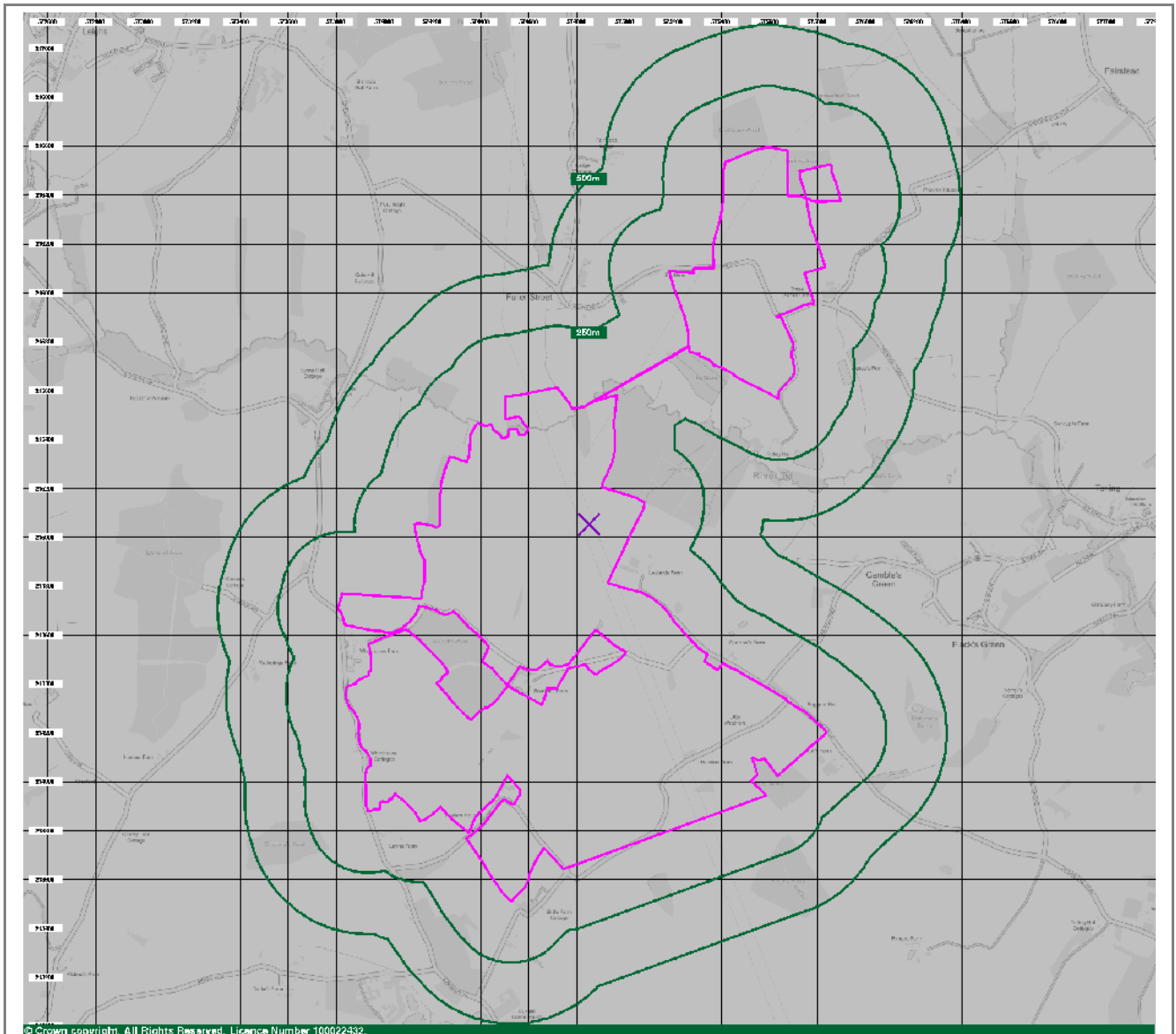


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## Aquifer Designations

-  Site Boundary
-  Search Buffer
-  Bearing Reference Point
-  N
-  Principal Aquifer
-  Secondary A Aquifer
-  Secondary B Aquifer
-  Secondary Undifferentiated
-  Unproductive Strata
-  Unknown

# Aquifer Designation (Bedrock)



## Aquifer Designations

-  Site Boundary
-  Search Buffer
-  Bearing Reference Point
- 
-  Principal Aquifer
-  Secondary A Aquifer
-  Secondary B Aquifer
-  Secondary Undifferentiated
-  Unproductive Strata
-  Unknown

# Groundwater Vulnerability

## Hydrogeology

### Superficial Aquifer Designations

Map ID	Details	Distance	Direction
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	On Site	SW
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	On Site	SE
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	On Site	S
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	On Site	S
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	On Site	S
	Secondary Aquifer - A These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.	On Site	N
	Secondary Aquifer - A These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.	On Site	E
	Secondary Aquifer - A These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.	On Site	NE
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	On Site	NW
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	On Site	E
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	On Site	NE
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	On Site	E
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	On Site	-

## Superficial Aquifer Designations

Map ID	Details	Distance	Direction
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	On Site	S
	Secondary Aquifer - A These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.	13m	NE
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	45m	N
	Secondary Aquifer - A These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.	160m	SE
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	184m	N
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	276m	NE
	Unproductive Strata The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.	487m	N

## Bedrock Aquifer Designations

Map ID	Details	Distance	Direction
	Unproductive Strata The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.	On Site	E
	Unproductive Strata The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.	On Site	S
	Unproductive Strata The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.	On Site	E
	Unproductive Strata The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.	On Site	-

## Geology

### BGS 1:50,000 Bedrock Geology

Map ID	Details	Distance	Direction
	LEX Code: LC, Rock Name: London Clay Formation, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Ypresian.	On Site	-

### BGS 1:50,000 Superficial Deposits

Map ID	Details	Distance	Direction
	LEX Code: BRK, Rock Name: Brickearth, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Pleistocene.	On Site	SW
	LEX Code: BRK, Rock Name: Brickearth, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Pleistocene.	On Site	S

## BGS 1:50,000 Superficial Deposits

Map ID	Details	Distance	Direction
	LEX Code: TUFA, Rock Name: Tufa, Rock Type: "Tufa, Calcareous", Min Age: Not Supplied, Max Age: Quaternary.	On Site	NE
	LEX Code: GFDMP, Rock Name: Glaciofluvial Deposits, Mid Pleistocene, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Cromerian.	On Site	NE
	LEX Code: GFDMP, Rock Name: Glaciofluvial Deposits, Mid Pleistocene, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Cromerian.	On Site	N
	LEX Code: LOFT, Rock Name: Lowestoft Formation, Rock Type: Diamicton, Min Age: Not Supplied, Max Age: Anglian.	On Site	-
	LEX Code: GFDMP, Rock Name: Glaciofluvial Deposits, Mid Pleistocene, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Cromerian.	On Site	N
	LEX Code: LOFT, Rock Name: Lowestoft Formation, Rock Type: Diamicton, Min Age: Not Supplied, Max Age: Anglian.	On Site	NE
	LEX Code: ALV, Rock Name: Alluvium, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Holocene.	On Site	NW
	LEX Code: HEAD, Rock Name: Head, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Quaternary.	On Site	NW
	LEX Code: BRK, Rock Name: Brickearth, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Pleistocene.	On Site	S
	LEX Code: BRK, Rock Name: Brickearth, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Pleistocene.	On Site	SE
	LEX Code: HEAD, Rock Name: Head, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Quaternary.	45m	N
	LEX Code: GFDMP, Rock Name: Glaciofluvial Deposits, Mid Pleistocene, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Cromerian.	137m	NW
	LEX Code: LOFT, Rock Name: Lowestoft Formation, Rock Type: Diamicton, Min Age: Not Supplied, Max Age: Anglian.	177m	N
	LEX Code: LOFT, Rock Name: Lowestoft Formation, Rock Type: Diamicton, Min Age: Not Supplied, Max Age: Anglian.	191m	NE
	LEX Code: LOFT, Rock Name: Lowestoft Formation, Rock Type: Diamicton, Min Age: Not Supplied, Max Age: Anglian.	276m	NE
	LEX Code: HEAD, Rock Name: Head, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Quaternary.	281m	E
	LEX Code: GFDMP, Rock Name: Glaciofluvial Deposits, Mid Pleistocene, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Cromerian.	437m	NE
	LEX Code: PEAT, Rock Name: Peat, Rock Type: Peat, Min Age: Not Supplied, Max Age: Quaternary.	487m	N

## BGS 1:50,000 Geological Mapping Coverage

Map ID	Details	Distance	Direction
	Map Sheet No: 241, Map Name: Chelmsford, Map Date: 1975, Bedrock Geology: Available, Superficial Geology: Available, Artificial Geology: Available, Faults: Not Supplied, Landslip: Available, Rock Segments: Not Supplied.	On Site	-

## BGS 1:625,000 Solid Geology

Map ID	Details	Distance	Direction
	Thames Group.	On Site	-

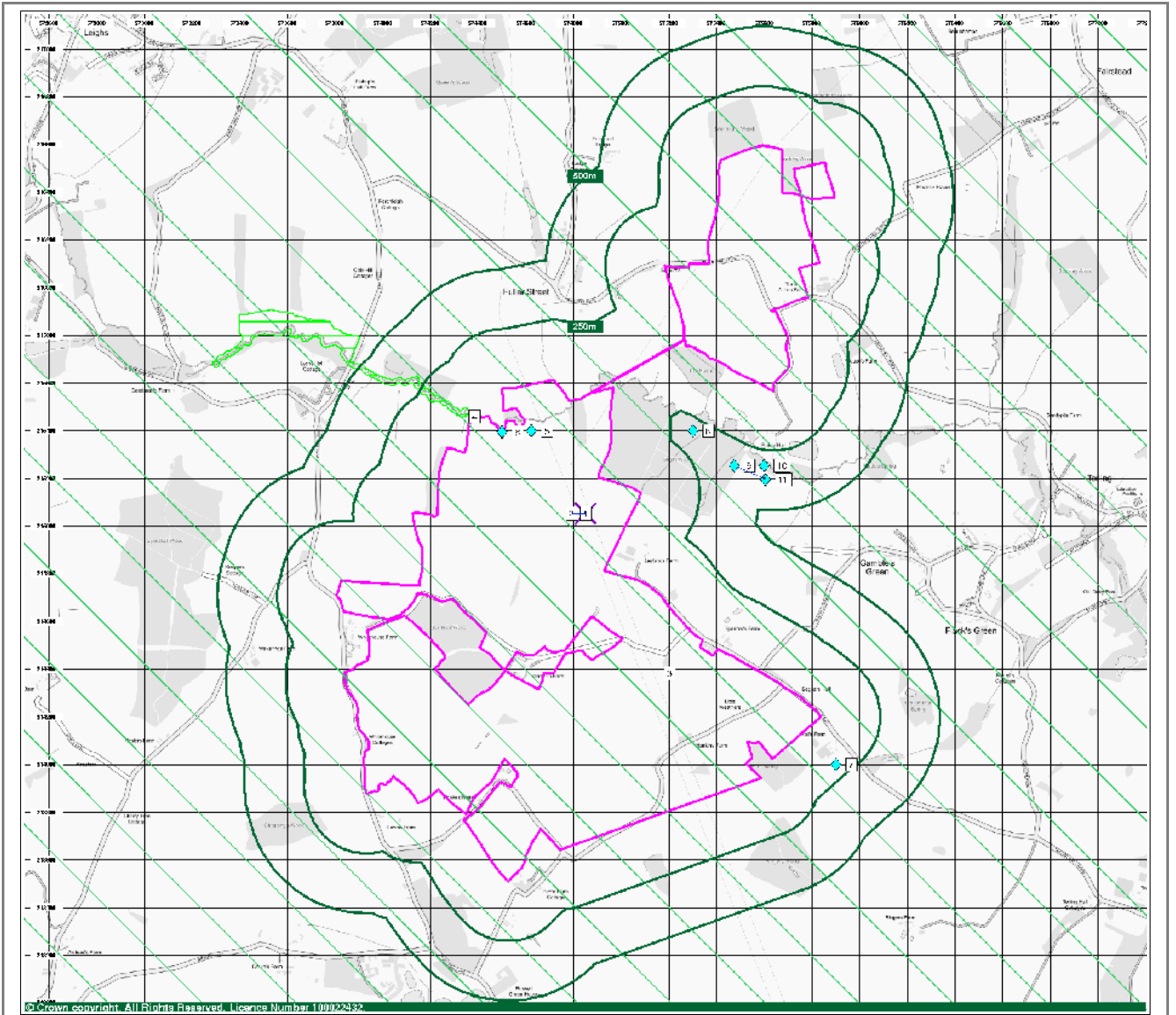
## BGS Boreholes

Map ID	Details	Distance	Direction
25	BGS Reference: TI71sw1/B, Drilled Length (m): 19.8, Borehole Name: Near Lawns Farm.	On Site	SW
26	BGS Reference: TI71se128/D, Drilled Length (m): 20.4, Borehole Name: Nr Sparrows Farm.	On Site	SE
27	BGS Reference: TI71se128/C, Drilled Length (m): 20.7, Borehole Name: Nr Sparrows Farm.	On Site	SE
28	BGS Reference: TI71sw1/C, Drilled Length (m): 18.6, Borehole Name: Near Lawns Farm.	On Site	SW
29	BGS Reference: TI71se128/A, Drilled Length (m): 20.7, Borehole Name: Nr Sparrows Farm.	On Site	SE
30	BGS Reference: TI71sw1/A, Drilled Length (m): 17.1, Borehole Name: Near Lawns Farm.	On Site	SW

## BGS Boreholes

Map ID	Details	Distance	Direction
31	BGS Reference: T171se128/B, Drilled Length (m): 21.3, Borehole Name: Nr Sparrows Farm.	On Site	SE
32	BGS Reference: T171sw46, Drilled Length (m): 18.9, Borehole Name: Near Scarletts Farm.	12m	S
33	BGS Reference: T171ne11, Drilled Length (m): 10.8, Borehole Name: Nr Ridley Hall.	17m	NE
34	BGS Reference: T171se6, Drilled Length (m): 15.84, Borehole Name: Terling, Chelmsford, Essex T.9.	24m	SE

# Environmentally Sensitive Features



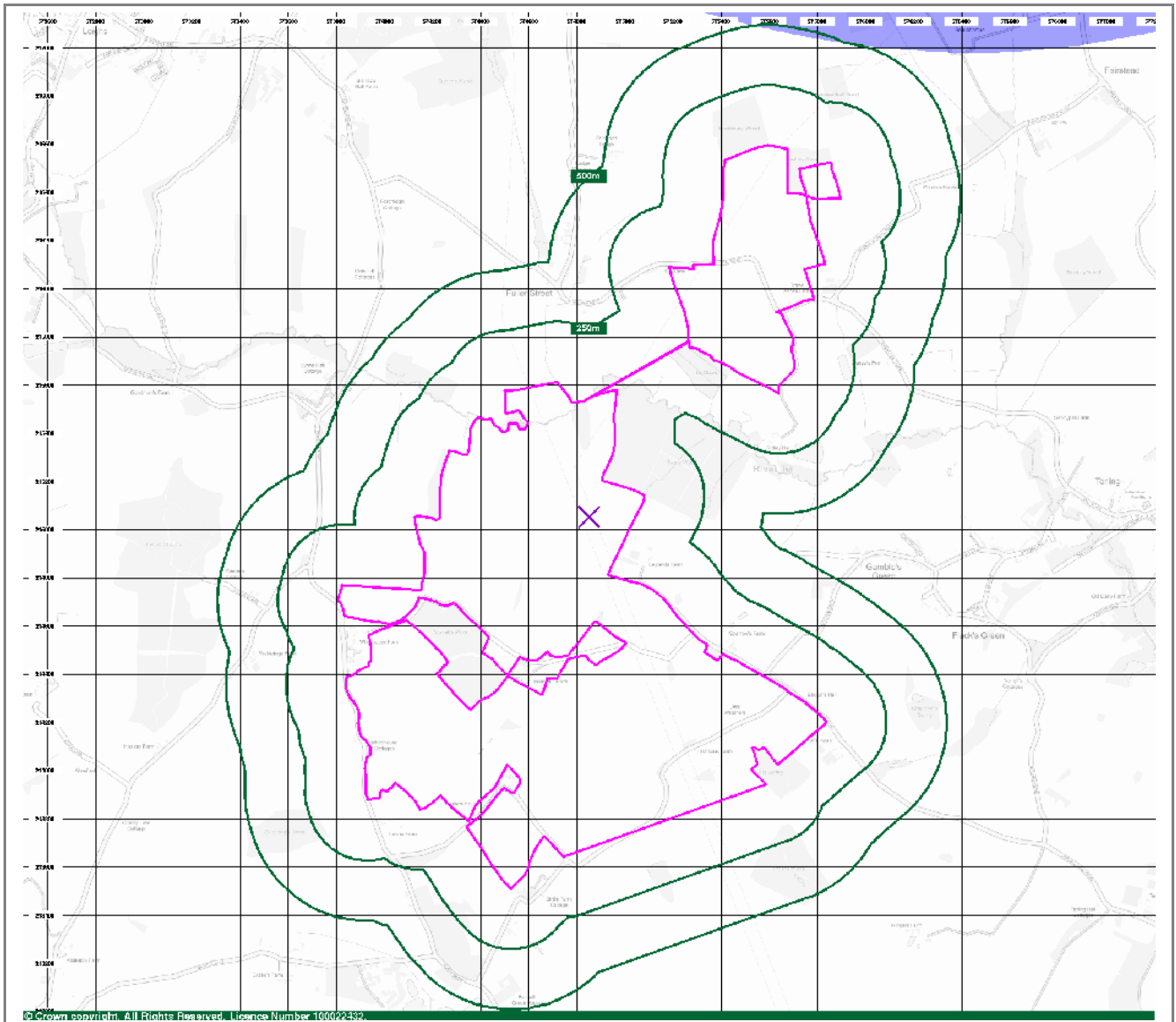
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## Sensitive Land Uses

- |                                    |                         |                                     |
|------------------------------------|-------------------------|-------------------------------------|
| Site Boundary                      | Local Nature Reserve    | Ramsar Site                         |
| Search Buffer                      | Marine Nature Reserve   | Nearest Surface Water Feature       |
| Bearing Reference Point            | National Nature Reserve | Site of Special Scientific Interest |
| North Arrow                        | National Park           | Special Area of Conservation        |
| Area of Outstanding Natural Beauty | National Scenic Area    | Special Protection Area             |
| Environmentally Sensitive Area     | Nitrate Sensitive Area  | Water Abstraction                   |
| Forest Park                        | Nitrate Vulnerable Zone | Historical Flood Liability          |



# Source Protection Zones



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## Source Protection Zones

- |                         |   |  |
|-------------------------|---|--|
| Site Boundary           | Inner zone (Zone 1)                             | Total catchment (Zone 3)                             |
| Search Buffer           | Inner zone - subsurface activity only (Zone 1c) | Total catchment - subsurface activity only (Zone 3c) |
| Bearing Reference Point | Outer zone (Zone 2)                             | Special interest (Zone 4)                            |
| N                       | Outer zone - subsurface activity only (Zone 2c) |  |

# Environmentally Sensitive Features

## Nitrate Vulnerable Zones

Map ID	Details	Distance	Direction
1	Name: Sandlings And Chelmsford, Description: Groundwater, Source: Environment Agency, Head Office.	On Site	-
2	Name: River Chelmer Nvz, Description: Surface Water, Source: Environment Agency, Head Office.	On Site	-

## Nearest Surface Water Feature

Map ID	Details	Distance	Direction
3	Surface water feature identified in proximity.	On Site	SE

## Sites of Special Scientific Interest

Map ID	Details	Distance	Direction
4	Name: River Ter, Multiple Area: N, Area (m <sup>2</sup> ): 64063.41, Source: Natural England, Reference: 2000058, Designation Date: 8th March 1994, Date Type: Notified, Designation Details: Geological Conservation Review.	On Site	NW

