Appendix 4a - Sample Point Assessment

		Topsoil					Upper Subsoil						Lower Subsoil						Wetness Assesment			Grade
Sample No	Altitude	Depth	Texture	Colour	Stoniness	Mottles	Depth	Texture	Colour	Stoniness	Mottles	Structure	Depth	Texture	Colour	Stoniness	Mottles	Structure	Depth to SPL	Gley	Wetness Class	limit by Wetness
1	86	0-30	C	10YR 4/3		FO	30-50	C	2.5Y 5/2		CO	Moderate	50-120	C	5Y 6/3		CO	Poor	50	30	III	3b
2	88	0-35	C	10YR 4/3		FO	35-65	C	2.5Y 5/3	5%	CO	Moderate	65-120	C	2.5Y 6/2		CO	Poor	65	35	III	3b
3	86	0-35	C	10YR 4/3		FO	35-65	C	2.5Y 5/3		CO	Moderate	65-120	C	2.5Y 6/2		CO	Poor	65	35	III	3b
4	88	0-35	C	10YR 4/2	5%		35-60	C	2.5Y 5/3		CO	Moderate	60-120	C	5Y 6/2		CO	Poor	60	35	III	3b
5	88	0-50	C	10YR 4/1		FO	50-80	C	2.5Y 5/2		CO	Poor	80-120	C	5Y 6/2		CO	Poor	50	50	III	3b
6	87	0-30	C	10YR 4/3		FO	10-70	C	2.5Y 5/2		CO	Poor	70-120	C	5Y 6/3		CO	Poor	10	10	IV	3b
7	88	0-35	C	10YR 4/3		FO	35-65	C	2.5Y 5/3	5%	CO	Moderate	65-120	C	2.5Y 6/2		CO	Poor	65	35	III	3b
8	87	0-35	C	10YR 4/3		FO	35-65	C	2.5Y 5/3		CO	Moderate	65-120	C	2.5Y 6/2		CO	Poor	65	35	III	3b
9	89	0-35	C	10YR 4/2	5%		35-60	C	2.5Y 5/3		CO	Moderate	60-120	C	5Y 6/2		CO	Poor	60	35	III	3b
10	88	0-35	C	10YR 4/2	5%		35-60	C	2.5Y 5/3		CO	Moderate	60-120	C	5Y 6/2		CO	Poor	60	35	III	3b
11	88	0-30	C	10YR 4/2	5%		30-50	C	5Y 5/2		CO	Poor	50-120	C	5Y 6/3		CO	Poor	30	30	IV	3b
12	88	0-30	C	10YR 4/2	5%		30-50	C	5Y 5/2		CO	Poor	50-70	C	2.5Y 5/3		COB	Poor	30	30	IV	3b
13	87	0-40	C	10YR 4/2			40-70	C	2.5Y 5/3		FO	Moderate	70-120	C	5Y 6/2		FO	Poor	70	40	II	3b
14	89	0-35	C	10YR 4/2		FO	35-70	C	5Y 5/3	5%	CO	Poor	70-120	C	2.5Y 6/2		CO	Poor	35	35	IV	3b
15	87	0-30	C	10YR 4/2		FO	30-65	C	2.5Y 5/3		CO	Moderate	65-120	C	2.5Y 6/2		CO	Poor	65	30	III	3b
16	91	0-35	C	10YR 4/2	2%	FO	35-70	C	5Y 5/3		FO	Moderate	70-120	C	5Y 6/2		CO	Poor	70	35	II	3b
17	90	0-35	C	10YR 4/2	2%	FO	35-70	C	5Y 5/3		FO	Moderate	70-120	C	5Y 6/2		CO	Poor	70	35	II	3b
18	88	0-40	C	10YR 4/2	2%	FO	40-70	C	5Y 6/3		CO	Moderate	70-120	C	5Y 6/1		CO	Poor	70	40	II	3b
19	88	0-35	C	10YR 4/2	2%		35-70	C	5Y 6/3		CO	Moderate	70-120	C	5Y 6/1		CO	Poor	70	35	II	3b
20	88	0-40	C	2.5YR 5/2		CO	40-70	C	2.5Y 6/2		CO	Poor	70-120	C	5Y 6/3		CO	Poor	40	40	III	3b
21	88	0-30	C	2.5Y 5/3		CO	30-60	C	2.5Y 5/3	30%	FO	CSAB	60-80	C	2.5Y 5/2		CO	C Prism	60	30	III	3b
22	88	0-40	C	10YR 4/2		FO	40-60	C	2.5Y 5/3		CO	Moderate	60-120	C	2.5 6/2		CO	Poor	60	40	III	3b
23	97	0-35	C	10YR 4/2	2%	FO	35-70	C	5Y 5/3		FO	Moderate	70-120	C	5Y 5/1		CO	Poor	70	35	II	3b
24	92	0-40	C	10YR 4/2	2%	FO	40-70	C	5Y 6/3		CO	Moderate	70-120	C	5Y 6/1		CO	Poor	70	40	II	3b
25	90	0-35	C	10YR 4/2	2%		35-70	C	5Y 6/3		CO	Moderate	70-120	C	5Y 6/1		CO	Poor	70	35	II	3b
26	89	0-30	C	10YR 4/2	2%		30-65	C	5Y 6/3		CO	Moderate	65-120	C	5Y 6/1		CO	Poor	65	30	III	3b
27	88	0-35	C	10YR 4/1		FO	35-60	C	2.5Y 5/2		CO	Poor	60-80	C	10YR 3/1		COB	Poor	35	35	IV	3b
28	87	0-40	C	10YR 4/2			40-70	C	2.5 5/3		FO	Moderate	70-120	C	2.5Y 5/1		COB	Poor	70	40	II	3b
29	95	0-35	C	10YR 4/2	2%		35-70	C	5Y 5/3		FO	Moderate	70-120	C	2.5Y 5/3		CO	Poor	70	35	II	3b
30	91	0-30	C	10YR 4/2	2%		30-65	C	5Y 5/3		FO	Moderate	65-120	C	5Y 6/1		CO	Poor	65	30	III	3b
31	88	0-45	C	10YR 5/2		FO	45-70	C	2.5Y		CO	Moderate	70-120	C	5Y 6/2		CO	Poor	70	45	II	3b
32	88	0-30	C	10YR 4/1		FO	30-50	C	10YR 5/2		COB	Poor	50	IMP					30	30	IV	3b
33	88	0-35	C	10YR 4/1		FO	35-60	C	10YR 5/3		COB	Moderate	60-120	C	10YR 6/4		COB	Poor	60	35	III	3b
34	96	0-35	C	2.5Y 4/2	2%		35-80	C	2.5Y 5/3		FO	Moderate	80-120	C	5Y 5/3		COB	Poor	80	35	II	3b
35	92	0-35	C	2.5Y 4/2	2%		35-80	C	2.5Y 5/3		FO	Moderate	80-120	C	5Y 5/3		COB	Poor	80	35	II	3b
36	89	0-40	C	2.5Y 4/2	2%		35-50	C	2.5Y 5/3		FO	Poor	50-120	C	5Y 5/3		CO	Poor	35	35	IV	3b
37	90	0-35	C	2.5Y 4/2	2%		35-50	C	2.5Y 5/3		FO	Moderate	50-120	C	5Y 5/3		CO	Poor	50	35	III	3b
38	88	0-45	C	10YR 5/2		FO	45-60	C	10YR 5/3		CO	Moderate	60-120	C	10YR 6/4		CO	Poor	60	45	II	3b
39	88	0-35	C	10YR 4/1		FO	35-60	C	10YR 5/3		COB	Moderate	60-120	C	10YR 6/4		COB	Poor	60	35	III	3b
40	94	0-40	C	10YR 4/2		FO	40-70	C	5Y 5/3		FO	Moderate	70-120	C	5Y 5/2		CO	Poor	70	40	II	3b
41	91	0-40	C	10YR 4/2		FO	40-70	C	5Y 5/3		FO	Moderate	70-120	C	5Y 5/2		CO	Poor	70	40	II	3b
42	91	0-35	C	2.5Y 4/2	2%		35-50	C	5Y 5/3		FO	Moderate	50-120	C	2.5Y 6/1		CO	Poor	50	35	III	3b
43	90	0-35	C	2.5Y 4/2	2%		35-50	C	5Y 5/3		FO	Moderate	50-120	C	2.5Y 6/1		CO	Poor	50	35	III	3b
44	88	0-40	C	10YR 4/2			40-70	C	10YR 5/3		CO	Moderate	70-120	C	2.5Y 6/4		COB	Poor	70	40	II	3b
45	88	0-30	C	10YR 4/2			30-70	C	2.5Y 5/3		CO	Moderate	70-120	C	2.5Y 5/2		CO	Poor	70	30	II	3b
46	97	0-40	C	10YR 3/2			40-65	C	5Y 5/3		CO	Moderate	65-120	C	5Y 5/2		CO	Poor	65	40	III	3b
47	94	0-40	C	10YR 3/2			40-65	C	5Y 5/3		CO	Moderate	65-120	C	5Y 5/2		CO	Poor	65	40	III	3b
48	90	0-40	C	10YR 4/2			40-70	C	5Y 5/3		CO	Moderate	70-120	C	5Y 5/2		CO	Poor	70	40	II	3b
49	89	0-40	C	2.5Y 4/3			40-65	C	5Y 5/3		CO	Moderate	65-120	C	5Y 5/2		CO	Poor	65	40	III	3b
50	88	0-30	C	10YR 4/2	5%		30-70	C	10YR 5/4	5%	CO	CSAB	70-120	C	10YR 6/4	10%	CO	Poor	70	30	II	3b
51	88	0-30	C	10YR 4/2	2%		30-50	C	2.5Y 5/3		CO	Moderate	50-120	C	10YR 6/4	10%	CO	Poor	50	30	III	3b
52	88	0-40	C	10YR 4/2			40-70	C	10YR 5/3		FO	Moderate	70-120	C	2.5Y 5/2		C0	Poor	70	40	II	3b
53	88	0-35	C	10YR 4/2			35-120	C	2.5Y 5/3		COB	Poor							35	35	IV	3b
54	96	0-30	C	2.5Y 4/3			30-70	C	5Y 5/3		CO	Poor	70-120	C	5Y 5/1		CO	Poor	30	30	IV	3b