## Water Abstractions

Map ID	Details	Distance	Direction
5	Operator: Lord Rayleigh'S Farms Ltd, Licence Number: 8/37/38/*S/0012, Permit Version: 100, Location: River Ter At Terling, Authority: Environment Agency, Anglian Region, Abstraction: General Agriculture: Spray Irrigation - Direct, Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints, Source: Surface, Daily Rate(m <sup>3</sup> ): Not Supplied, Yearly Rate (m <sup>3</sup> ): Not Supplied, Status: Perpetuity, Authorised Start: 01 April, Authorised End: 30 September, Permit Start Date: 1st April 2000, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	On Site	NW
6	Operator: Lowleys Farms, Licence Number: 8/37/38/**/030, Permit Version: Not Supplied, Location: Reservoir Fed By Straw Brook, Authority: Environment Agency, Anglian Region, Abstraction: Spray Irrigation, Abstraction Type: Not Supplied, Source: Stream, Daily Rate(m <sup>3</sup> ): 23, Yearly Rate (m <sup>3</sup> ): 1410000, Not Supplied, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 100m.	On Site	NW
7	Operator: Lord Rayleigh's Farms Inc., Licence Number: 8/37/38/*g/014, Permit Version: Not Supplied, Location: Rolls Farm, TERLING, Authority: Environment Agency, Anglian Region, Abstraction: Agriculture (General), Abstraction Type: Not Supplied, Source: Well And Borehole, Daily Rate(m <sup>3</sup> ): 4, Yearly Rate (m <sup>3</sup> ): 11000, Glacial Sand and Gravel; Status: Revoked, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	195m	SE
8	Operator: Lord Rayleigh's Farms Ltd, Licence Number: 8/37/38/**/017, Permit Version: Not Supplied, Location: Ridley Hall, TERLING, Authority: Environment Agency, Anglian Region, Abstraction: Spray Irrigation, Abstraction Type: Not Supplied, Source: Stream, Daily Rate(m <sup>3</sup> ): 341, Yearly Rate (m <sup>3</sup> ): 1590000, Status: Perpetuity, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	303m	NE
10	Operator: Lord Rayleigh'S Farms Ltd, Licence Number: 8/37/38/*S/0017, Permit Version: 101, Location: R.Ter At Ridley Hall, Terling, Authority: Environment Agency, Anglian Region, Abstraction: General Agriculture: Spray Irrigation - Storage, Abstraction Type: Water may be abstracted from a single point, Source: Surface, Daily Rate(m <sup>3</sup> ): Not Supplied, Yearly Rate (m <sup>3</sup> ): Not Supplied, Status: Perpetuity, Authorised Start: 01 May, Authorised End: 30 September, Permit Start Date: 1st April 2000, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	369m	E

## Water Abstractions

Map ID	Details	Distance	Direction
9	Operator: Lord Rayleigh'S Farms Ltd, Licence Number: 8/37/38/*S/0036, Permit Version: 100, Location: R.Ter At Ridley Hall Farm, Terling - Pt A, Authority: Environment Agency, Anglian Region, Abstraction: General Agriculture: Spray Irrigation - Storage, Abstraction Type: Water may be abstracted from a single point, Source: Surface, Daily Rate(m <sup>3</sup> ): Not Supplied, Yearly Rate (m <sup>3</sup> ): Not Supplied, Not Supplied, Authorised Start: 01 November, Authorised End: 31 March, Permit Start Date: 1st April 2000, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 100m.	369m	E
11	Operator: Lord Rayleigh's Farms Ltd, Licence Number: 8/37/38/**/017, Permit Version: Not Supplied, Location: Whitelands Grove, TERLING, Authority: Environment Agency, Anglian Region, Abstraction: Impounding, Abstraction Type: Not Supplied, Source: Stream, Daily Rate(m <sup>3</sup> ): 455, Yearly Rate (m <sup>3</sup> ): 39300000, Status: Perpetuity, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	374m	E

## Source Protection Zones

Map ID	Details	Distance	Direction
	Name: , Source: Environment Agency, Head Office, Reference: Not Supplied, Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	470m	N

## Natural and Mining Related Hazards

### Subsidence

#### Collapsible Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	On Site	SW
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	13m	NE

#### Compressible Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	On Site	NW
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	13m	NE

#### Ground Dissolution Stability Hazards

Map ID	Details	Distance	Direction
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	-

#### Landslide Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	E

#### Running Sand Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	NW
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	13m	NE

## Shrinking or Swelling Clay Subsidence Hazards

Map ID	Details	Distance	Direction
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	On Site	NE
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	190m	E

## Radon

### Radon Potential

Map ID	Details	Distance	Direction
	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level)., Source: British Geological Survey, National Geoscience Information Service.	On Site	E

### Radon Protective Measures

Map ID	Details	Distance	Direction
	None, Source: British Geological Survey, National Geoscience Information Service.	On Site	E

## Mining

### BGS Recorded Mineral Sites

Map ID	Details	Distance	Direction
35	Site Name: Roll'S Farm Gravel Pit, Site Location: Terling, Witham, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 180788, Type: Opencast, Status: Ceased, Operator: Unknown Operator, Operator Location: Not Supplied, Periodic Type: Quaternary, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	316m	SE

## Tabular Summary - South

### Statutory Information

Authorisations	On-site	1-250m	251-500m
Local Authority Pollution Prevention and Controls	0	1	0
Local Authority Integrated Pollution Prevention and Controls	0	0	0
Integrated Pollution Controls	0	0	0
Integrated Pollution Prevention And Control	0	0	0
Registered Radioactive Substances	0	0	0
Discharges	On-site	1-250m	251-500m
Discharge Consents	0	5	7
Water Industry Act Referrals	0	0	0
Hazardous Sites	On-site	1-250m	251-500m
Control of Major Accident Hazards Sites	0	0	0
Explosive Sites	0	0	0
Notification of Installations Handling Hazardous Substances	0	0	0
Planning Hazardous Substance Consents	0	0	0
Contraventions	On-site	1-250m	251-500m
Contaminated Land Register Entries and Notices	0	0	0
Local Authority Pollution Prevention and Control Enforcements	0	0	0
Enforcement and Prohibition Notices	0	0	0
Planning Hazardous Substance Enforcements	0	0	0
Substantiated Pollution Incident Register	0	0	0
Prosecutions Relating to Authorised Processes	0	0	0
Prosecutions Relating to Controlled Waters	0	0	0

### Waste

Waste/Landfill Sites	On-site	1-250m	251-500m
BGS Recorded Landfill Sites	0	0	0
Integrated Pollution Control Registered Waste Sites	0	0	0
Licensed Waste Management Facilities (Landfill Boundaries)	0	0	1
Licensed Waste Management Facilities (Locations)	0	1	0
Local Authority Recorded Landfill Sites	0	0	1 (0) *
Registered Landfill Sites	0	0	1 (1) *
Registered Waste Transfer Sites	0	0	0
Registered Waste Treatment or Disposal Sites	0	0	0
Historical Landfill Sites	0	0	1

### Current Land Use

Current Potentially Contaminative Uses	On-site	1-250m	251-500m
Contemporary Trade Directory Entries	0	14	4
Fuel Station Entries	0	0	0
Other Features	On-site	1-250m	251-500m
Overhead Transmission Lines	0	0	0
Gas Pipelines	0	0	0
Gas Feeders	0	0	0

### Historical Land Use

Historical Potentially Contaminative Uses	On-site	1-250m	251-500m
Historical Tanks And Energy Facilities	0	1	10
Potentially Infilled Land	On-site	1-250m	251-500m
Former Marshes	0	0	0
Potentially Infilled Land (Non-Water)	0	2	2
Potentially Infilled Land (Water)	0	0	0

## Groundwater Vulnerability

Hydrogeology	On-site	1-250m	251-500m
Superficial Aquifer Designations	7	4	2
Bedrock Aquifer Designations	2	0	0
Geology	On-site	1-250m	251-500m
BGS 1:50,000 Bedrock Geology	1	0	0
BGS 1:50,000 Superficial Deposits	6	5	4
BGS 1:50,000 Geological Mapping Coverage	1	0	0
BGS 1:625,000 Solid Geology	1	N/A	N/A
BGS Borehole Logs	4	7	N/A

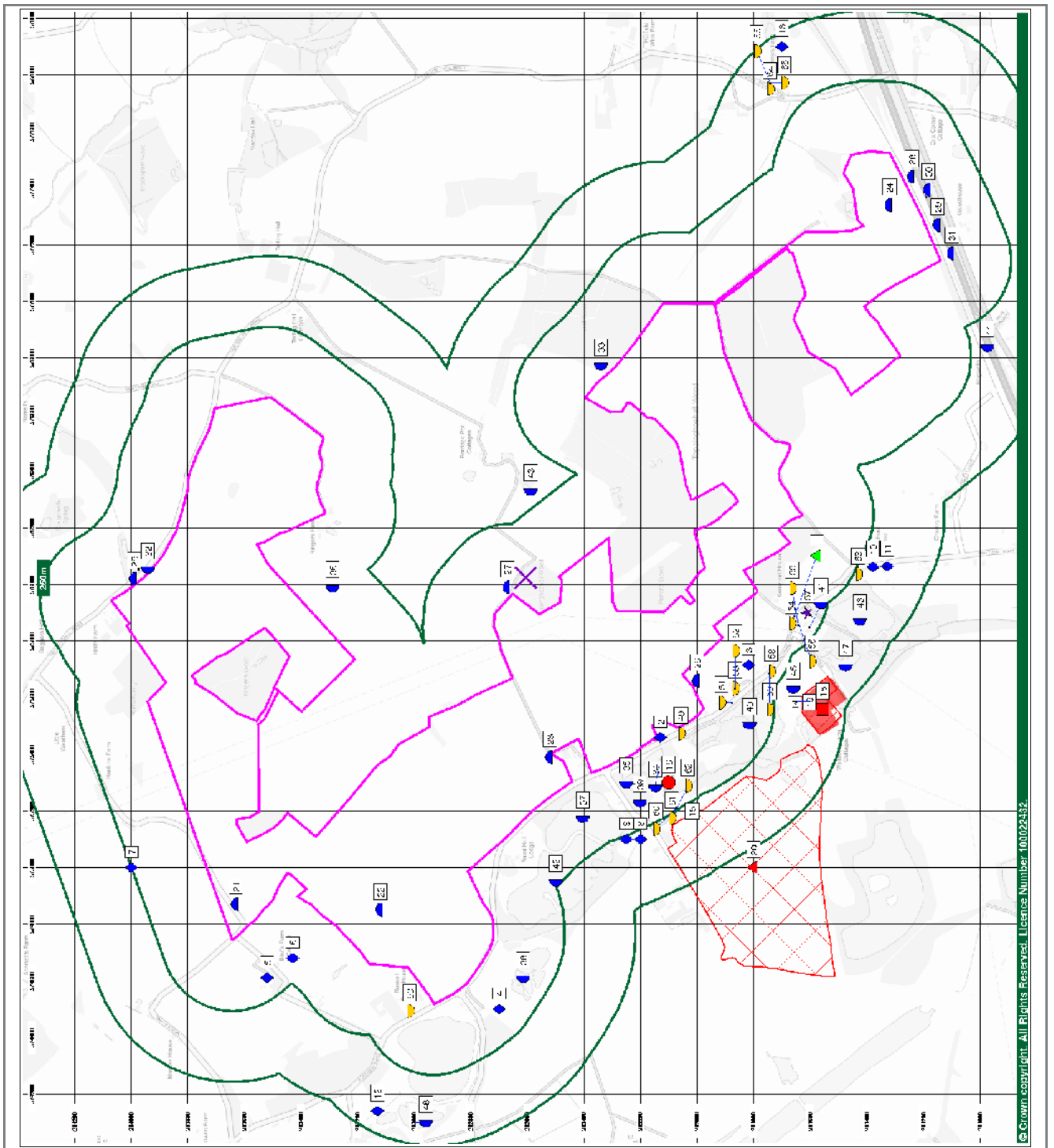
## Environmental Sensitivity

Environmental Sensitivity	On-site	1-250m	251-500m
Areas of Outstanding Natural Beauty	0	0	0
Environmentally Sensitive Areas	0	0	0
Forest Parks	0	0	0
Local Nature Reserves	0	0	0 (0) *
Marine Nature Reserves	0	0	0 (0) *
National Nature Reserves	0	0	0 (0) *
National Parks	0	0	0
National Scenic Areas	0	0	0
Nitrate Sensitive Areas	0	N/A	N/A
Nitrate Vulnerable Zones	2	N/A	N/A
Ramsar Sites	0	0	0 (0) *
River Quality Biology Sampling Points	0	0	0
River Quality Chemistry Sampling Points	0	0	0
Nearest Surface Water Feature	1	0	0
Sites of Special Scientific Interest	0	0	0 (0) *
Special Areas of Conservation	0	0	0 (0) *
Special Protection Areas	0	0	0 (0) *
Water Abstractions	1	4	4 (2)*
Source Protection Zones	0	0	0

## Natural and Mining Related Hazards

Subsidence	On-site	1-250m	251-500m
Collapsible Ground Stability Hazards	1	1 <sup>3</sup>	N/A
Compressible Ground Stability Hazards	1	1	N/A
Ground Dissolution Stability Hazards	1	0	N/A
Landslide Ground Stability Hazards	1	1	N/A
Running Sand Ground Stability Hazards	1	1	N/A
Shrinking or Swelling Clay Subsidence Hazards	1	1	N/A
Non-Coal Mining Hazards	0	0	N/A
Radon	On-site	1-250m	251-500m
Radon Potential	1	N/A	N/A
Radon Protection Measures	1	N/A	N/A
Mining	On-site	1-250m	251-500m
Brine Compensation Areas	0	N/A	N/A
Coal Mining Affected Areas	0	N/A	N/A
Natural and Mining Cavities	0	0	0
Mining Instability	0	0	N/A
BGS Recorded Mineral Sites	0	11	6

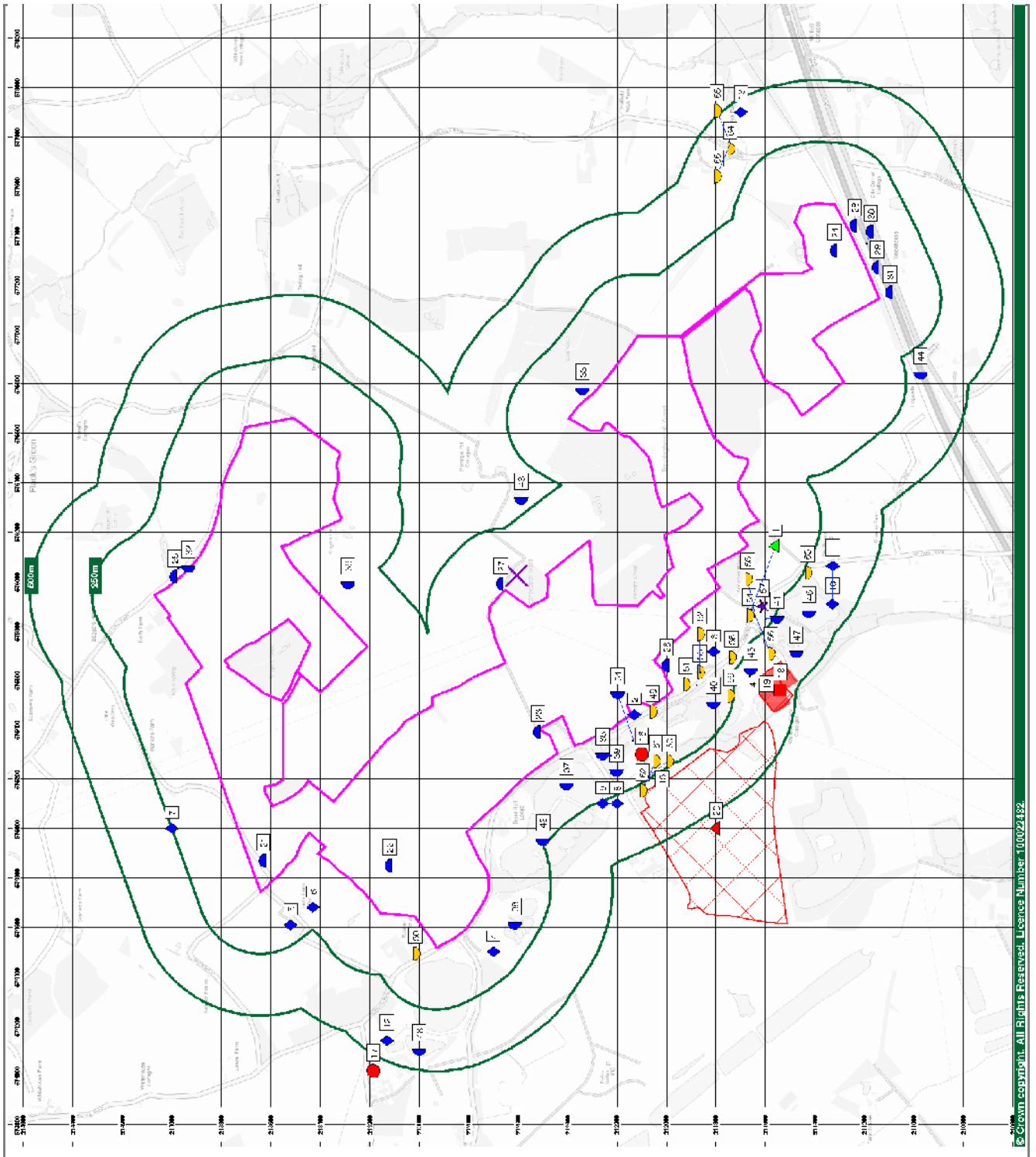
<sup>3</sup>Ground stability hazards are only searched to a radius of 50m from the Site boundary.



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### Current Land Use within 250m

<p><b>General</b></p> <ul style="list-style-type: none"> <li> Search Buffer</li> <li> Bearing Reference Point</li> <li> Grid Lines</li> <li> Reference Number</li> </ul>	<p><b>Waste/Landfill Sites</b></p> <ul style="list-style-type: none"> <li> BCS Recorded Landfill Site</li> <li> EA Historic Landfill (Polygon)</li> <li> EA Historic Landfill (Buffered Point)</li> <li> Licensed Waste Management Facilities (Landfill)</li> <li> Local Authority Recorded Landfill Site</li> <li> Registered Waste Transfer Site</li> <li> Registered Waste Treatment or Disposal Site</li> <li> Registered Landfill Site</li> </ul>	<p><b>Statutory Authorisations</b></p> <ul style="list-style-type: none"> <li> Local Authority Pollution Prevention and Control</li> <li> Contaminated Land Register Entry or Notice</li> <li> Discharge Consent</li> <li> Discharge Consent Referral</li> <li> Water Industry Act</li> </ul>	<p><b>Industrial Processes</b></p> <ul style="list-style-type: none"> <li> Integrated Pollution Control</li> <li> Integrated Pollution Control</li> <li> Local Authority Integrated Pollution Prevention and Control</li> </ul>	<p><b>Storage of Hazardous Substances</b></p> <ul style="list-style-type: none"> <li> COMAH</li> <li> Explosive Site</li> <li> Planning Hazardous Substance Consent</li> <li> NHHS</li> </ul>	<p><b>Contraventions</b></p> <ul style="list-style-type: none"> <li> Local Authority Pollution Prevention and Control Enforcement</li> <li> Planning Hazardous Substance Enforcement</li> <li> Prosecution Relating to Authorised Processes</li> </ul>	<p><b>Potentially Contaminative Use</b></p> <ul style="list-style-type: none"> <li> Potentially Contaminative Use</li> <li> Gas Pipeline</li> <li> Fuel Station Entry</li> <li> Gas Site</li> </ul>	<p><b>Miscellaneous</b></p> <ul style="list-style-type: none"> <li> BCS Recorded Mineral Site</li> <li> BCS Borehole</li> <li> Telecommunication Base Station</li> </ul>
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**Current Land Use within 500m**

**General**

- Site Boundary
- Bearing Reference Point
- Reference Number
- Search Buffer
- Grid Lines

**Waste/Landfill Sites**

- BGS Recorded Landfill Site
- EA Historic Landfill (Polygon)
- Licensed Waste Management Facilities (Location)
- Licensed Waste Management Facilities (Buffered Point)
- Local Authority Recorded Landfill Site
- Local Authority Recorded Landfill Site
- Point Location of Waste Transfer Site
- Point Location of Registered Waste Transfer Site
- Point Location of Registered Waste Treatment or Disposal Site
- Point Location of Registered Landfill Site
- Potential Landfill Buffer
- Registered Landfill Site

**Statutory Authorisations**

- Local Authority Pollution Prevention and Control
- Contaminated Land Register Entry or Notice
- Registered Land
- Registered Radioactive Substance
- Water Industry Act Referral

**Industrial Processes**

- Integrated Pollution Control
- Integrated Pollution Control
- Local Authority Integrated Pollution Prevention and Control

**Storage of Hazardous Substances**

- COMAH
- Explosive Site
- Planning Hazardous Substance Consent
- NHHS

**Contraventions**

- Local Authority Pollution Prevention and Control Enforcement
- Planning Hazardous Substance Enforcement
- Prosecution Relating to Authorised Processes
- Enforcement and Prohibition Notice
- Substantiated Pollution Incident Register
- Prosecution Relating to Controlled Waters

**Potentially Contaminative Use**

- Potentially Contaminative Use
- Fuel Station Entry
- Gas Pipeline
- Gas Site

**Miscellaneous**

- BGS Recorded Mineral Site
- BGS Borehole
- Telecommunication Base Station



## Statutory Information

### Local Authority Pollution Prevention and Controls

Map ID	Details	Distance	Direction
1	Name: Euromix Concrete Ltd, Location: Boreham Industrial Estate, Waltham Road, CHELMSFORD, CM3 3AY, Authority: Chelmsford Borough Council, Environmental Health Department, Permit Ref: PPC13, Dated: 29th March 1993, Process Type: Local Authority Air Pollution Control, Description: PG3/1Blending, packing, loading and use of bulk cement, Status: Authorised, Positional Accuracy: Manually positioned to the road within the address or location.	156m	S

## Discharges

### Discharge Consents

Map ID	Details	Distance	Direction
2	Operator: Lord Rayleighs Farm'S Ltd, Property Type: Domestic Property (Multiple), Location: Stocks Cottages Nos 1&2, Waltham Road, Boreham, Essex, Cm3 3ay, Authority: Environment Agency, Anglian Region, Catchment Area: Lower River Chelmer (Boreham), Permit Ref: Prenf15420, Permit Version: 1, Effective Date: 15th November 2002, Issued Date: 15th November 2002, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary Of River Chelmer, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	13m	SW
3	Operator: Mr Neil O'Brien, Property Type: Domestic Property (Single), Location: Hunters Moon Waltham Road, Boreham, Chelmsford, Essex, Cm3 3ay, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Eprfb3997wy, Permit Version: 1, Effective Date: 19th April 2017, Issued Date: 19th April 2017, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary Of The Boreham Brook, Status: New issued under EPR 2010, Positional Accuracy: Located by supplier to within 10m.	128m	S
4	Operator: The Residents, Property Type: Domestic Property (Multiple), Location: Russell Green Cottages Russell Green, Boreham, Chelmsford, Essex, Cm3 3bb, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfe04158, Permit Version: 1, Effective Date: 24th October 1958, Issued Date: 24th October 1958, Revocation Date: 2nd March 1993, Discharge Type: Discharge Of Other Matter-Surface Water, Discharge Environment: Freshwater Stream/River, Receiving Water: Unknown Trib. Boreham Brook, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 100m.	144m	W
5	Operator: Mrs Nicola Rogers, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Headlands Little Waltham, Chelmsford, Chelmsford, Essex, Cm3 3ne, Authority: Environment Agency, Anglian Region, Catchment Area: Lower River Chelmer (Boreham), Permit Ref: Prenf19843, Permit Version: 1, Effective Date: 27th January 2006, Issued Date: 26th January 2006, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Ditch Trib Of The Chelmer, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	181m	NW

## Discharge Consents

Map ID	Details	Distance	Direction
6	Operator: Mr Adrian Groves, Property Type: Domestic Property (Single), Location: Birds Farm Cottage Terling Road, Little Waltham, Nr Chelmsford, Essex, Cm3 3ne, Authority: Environment Agency, Anglian Region, Catchment Area: Not Given, Permit Ref: Prenf11055, Permit Version: 1, Effective Date: 15th August 1997, Issued Date: 15th August 1997, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Tributary Boreham Brook, Status: Post National Rivers Authority Legislation where issue date > 31/08/1989, Positional Accuracy: Located by supplier to within 100m.	183m	NW
7	Operator: Lord Rayleighs Farms, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Leylands Farm Estate, Terling, Essex, Authority: Environment Agency, Anglian Region, Catchment Area: Not Given, Permit Ref: Pr2nfe13569, Permit Version: 1, Effective Date: 28th May 1970, Issued Date: 28th May 1970, Revocation Date: 18th June 2009, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Ter, Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Approximate location provided by supplier.	251m	NW
8	Operator: Ford Motor Company Ltd, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Great Holts Farm Boreham, Chelmsford, Essex, Cm3 3az, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfe32266, Permit Version: 1, Effective Date: 14th September 1966, Issued Date: 14th September 1966, Revocation Date: 28th February 1992, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Trib Boreham Brook, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 100m.	282m	SW
9	Operator: Essex Police, Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES), Location: Ford Motorsport Boreham Airfield, Boreham, Chelmsford, Essex, Cm3 3bg, Authority: Environment Agency, Anglian Region, Catchment Area: Lower River Chelmer (Boreham), Permit Ref: Pr2nfe01284, Permit Version: 1, Effective Date: 18th May 1984, Issued Date: 18th May 1984, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Boreham Brook River Chelmer, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 100m.	282m	SW
10	Operator: Mr H Jordan / Mr J Vince, Property Type: Domestic Property (Single), Location: Old School House Waltham Road, Boreham, Essex, Cm3 3ax, Authority: Environment Agency, Anglian Region, Catchment Area: Lower River Chelmer (Boreham), Permit Ref: Pr2lfs11766, Permit Version: 1, Effective Date: 1st December 1966, Issued Date: 1st December 1966, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Land/Soakaway, Receiving Water: Not Supplied, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m.	348m	S
11	Operator: Ford Motorsport, Property Type: Domestic Property (Single), Location: Old School House Waltham Road, Boreham, Essex, Cm3 3ax, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2lfs26771, Permit Version: 1, Effective Date: 21st December 1971, Issued Date: 21st December 1971, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Land/Soakaway, Receiving Water: Land, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Manually positioned to the address or location.	349m	S

## Discharge Consents

Map ID	Details	Distance	Direction
12	Operator: Mid-Essex Gravel Pits (Chelmsford)Ltd, Property Type: MINERAL/GRAVEL EXTRACTION/QUARRYING, Location: Drakes Farm, Boreham, Authority: Environment Agency, Anglian Region, Catchment Area: Not Given, Permit Ref: Prenf02136, Permit Version: 1, Effective Date: 24th January 1990, Issued Date: 24th January 1990, Revocation Date: 3rd November 1997, Discharge Type: Miscellaneous Discharges - Mine / Groundwater As Raised, Discharge Environment: Freshwater Stream/River, Receiving Water: Eastern Arm Of Boreham Brook, Status: Post National Rivers Authority Legislation where issue date > 31/08/1989, Positional Accuracy: Located by supplier to within 100m.	427m	W
13	Operator: Lord Rayleighs Farms, Property Type: Undefined Or Other, Location: Hatfield Wick Farm, Hatfield Peverel, Authority: Environment Agency, Anglian Region, Catchment Area: Not Supplied, Permit Ref: Pr2nfe10270, Permit Version: 1, Effective Date: 10th September 1970, Issued Date: 10th September 1970, Revocation Date: 30th June 1992, Discharge Type: Trade Effluent, Discharge Environment: Freshwater Stream/River, Receiving Water: Trib River Ter, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 100m.	454m	SE

## Waste

### Waste/Landfill Sites

#### Local Authority Landfill Coverage

Chelmsford Borough Council - Has no landfill data to supply

Essex County Council - Has supplied landfill data

Braintree District Council - Has no landfill data to supply

#### Licensed Waste Management Facilities (Landfill Boundaries)

Map ID	Details	Distance	Direction
15	Name: Great Holts Farm, Licence Number: 70269, Location: Great Holts Farm, Waltham Road, Boreham, Chelmsford, Essex, CM3 3AZ, Licence Holder: Cemex U K Materials Limited, Authority: Environment Agency - Anglian Region, Eastern Area, Site Category: Landfills Taking Non-biodegradable Wastes (Not Construction), Maximum Input Rate: Not Supplied, Licence Status: Closure, Issued Date: 13th April 1984, Last Modified: Not Supplied, Expiry Date: Not Supplied, Revoked Date: Not Supplied, Surrendered Date: Not Supplied, Positional Accuracy: Positioned by the supplier, Boundary Accuracy: As Supplied.	276m	SW

#### Licensed Waste Management Facilities (Locations)

Map ID	Details	Distance	Direction
16	Licence Number: 70269, Location: Great Holts Farm, Waltham Road, Boreham, Chelmsford, Essex, CM3 3AZ, Operator: Cemex U K Materials Limited, Operator Location: Not Supplied, Authority: Environment Agency - Anglian Region, Eastern Area, Site Category: Landfills Taking Non-biodegradable Wastes (Not Construction), Licence Status: Closed, Issued Date: 13th April 1984, Last Modified: 16th January 2019, Expiry Date: Not Supplied, Suspended Date: Not Supplied, Revoked Date: Not Supplied, Surrendered Date: Not Supplied, IPPC Reference: Not Supplied, Positional Accuracy: Located by supplier to within 100m.	156m	SW
17	Licence Number: 100759, Location: Stevens V W Dismantlers, Drakes Lane, Boreham, Essex, CM3 3BE, Operator: Stevens Gary, Operator Location: Not Supplied, Authority: Environment Agency - Anglian Region, Eastern Area, Site Category: Vehicle depollution facility, Licence Status: Issued, Issued Date: 2nd February 2009, Last Modified: Not Supplied, Expiry Date: Not Supplied, Suspended Date: Not Supplied, Revoked Date: Not Supplied, Surrendered Date: Not Supplied, IPPC Reference: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	561m	W

## Local Authority Recorded Landfill Sites

Map ID	Details	Distance	Direction
18	Location: Boreham, Reference: 23/421/12, Authority: Essex County Council, Last Reported Status: Not Supplied, Types of Waste: Not Supplied, Date of Closure: Not Supplied, Boundary Quality: Not Applicable, Positional Accuracy: Manually positioned within the geographical locality.	421m	SW

## Registered Landfill Sites

Map ID	Details	Distance	Direction
19	Licence Holder: Rmc (Uk) Ltd, Licence Reference: 47/78, Site Location: Wallace Lane, Boreham, Chelmsford, Essex, Easting: Not Supplied, Northing: Not Supplied, Operator Location: RMC House, High Street, Feltham, HOUNSLOW, Middlesex, TW13 4HA, Authority: Environment Agency - Anglian Region, Eastern Area, Site Category: Landfill, Maximum Input Rate: Undefined, Waste Source Restrictions: No known restriction on source of waste, Dated: 24th July 1978, Preceded By Licence: Not Given, Superseded By Licence: Not Given, Positional Accuracy: Positioned by the supplier, Boundary Accuracy: Moderate, Authorised Waste: 1. concrete/asphalt mixed waste, Prohibited Waste: N/A.	329m	SW
20	Licence Holder: Rmc Aggregates (Greater London) Ltd, Licence Reference: 108/84, Site Location: Great Holts Farm, Boreham, Chelmsford, Essex, Easting: 575000, Northing: 211800, Operator Location: RMC House, Coldharbour Lane, Thorpe, EGHAM, Surrey, TW20 8TD, Authority: Environment Agency - Anglian Region, Eastern Area, Site Category: Landfill, Maximum Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year), Waste Source Restrictions: No known restriction on source of waste, Dated: 13th April 1984, Preceded By Licence: Not Given, Superseded By Licence: Not Given, Positional Accuracy: Manually positioned to the address or location, Boundary Accuracy: Not Applicable, Authorised Waste: 1. constr'n/demol. inert/non-haz/non-tox, 2. excavated natural materials \$, Prohibited Waste: 1.Liquid/Slurry/Sludge Wastes, 2.Waste Oil.	562m	SW

## Historical Landfill Sites

Map ID	Details	Distance	Direction
14	Licence Holder: Ready Mixed Concrete United Kingdom Limited, Location: Boreham, Chelmsford, Essex, Name: Wallace Lane, Operator Location: RMC House, High Street, Feltham, Middlesex, Boundary Accuracy: As Supplied, Provider Reference: EAHLD01185, First Input Date: 24th July 1978, Last Input Date: 31st December 1985, Specified Waste Type: Deposited Waste included Inert and Industrial Waste, EA Waste Ref: 0, Regis Ref: Not Supplied, WRC Ref: 1500/0580, BGS Ref: Not Supplied, Other Ref: 047/78, CHE005	324m	SW

## Current Land Use

### Current Potentially Contaminative Uses

#### Contemporary Trade Directory Entries

Map ID	Details	Distance	Direction
49	Fireplaces & Mantelpieces, Name: D W Parsons Fireplaces, Status: Inactive, Location: Waltham Road, Boreham, Chelmsford, Essex, CM3 3AY, Positional Accuracy: Automatically positioned to the address.	25m	SW
50	Veterinary Pharmacies, Name: Vefactor, Status: Inactive, Location: Russell Green House, Russell Green, Boreham, Chelmsford, CM3 3BD, Positional Accuracy: Automatically positioned to the address.	87m	W
51	Concrete & Mortar Ready Mixed, Name: Rmc Readymix (East Anglia), Status: Inactive, Location: Waltham Rd, Boreham, Chelmsford, Essex, CM3 3AY, Positional Accuracy: Manually positioned to the road within the address or location.	104m	SW
52	Concrete & Mortar Ready Mixed, Name: Rmc Readymix (East Anglia), Status: Inactive, Location: Waltham Rd, Boreham, Chelmsford, Essex, CM3 3AY, Positional Accuracy: Manually positioned within the geographical locality.	133m	SW

## Contemporary Trade Directory Entries

Map ID	Details	Distance	Direction
53	Reclamation Centres, Name: The Reclaim Centre, Status: Active, Location: Waltham Road, Boreham, Chelmsford, Essex, CM3 3AY, Positional Accuracy: Manually positioned within the geographical locality.	133m	SW
54	Fireplaces & Mantelpieces, Name: D W Parsons & Son, Status: Inactive, Location: Waltham Rd, Boreham, Chelmsford, Essex, CM3 3AY, Positional Accuracy: Manually positioned to the road within the address or location.	164m	S
55	Car Dealers - Used, Name: Superbia Automotive Ltd, Status: Active, Location: Waltham Road, Boreham, Chelmsford, CM3 3AY, Positional Accuracy: Automatically positioned to the address.	186m	S
56	Reclamation Centres, Name: Anglia Building Suppliers Ltd, Status: Inactive, Location: Waltham Road, Boreham, Chelmsford, Essex, CM3 3AY, Positional Accuracy: Automatically positioned to the address.	187m	S
57	Breakdown and Recovery, Name: Service On Site Ltd, Status: Active, Location: Recovery House, Waltham Road, Boreham, Chelmsford, CM3 3AY, Positional Accuracy: Automatically positioned to the address.	190m	S
58	Sand, Gravel & Other Aggregates, Name: R M C Aggregates Ltd, Status: Inactive, Location: Waltham Rd, Boreham, Chelmsford, Essex, CM3 3AY, Positional Accuracy: Manually positioned to the road within the address or location.	208m	S
59	Commercial Vehicle Bodybuilders & Repairers, Name: L Burnham, Status: Inactive, Location: Waltham Rd, Boreham, Chelmsford, Essex, CM3 3AZ, Positional Accuracy: Manually positioned to the road within the address or location.	208m	S
60	Builders' Merchants, Name: A Reclaimed, Status: Inactive, Location: Great Holts, Waltham Road, Boreham, CHELMSFORD, CM3 3AZ, Positional Accuracy: Automatically positioned to the address.	241m	SW
61	Road Haulage Services, Name: Cheshams Transport Services, Status: Inactive, Location: Great Holts Farm, Waltham Road, Boreham, Chelmsford, Essex, CM3 3AZ, Positional Accuracy: Automatically positioned to the address.	241m	SW
62	Commercial Vehicle Servicing, Repairs, Parts & Accessories, Name: Boreham Vehicle Services, Status: Active, Location: Great Holts Farm, Waltham Road, Boreham, Chelmsford, Essex, CM3 3AZ, Positional Accuracy: Automatically positioned to the address.	241m	SW
63	Commercial Vehicle Bodybuilders & Repairers, Name: Chelmer Truck Bodies Ltd, Status: Inactive, Location: Barracks Field, Industrial Estate, Waltham Road, Boreham, Chelmsford, Essex, CM3 3AW, Positional Accuracy: Automatically positioned to the address.	265m	S
64	Lubricant Manufacturers & Distributors, Name: Dynamics, Status: Inactive, Location: Terling Hall Rd, Hatfield Peverel, Chelmsford, Essex, CM3 2EY, Positional Accuracy: Manually positioned to the road within the address or location.	370m	SE
65	Oil Companies, Name: Dynamics, Status: Inactive, Location: Berwick Barns, Terling Hall Road, Hatfield Peverel, Chelmsford, CM3 2EY, Positional Accuracy: Automatically positioned to the address.	382m	SE
66	Storage & Shelving Systems Manufacturers, Name: Racoy Storage Systems, Status: Inactive, Location: Berwick Barns, Terling Hall Road, Hatfield Peverel, Chelmsford, Essex, CM3 2EY, Positional Accuracy: Automatically positioned to the address.	382m	SE

## Historical Land Use

### Historical Potentially Contaminative Uses

#### Historical Tanks and Energy Facilities

Map ID	Details	Distance	Direction
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	24m	W
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1966 - 1978.	263m	SW
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	285m	SW
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	319m	SW
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1973.	375m	SE
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	418m	SW
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	419m	W
	Electrical Sub Station Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	446m	S
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	446m	S
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	462m	SW
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1978.	494m	NE

#### Potentially Contaminative Industrial Uses (Past Land Use)

Map ID	Details	Distance	Direction
	Railways, Date of Mapping: 1881-1978.	13m	SE
	Railways, Date of Mapping: 1881-1978.	15m	SE
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1955-1978.	34m	SW
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1955.	34m	SW
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1881.	37m	N
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1897.	47m	E
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1993.	71m	W
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1881.	113m	N
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1978.	166m	W
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1897-1978.	198m	SW
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1924-1955.	221m	S
	Military Land, Date of Mapping: 1955-1993.	231m	W
	Sewage, Date of Mapping: 1955-1978.	250m	SW
	Clay bricks & tiles [manufacture], Date of Mapping: 1881-1897.	257m	SE
	Road haulage, Date of Mapping: 1978.	273m	S
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1881-1897.	310m	E
	Quarrying of sand & clay, operation of sand & gravel pits, Date of Mapping: 1924.	335m	SE
	Factory or works - use not specified, Date of Mapping: 1993.	474m	SW
	Road haulage, Date of Mapping: 1978.	482m	S

### Potentially Infilled Land

#### Potentially Infilled Land (Non-Water)

Map ID	Details	Distance	Direction
	Unknown Filled Ground (Pit, quarry etc), Date of Mapping: 1978.	37m	N
	Unknown Filled Ground (Pit, quarry etc), Date of Mapping: 1978.	47m	E
	Unknown Filled Ground (Pit, quarry etc), Date of Mapping: 1978.	257m	SE
	Unknown Filled Ground (Pit, quarry etc), Date of Mapping: 1978.	335m	SE

## Historical Maps

The following maps have been manually reviewed by a consultant and presented in the Risk Analysis section at the front of this report:

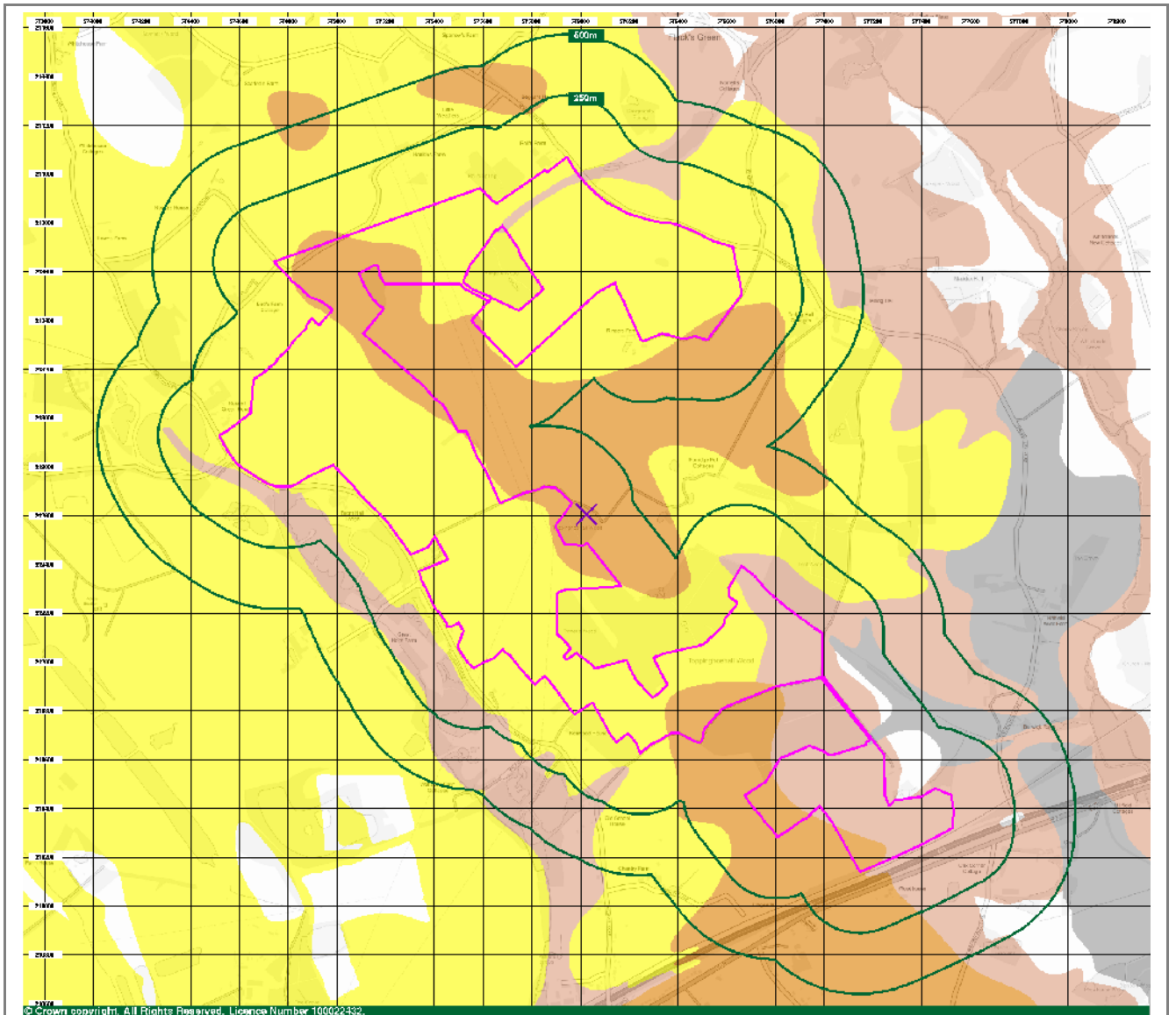
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Scale	Map Sheet	Published Date
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1:2,500	Essex 044_07	1874
1:2,500	Essex 044_10	1874
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1:2,500	Essex 044_01	1875
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1:2,500	Essex 044_01	1897
1:2,500	Essex 044_02	1897
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1:2,500	Essex 044_06	1897
1:2,500	Essex 044_07	1897
1:2,500	Essex 044_10	1897
1:2,500	Essex 044_11	1897
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1:2,500	National Grid TL7610	1952
1:2,500	National Grid TL7611	1952
1:2,500	National Grid TL7413	1953
1:2,500	National Grid TL7414	1953
1:2,500	National Grid TL7511	1953
1:2,500	National Grid TL7612	1953
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1:2,500	National Grid TL7614	1953
1:2,500	National Grid TL7710	1953
1:2,500	National Grid TL7711	1953
1:2,500	National Grid TL7712	1953
1:2,500	National Grid TL7412	1966
1:2,500	National Grid TL7511	1966
1:2,500	National Grid TL7512	1966
1:2,500	National Grid TL7413	1967
1:2,500	National Grid TL7513	1967
1:2,500	National Grid TL7414	1972
1:2,500	National Grid TL7514	1972
1:2,500	National Grid TL7610	1973
1:2,500	National Grid TL7611	1973
1:2,500	National Grid TL7710	1973
1:2,500	National Grid TL7711	1973
1:2,500	National Grid TL7612	1978
1:2,500	National Grid TL7614	1978
1:2,500	National Grid TL7412	1978
1:2,500	National Grid TL7511	1978
1:2,500	National Grid TL7512	1978
1:2,500	National Grid TL7513	1978
1:2,500	National Grid TL7412	1993
1:2,500	National Grid TL7413	1993
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1:10,560	Essex 044_SE	1898
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1:10,560	Essex 054_NE	1924
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1:10,000	National Grid TL71NE	1978
1:10,000	National Grid TL71SE	1978
1:10,000	National Grid TL71SW	1979
1:10,000	National Grid TL71NE	1978
1:10,000	National Grid TL71SE	1978
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1:10,000	National Grid TL71SW	2014



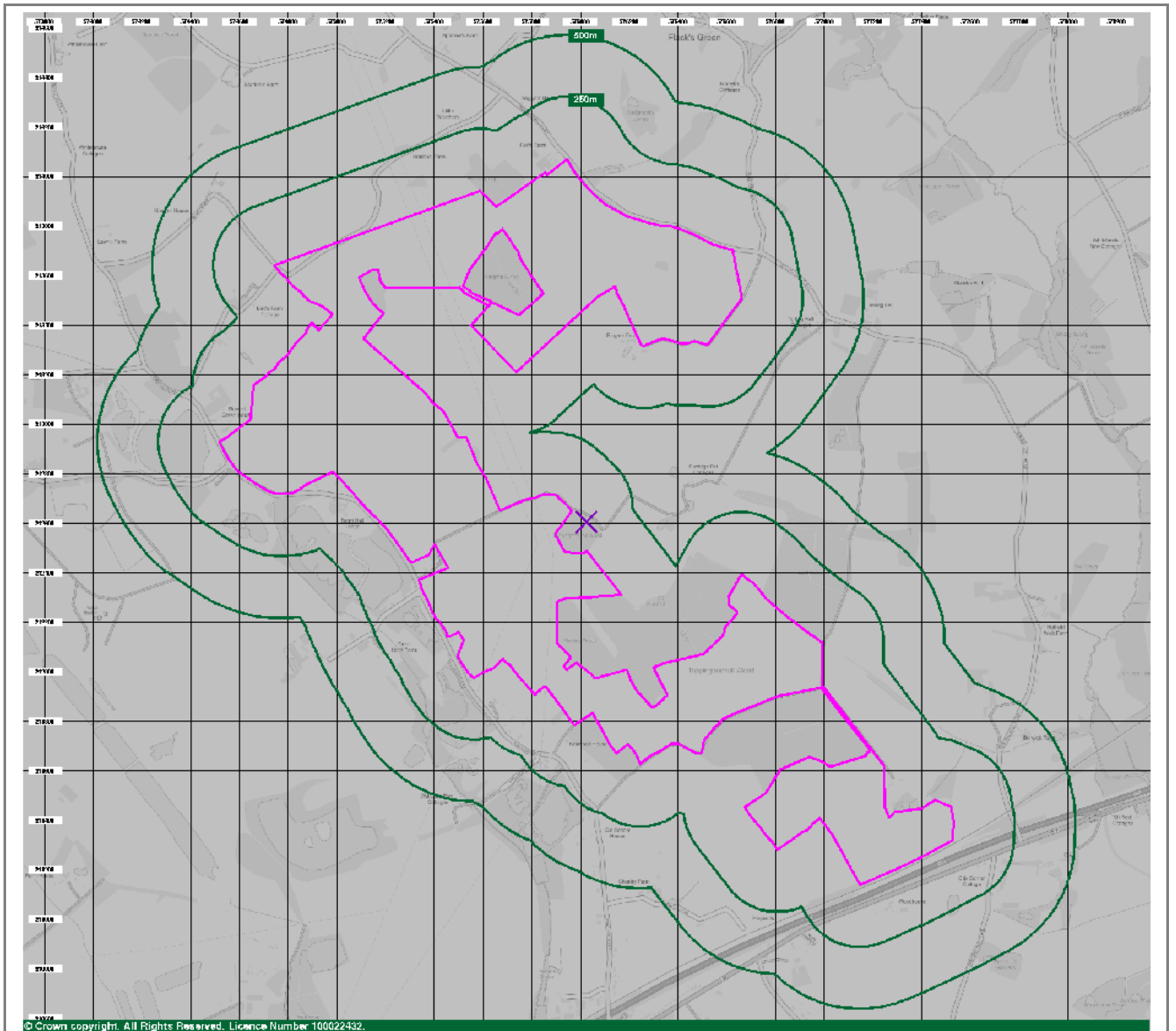
# Aquifer Designation (Superficial)



## Aquifer Designations

-  Site Boundary
-  Search Buffer
-  Bearing Reference Point
-  N
-  Principal Aquifer
-  Secondary A Aquifer
-  Secondary B Aquifer
-  Secondary Undifferentiated
-  Unproductive Strata
-  Unknown

# Aquifer Designation (Bedrock)



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## Aquifer Designations

-  Site Boundary
-  Search Buffer
-  Bearing Reference Point
-  N
-  Principal Aquifer
-  Secondary A Aquifer
-  Secondary B Aquifer
-  Secondary Undifferentiated
-  Unproductive Strata
-  Unknown

# Groundwater Vulnerability

## Hydrogeology

### Superficial Aquifer Designations

Map ID	Details	Distance	Direction
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	On Site	-
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	On Site	NW
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	On Site	W
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	On Site	W
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	On Site	SE
	Unproductive Strata The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.	On Site	SE
	Secondary Aquifer - A These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.	On Site	E
	Secondary Aquifer - A These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.	5m	W
	Secondary Aquifer - A These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.	55m	SW
	Secondary Aquifer - Undifferentiated These aquifers have a variable permeability, yielding varying amounts of groundwater at different locations but not capable of supporting water supplies at a more than a local scale.	218m	SW
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	228m	N
	Unproductive Strata The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.	295m	SE
	Secondary Aquifer - B These aquifers are formed of predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable layers and weathering.	381m	NW

### Bedrock Aquifer Designations

Map ID	Details	Distance	Direction
	Unproductive Strata The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.	On Site	-
	Unproductive Strata The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.	On Site	W

## Geology

### BGS 1:50,000 Bedrock Geology

Map ID	Details	Distance	Direction
	LEX Code: LC, Rock Name: London Clay Formation, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Ypresian.	On Site	-

### BGS 1:50,000 Superficial Deposits

Map ID	Details	Distance	Direction
	LEX Code: BRK, Rock Name: Brickearth, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Pleistocene.	On Site	-
	LEX Code: HEAD, Rock Name: Head, Rock Type: Clay and Silt, Min Age: Not Supplied, Max Age: Quaternary.	On Site	SE
	LEX Code: LOFT, Rock Name: Lowestoft Formation, Rock Type: Diamicton, Min Age: Not Supplied, Max Age: Anglian.	On Site	W
	LEX Code: GFDMP, Rock Name: Glaciofluvial Deposits, Mid Pleistocene, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Cromerian.	On Site	N
	LEX Code: BRK, Rock Name: Brickearth, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Pleistocene.	On Site	SE
	LEX Code: GFDMP, Rock Name: Glaciofluvial Deposits, Mid Pleistocene, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Cromerian.	On Site	E
	LEX Code: GFDMP, Rock Name: Glaciofluvial Deposits, Mid Pleistocene, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Cromerian.	5m	SW
	LEX Code: ALV, Rock Name: Alluvium, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Holocene.	12m	SW
	LEX Code: HEAD, Rock Name: Head, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Quaternary.	68m	SW
	LEX Code: ALV, Rock Name: Alluvium, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Holocene.	213m	N
	LEX Code: BRK, Rock Name: Brickearth, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Pleistocene.	228m	N
	LEX Code: HEAD, Rock Name: Head, Rock Type: Clay and Silt, Min Age: Not Supplied, Max Age: Quaternary.	295m	SE
	LEX Code: GFDMP, Rock Name: Glaciofluvial Deposits, Mid Pleistocene, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Cromerian.	335m	E
	LEX Code: BRK, Rock Name: Brickearth, Rock Type: Clay, Silt and Sand, Min Age: Not Supplied, Max Age: Pleistocene.	381m	NW
	LEX Code: ALV, Rock Name: Alluvium, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Holocene.	462m	S

### BGS 1:50,000 Geological Mapping Coverage

Map ID	Details	Distance	Direction
	Map Sheet No: 241, Map Name: Chelmsford, Map Date: 1975, Bedrock Geology: Available, Superficial Geology: Available, Artificial Geology: Available, Faults: Not Supplied, Landslip: Available, Rock Segments: Not Supplied.	On Site	-

### BGS 1:625,000 Solid Geology

Map ID	Details	Distance	Direction
	Thames Group.	On Site	-

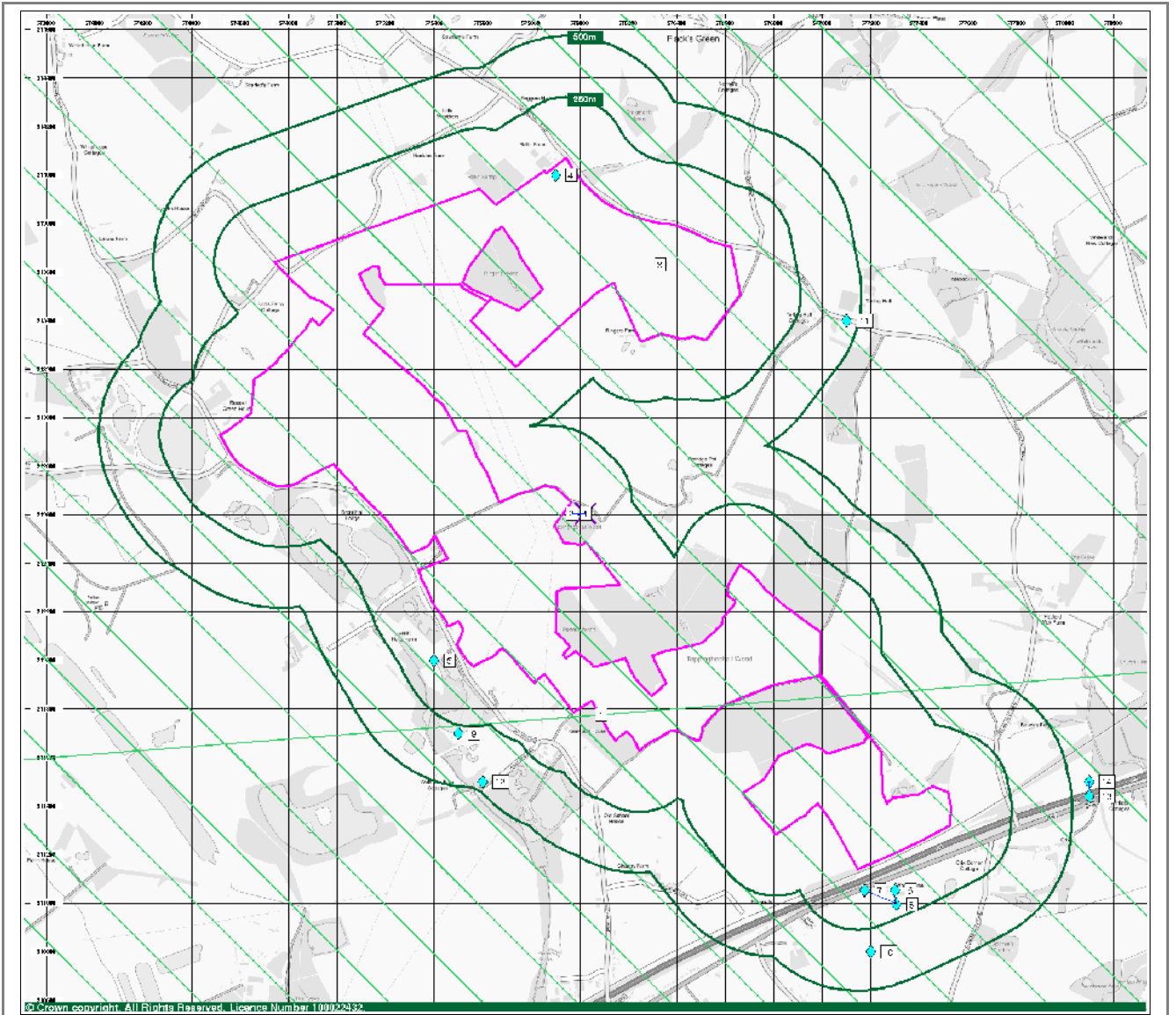
### BGS Boreholes

Map ID	Details	Distance	Direction
21	BGS Reference: TI71sw2, Drilled Length (m): 13.7, Borehole Name: Near Birds Farm.	On Site	NW
22	BGS Reference: TI71sw3, Drilled Length (m): 12.2, Borehole Name: Near Russel Green Farm.	On Site	NW

## BGS Boreholes

Map ID	Details	Distance	Direction
23	BGS Reference: TI71se18, Drilled Length (m): 15.24, Borehole Name: Near Stock'S Farm, T22.	On Site	W
24	BGS Reference: TI71se23, Drilled Length (m): 7.62, Borehole Name: Nr. Toppinghoe Hall, T26.	On Site	SE
25	BGS Reference: TI71se8, Drilled Length (m): 6.4, Borehole Name: Near Roll'S Farm, T.14.	18m	N
26	BGS Reference: TI71se47, Drilled Length (m): 10.66, Borehole Name: Boreham 2, Boreham.	25m	SW
27	BGS Reference: TI71se130, Drilled Length (m): 18.28, Borehole Name: Near Porridgepot Hall, C.	31m	NW
28	BGS Reference: TI71se88, Drilled Length (m): 9.14, Borehole Name: Site Investig`N Springfield/Boreham 250.	32m	SE
29	BGS Reference: TI71se85, Drilled Length (m): 7.01, Borehole Name: Site Investig`N Springfield/Boreham 247.	40m	SE
30	BGS Reference: TI71se87, Drilled Length (m): 8.23, Borehole Name: Site Investig`N Springfield/Boreham 249.	46m	SE
31	BGS Reference: TI71se83, Drilled Length (m): 7.01, Borehole Name: Site Investig`N Springfield/Boreham 245.	47m	SE

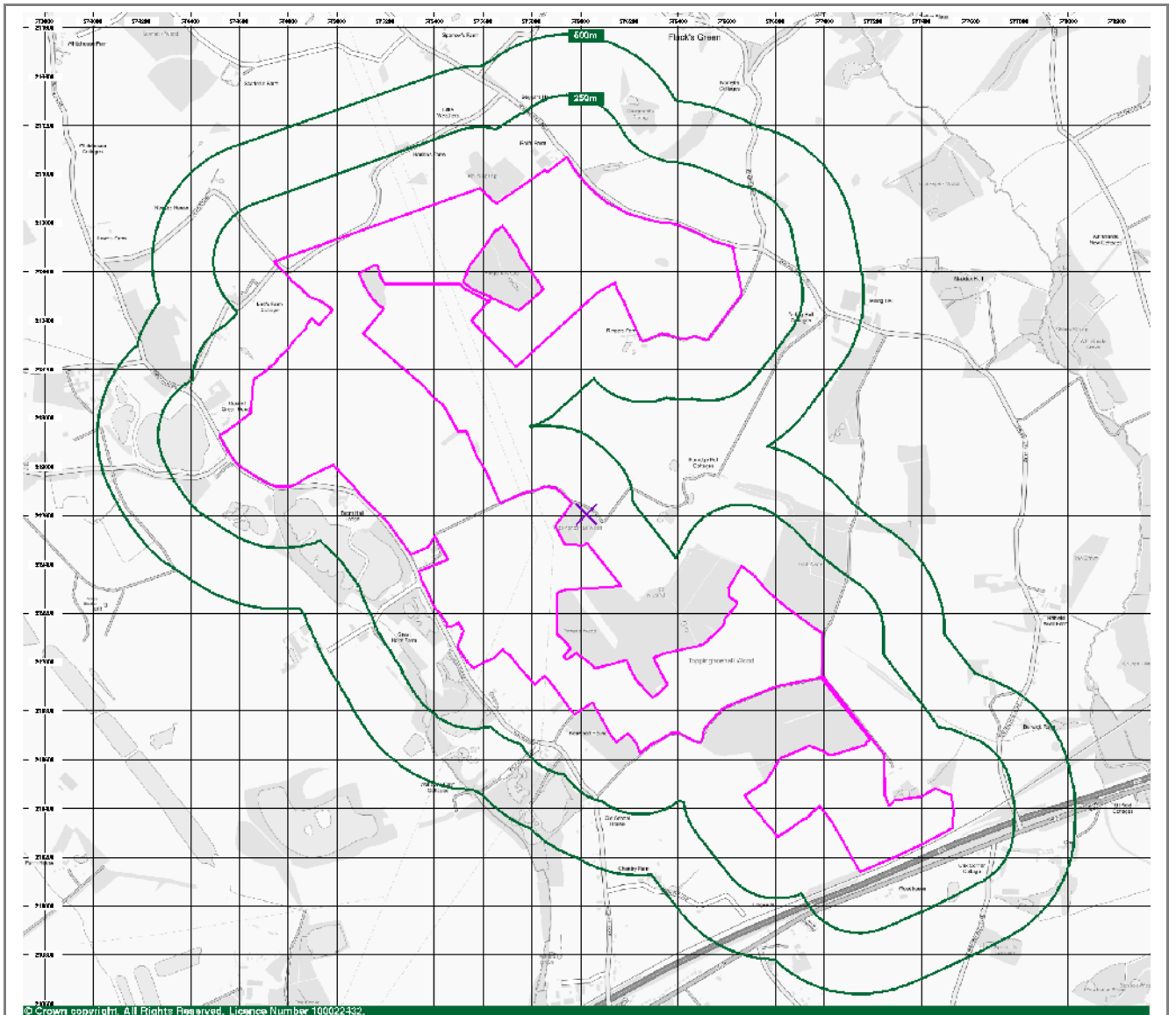
# Environmentally Sensitive Features



## Sensitive Land Uses

- |                                    |                         |                                     |
|------------------------------------|-------------------------|-------------------------------------|
| Site Boundary                      | Local Nature Reserve    | Ramsar Site                         |
| Search Buffer                      | Marine Nature Reserve   | Nearest Surface Water Feature       |
| Bearing Reference Point            | National Nature Reserve | Site of Special Scientific Interest |
| N                                  | National Park           | Special Area of Conservation        |
| Area of Outstanding Natural Beauty | National Scenic Area    | Special Protection Area             |
| Environmentally Sensitive Area     | Nitrate Sensitive Area  | Water Abstraction                   |
| Forest Park                        | Nitrate Vulnerable Zone | Historical Flood Liability          |