		Topsoil					Upper Subsoil					Lower Subsoil						Wetness Assesment			Grade
Sample No	Altitude	Depth	Texture	Colour	Stoniness	Mottles	Depth	Texture	Colour	Stoniness	Mottles	Structure	Depth	Texture	Colour	Stoniness	Mottles	Structure	Depth to SPL	Gley	Wetness Class	limit by Wetness
55	94	0-30	C	2.5Y 4/3			30-70	C	5Y 5/3		CO	Poor	70-120	C	5Y 5/1		CO	Poor	30	30	IV	3b
56	93	0-40	C	10YR 4/2			40-70	C	5Y 5/3		CO	Poor	70-120	C	5Y 5/2		CO	Poor	40	40	III	3b
57	90	0-40	C	2.5Y 4/3			40-65	C	5Y 5/3		CO	Poor	65-120	C	5Y 5/2		CO	Poor	40	40	III	3b
58	89	0-30	C	10YR 4/2	5%		30-70	C	10YR 5/4		CO	Moderate	70-120	C	10YR 6/4	10%	CO	Poor	70	30	II	3b
59	88	0-30	C	10YR 4/2	2%		30-50	C	2.5Y 5/3		CO	Moderate	50-120	C	10YR 6/4	10%	CO	Poor	50	30	III	3b
60	88	0-30	C	10YR 4/2			30-120	C	2.5Y 5/2		CO	CAB							30	30	IV	3b
61	94	0-30	C	10YR 3/2			30-65	C	2.5Y 5/3		CO	Moderate	65-120	C	5Y 5/2		CO	Poor	65	30	III	3b
62	92	0-30	C	10YR 3/2			30-65	C	2.5Y 5/3		CO	Moderate	65-120	C	5Y 5/2		CO	Poor	65	30	III	3b
63	90	0-40	C	2.5Y 4/3			40-70	C	2.5Y 5/3		CO	Moderate	70-120	C	2.5Y 6/1		CO	Poor	70	40	II	3b
	89.67																					

Appendix 4b – Trial Pit Descriptions

Sample Point No. 21		
Horizon 1	0-30cm Light olive brown (2.5Y 5/3) clay with common ochreous mottles.	
Horizon 2	30-60cm Light olive brown (2.5Y 5/3) clay with a coarse subangular blocky structure, firm consistence and many ochreous mottles, some roots and biopores. Approximately 30% stone towards the bottom of this horizon	
Horizon 3	60-120cm Greyish brown (2.5Y 5/2) clay with a coarse prismatic structure, firm consistence and common ochreous mottles. Very few roots or biopores.	
Pictures		
Horizon 1 	Horizon 2 	Horizon 2 - stoniness 
Slowly permeable layer	Present from 60cm – evidenced by firm course prismatic structure with less than 0.5% biopores >0.5mm	
Gleying	Present from the surface evidence by pale colours and ochreous mottles	
Wetness Class	III	
Wetness limitation	3b	
MB Wheat	15.87	
MB potatoes	1.75	
Droughtiness Limitation	2	

Sample Point No. 60		
Horizon 1	0-30cm Dark greyish brown (10YR 4/2) clay.	
Horizon 2	30-120cm Greyish brown (2.5Y 5/2) clay with a coarse angular blocky structure, firm consistence and many ochreous mottles, very few roots and biopores.	
Horizon 3		
Pictures		
Horizon 1 	Horizon 2 	Wetness at 50cm 
Slowly permeable layer	Present from 30cm – evidenced by firm coarse prismatic structure with less than 0.5% biopores >0.5mm	
Gleying	Present from the surface evidence by pale colours and ochreous mottles	
Wetness Class	IV	
Wetness limitation	3b	
MB Wheat	15.87	
MB potatoes	1.75	
Droughtiness Limitation	2	

Wetland grasses at survey point 5

Core at 13

Wet surface at 23

Core at 27

Core at 44

ANALYTICAL REPORT

Report Number	37909-24	W250	AMET PROPERTY
Date Received	29-MAY-2024		HENWICK BARN
Date Reported	25-JUN-2024		BULWICK
Project	SOIL		CORBY
Reference	CLAYDON		NORTHANTS
Order Number			NN17 3DU

Laboratory Reference		SOIL700051	SOIL700052	SOIL700053							
Sample Reference		CLAYDON 60 TOPSOIL	CLAYDON 61 TOPSOIL	CLAYDON 27 TOPSOIL							
Determinand	Unit	SOIL	SOIL	SOIL							
Coarse Sand 2.00-0.63mm	% w/w	5	5	2							
Medium Sand 0.63-0.212mm	% w/w	15	19	11							
Fine Sand 0.212-0.063mm	% w/w	9	14	8							
Silt 0.063-0.002mm	% w/w	26	27	26							
Clay <0.002mm	% w/w	45	35	53							
Textural Class **		C	C/HCL	C							

Notes

Analysis Notes

The sample submitted was of adequate size to complete all analysis requested.
The results as reported relate only to the item(s) submitted for testing.
The results are presented on a dry matter basis unless otherwise stipulated.

Document Control

This test report shall not be reproduced, except in full, without the written approval of the laboratory.

** Please see the attached document for the definition of textural classes.

Reported by

Teresa Clyne

Natural Resource Management, a trading division of Cawood Scientific Ltd.
Coopers Bridge, Braziers Lane, Bracknell, Berkshire, RG42 6NS
Tel: 01344 886338
Fax: 01344 890972
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ADAS (UK) Textural Class Abbreviations

The texture classes are denoted by the following abbreviations:

Class	Code
Sand	S
Loamy sand	LS
Sandy loam	SL
Sandy Silt loam	SZL
Silt loam	ZL
Sandy clay loam	SCL
Clay loam	CL
Silt clay loam	ZCL
Clay	C
Silty clay	ZC
Sandy clay	SC

For the *sand, loamy sand, sandy loam* and *sandy silt loam* classes the predominant size of sand fraction may be indicated by the use of prefixes, thus:

- vf Very Fine (more than 2/3's of sand less than 0.106 mm)
- f Fine (more than 2/3's of sand less than 0.212 mm)
- c Coarse (more than 1/3 of sand greater than 0.6 mm)
- m Medium (less than 2/3's fine sand and less than 1/3 coarse sand).

The subdivisions of *clay loam* and *silty clay loam classes* according to clay content are indicated as follows:

- M medium (less than 27% clay)
- H heavy (27-35% clay)

Organic soils i.e. those with an organic matter greater than 10% will be preceded with a letter O.

Peaty soils i.e. those with an organic matter greater than 20% will be preceded with a letter P.

Appendix 5 - Description of ALC Grades

Grade 1 - excellent quality agricultural land Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 - very good quality agricultural land Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

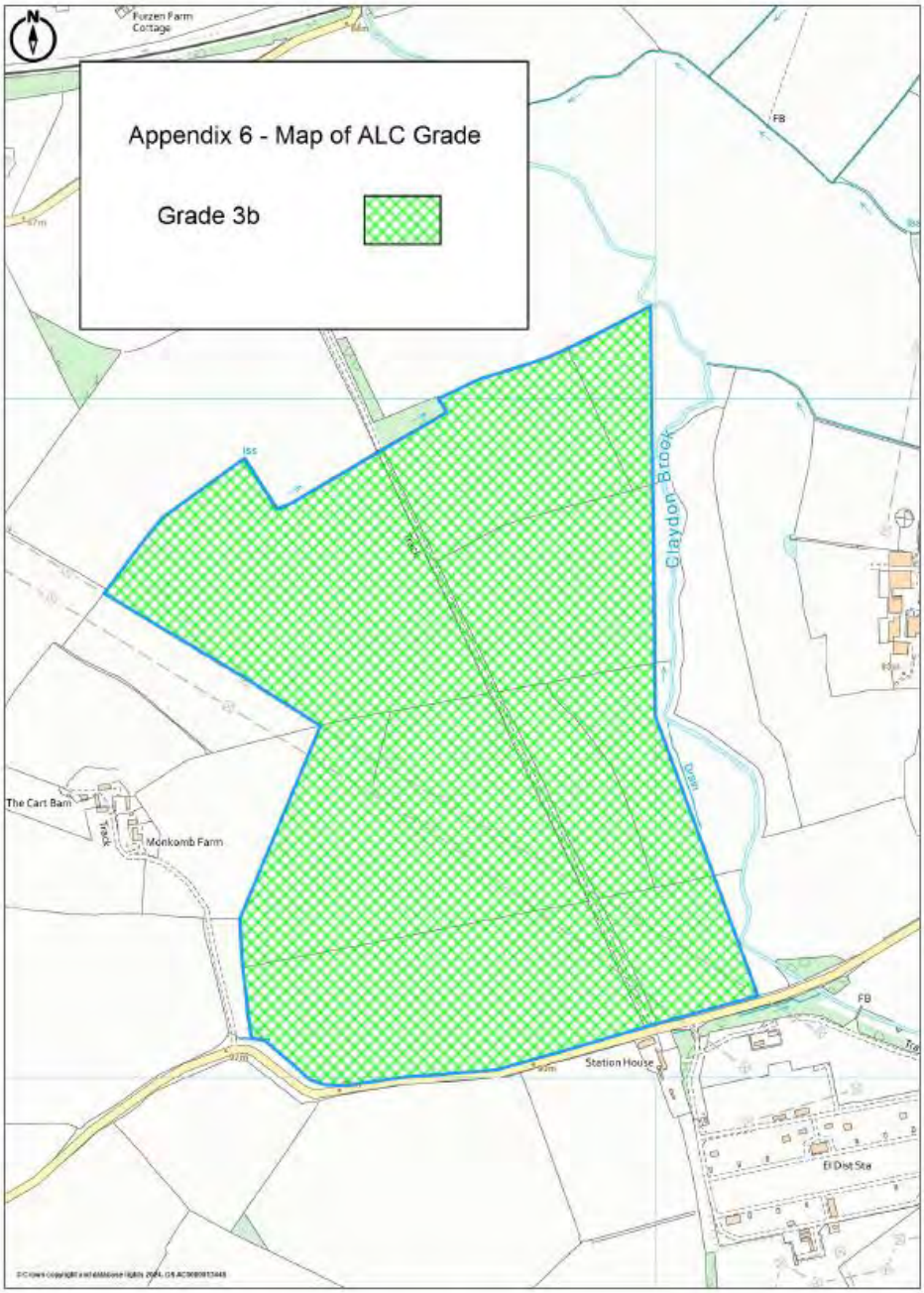
Grade 3 - good to moderate quality agricultural land Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a - good quality agricultural land Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b - moderate quality agricultural land Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 - poor quality agricultural land Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 - very poor-quality agricultural land Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.



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Plotted Scale - 1:10000. Paper Size – A4

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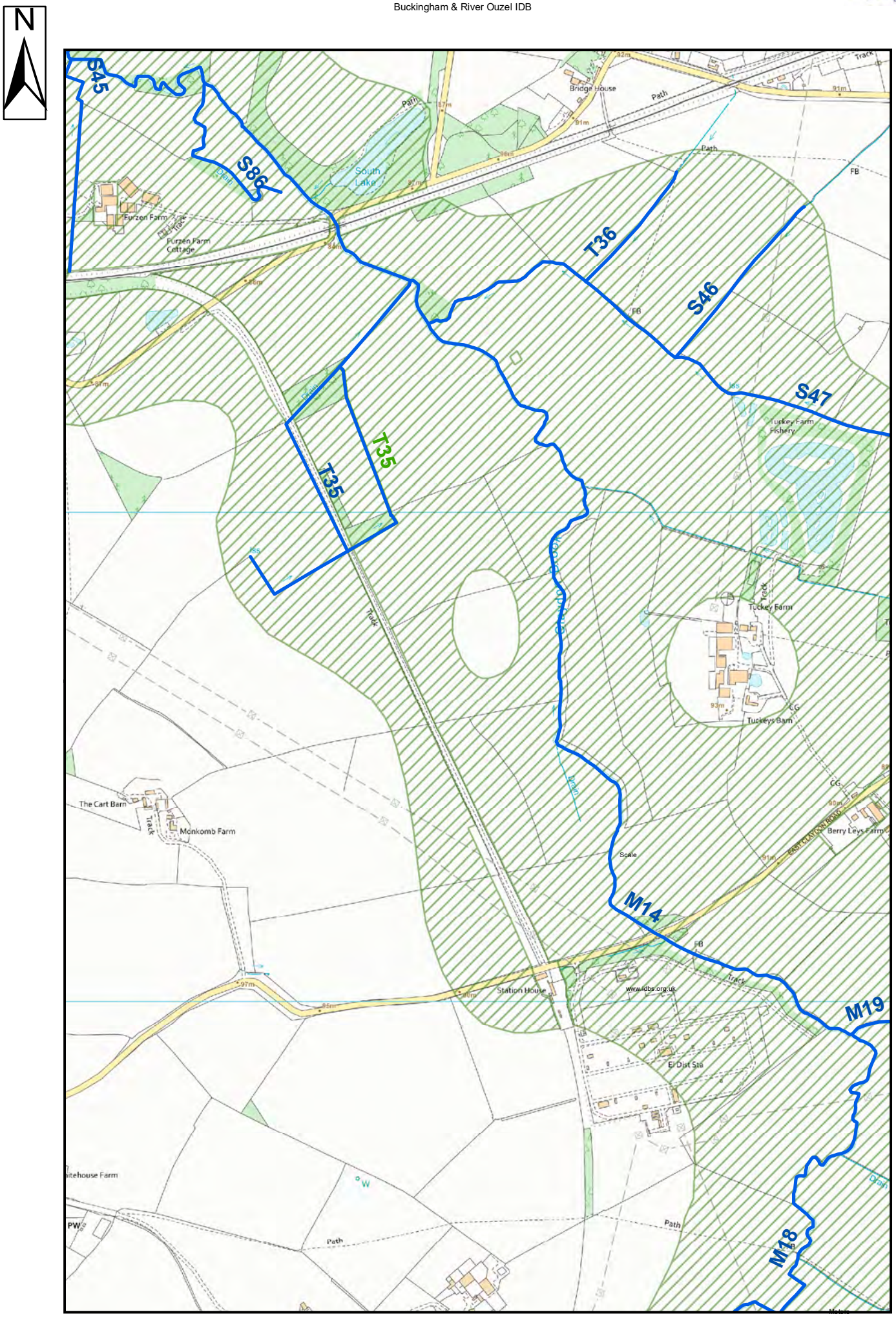
Telephone: 01793 771333 • Email: info@kernon.co.uk • Website: www.kernon.co.uk

Bedford Group of Drainage Boards

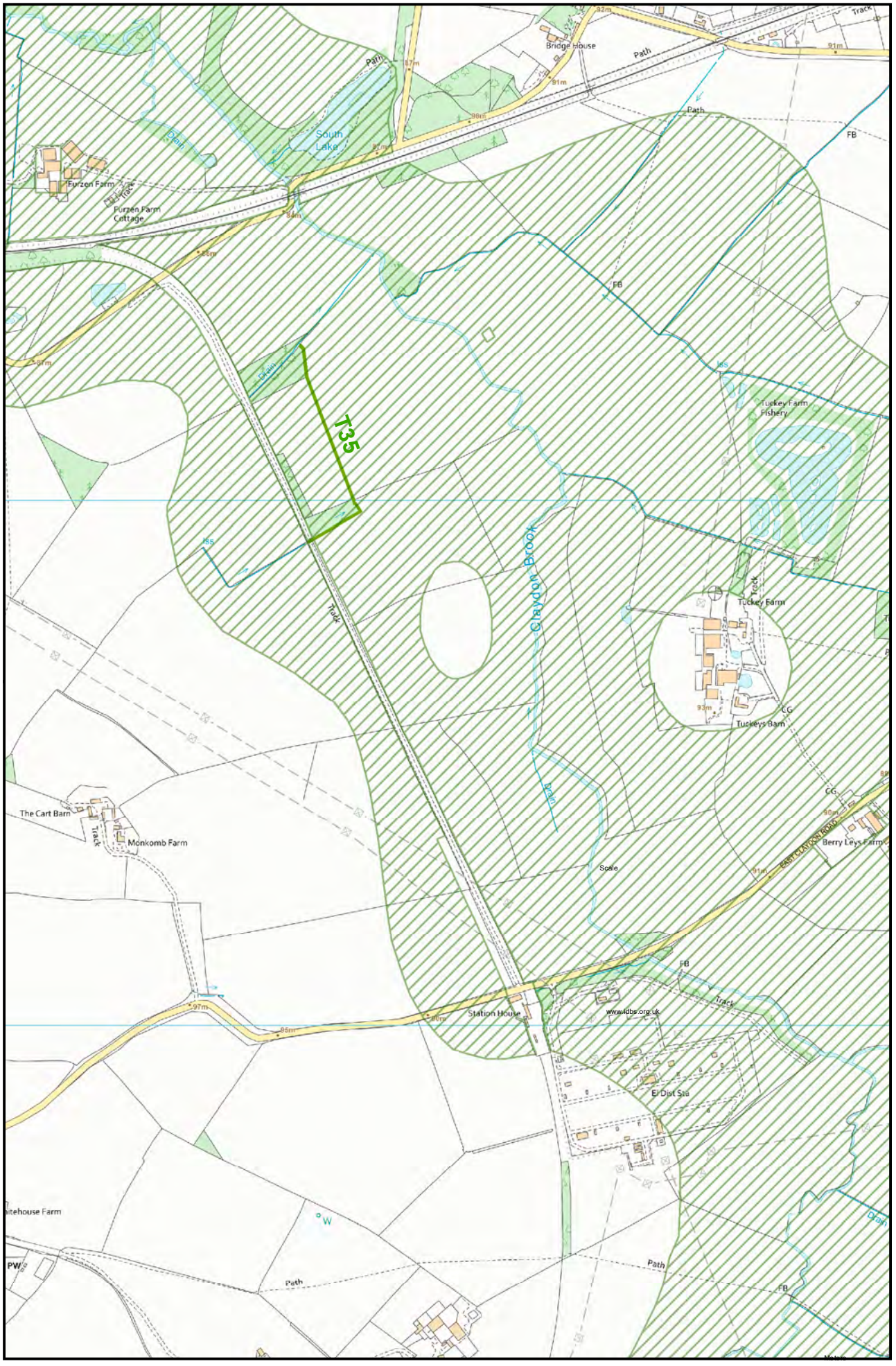
Buckingham & River Ouzel IDB



East Claydon 1 = 10,000 0 50 100 200

Bedford Group of Drainage Boards

Buckingham & River Ouzel IDB



East Claydon 1 = 10,000 0 50 100 200

Appendix D

EA Flood Map for Planning, Risk of Flood from Surface Water (RoFSW) Extent and Depth and Maximum Extent of Flooding from Reservoirs Maps