# Source Protection Zones



## Source Protection Zones

- |                         |   |  |
|-------------------------|---|--|
| Site Boundary           | Inner zone (Zone 1)                             | Total catchment (Zone 3)                             |
| Search Buffer           | Inner zone - subsurface activity only (Zone 1c) | Total catchment - subsurface activity only (Zone 3c) |
| Bearing Reference Point | Outer zone (Zone 2)                             | Outer zone - subsurface activity only (Zone 2c)      |
| N                       | Special interest (Zone 4)                       |  |

# Environmentally Sensitive Features

## Nitrate Vulnerable Zones

Map ID	Details	Distance	Direction
1	Name: River Chelmer Nvz, Description: Surface Water, Source: Environment Agency, Head Office.	On Site	S
2	Name: Sandlings And Chelmsford, Description: Groundwater, Source: Environment Agency, Head Office.	On Site	-

## Nearest Surface Water Feature

Map ID	Details	Distance	Direction
3	Surface water feature identified in proximity.	On Site	N

## Water Abstractions

Map ID	Details	Distance	Direction
4	Operator: Lord Rayleigh's Farms Inc., Licence Number: 8/37/38/*g/014, Permit Version: Not Supplied, Location: Rolls Farm, TERLING, Authority: Environment Agency, Anglian Region, Abstraction: Agriculture (General), Abstraction Type: Not Supplied, Source: Well And Borehole, Daily Rate(m <sup>3</sup> ): 4, Yearly Rate (m <sup>3</sup> ): 11000, Glacial Sand and Gravel; Status: Revoked, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	On Site	N
5	Operator: Lord Rayleigh'S Farms Ltd, Licence Number: 8/37/36/*G/0036, Permit Version: 100, Location: Gravel Pit, Stocks Farm, Boreham, Authority: Environment Agency, Anglian Region, Abstraction: General Agriculture: Spray Irrigation - Direct, Abstraction Type: Water may be abstracted from a single point, Source: Groundwater, Daily Rate(m <sup>3</sup> ): Not Supplied, Yearly Rate (m <sup>3</sup> ): Not Supplied, Glacial Sand and Gravel; Status: Perpetuity, Authorised Start: 01 January, Authorised End: 31 December, Permit Start Date: 1st April 2000, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	115m	SW
6	Operator: John Wray, Licence Number: 8/37/38/*g/040, Permit Version: Not Supplied, Location: Briars Farm, BOREHAM, Authority: Environment Agency, Anglian Region, Abstraction: Agriculture (General), Abstraction Type: Not Supplied, Source: Groundwater Fed Reservoir, Daily Rate(m <sup>3</sup> ): 27, Yearly Rate (m <sup>3</sup> ): 86400, Glacial Sand and Gravel; Status: Revoked, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	190m	SE
7	Operator: John Wray, Licence Number: 8/37/38/*g/040, Permit Version: Not Supplied, Location: Briars Farm , BOREHAM, Authority: Environment Agency, Anglian Region, Abstraction: Unspecified, Abstraction Type: Not Supplied, Source: Groundwater Fed Reservoir, Daily Rate(m <sup>3</sup> ): 27, Yearly Rate (m <sup>3</sup> ): 86400, Glacial Sand and Gravel; Status: Revoked, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	192m	SE
8	Operator: John Wray, Licence Number: 8/37/38/*g/040, Permit Version: Not Supplied, Location: Briars Farm, BOREHAM, Authority: Environment Agency, Anglian Region, Abstraction: Spray Irrigation, Abstraction Type: Not Supplied, Source: Groundwater Fed Reservoir, Daily Rate(m <sup>3</sup> ): 27, Yearly Rate (m <sup>3</sup> ): 86400, Glacial Sand and Gravel; Status: Revoked, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	196m	SE
9	Operator: R M C Aggregates (Eastern Counties) Ltd, Licence Number: 8/37/36/*G/0035, Permit Version: 100, Location: Waltham Rd Gravel Pits, Boreham, Authority: Environment Agency, Anglian Region, Abstraction: Mineral Products: Mineral Washing, Abstraction Type: Water may be abstracted from a single point, Source: Groundwater, Daily Rate(m <sup>3</sup> ): Not Supplied, Yearly Rate (m <sup>3</sup> ): Not Supplied, Glacial Sand and Gravel; Status: Perpetuity, Authorised Start: 01 January, Authorised End: 31 December, Permit Start Date: 1st January 1999, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	284m	SW



## Water Abstractions

Map ID	Details	Distance	Direction
10	Operator: John Wray, Licence Number: 8/37/38/*g/040, Permit Version: Not Supplied, Location: Briars Farm, BOREHAM, Authority: Environment Agency, Anglian Region, Abstraction: Spray Irrigation, Abstraction Type: Not Supplied, Source: Groundwater Fed Reservoir, Daily Rate(m <sup>3</sup> ): 27, Yearly Rate (m <sup>3</sup> ): 86400, Glacial Sand and Gravel; Status: Revoked, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	345m	SE
11	Operator: Lord Rayleigh's Farms Inc., Licence Number: 8/37/38/*g/014, Permit Version: Not Supplied, Location: Terling Hall, TERLING, Authority: Environment Agency, Anglian Region, Abstraction: Agriculture (General), Abstraction Type: Not Supplied, Source: Well And Borehole, Daily Rate(m <sup>3</sup> ): 6, Yearly Rate (m <sup>3</sup> ): 18000, Glacial Sand and Gravel; Status: Revoked, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	452m	NE
12	Operator: Rmc Aggregates (Eastern Counties) Ltd, Licence Number: 8/37/36/*G/0039, Permit Version: 101, Location: Gravel Pit.Wallaces Fm, Boreham, Authority: Environment Agency, Anglian Region, Abstraction: Other Industrial/Commercial/Public Services: General Use (Medium Loss), Abstraction Type: Water may be abstracted from a single point, Source: Groundwater, Daily Rate(m <sup>3</sup> ): Not Supplied, Yearly Rate (m <sup>3</sup> ): Not Supplied, Fluvial Sand and Gravel; Status: Perpetuity, Authorised Start: 01 January, Authorised End: 31 December, Permit Start Date: 14th January 2000, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	460m	S
13	Operator: Lord Rayleigh'S Farms Ltd, Licence Number: 8/37/38/*S/0017, Permit Version: 101, Location: River Ter At Terling, Authority: Environment Agency, Anglian Region, Abstraction: General Agriculture: Spray Irrigation - Direct, Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints, Source: Surface, Daily Rate(m <sup>3</sup> ): Not Supplied, Yearly Rate (m <sup>3</sup> ): Not Supplied, Status: Perpetuity, Authorised Start: 01 May, Authorised End: 30 September, Permit Start Date: 1st April 2000, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	580m	SE
14	Operator: Lord Rayleigh's Farms Ltd., Licence Number: 8/37/38/*s/012, Permit Version: Not Supplied, Location: Rayleighs Estate, TERLING , Authority: Environment Agency, Anglian Region, Abstraction: Spray Irrigation, Abstraction Type: Not Supplied, Source: Stream, Daily Rate(m <sup>3</sup> ): 34, Yearly Rate (m <sup>3</sup> ): 1590000, Status: Perpetuity, Authorised Start: Not Supplied, Authorised End: Not Supplied, Permit Start Date: Not Supplied, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	580m	SE

## Natural and Mining Related Hazards

### Subsidence

#### Collapsible Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	On Site	SE
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	228m	N

#### Compressible Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	W
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	12m	W

## Ground Dissolution Stability Hazards

Map ID	Details	Distance	Direction
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	-

## Landslide Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	S
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	19m	SW

## Running Sand Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	12m	W

## Shrinking or Swelling Clay Subsidence Hazards

Map ID	Details	Distance	Direction
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	On Site	SE
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	55m	W

## Radon

### Radon Potential

Map ID	Details	Distance	Direction
	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level)., Source: British Geological Survey, National Geoscience Information Service.	On Site	W

### Radon Protective Measures

Map ID	Details	Distance	Direction
	None, Source: British Geological Survey, National Geoscience Information Service.	On Site	W

## Mining

### BGS Recorded Mineral Sites

Map ID	Details	Distance	Direction
32	Site Name: Roll'S Farm Gravel Pit, Site Location: Terling, Witham, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 180788, Type: Opencast, Status: Ceased, Operator: Unknown Operator, Operator Location: Not Supplied, Periodic Type: Quaternary, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	33m	N
33	Site Name: Lost Wood Sand Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 180791, Type: Opencast, Status: Ceased, Operator: Unknown Operator, Operator Location: Not Supplied, Periodic Type: Quaternary, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand, Positional Accuracy: Located by supplier to within 10m.	38m	E
34	Site Name: Brent Hall Farm Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224161, Type: Opencast, Status: Ceased, Operator: Mid Essex Gravel Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	93m	SW

## BGS Recorded Mineral Sites

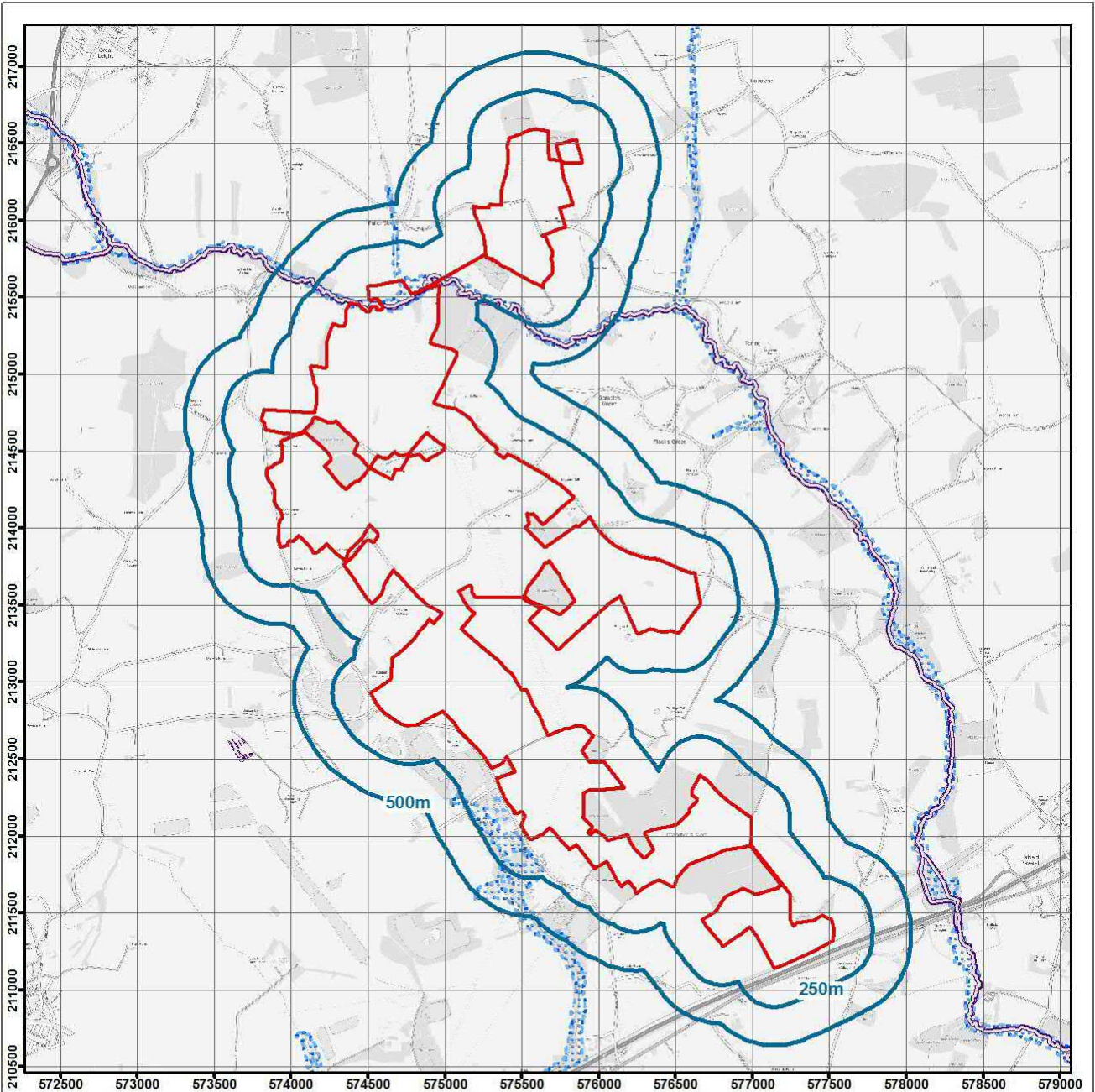
Map ID	Details	Distance	Direction
35	Site Name: Brent Hall Farm Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224162, Type: Opencast, Status: Ceased, Operator: Mid Essex Gravel Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	94m	SW
36	Site Name: Ringer'S Farm Gravel Pit, Site Location: Terling, Witham, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 180789, Type: Opencast, Status: Ceased, Operator: Unknown Operator, Operator Location: Not Supplied, Periodic Type: Anglian, Geology: Lowestoft Formation, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	114m	N
37	Site Name: Brent Hall Farm Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224164, Type: Opencast, Status: Ceased, Operator: Mid Essex Gravel Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	127m	W
38	Site Name: Brent Hall Farm Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224166, Type: Opencast, Status: Ceased, Operator: Mid Essex Gravel Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	154m	W
39	Site Name: Brent Hall Farm Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224163, Type: Opencast, Status: Ceased, Operator: Mid Essex Gravel Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	164m	SW
40	Site Name: Boreham Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224150, Type: Opencast, Status: Ceased, Operator: Hall Aggregates Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	172m	SW
41	Site Name: Boreham Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224152, Type: Opencast, Status: Ceased, Operator: Hall Aggregates Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	223m	S
42	Site Name: Brent Hall Farm Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224165, Type: Opencast, Status: Ceased, Operator: Mid Essex Gravel Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	235m	W
43	Site Name: Porridge Pot Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 180790, Type: Opencast, Status: Ceased, Operator: Unknown Operator, Operator Location: Not Supplied, Periodic Type: Palaeogene, Geology: London Clay Formation, Commodity: Common Clay and Shale, Positional Accuracy: Located by supplier to within 10m.	301m	E
44	Site Name: Hogwells Brick Field, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 180781, Type: Opencast, Status: Ceased, Operator: Unknown Operator, Operator Location: Not Supplied, Periodic Type: Palaeogene, Geology: London Clay Formation, Commodity: Common Clay and Shale, Positional Accuracy: Located by supplier to within 10m.	309m	SE

## BGS Recorded Mineral Sites

Map ID	Details	Distance	Direction
45	Site Name: Boreham Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 180784, Type: Opencast, Status: Ceased, Operator: Hall Aggregates Ltd., Operator Location: Not Supplied, Periodic Type: Quaternary, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	314m	SW
46	Site Name: Boreham Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224153, Type: Opencast, Status: Ceased, Operator: Hall Aggregates Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	370m	S
47	Site Name: Boreham Gravel Pit, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 224151, Type: Opencast, Status: Ceased, Operator: Hall Aggregates Ltd., Operator Location: Not Supplied, Periodic Type: Cromerian - Ipswichian, Geology: Glaciofluvial Deposits, Mid Pleistocene, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 10m.	408m	S
48	Site Name: Drakes Farm, Site Location: Boreham, Chelmsford, Essex, Source: British Geological Survey, National Geoscience Information Service, Reference: 1810, Type: Opencast, Status: Ceased, Operator: Mid Essex Gravel Ltd., Operator Location: Not Supplied, Periodic Type: Anglian, Geology: Lowestoft Formation, Commodity: Sand and Gravel, Positional Accuracy: Located by supplier to within 100m.	423m	W



# Flooding from Rivers or Sea



## Environment Agency

-  Client Site
-  Defended Areas
-  Flood Defences
-  Flood Zone 2
-  Flood Storage
-  Flood Zone 3

meters  


\* - Not all features in legend may be present in above map

Nominal scale at A4 paper size - 1:41,250

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## Current Flood Risk

### Flooding from River or Sea (Flood Zone 3)

Details	Distance	Reply or Direction
Are there any flood plains within 500m?	<501m	YES
Type: Fluvial Models, Source: The Environment Agency, Boundary Accuracy: As Supplied.	On Site	-

### Flooding from River or Sea in an Extreme Flood (Flood Zone 2)

Details	Distance	Reply or Direction
Are there any flood plains (extreme floods) within 500m?	<501m	YES
Type: Fluvial Models, Source: The Environment Agency, Boundary Accuracy: As Supplied.	On Site	-



The Site (or part of it) is at a high risk of flooding from rivers and the sea, as defined by the regulatory body's Flood Map. The risk of annual flooding is greater than 1% (from rivers) or greater than 0.5% (from the sea). All development proposals would need to be accompanied by a Flood Risk Assessment, in accordance with NPPF. Developments such as emergency services stations, basement dwellings and caravans, mobile homes and park homes for permanent residential use, etc. are not compatible with this level of risk. Significant planning constraints would apply to such developments as residential, care homes, hotels, short-let caravan parks, camping, etc. Parts of the Site may be within an area of land where water has to flow or be stored in times of flood (>5% annual risk of flooding) within which severe planning constraints apply. It is recommended that a FLOODSOLUTIONS Consult Report is undertaken to further define the flood risk issues and potential development constraints.

### Flood Defences

Details	Distance	Reply or Direction
Are there any flood defences within 500m?	<501m	YES



There are flood defences on the Site. However, there is a residual risk of flooding should the protection standard of those defences be exceeded (and the defences overtopped) or should the defences fail. It is recommended that further investigations are undertaken into the standard of these defences. Please contact us for further information.

### Areas Benefiting from Flood Defences

Details	Distance	Reply or Direction
Does the Site or any areas within 500m benefit from flood defences?	<501m	NO



The Site is over 500m from an Area Benefiting from a Flood Defence, as defined by the regulatory body. The residual risk that the Site may flood if the protection standard of any flood defences is exceeded, or if the defences fail, is insignificant.

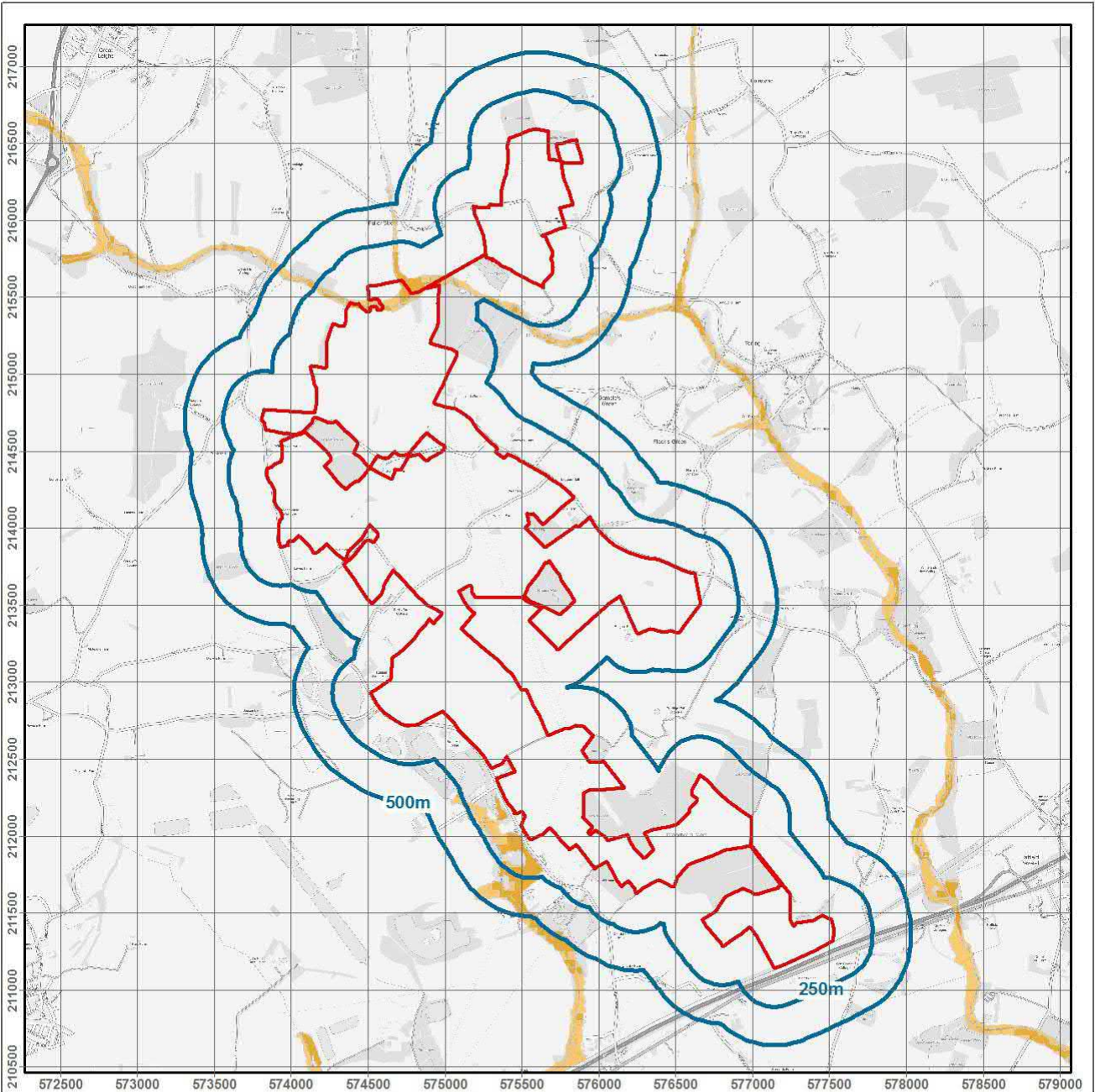
### Flood Storage Areas

Details	Distance	Reply or Direction
Are there any flood storage areas within 500m?	<501m	NO



The Site is over 500m from a Flood Storage Area (FSA) as defined by the regulatory body. These areas store flood water during flood events. It is unlikely that any FSA presents any associated flood risk to the Site.