Flood map for planning

Your reference	Location (easting/northing)	Created
1liecl 2404003	**474637/226569**	**1 April 2025 08:39**

Your selected location is in flood zone 1, an area with a low probability of flooding.

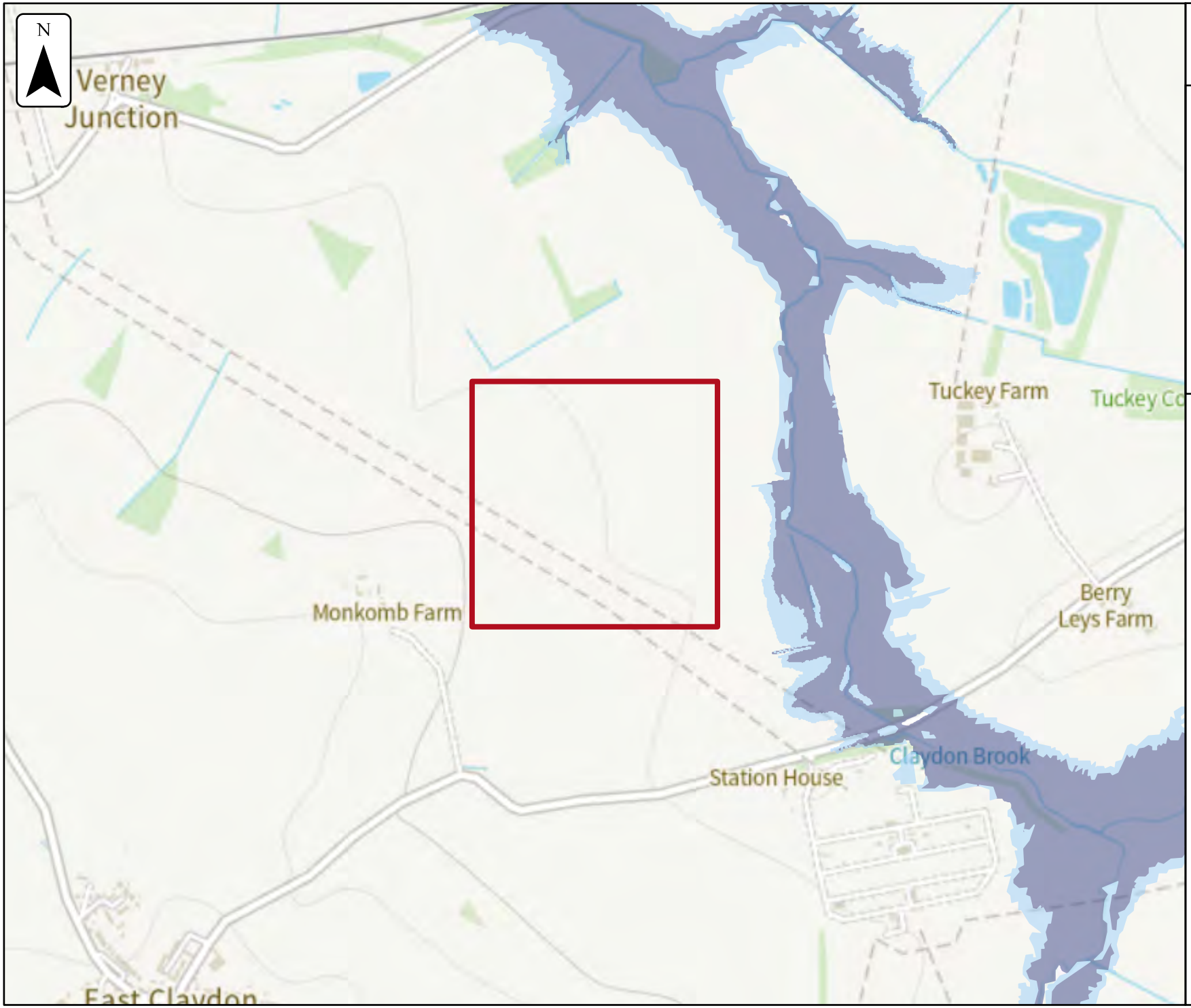
You will need to do a flood risk assessment if your site is **any of the following**:

- bigger than 1 hectare (ha)
- in an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.



Environment Agency

Flood map for planning

Your reference
1liecl 2404003

Location (easting/northing)
474637/226569

Scale
1:10,000

Created
1 Apr 2025 08:39

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 100 200 300m

Surface Water Flood Risk (Extent)

Surface water map

Yearly chance of flooding

- (●) Extent
  - High chance: More than 3.3% chance each year
  - Medium chance: Between 1% and 3.3% chance each year
  - Low chance: Between 0.1% and 1% chance each year
- ( ) Depth

Yearly chance of flooding between 2040 and 2060

- ( ) Extent
- ( ) Depth

Map details

- [x] Show flooding

Surface Water Flood Risk (Extent)

Surface water map

Yearly chance of flooding

- ○ Extent
- ○ Depth

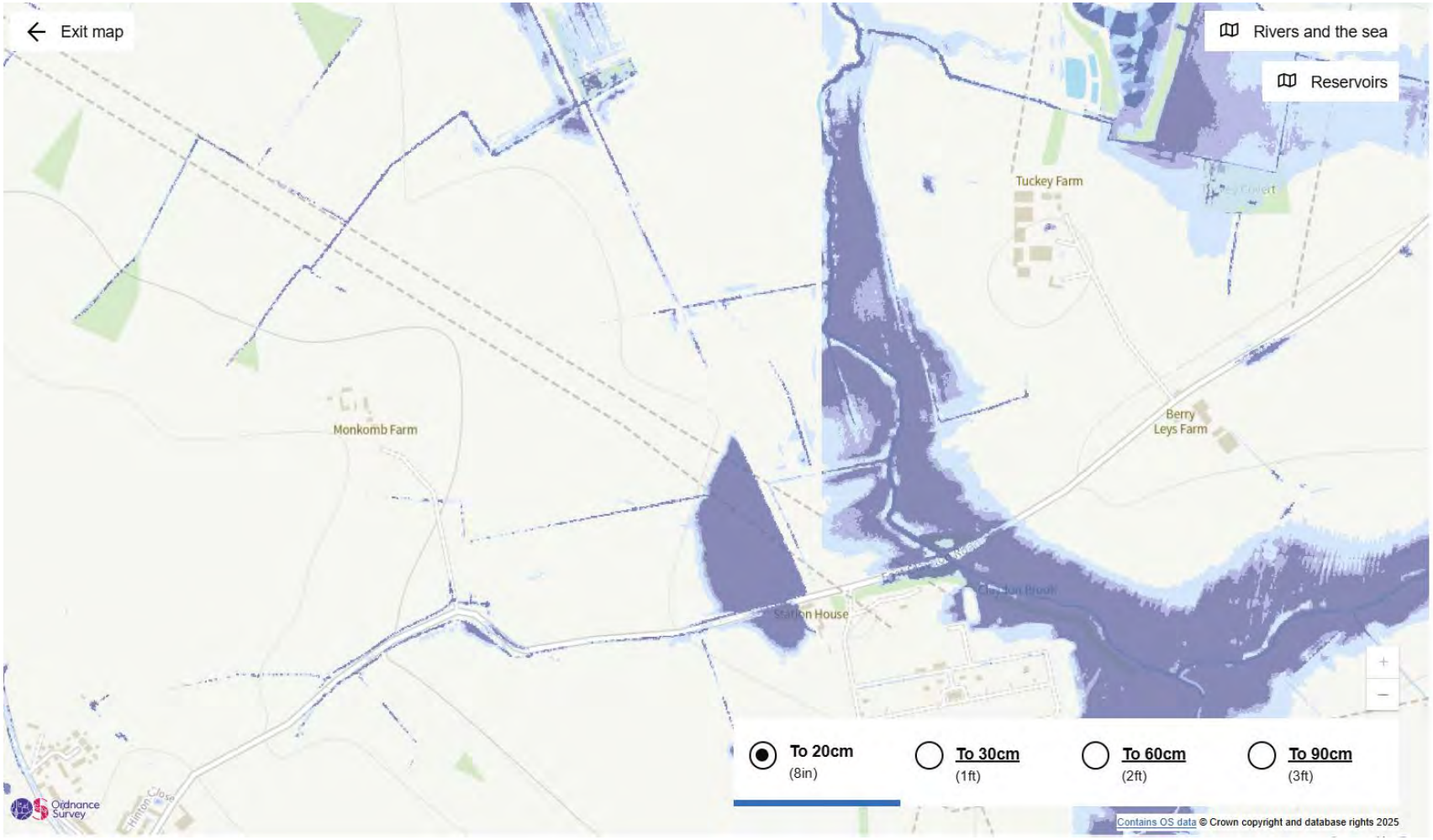
Yearly chance of flooding between 2040 and 2060

- ◉ Extent
  - High chance
    More than 3.3% chance each year
  - Medium chance
    Between 1% and 3.3% chance each year
  - Low chance
    Between 0.1% and 1% chance each year
- ○ Depth

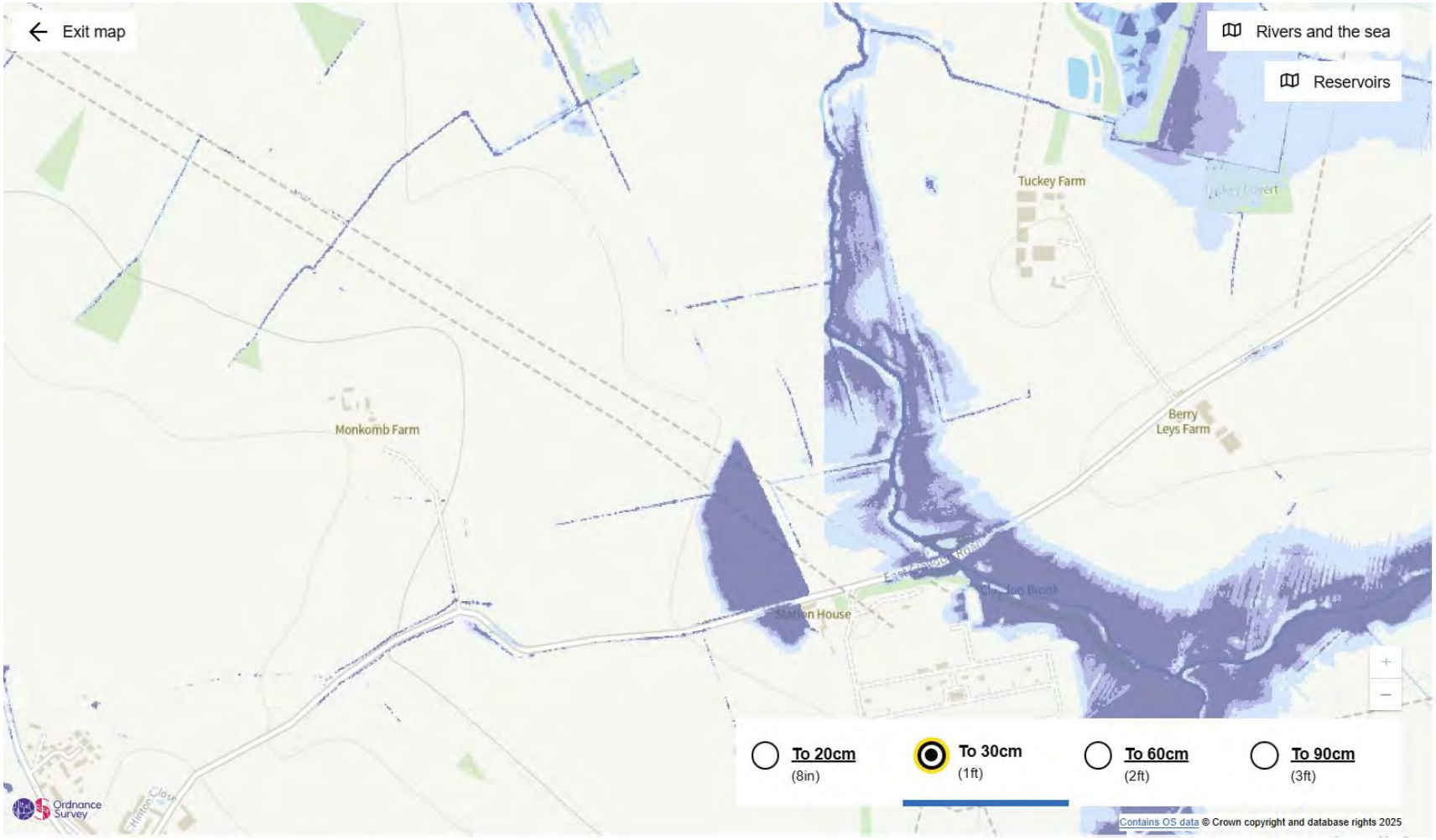
Map details

- ☑ Show flooding

Surface Water Flood Risk (Depth)



Surface Water Flood Risk (Depth)



Surface water map

Yearly chance of flooding

- ○ Extent
- ◉ Depth
  - High chance: More than 3.3% chance each year
  - Medium chance: Between 1% and 3.3% chance each year
  - Low chance: Between 0.1% and 1% chance each year

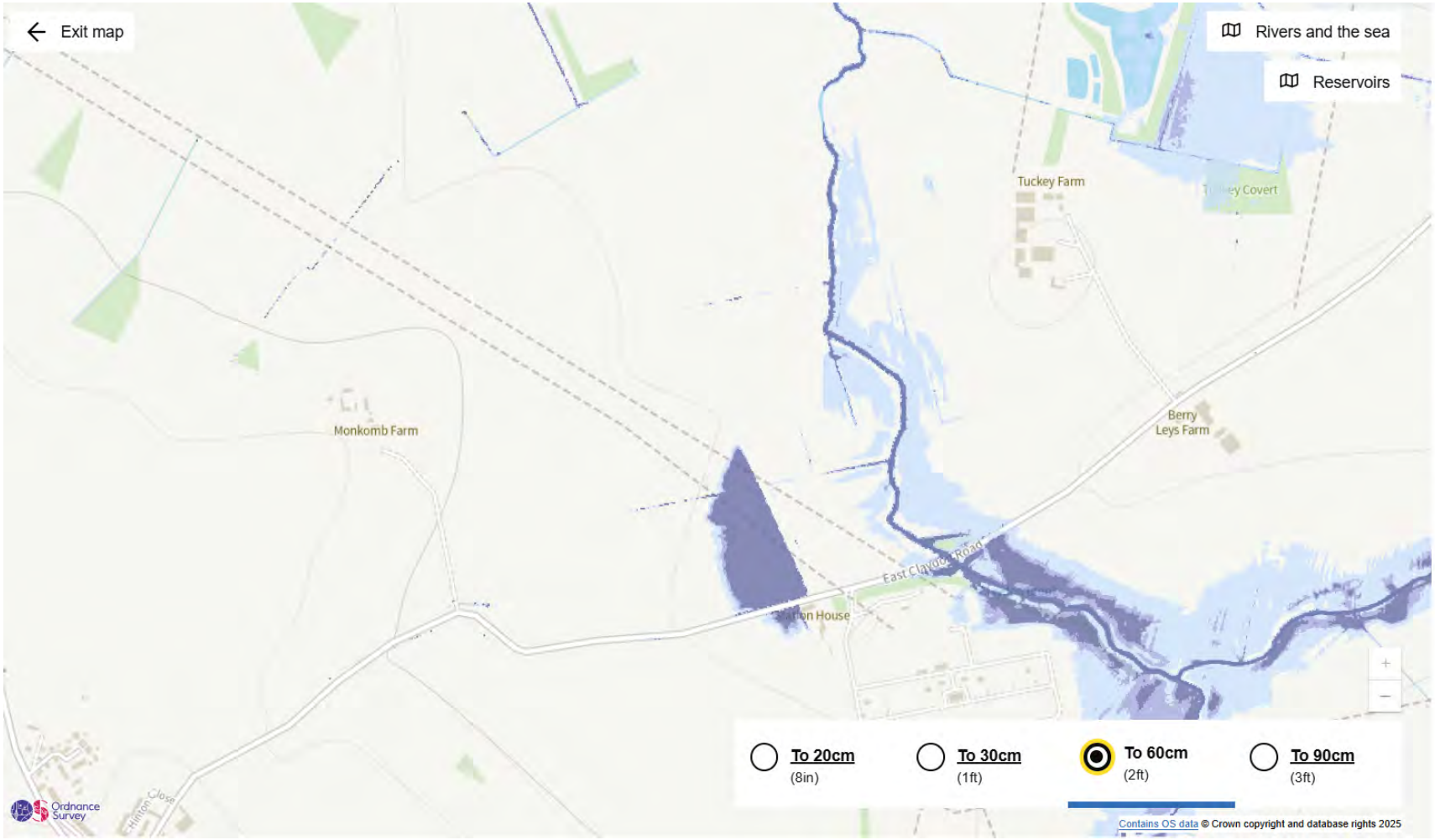
Yearly chance of flooding between 2040 and 2060

- ○ Extent
- ○ Depth

Map details

- ☑ Show flooding

Surface Water Flood Risk (Depth)