# The Environment Agency Risk of Flooding from Rivers and Sea



## Risk of Flooding from Rivers and Sea (RoFRS)

-  Client Site
-  High
-  Medium
-  Low
-  Very Low

metres  


\*. Not all features in legend may be present in above map

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## Risk of Flooding from Rivers and Sea

Details	Distance	Reply or Direction
What is the flood likelihood category for the Site?	On Site	High

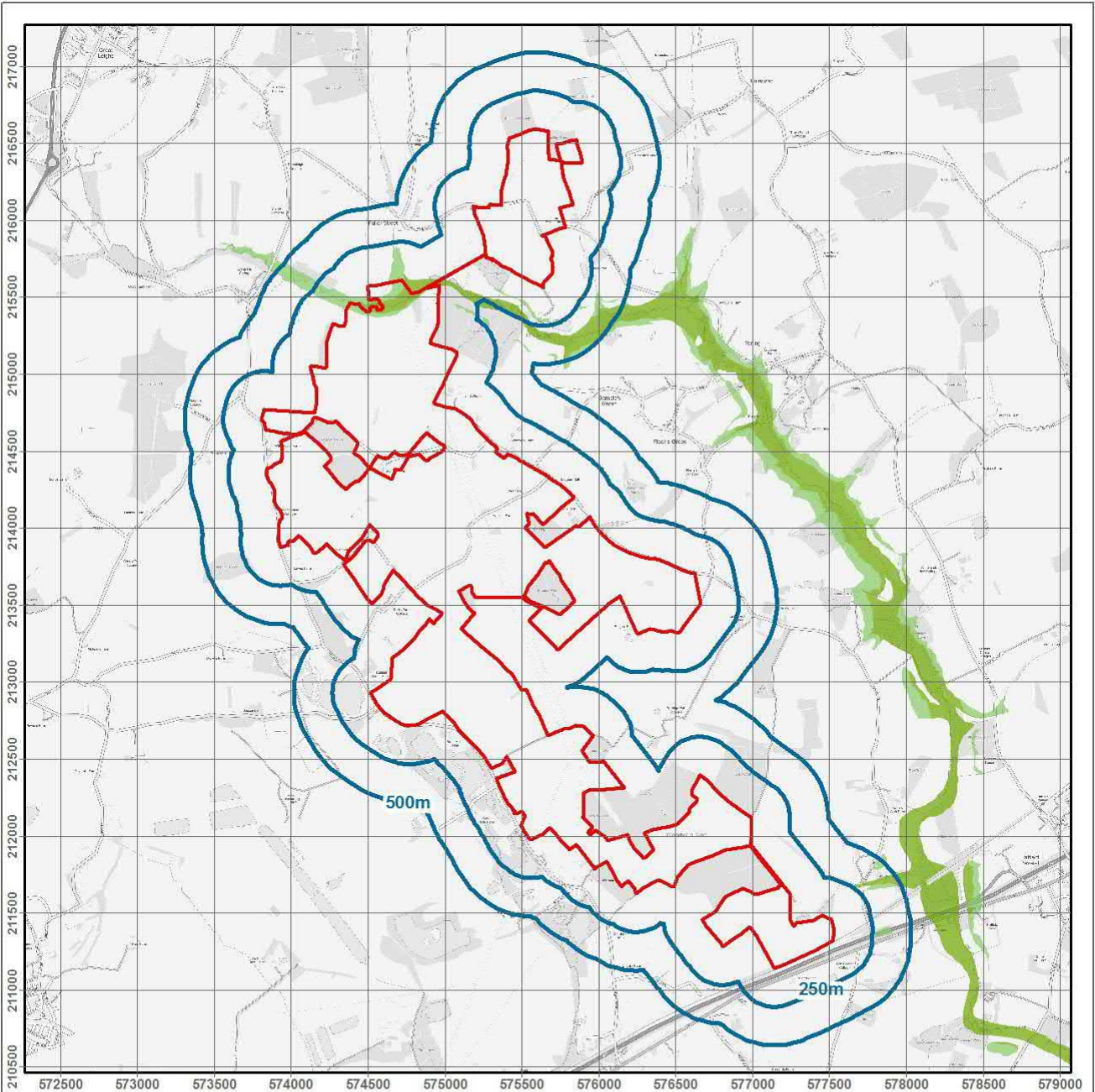


The Site (or part of it) has been defined as being at significant flood risk within the regulatory body's risk assessment. This classification relates to the locality as a whole, rather than the individual site and relates only to the risk of coastal or river flooding. It is recommended that a FLOODSOLUTIONS Consult Report is undertaken to further define the flood risk to the Site.

### The Environment Agency Data

The data in the Property Flood Likelihood Database is sourced from The Environment Agency's National Receptor Dataset (NRD). The information provided includes the flood likelihood category low, moderate, or significant according to the flood likelihood analysis. Some areas may be classified as having no result. This occurs where there is no output data from the analysis, but the area falls within the extreme flood outline (with a 0.1% or 1 in 1000 chance of flooding in any year).

# Groundwater Flooding Risk



## Groundwater Flooding Risk Rating

-  Client Site
-  High Risk
-  Moderate Risk
-  Low Risk

metres  


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## Groundwater Flooding Risk

Details	Distance	Reply or Direction
What is the risk of groundwater flooding at the Site?	On Site	moderate



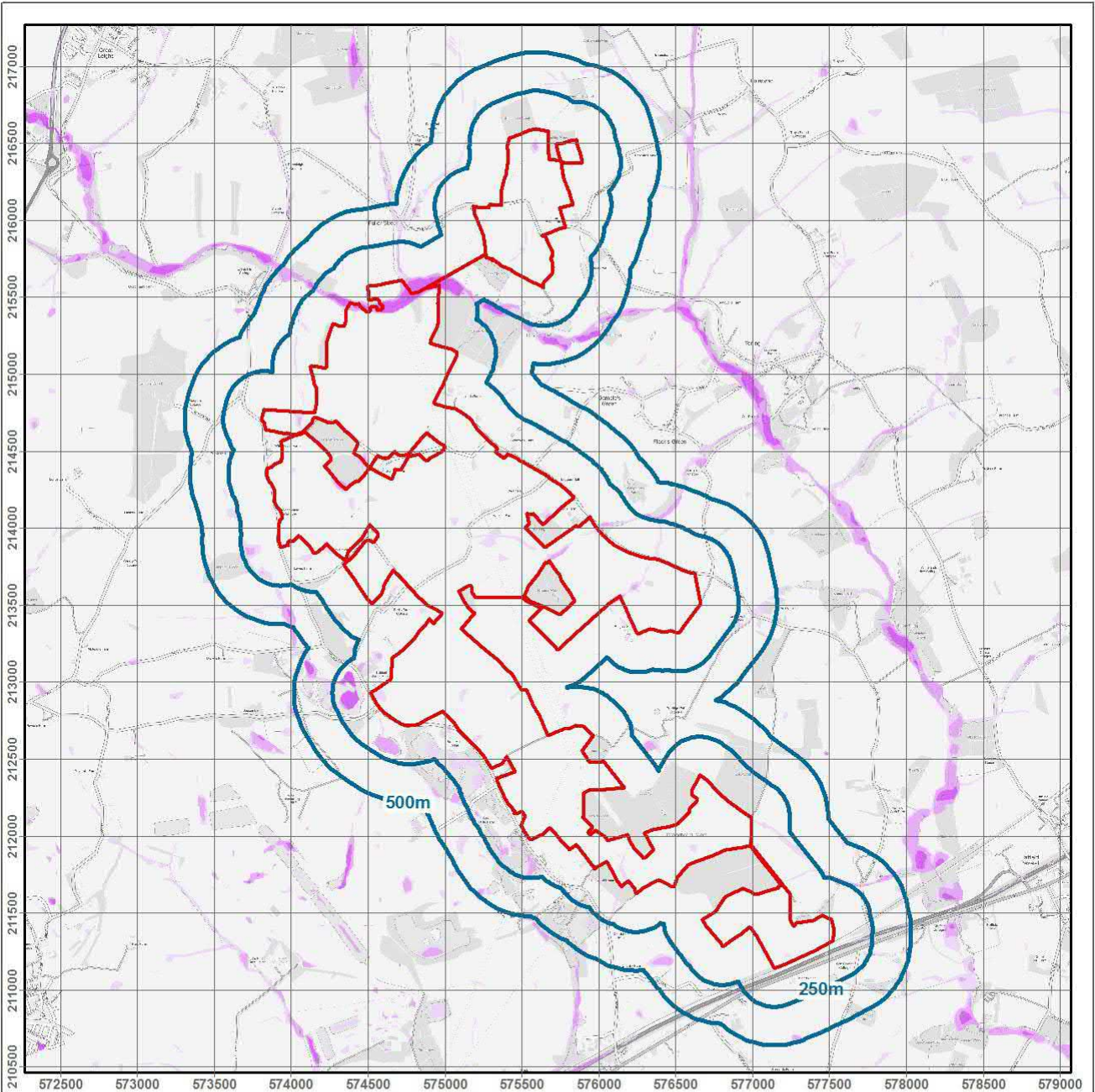
Information from GeoSmart Information Ltd indicates that there is a moderate risk of groundwater flooding in this area with a return period of 1 in 100 years. There will be a possibility that incidence of groundwater flooding could lead to damage to property or harm to other sensitive receptors at, or near, this location. Where flooding occurs it is likely to be in the form of shallow pools or streams. There may be basement flooding, but road or rail closures should not be needed and flooding should pose no significant risk to life. Surface water flooding may be exacerbated when groundwater levels are high. Further consideration of the level of risk and mitigation, by a suitably qualified professional, is recommended.

### GeoSmart Information Ltd Data

GeoSmart Information Ltd provides data to Argyll in relation to groundwater flooding. Through research and development, building on their expertise in addressing groundwater flooding issues for The Environment Agency and other clients in the UK, GeoSmart Information Ltd has developed algorithms and calibrated predictions of the risk of groundwater flooding occurring in England and Wales. This differs from other suppliers of data regarding groundwater flooding which only report on the susceptibility of groundwater flooding. Susceptibility merely has to be identified, whereas risk must be quantified. The resulting map is a 5x5m classification of groundwater flooding risk into four categories (Negligible, Low, Moderate and High). GeoSmart Information Ltd's classifications are based on the level of risk, combining severity and uncertainty that a site will suffer groundwater flooding within a return period of about 100 years.

The map is a general purpose indicative screening tool, and is intended to provide a useful initial view for a wide variety of applications. However, it does not provide an alternative to a site specific assessment, and a detailed risk assessment should be used for any site where the impact of groundwater flooding would have significant adverse consequences.

# Surface Water Flooding (1:200 year rainfall event)



## Surface Water Risk

-  Client Site
-  10cm - 30cm depth
-  30cm - 1m depth
-  1m + depth

metres  


\* - Not all features in legend may be present in above map

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## Surface Water Flooding

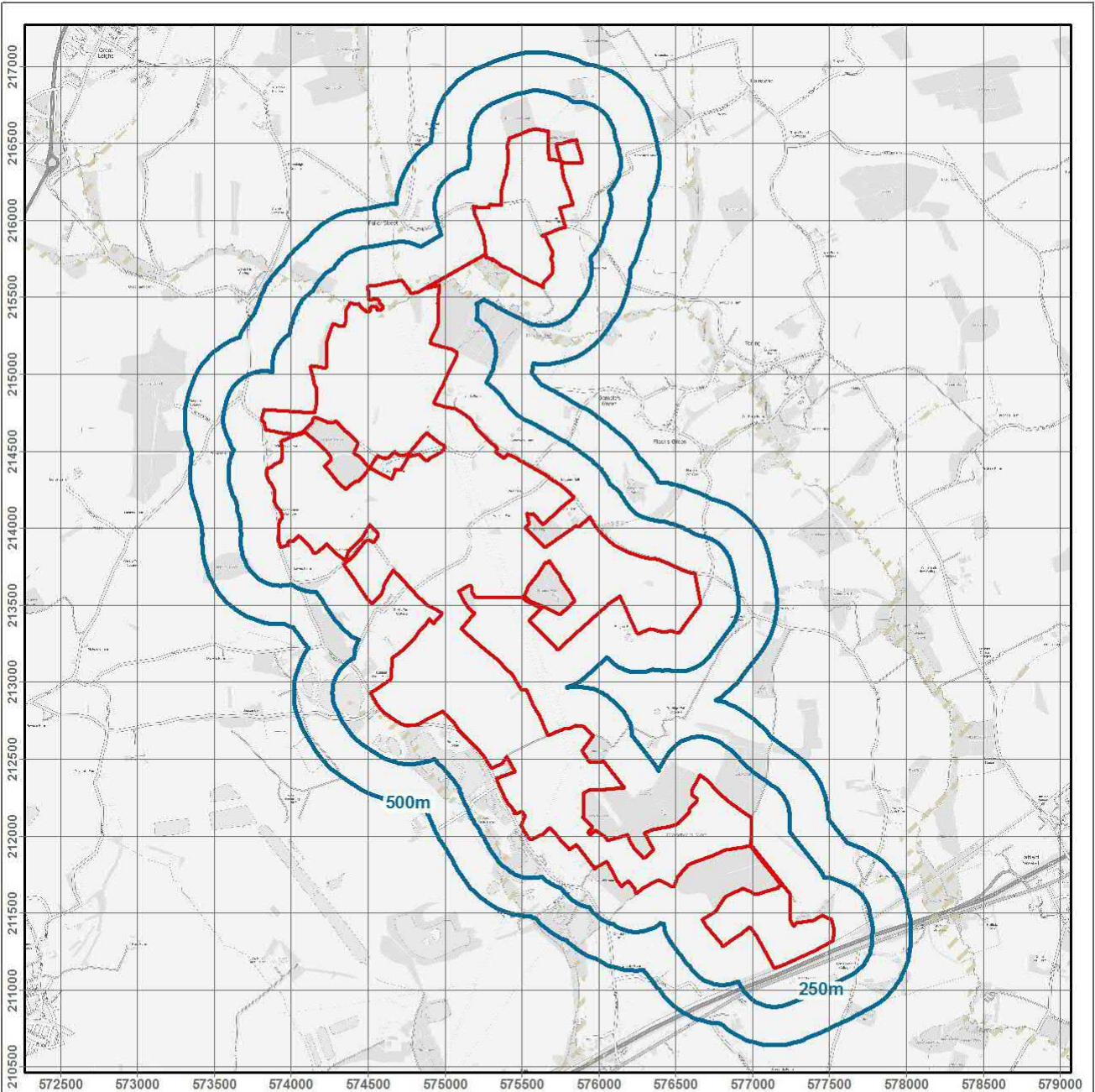
Details	Distance	Reply or Direction
What is the risk of surface water flooding at the Site following a 1 in 75 year rainfall event?	On Site	high
What is the risk of surface water flooding at the Site following a 1 in 200 year rainfall event?	On Site	high
What is the risk of surface water flooding at the Site following a 1 in 1,000 year rainfall event?	On Site	high



### JBA Risk Management Data

Surface Water Flooding - Information regarding the risk of natural surface water or pluvial flooding. The risk is classified by JBA into four categories, low (equal to 10cm), low to medium (more than 10cm), medium (more than 30cm) and high (more than 1m) which reflect varying depths of potential surface water flooding during a range of rainfall events including 1:75 year, 1:200 year, and 1:1000 year.

# Historical Flooding



## Historical Flooding

-  Client Site
-  Historic Floods
-  Geo Indicators

metres  


\*. Not all features in legend may be present in above map

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## Historical Flood Events

Details	Distance	Reply or Direction
Have any historic flood events occurred at the Site or within 500m?	<501m	NO



The regulatory body's records have no indication of past flooding within 500m of the Site. As these records are not comprehensive, it may still be prudent to ask the relevant authorities and the Site owner whether they are aware of any previous flooding at the Site or in the surrounding area.

### The Environment Agency Data

The Environment Agency has collated extensive records (including outlines) of flooding from rivers, the sea, or groundwater which have occurred in England and Wales since c.1950. This information comes from various sources including maps, aerial photographs, and private records. It is not necessarily comprehensive.

## Geological Indicators of Flooding

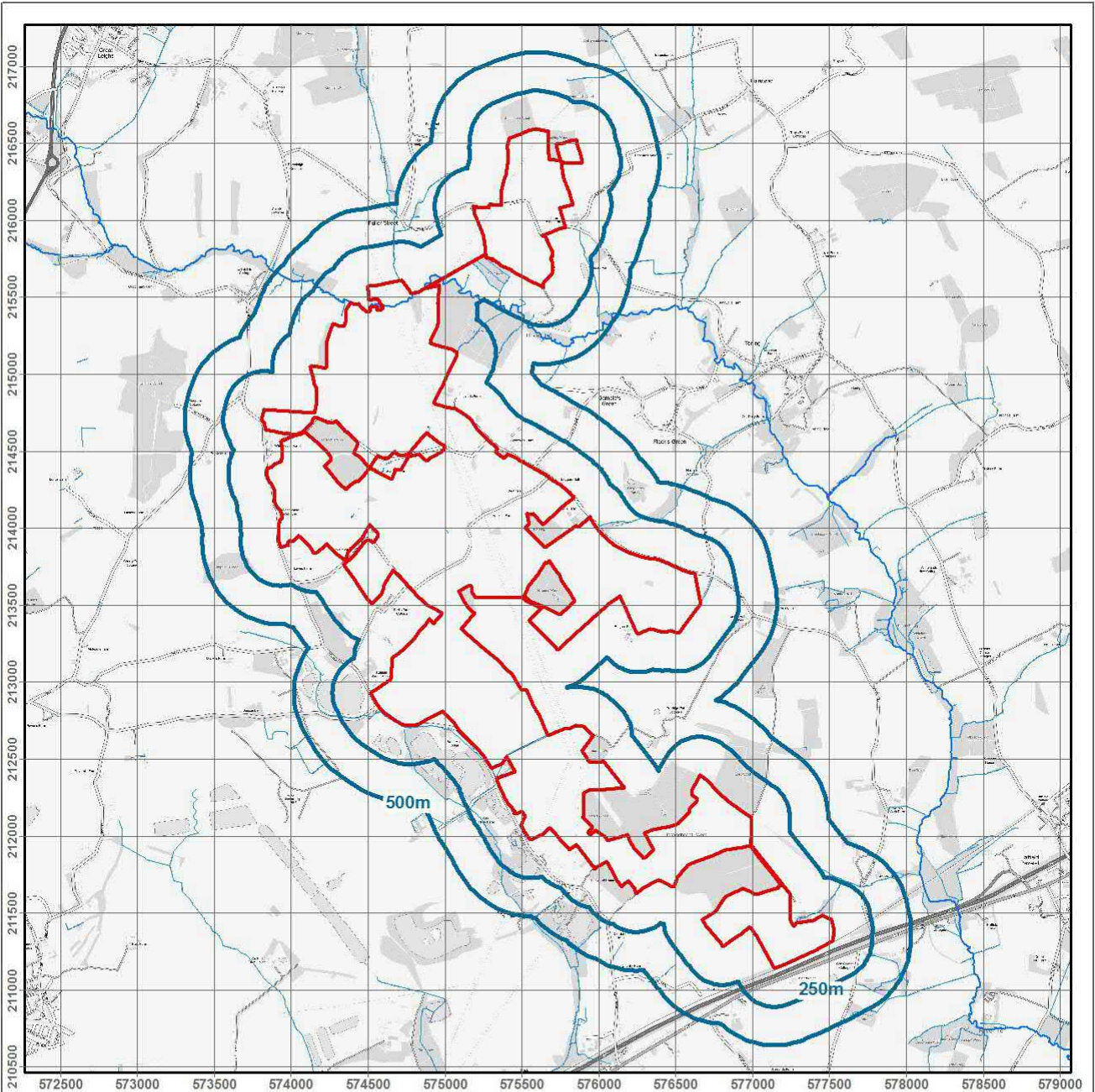
Details	Distance	Reply or Direction
Are there any geological deposits which indicate the Site may have been flooded in the past?	<26m	YES
Fluvial flooding indicators, Lower flood potential from rivers: areas affected by secondary flooding in extreme cases as a result of a prolonged flood event.	On Site	-
Fluvial flooding indicators, Higher flood potential from rivers: the first areas to experience the effects of inland flooding in a river catchment.	On Site	-



### British Geological Survey Data

Geological Indicators of Flooding – The BGS Geological Indicators of Flooding (GIF) data set is a digital map based on the BGS Digital Geological Map of Great Britain at the 1:50,000 scale (DiGMapGB-50). It was produced by characterising Superficial (Drift) Deposits on DiGMapGB-50 in terms of their likely vulnerability to flooding, either from coastal or inland water flow and reflects areas which may have flooded in the recent geological past. This normally relates to flooding which happened many thousands of years ago.