Surface water map

Yearly chance of flooding

- ○ Extent
- ◉ Depth
  - High chance: More than 3.3% chance each year
  - Medium chance: Between 1% and 3.3% chance each year
  - Low chance: Between 0.1% and 1% chance each year

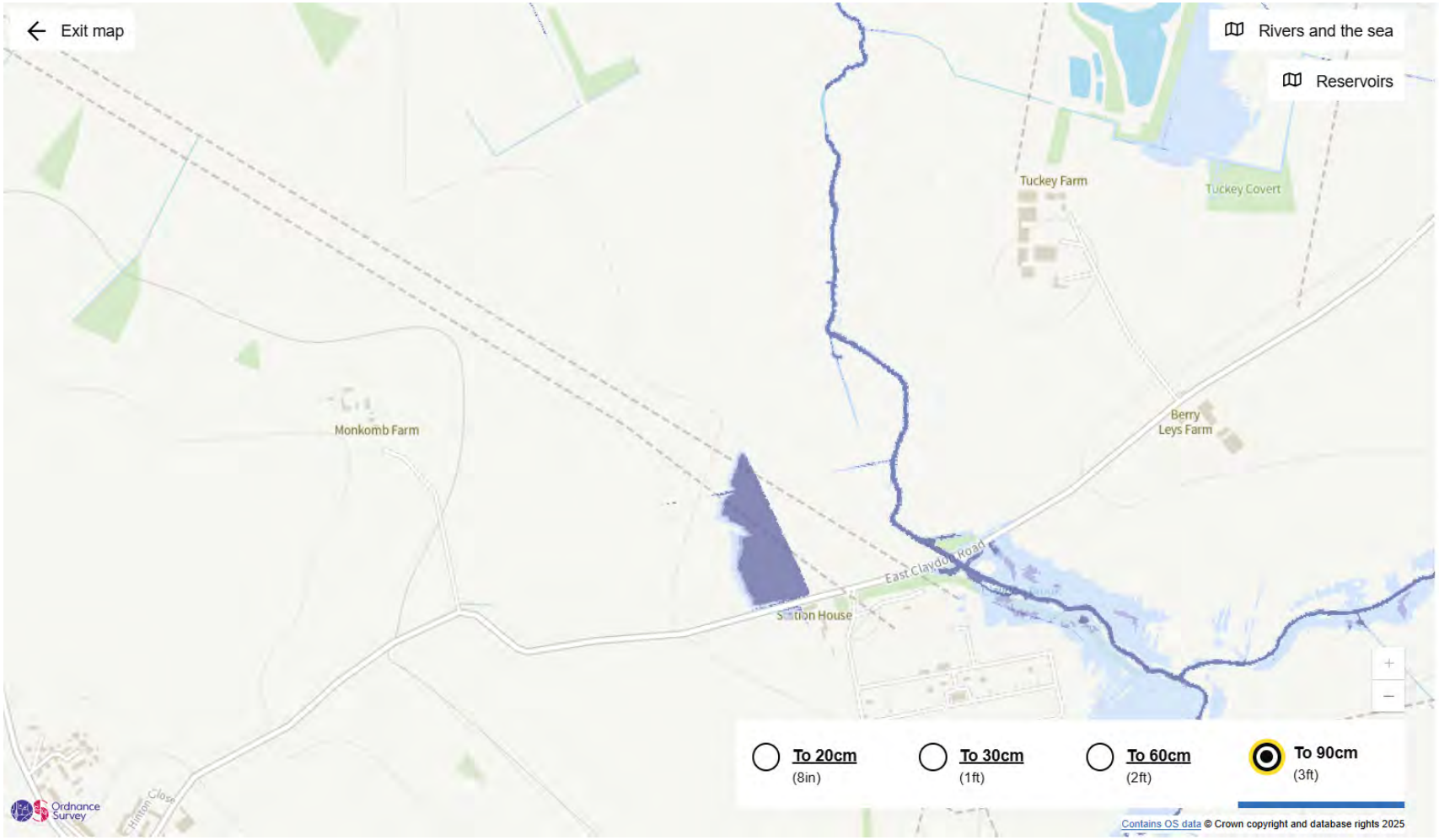
Yearly chance of flooding between 2040 and 2060

- ○ Extent
- ○ Depth

Map details

- ☑ Show flooding

Surface Water Flood Risk (Depth)



Surface water map

Yearly chance of flooding

- ○ Extent
- ◉ Depth
  - High chance: More than 3.3% chance each year
  - Medium chance: Between 1% and 3.3% chance each year
  - Low chance: Between 0.1% and 1% chance each year

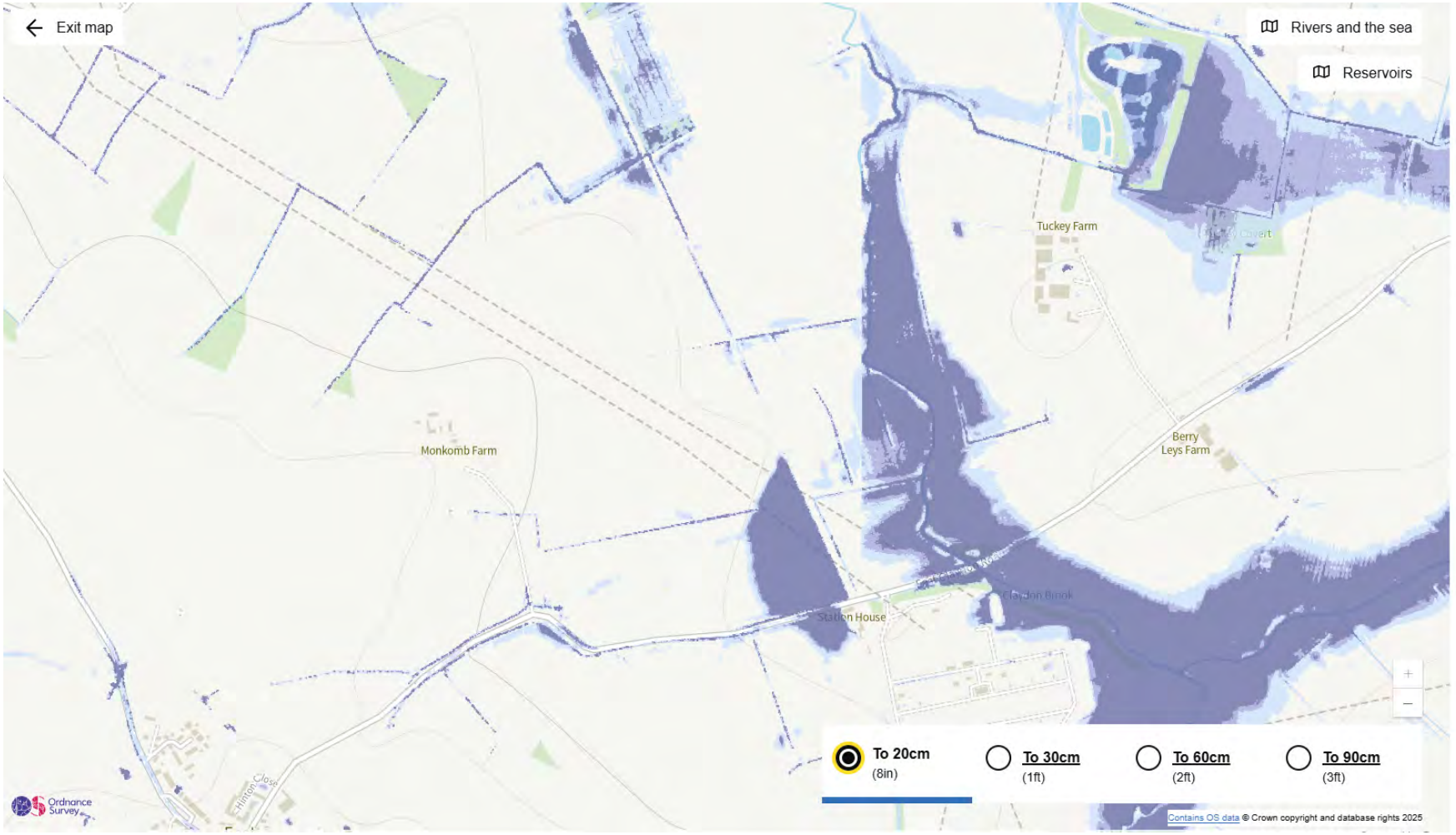
Yearly chance of flooding between 2040 and 2060

- ○ Extent
- ○ Depth

Map details

- ☑ Show flooding

Surface Water Flood Risk (Depth)



Surface water map

Yearly chance of flooding

- ○ Extent
- ○ Depth

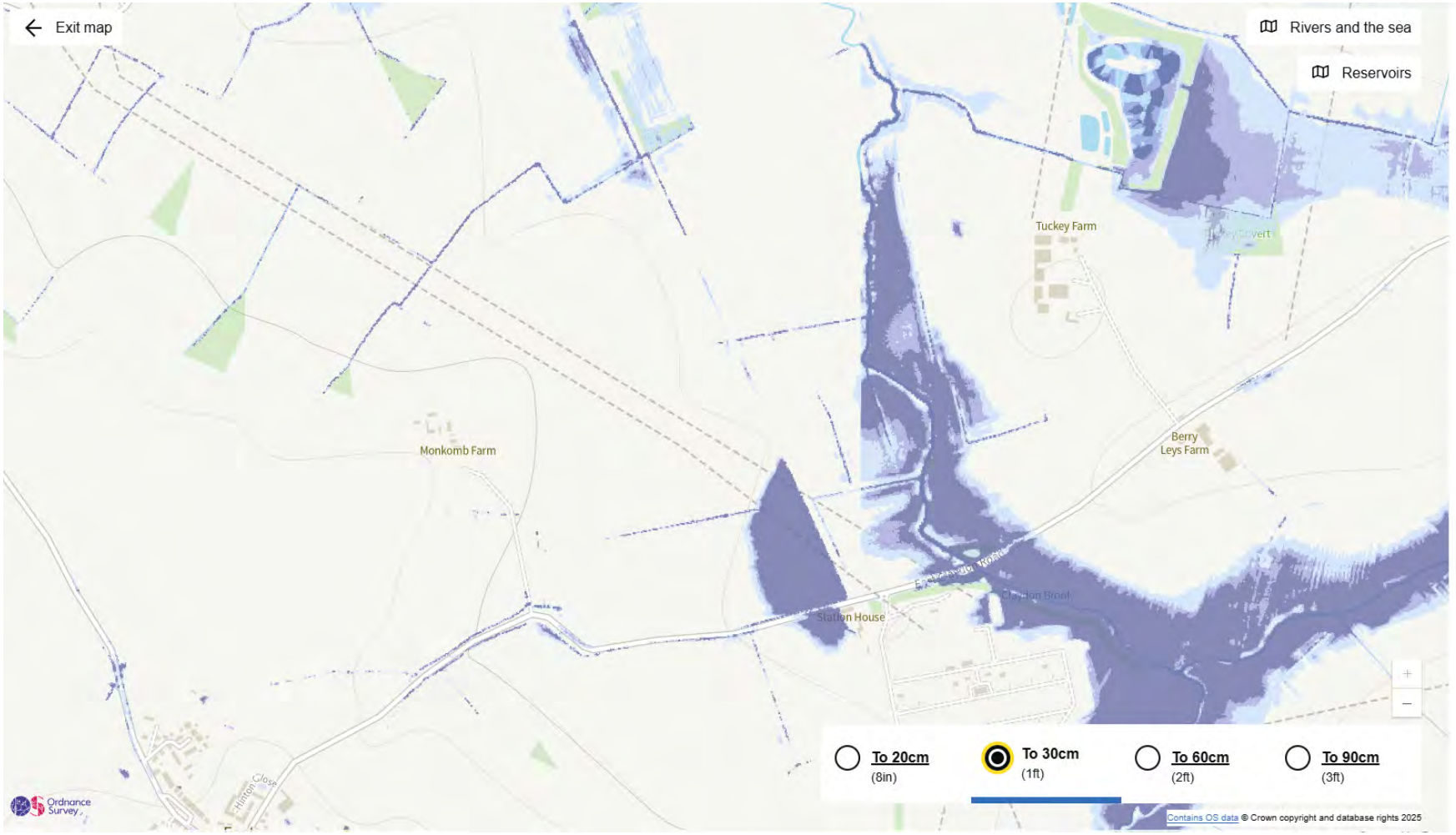
Yearly chance of flooding between 2040 and 2060

- ○ Extent
- ◉ Depth
  - High chance: More than 3.3% chance each year
  - Medium chance: Between 1% and 3.3% chance each year
  - Low chance: Between 0.1% and 1% chance each year

Map details

- ☑ Show flooding

Surface Water Flood Risk (Depth)



Surface water map

Yearly chance of flooding

- ○ Extent
- ○ Depth

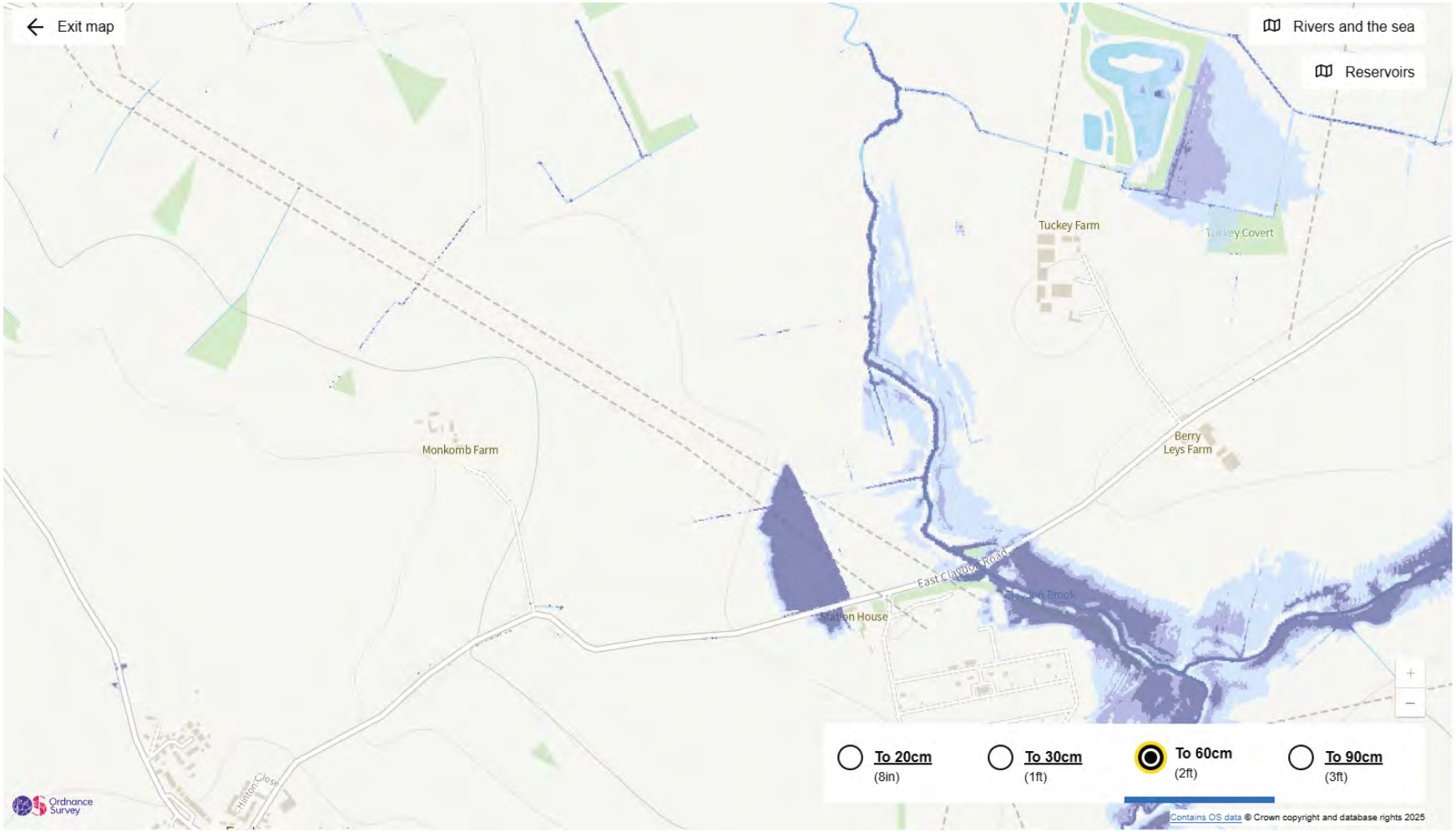
Yearly chance of flooding between 2040 and 2060

- ○ Extent
- ◉ Depth
  - High chance: More than 3.3% chance each year
  - Medium chance: Between 1% and 3.3% chance each year
  - Low chance: Between 0.1% and 1% chance each year

Map details

- ☑ Show flooding

Surface Water Flood Risk (Depth)