# OS MasterMap Water Network



## OS MasterMap Water Network

- |                         |                         |
|-------------------------|-------------------------|
| Client Site             | Lake or Reservoir       |
| Primary Flow (named)    | Foreshore and Sea       |
| Primary Flow (un-named) | Underground River       |
| Secondary Flow          | Marsh                   |
| Tidal River             | Canal, Lock or Transfer |

metres

\*. Not all features in legend may be present in above map

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## Other Information

### OS MasterMap Water Network

Details	Distance	Reply or Direction
Is there any information from the OS's MasterMap Water Network within 500m?	<501m	YES
Watercourse Type: Lake or Reservoir	On Site	-
Watercourse Type: Primary Flow (un-named)	On Site	-
Watercourse Type: Primary Flow (un-named)	On Site	-
Watercourse Type: Primary Flow (un-named)	On Site	-
Watercourse Type: Lake or Reservoir	On Site	-
Watercourse Type: Primary Flow (un-named)	On Site	-
River Ter Watercourse Type: Primary Flow (named)	On Site	-
Watercourse Type: Primary Flow (un-named)	On Site	-
Watercourse Type: Underground River	On Site	-
Watercourse Type: Primary Flow (un-named)	On Site	-
Watercourse Type: Primary Flow (un-named)	On Site	-
River Ter Watercourse Type: Primary Flow (named)	On Site	-
Watercourse Type: Primary Flow (un-named)	1.0m	SW
Watercourse Type: Primary Flow (un-named)	1.0m	SW
Watercourse Type: Lake or Reservoir	1.7m	SW
Watercourse Type: Primary Flow (un-named)	1.7m	SW
Watercourse Type: Primary Flow (un-named)	2.4m	NE
Watercourse Type: Primary Flow (un-named)	2.7m	W
Watercourse Type: Primary Flow (un-named)	3.5m	SW
Watercourse Type: Primary Flow (un-named)	3.6m	NW
Watercourse Type: Primary Flow (un-named)	3.7m	E
Watercourse Type: Underground River	5.2m	SE
Watercourse Type: Primary Flow (un-named)	5.4m	SE
Watercourse Type: Primary Flow (un-named)	7.9m	NW
Watercourse Type: Primary Flow (un-named)	8.0m	SE
Watercourse Type: Primary Flow (un-named)	8.8m	SE
Watercourse Type: Primary Flow (un-named)	8.8m	NW
Watercourse Type: Primary Flow (un-named)	9.1m	SW
Watercourse Type: Lake or Reservoir	12.1m	SE
Watercourse Type: Primary Flow (un-named)	14.4m	S
Watercourse Type: Primary Flow (un-named)	15.5m	N
Watercourse Type: Primary Flow (un-named)	18.4m	NE
Watercourse Type: Primary Flow (un-named)	19.3m	W
Watercourse Type: Lake or Reservoir	25.5m	N
Watercourse Type: Lake or Reservoir	28.3m	N
Watercourse Type: Primary Flow (un-named)	29.9m	S
Watercourse Type: Underground River	30.0m	N
Watercourse Type: Primary Flow (un-named)	30.0m	N
Watercourse Type: Lake or Reservoir	31.2m	N
Watercourse Type: Primary Flow (un-named)	31.6m	NW
Watercourse Type: Lake or Reservoir	32.2m	NW
Watercourse Type: Underground River	32.5m	S
Watercourse Type: Primary Flow (un-named)	37.5m	E
River Ter Watercourse Type: Primary Flow (named)	38.9m	NW
Watercourse Type: Lake or Reservoir	43.6m	SW
Watercourse Type: Primary Flow (un-named)	53.4m	SW
Watercourse Type: Primary Flow (un-named)	57.4m	E
Watercourse Type: Primary Flow (un-named)	57.9m	S
Watercourse Type: Primary Flow (un-named)	63.6m	SE
Watercourse Type: Primary Flow (un-named)	72.7m	SW
Watercourse Type: Lake or Reservoir	78.7m	SW
Watercourse Type: Primary Flow (un-named)	97.3m	SW
Watercourse Type: Primary Flow (un-named)	98.9m	SW
Watercourse Type: Lake or Reservoir	107.5m	SW


## OS MasterMap Water Network

Details	Distance	Reply or Direction
River Ter Watercourse Type: Primary Flow (named)	120.2m	SE
Watercourse Type: Primary Flow (un-named)	129.3m	SW
Watercourse Type: Primary Flow (un-named)	138.2m	SW
Watercourse Type: Primary Flow (un-named)	155.0m	SW
River Ter Watercourse Type: Primary Flow (named)	183.9m	SW
Watercourse Type: Lake or Reservoir	186.6m	S
Watercourse Type: Primary Flow (un-named)	187.2m	SW
River Ter Watercourse Type: Primary Flow (named)	187.3m	SW
Watercourse Type: Primary Flow (un-named)	199.9m	S
Watercourse Type: Primary Flow (un-named)	201.4m	SW
Watercourse Type: Underground River	202.5m	SW
Watercourse Type: Primary Flow (un-named)	204.8m	SW
River Ter Watercourse Type: Primary Flow (named)	206.8m	SW
River Ter Watercourse Type: Primary Flow (named)	207.3m	SW
Watercourse Type: Underground River	209.6m	E
Watercourse Type: Primary Flow (un-named)	210.3m	W
Watercourse Type: Primary Flow (un-named)	216.1m	E
River Ter Watercourse Type: Primary Flow (named)	230.1m	SW
River Ter Watercourse Type: Primary Flow (named)	238.1m	S
River Ter Watercourse Type: Primary Flow (named)	238.1m	S
Watercourse Type: Primary Flow (un-named)	238.9m	W
Watercourse Type: Primary Flow (un-named)	238.9m	W
Watercourse Type: Primary Flow (un-named)	239.0m	SW
Watercourse Type: Primary Flow (un-named)	245.9m	E
Watercourse Type: Primary Flow (un-named)	246.8m	SW
River Ter Watercourse Type: Primary Flow (named)	246.8m	SW
Watercourse Type: Primary Flow (un-named)	247.7m	SW
Watercourse Type: Primary Flow (un-named)	248.2m	N
Watercourse Type: Underground River	250.8m	N
Watercourse Type: Primary Flow (un-named)	263.8m	N
Watercourse Type: Primary Flow (un-named)	264.8m	N
Watercourse Type: Primary Flow (un-named)	270.4m	NW
Watercourse Type: Primary Flow (un-named)	289.1m	E
Watercourse Type: Primary Flow (un-named)	296.1m	SW
Watercourse Type: Primary Flow (un-named)	303.4m	S
Watercourse Type: Underground River	310.7m	N
Watercourse Type: Primary Flow (un-named)	311.6m	W
Watercourse Type: Primary Flow (un-named)	316.6m	N
Watercourse Type: Primary Flow (un-named)	316.9m	SE
Watercourse Type: Primary Flow (un-named)	318.4m	N
Watercourse Type: Primary Flow (un-named)	319.7m	N
Watercourse Type: Underground River	320.4m	SE
Watercourse Type: Primary Flow (un-named)	322.5m	SW
Watercourse Type: Primary Flow (un-named)	323.2m	S
Watercourse Type: Primary Flow (un-named)	327.9m	SE
Watercourse Type: Underground River	329.3m	SW
River Ter Watercourse Type: Primary Flow (named)	329.3m	S
Watercourse Type: Primary Flow (un-named)	329.7m	W
Watercourse Type: Primary Flow (un-named)	330.5m	S
Watercourse Type: Primary Flow (un-named)	331.1m	W
River Ter Watercourse Type: Primary Flow (named)	335.1m	S
Watercourse Type: Primary Flow (un-named)	335.8m	SW
Watercourse Type: Primary Flow (un-named)	341.6m	SW
Watercourse Type: Primary Flow (un-named)	344.9m	SW
River Ter Watercourse Type: Primary Flow (named)	346.6m	NW
Watercourse Type: Primary Flow (un-named)	346.6m	NW
River Ter Watercourse Type: Primary Flow (named)	347.4m	NW
Watercourse Type: Primary Flow (un-named)	347.5m	W

## OS MasterMap Water Network

Details	Distance	Reply or Direction
Watercourse Type: Primary Flow (un-named)	348.6m	SW
Watercourse Type: Primary Flow (un-named)	351.6m	NW
Watercourse Type: Primary Flow (un-named)	351.6m	NW
Watercourse Type: Primary Flow (un-named)	352.2m	W
Watercourse Type: Primary Flow (un-named)	353.2m	N
Watercourse Type: Primary Flow (un-named)	357.5m	W
Watercourse Type: Primary Flow (un-named)	363.1m	W
Watercourse Type: Underground River	364.1m	SW
Watercourse Type: Lake or Reservoir	366.5m	SW
River Ter Watercourse Type: Primary Flow (named)	381.6m	SE
Watercourse Type: Primary Flow (un-named)	398.9m	SW
Watercourse Type: Primary Flow (un-named)	401.1m	N
Watercourse Type: Lake or Reservoir	404.5m	E
Watercourse Type: Underground River	407.6m	NE
Watercourse Type: Primary Flow (un-named)	407.7m	E
Watercourse Type: Lake or Reservoir	407.7m	E
Watercourse Type: Primary Flow (un-named)	409.9m	NE
Watercourse Type: Primary Flow (un-named)	414.0m	SE
Watercourse Type: Lake or Reservoir	414.0m	SE
Watercourse Type: Primary Flow (un-named)	414.1m	S
Watercourse Type: Primary Flow (un-named)	416.2m	SE
River Ter Watercourse Type: Primary Flow (named)	418.8m	SE
Watercourse Type: Primary Flow (un-named)	420.0m	SE
Watercourse Type: Secondary Flow	421.8m	SE
Watercourse Type: Primary Flow (un-named)	422.3m	SE
Watercourse Type: Primary Flow (un-named)	422.8m	NW
Watercourse Type: Primary Flow (un-named)	423.6m	SW
Watercourse Type: Lake or Reservoir	429.4m	S
River Ter Watercourse Type: Primary Flow (named)	431.2m	NW
Watercourse Type: Primary Flow (un-named)	432.9m	N
Watercourse Type: Primary Flow (un-named)	432.9m	N
Watercourse Type: Primary Flow (un-named)	436.7m	SW
Watercourse Type: Primary Flow (un-named)	439.1m	E
Watercourse Type: Lake or Reservoir	451.9m	SE
Watercourse Type: Lake or Reservoir	454.0m	SW
Watercourse Type: Primary Flow (un-named)	461.4m	SW
Watercourse Type: Primary Flow (un-named)	461.7m	SE
Watercourse Type: Primary Flow (un-named)	465.0m	SW
Watercourse Type: Primary Flow (un-named)	469.0m	NE
Watercourse Type: Secondary Flow	469.0m	NE
River Ter Watercourse Type: Primary Flow (named)	471.0m	SE
Watercourse Type: Primary Flow (un-named)	471.7m	NW
Watercourse Type: Primary Flow (un-named)	474.7m	SE
Watercourse Type: Primary Flow (un-named)	479.9m	S
Watercourse Type: Primary Flow (un-named)	480.2m	SE
Watercourse Type: Primary Flow (un-named)	485.4m	SW
Watercourse Type: Primary Flow (un-named)	488.9m	NW
Watercourse Type: Primary Flow (un-named)	494.2m	SW
Watercourse Type: Underground River	494.8m	SW

## OS MasterMap Water Network

Details	Distance	Reply or Direction
	<p>A water feature has been identified at the property. This does not present an immediate risk, however it may require frequent upkeep and maintenance.</p>	
<p><b>OS Data</b></p>	<p>OS MasterMap Water Network is a three-dimensional digital representation of the watercourses in Great Britain. It includes rivers, streams, lakes, lochs and canals as a series of watercourse network lines. The network lines (links) are attributed to provide a range of information about the section of watercourse they depict. The OS MasterMap Water Network will significantly enhance systems used to manage waterways, river and the flood risk they pose.</p>	

## Height Above Sea Level

Details	Distance	Reply or Direction
Maximum height of the Site above sea level	On Site	61.20m
Minimum height of the Site above sea level	On Site	33.60m
Average height of the Site above sea level	On Site	51.03m



The Site is at a relatively high elevation above sea level. However, this is not in itself indicative of the absence of flood risk and reference should be made to other assessments within this report.

## Distance to Water Features

Details	Distance	Reply or Direction
Are there any water features within 500m?	<501m	YES
Nearest water feature	On Site	-
Nearest water feature	On Site	-
Nearest water feature	On Site	-
Nearest water feature	On Site	-
Nearest water feature	On Site	-
Nearest water feature	On Site	-
Nearest water feature	On Site	-
Nearest water feature	On Site	-
Nearest water feature	0.2m	NE
Nearest water feature	1.6m	NW
Nearest water feature	3.2m	SE
Nearest water feature	6.4m	N
Nearest water feature	7.7m	NW
Nearest water feature	17.1m	SW
Nearest water feature	35.2m	SW
Nearest water feature	39.3m	NW
Nearest water feature	40.4m	SW
Nearest water feature	47.0m	SW
Nearest water feature	49.8m	SW
Nearest water feature	51.1m	SW
Nearest water feature	52.3m	W
Nearest water feature	60.9m	S
Nearest water feature	62.5m	S
Nearest water feature	63.9m	NW
Nearest water feature	65.0m	NW
Nearest water feature	66.4m	N
Nearest water feature	70.0m	SW
Nearest water feature	75.6m	SW
Nearest water feature	89.0m	NE
Nearest water feature	89.1m	NE
Nearest water feature	90.6m	N
Nearest water feature	98.2m	SW
Nearest water feature	101.9m	NW
Nearest water feature	111.4m	SW
Nearest water feature	112.8m	E
Nearest water feature	113.8m	N
Nearest water feature	118.8m	SW
Nearest water feature	125.7m	SW
Nearest water feature	134.3m	E
Nearest water feature	153.3m	E
Nearest water feature	159.0m	NE
Nearest water feature	174.4m	SW
Nearest water feature	180.2m	E
Nearest water feature	193.8m	SE
Nearest water feature	200.4m	SW
Nearest water feature	223.4m	S
Nearest water feature	244.3m	S
Nearest water feature	279.3m	NE
Nearest water feature	306.7m	SW
Nearest water feature	326.2m	S
Nearest water feature	326.6m	NW
Nearest water feature	331.5m	NE
Nearest water feature	332.4m	S
Nearest water feature	350.7m	S
Nearest water feature	355.0m	W
Nearest water feature	358.0m	SW
Nearest water feature	362.3m	S

## Distance to Water Features

Details	Distance	Reply or Direction
Nearest water feature	369.0m	S
Nearest water feature	395.6m	S
Nearest water feature	400.4m	SE
Nearest water feature	406.4m	W
Nearest water feature	418.4m	SW
Nearest water feature	422.9m	E
Nearest water feature	433.0m	SW
Nearest water feature	446.2m	SW
Nearest water feature	461.7m	SW
Nearest water feature	485.0m	SW
Nearest water feature	489.0m	SW
Nearest water feature	489.1m	SW



There is a water feature shown on the Ordnance Survey maps within the Site. This does not represent a flood risk in itself, but its presence has been taken into account in the overall risk assessment in this Report.

## Dam or Reservoir Failure

Details	Distance	Reply or Direction
Is there a risk of the Site being affected by the failure of a nearby dam or reservoir?	On Site	YES



There is a dam or reservoir close to the Site. Models have predicted that if this structure failed, the Site could flood. Although the risk of such an event occurring is very low, the consequences of such flooding could be severe. It would be prudent to consider incorporating this risk within any existing (or new) business continuity or emergency plans.

### JBA Risk Management Data

Dam or Reservoir Failure – JBA has modelled approximately 1700 dams and reservoirs across the UK which are considered to pose the greatest risks to people and property. These models are able to predict the areas likely to flood on all sides of a feature, should an element of it fail e.g. a wall, dam or earth bund.

## Useful Contacts

Name and Address	Telephone/Fax/Email
Argyll Environmental Limited 1 <sup>st</sup> Floor 98 – 99 Queens Road Brighton BN1 3XF [REDACTED]	General enquiries 0330 036 6115 orders@argyllenviro.com
Environment Agency National Customer Contact Centre (NCCC) PO Box 544	Telephone 03708 506 506
Essex County Council County Hall <a href="http://www.essexcc.gov.uk">www.essexcc.gov.uk</a>	Telephone 01245 492211
Chelmsford Borough Council Environmental Health Department Coval Lane <a href="http://www.chelmsfordbc.gov.uk">www.chelmsfordbc.gov.uk</a>	Telephone 01245 606606 Fax: 01245 606606 Environmental.services@chelmsfordbc.gov.uk
Braintree District Council Causway House <a href="http://www.braintree.gov.uk">www.braintree.gov.uk</a>	Telephone 01376 552525 Fax: 01376 552626
British Geological Survey Enquiry Service British Geological Survey [REDACTED]	Telephone 0115 936 3143 Fax: 0115 936 3276 enquiries@bgs.ac.uk
Environment Agency Head Office Rio House	Telephone 01454 624400 Fax: 01454 624409
Natural England County Hall [REDACTED]	Telephone 0300 060 3900  enquiries@naturalengland.org.uk
Environment Agency National Customer Contact Centre (NCCC) PO Box 544 Templeborough Rotherham S60 1BY <a href="http://www.environment-agency.gov.uk">www.environment-agency.gov.uk</a>	General enquiries 08708 506 506 Floodline 0845 988 1188 enquiries@environment-agency.gov.uk
British Geological Survey Enquiry Service British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG [REDACTED]	General enquiries 0115 936 3143 Fax 0115 936 3276
(For advice on flood insurance) British Insurance Brokers' Association 8th Floor John Stow House 8 Bevis Marks London EC3A 7JB	Consumer helpline 0870 950 1790
JBA Risk Management - Head Office South Barn Broughton Hall Skipton North Yorkshire BD23 3AE	General enquiries 01756 799 919 Fax 01756 799 449 info@jbarisk.com

Please note that the Environment Agency / SEPA have a charging policy in place for enquiries. When contacting these agencies please mention that this data has been received from the Landmark database, alternatively Argyll Environmental Limited would be pleased to assist with consultation to the above bodies. Please contact us for a quotation.

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# Contamination Land Risk Analysis Methodology

The SITESOLUTIONS reports have been designed to assist in making informed decisions during property transactions. This section of the Report is a desktop assessment of direct liabilities (Liabilities) which could affect the owner /occupier of the Site and arise under Part 2A of the Environmental Protection Act 1990 and/or equivalent requirements under the planning regime and/or the Water Resources Act 1991<sup>4</sup>. (Relevant Legislation). If a risk is identified, then a number of options for finding out more about the risk, managing it or transferring it are proposed.

The assessment of environmental liability under the Relevant Legislation is based upon the principle of determining the presence of a plausible contaminant-pathway-receptor relationship (a contaminant linkage). A 'contaminant' is a source of contamination, a 'pathway' is a medium through which the contamination can mobilise and 'a receptor' is a person or entity that could be detrimentally affected by the contamination. If all three are identified, then a 'plausible contaminant-pathway-receptor relationship' may be present. By definition, this is one which Argyll believes could result in significant harm, a significant possibility of significant harm or significant pollution or the possibility of significant pollution to Controlled Waters.

In our assessment we use the following test to decide if there is a potential liability affecting the Site. For the purpose of this assessment a site where a potential Liability has been identified is defined as follows:

*A Site which, from the information assessed by Argyll, is considered to have the potential of being affected by contaminative substances present in or under the Site (but excluding potential sources of contamination on or above the land) such that, on the basis of its current or proposed use, there is a reasonable likelihood of a UK regulatory authority, acting in accordance with Relevant Legislation, requiring that remedial measures are taken in order to remedy or mitigate the contaminative substances that are present in or under the land that forms all or part of the Site.*

The term Liabilities is defined within the scope of this assessment to mean, remedial works under Part 2A of the Environmental Protection Act 1990 (or where appropriate, equivalent requirements under the planning regime) and/or the Water Resources Act 1991 which may result in direct liability for the site owner/occupier.

The assessment within this section of the Report has been produced and quality checked by a team of qualified environmental professionals. The assessment is based upon a manual review of the data contained within the Data Section of this Report and of 1:2500 and 1:1250 (where available) scale historical mapping.

## Ecological Risk Assessment

The evaluation of ecological risk is becoming an increasingly important input when making risk management decisions. In the Site Solutions Commercial report, Argyll assesses two different drivers for risks and liabilities driven by ecological receptors;

1. The Contaminated Land Regime; and
2. The Environmental Damage Regulations 2009, as amended (EDR).

The Environment Agency has designed a generic framework for conducting ecological risk assessment (see Assessing Risk to Ecosystems from Land Contamination, R&D Technical Report P299, EA 2002). This recommends a tiered approach in line with best practice for human health and controlled water risk assessment and defines Relevant Ecological Receptors as any of the Relevant Types of Receptor as set out in Table 1 of Defra Statutory Guidance on Contaminated Land dated April 2012.

Argyll assesses Relevant Ecological Receptors as part of its assessment process. To do so it uses the Argyll EcoRisk model which was developed and tested in consultation with leading experts and is based on the Environment Agency framework.

The Environmental Damage (Prevention and Remediation) Regulations 2009, as amended, were introduced on 1 March 2009 to implement the provisions of the European Union's Environmental Liability Directive into law in England<sup>5</sup>. The aim of EDR is to prevent and remedy damage to protected species or natural habitats or a site of special scientific interest, surface water, groundwater, coastal water or to land. 'Environmental damage' has a specific meaning in the Regulations, and must meet key criteria. Existing legislation with provisions for environmental

<sup>4</sup> Water Environment (Controlled Activities)(Scotland) Regulations 2005 where appropriate.

<sup>5</sup>Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009 or Environmental Liability (Scotland) Regulations 2009 where appropriate.

liability remains in place. The Regulations apply on land in England and on the seabed around the UK up to the limits set out in the Continental Shelf Act 1964, and to waters out to the Renewable Energy Zone, which extends approximately 200 miles out to sea.

Argyll will apply due consideration to the nature of any activities likely to be occurring on Site and review EDR Receptors surrounding the Site. However, Argyll are unable to consider the standard of current operations or instances where environmental damage arises either intentionally or as a result of negligence on behalf of the Site operator.




The assessment excludes the identification of potential liabilities arising as a result of genetically modified organisms and the transportation or delivery of polluting goods which may occur at locations off Site. In addition, not all EDR Receptors can be identified in this assessment including protected species/natural habitats such as nesting bats, nesting birds or migratory bird routes which are not officially designated.

When conducting either assessment, Argyll will primarily assess information provided in the Data section of the Report. However, in some cases Argyll may choose to supplement this with freely available public information such as that provided by Natural England and/or information provided by the Argyll Europa System.

## Liability Assessment

In this section Argyll will report on any potential soil and groundwater liabilities which it considers are associated with the Site. Our assessment of Liability is based upon the proposed and current use of the Site (as supplied by the client) in line with current Government guidance.

There will be one of the following three responses:

Assessment	Liability Statement & explanation	Defra Category*
<b>PASSED</b> 	<p><b>Within the scope of this assessment no Liabilities have been identified. No further action is required.</b></p> <p>This statement indicates that within the scope of this assessment, no issues have been identified that are likely to result in significant cost liabilities under Relevant Legislation.</p>	3 or 4
<b>PASSED</b> 	<p><b>Within the scope of this assessment no Liabilities have been identified. However, your attention is drawn to the prudent enquiries suggested below.</b></p> <p>This statement indicates that within the scope of this assessment, no issues have been identified that are likely to result in significant cost liabilities under Relevant Legislation. However, a client may wish to obtain further information about other issues disclosed in the Report, which could be material.</p>	3 or 4
<b>FURTHER ACTION</b> 	<p><b>Potential Liabilities have been identified under Part 2A of the Environmental Protection Act 1990 (or where appropriate, equivalent requirements under the planning regime) and/or the Water Resources Act 1991<sup>6</sup>. To quantify these you may decide to undertake a more detailed assessment through the recommendation(s) set out below.</b></p> <p>This statement indicates that within the scope of this assessment, an issue or a number of issues have been identified that are likely to result in significant cost liabilities under Relevant Legislation. In this event, recommendations are made, in order that additional information is collected so that the liabilities may be more accurately assessed.</p>	Potentially 1 or 2

\* According to Defra's updated Statutory Guidance on Contaminated Land, Regulators have a four-stage test to decide when land is and is not contaminated. Category 1 and Category 2 sites would encompass land which is capable of being determined as contaminated land, whereas Category 3 and Category 4 sites would encompass land which is not capable of being determined as contaminated land.

<sup>6</sup>Water Environment (Controlled Activities)(Scotland) Regulations 2005 where appropriate.

## Limitations of the Report

The **SITESOLUTIONS** reports have been designed to satisfy standard environmental due-diligence enquiries, as recommended by the Law Society's contaminated land warning card. It is a 'remote' investigation and reviews only information provided by the client and from the databases of publicly available information that have been chosen to enable a desk based environmental assessment of the Site. The Report does not include a site investigation, nor does Argyll make specific information requests of the regulatory authorities for any relevant information they may hold. Therefore, Argyll cannot guarantee that all land uses or factors of concern will have been identified by the Report.

The information in the Data Section of the Report is derived from a number of statutory and non-statutory sources. While every effort is made to ensure accuracy, Argyll cannot guarantee the accuracy or completeness of such information or data. Argyll will not accept responsibility for inaccurate data provided by external data providers.

Further information regarding our risk assessment methodology is provided in the Products and Services User Manual which is available free of charge from the client area of our website [REDACTED]. For further information regarding the datasets reviewed within our assessment, please contact one of our technical team on 0330 036 6115. This report is provided under The Argyll Environmental Limited Conditions of Contract for **SITESOLUTIONS** and **FLOODSOLUTIONS** Reports (May 2011), a copy of which is available on our website.




## Flood Risk Screening Methodology

This section of the report is a desktop flood risk screening report, designed to enable property professionals to assess the risk of flooding at commercial sites. It examines three areas; how flood risk affects the availability of insurance for a site; how flood risk affects the potential to redevelop a site; and the overall risk of flooding at a site (taking into account any flood defences present). The report considers current Government guidance including the National Planning Policy Framework (NPPF). The report has been produced and quality-checked by a qualified consultant using the data contained in this report.

## Executive Summary and Consultants Comment

In this section Argyll will summarise in a statement whether any significant flood risks have been identified and whether insurance is likely to be available at Standard Terms.

There will be one of the following three responses:

Assessment	Risk Statement
<b>PASSED</b> 	<b>Low and Low to Moderate - The site is not considered to be at significant risk of flooding. No further action is considered necessary.</b>
<b>PASSED</b> 	<b>Moderate - Data suggest that there are features which may present a flood risk to the site and its occupants during an extreme flood event. However, buildings and contents insurance should easily be available in most cases.</b>
<b>FURTHER ACTION</b> 	<b>Moderate to High and High - This report reveals significant flood risk issues which should be addressed. Further assessment is recommended in order to clarify the risk of flooding at the site and to determine appropriate flood protection measures.</b>

## Insurance Availability

Argyll provides an indication of whether the Site is likely to be insurable for flood risk at standard terms. The answer to Question1 (on page 3) is based on consideration of Risk of Flooding from Rivers and Sea data supplied by The Environment Agency and surface water flooding data supplied by JBA Risk Management. This data is used by a significant proportion of the insurance industry to help determine the suitability of a Site for insurance, although they may access additional information which could affect their assessment.

Under the Association of British Insurers' Revised Statement of Principles on the Provision of Flooding Insurance (July 2008), the general policy of member companies is that flood insurance for domestic properties and small businesses should continue to be available for as many customers as possible until 1<sup>st</sup> July 2013, by which time a longer term solution should be implemented. The premiums charged and other terms will reflect the risk of flooding but insurance will be available:

1. for properties where the flood risk is not significant (generally defined as no worse than 1.33% or 1-in-75 years annual probability of flooding); and
2. to existing domestic property and small business customers at significant risk, providing the Environment Agency has announced plans to reduce that risk within five years, such as improving flood defences. (The commitment to offer cover will extend to the new owner of any applicable property subject to satisfactory information about the new owner).

However, for significant risk areas where no improvements in flood defences are planned, and in all cases other than domestic properties and small businesses, insurers cannot guarantee to provide cover, but will examine the risks on a case-by-case basis. The implementation of the revised Statement of Principles depends on action from the Government and is continually reviewed by insurers. In addition, the revised Statement of Principles does not apply to properties built after 1<sup>st</sup> January 2009. Different guidance applies to these (see Climate Change – Guidance on Insurance Issues for New Developments from [REDACTED]).

The responses to the question 'Is the Site likely to be insurable at standard terms?' assume the Site is an existing domestic property or small business and makes no allowance for previous claims arising from any type of flooding, nor for non-flood related risks such as subsidence.

Response	Meaning
Yes	The Site is likely to be considered acceptable by insurance companies at standard terms and flood insurance should not be difficult to obtain. No further action required.
No	The Site is not likely to be considered acceptable by insurance companies at standard terms, on the basis of current information. Further work may be required in order to obtain acceptable insurance terms for the flood risk. This could include a more detailed risk assessment or the use of accredited products, flood resilient materials and temporary defences to defend the property.

## Development Risk

Argyll comments on whether a full or partial Flood Risk Assessment (FRA) would be required in accordance with National Planning Policy Framework (NPPF). The answer to Question 1 is indicative only and is based on the size of the Site (as supplied by the client) and the information in the data section of this report.

NPPF sets out Government policy on development and flood risk. Its aims are to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas of highest risk. Where new development is exceptionally necessary, NPPF aims to make it safe, without increasing flood risk elsewhere, and, where possible, reducing flood risk overall.

A separate Drainage Impact Assessment may be required in addition to an FRA to demonstrate that development of the Site will not adversely affect flood risk elsewhere.

Response	Meaning
Yes (Full)	If the Site was redeveloped, a full Flood Risk Assessment is likely to be required which should include a Drainage Impact Assessment.
Yes (Drainage)	If the Site was redeveloped, a full Flood Risk Assessment may not be required however, given the size of the Site, a Drainage Impact Assessment may be necessary.
No	If the Site was to be redeveloped, no further flood assessment is likely to be required.

## Flood Risk Rating

Argyll provides an overall flood risk rating based on an assessment of the data provided within this report. It does so by asking two questions:

2. What is the overall risk of flooding, assuming flood defence fail or are absent or overtopped?

The answer to Question 2 provides a worst case scenario assuming there are either no defences in the area, that any defences in the area could fail, primarily as a result of river or coastal flooding, or are overtopped by excessive flood volumes.

3. Are there existing flood defences which might benefit the Site?

The answer to Question 3 is based on the presence of any flood defences in the dataset provided by the Environment Agency within 500m of the Site. It should be noted that a residual risk of flooding may be present if such defences failed. Flood defences do not generally protect the Site against groundwater and surface water flooding.

If defences are present within 250m, a further question is asked:

4. What is the risk of flooding when these defences are operational?

This assesses the risk from flooding, assuming these defences work as intended and neither fail nor are overtopped.

Questions 2 and 3 are answered by one of six standard responses:

Response	Meaning
Negligible	The overall flood risk rating for the Site is assessed to be 'Negligible'. Existing datasets do not indicate any risk at the Site itself, or any feature within the locality of the Site, which would be expected to pose a threat of flooding. It is not considered that any further investigations are necessary in regard to flood risk.
Low	The overall flood risk rating for the Site is assessed to be 'Low'. Although large sites (over 1 ha) would require a Drainage Impact Assessment to accompany any planning application, it is not considered necessary to undertake any other further investigations into the flood risk to the Site.
Low to Moderate	The overall flood risk rating for the Site is assessed to be 'Low to Moderate'. The presence of such features as flood defences, flood storage areas and watercourses within the locality of the Site suggests that there may be a risk of flooding to the Site itself. Further investigations could be undertaken to further assess this risk.
Moderate	The overall flood risk rating for the Site is assessed to be 'Moderate'. Information from existing datasets suggests that there are certain features which may present a risk to the Site and its occupants. Further assessment would normally be suggested as a prudent measure to clarify the risk of flooding at the Site.
Moderate to High	The overall flood risk rating for Site is assessed to be 'Moderate to High'. Information from existing datasets suggests that there are certain features which may present a significant risk to the Site and its occupants. Further assessment is usually recommended in order to clarify the risk of flooding at the Site.
High	The overall flood risk rating for Site is assessed to be 'High', with a consequent risk to life and property. This means that existing datasets reveal significant flood risk issues which need to be addressed. Further assessment is usually recommended in order to clarify the risk of flooding at the Site.

## Flood Analysis

The flood risk gauges provide a more detailed analysis of the risk from each of the four main types of flooding – river, coastal, groundwater and surface water. In addition, a fifth gauge provides an analysis of other factors (i.e. historic flood events, geological deposits which are indicative of past flooding, proximity to surface water features and elevation above sea level) that may affect the overall flood risk. For surface water flooding, only the risk rating generated from the 1:200 year rainfall event data is included in the overall risk assessment. The data on 1:75 year and 1:1,000 year rainfall events is provided for information only. For further information on each of these types of flooding, please refer to the Argyll FloodSolutions User Guide.

This analysis takes into account any existing flood defences that are intended to protect the Site and assumes that these work as designed. The analysis also takes into account the other information contained in those data sections of the report which are relevant to that particular type of flooding. The assessment of the risk as shown in the flood gauge should therefore take priority over the information in the individual data sections of the report.

## Limitations of the Report

The report has been designed to satisfy basic flood-related environmental due-diligence enquiries for commercial properties. It is a desktop review of information provided by the client and from selected private and public databases. It does not include a site investigation, nor are specific information requests made of the regulatory authorities for any relevant information (other than local water and sewerage providers). Therefore, Argyll cannot guarantee that all issues of concern will be identified by this report, or that the data and information supplied to it by third parties is accurate and complete.

This report includes an assessment of surface water flooding which examines the risk of the general drainage network overflowing during periods of extreme rainfall. This report does not make a detailed site-specific assessment of the suitability of the existing drainage on the Site. If this is required, then a site survey should be considered. The assessment of pluvial flooding does not take into account particular local or temporary factors that may cause surface water flooding such as the blockage or failure of structures on or within watercourses, drains,

foul sewers, water mains, canals and other water infrastructure; and any history of drains flooding at the Site or in the locality. Surface water flooding can occur before surface water reaches the general drainage network, for example on hills and inclines.

The Risk of Flooding from Rivers and Sea dataset provided by The Environment Agency does take account of failure of flood defences but does not take into account particular local or temporary factors such as blockage. Environment Agency data does not include flood risk from very small catchments as models of such small scale catchments are not considered to be reliable for UK-wide flood risk assessments. The potential impact of climate change on flood risk to the Site would require further study.

When answering any questions within this report, current applicable legislation is taken into account.

The data used in this report may have inherent limitations and qualifications. Further details are set out in the FloodSolutions User Guide which is available free of charge from our website [www.argyllenvironmental.com](http://www.argyllenvironmental.com), or by calling one of our technical team on 0330 036 6115.

This report is provided under The Argyll Environmental Limited Conditions of Contract for **SITESOLUTIONS** and **FLOODSOLUTIONS** Reports (July 2013), a copy of which is available on our website, [REDACTED] or by calling one of our technical team on 0330 036 6115.

## Flood Glossary

### **Business Continuity Plan**

A business continuity plan is a strategic plan of action for a business to implement in an emergency (i.e. flood event). This plan ensures a business can continue to operate during emergency situations and reduces the risk of suffering avoidable losses. For example, it may cover such items as emergency accommodation and computer back up off site.

### **Flood Evacuation Plan**

A flood evacuation plan sets out clear steps to ensure the safe evacuation of staff during a flood. It will form part of the Business Continuity Plan.

### **Coastal Flooding**

Coastal flooding is the inundation of land areas along the coast caused by sea water rising above normal tidal conditions. Coastal flooding can arise from a combination of high tides, wind induced tidal surge, storm surge created by low pressure and wave action.

### **Flood Resistance Measures**

These measures are designed to prevent flood water from entering the buildings on Site.

### **Flood Resilience Measures**

These measures are intended to make buildings more resilient to flood damage so that they recover more quickly from flooding. They are not designed to prevent flood water entering the property.

### **Flood Risk Assessment**

A full Flood Risk Assessment (FRA) Report is a bespoke report required under NPPF for any development site within Environment Agency Flood Zones 2 or 3 and/or any development site larger than 1 hectare. These reports are generally prepared following liaison with the Local Planning Authority and the application of the sequential test.

### **Flood Zone 1**

An area of low probability of flooding as defined by the Environment Agency – a flood return period of 1 in 1,000 or more.

### **Flood Zone 2**

An area of medium probability of flooding as defined by the Environment Agency – a flood return period between 1 in 100 to 1 in 1,000 for river flooding and 1 in 200 to 1 in 1,000 for coastal flooding.

### **Flood Zone 3a**

An area of high probability of flooding as defined by the Environment Agency – a flood return period between 1 in 20 to 1 in 100 for river flooding and 1 in 200 for coastal flooding.

**Flood Zone 3b**

This area is a functional floodplain as defined by the Environment Agency. It is an area which is designed to flood – a flood return period of 1 in 20 or less.

**Groundwater Flooding**

Groundwater flooding occurs when ground water levels increase sufficiently for the water table to intersect the ground surface. Groundwater flooding can occur in a variety of geological settings including valleys and in areas underlain by chalk, and in river valleys with thick deposits of alluvium and river gravels.

**NPPF**

This relates to the National Planning Policy Framework and the associated Technical Guidance.

**Pluvial (Surface Water) Flooding**

Pluvial flooding results from rainfall running over ground before entering a watercourse or sewer. It is usually associated with high intensity rainfall events (typically greater than 30mm per hour) but can also occur with lower intensity rainfall or melting snow where the ground is already saturated, frozen, developed (for example in an urban setting) or otherwise has low permeability.

**Return Period**

Return periods are a measure of how likely flooding is to occur. They are commonly expressed as a ratio (for example 1 in 75 or 1:75). This means that this level of flooding is expected once in every 75 years.

**River Flooding**

River flooding mainly happens when the river catchment (that is the area of land that feeds water into the river and the streams that flow into the main river) receives greater than usual amounts of water (for example through rainfall or melting of snow). The amount of runoff depends on the soil type, catchment steepness, drainage characteristics, agriculture and urbanisation as well as the saturation of the catchment. The extra water causes the level of the water in the river to rise above its banks or retaining structures.

## Consumer Protection

### Important Consumer Protection Information

This search has been produced by Argyll Environmental Ltd, 1<sup>st</sup> Floor, 98 – 99 Queens Road, Brighton, BN1 3XF.  
Tel: 0330 036 6115, Email: [REDACTED]

Argyll Environmental adheres to the Conveyancing Information Executive (CIE) standards.

### The Standards:

- Conveyancing Information Executive Members shall act in a professional and honest manner at all times in line with the Conveyancing Information Executive Standards and carry out the delivery of the Search with integrity and due care and skill.
- Compliance with the Conveyancing Information Executive Standards will be a condition within the Conveyancing Information Executive Member's Terms and Conditions.
- Conveyancing Information Executive Members will promote the benefits of and deliver the Search to the agreed standards and in the best interests of the customer and associated parties.
- The standards can be seen here: [REDACTED]

### Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Standards.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPO.

#### TPOs Contact Details:

The Property Ombudsman scheme  
Milford House  
43-55 Milford Street  
Salisbury  
Wiltshire SP1 2BP

Tel: 01722 333306  
Fax: 01722 332296  
Web site: [www.tpos.co.uk](http://www.tpos.co.uk)  
Email: [admin@tpos.co.uk](mailto:admin@tpos.co.uk)



## Argyll Environmental Complaints Procedure

If you want to make a complaint to Argyll Environmental, we will:

- Acknowledge it within 5 working days of receipt
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time
- Provide a final response, in writing, at the latest within 40 working days of receipt
- Liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:

Legal Director  
Argyll Environmental Ltd  
1<sup>st</sup> Floor  
98 - 99 Queens Road  
Brighton  
BN1 3XF

Tel: 0330 036 6115

Email: [REDACTED]

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs):

Tel: 01722 333306,

Email: [REDACTED]

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.