Surface water map

Yearly chance of flooding

- ○ Extent
- ○ Depth

Yearly chance of flooding between 2040 and 2060

- ○ Extent
- ◉ Depth

High chance
More than 3.3% chance each year

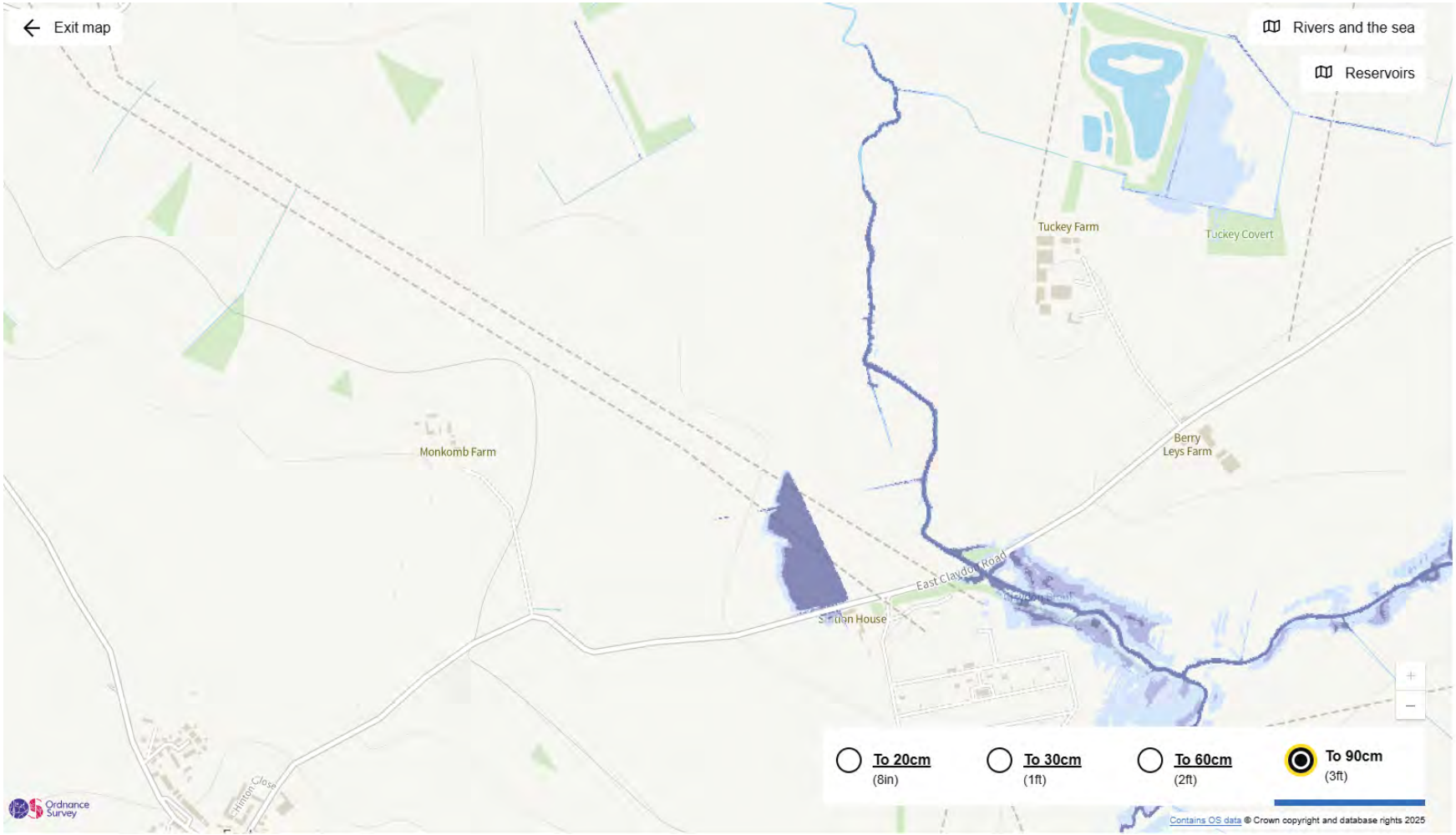
Medium chance
Between 1% and 3.3% chance each year

Low chance
Between 0.1% and 1% chance each year

Map details

- ☑ Show flooding

Surface Water Flood Risk (Depth)



Surface water map

Yearly chance of flooding

- ○ Extent
- ○ Depth

Yearly chance of flooding between 2040 and 2060

- ○ Extent
- ◉ Depth

High chance
More than 3.3% chance each year

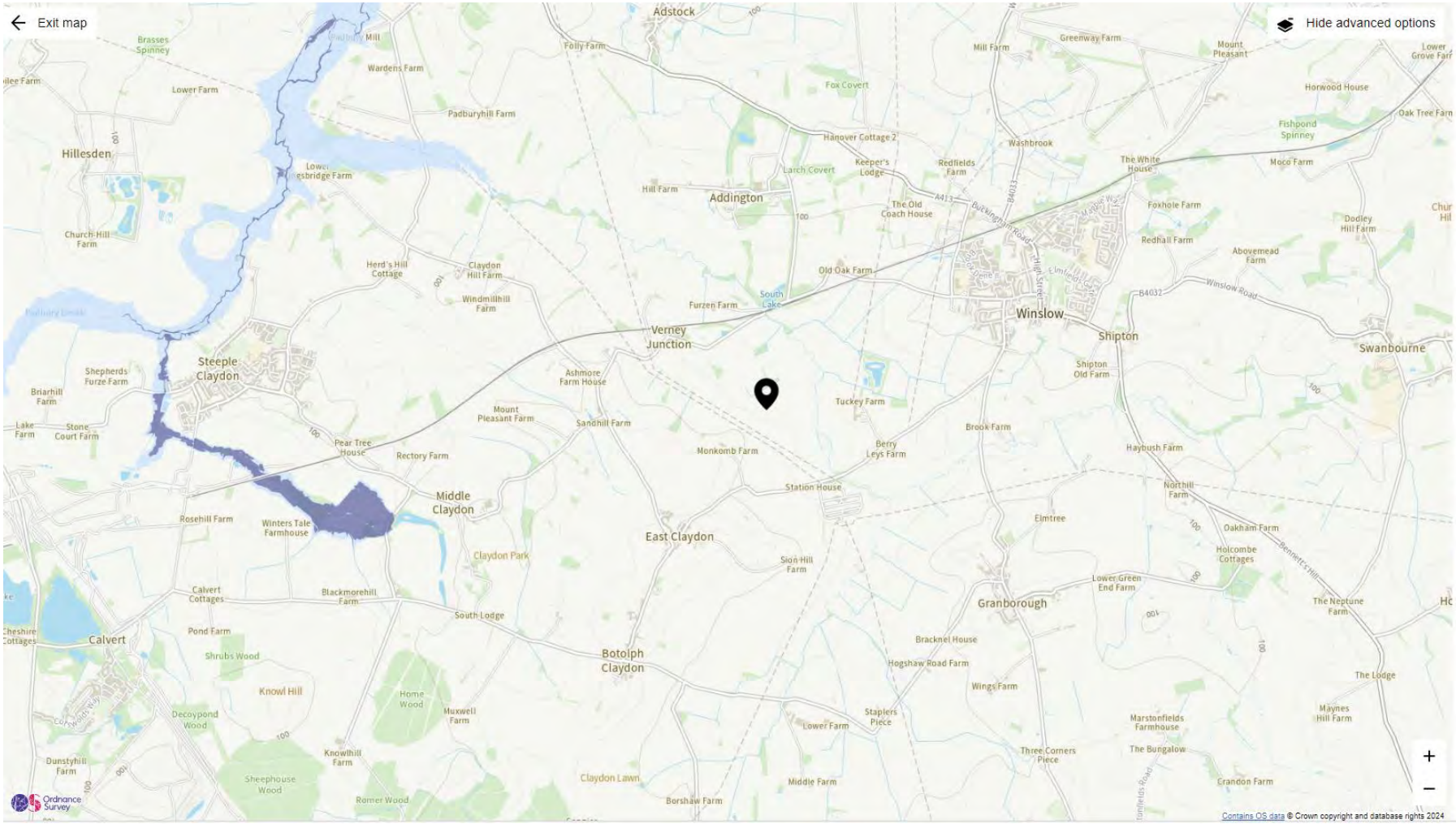
Medium chance
Between 1% and 3.3% chance each year

Low chance
Between 0.1% and 1% chance each year

Map details

- ☑ Show flooding

Reservoir Flooding



Appendix E

Proposed Drainage Strategy

north

Attenuation Basin with Impermeable Liner
Area: 2153m²
Depth: 0.80 m
Slopes: 1:3
Total Volume: 1443m³

HW CL 86.910 IL 86.100

15000 CL 87.100 IL 86.180

Pervious Pavement with Impermeable Liner
Area: 8093m²
Depth: 0.40 m
Total Volume: 971m³

15000 HYDROBRAKE CL 86.900 IL 86.050

Glass reinforced cement headwall outfall for 150mmØ pipe installed in accordance with manufacturers requirements CL 86.250 IL 85.950

HW CL 86.900 IL 86.100

Approximate Route of IDB Watercourse (Not Surveyed) - Based on assumed 1m offset from boundary fenceline

Pervious Pavement
Area: 3616m²
Depth: 0.40 m
Total Volume: 433m³

15000 CL 86.900 IL 86.185

15000 HYDROBRAKE CL 87.100 IL 86.210

15000 CL 87.200 IL 86.260

15000 CL 87.100 IL 86.300

15000 HYDROBRAKE CL 87.200 IL 86.330

15000 CL 87.400 IL 86.375

The low points on the western and eastern proposed main compound areas will be 87.00 and 86.90m AOD respectively

15000 CL 87.700 IL 86.490

15000 HYDROBRAKE CL 88.100 IL 86.570

Pervious Pavement with Impermeable Liner
Area: 8093m²
Depth: 0.40 m
Total Volume: 971m³

15000 CL 88.100 IL 86.820

CLASS 1 FULL RETENTION SEPARATOR CL 87.700 INLET LEVEL 86.550 OUTLET LEVEL 86.500

15000 HYDROBRAKE CL 87.500 IL 86.310

12000 CL 88.100 IL 86.650

12000 CL 88.100 IL 86.750

12000 CL 88.150 IL 86.800

15000 CL 87.800 IL 87.000

15000 HYDROBRAKE CL 87.750 IL 87.030

15000 CL 87.650 IL 87.000

Pervious Pavement with Impermeable Liner
Area: 8093m²
Depth: 0.40 m
Total Volume: 971m³

15000 HYDROBRAKE CL 87.200 IL 86.595

15000 CL 87.100 IL 86.575

HW CL 87.100 IL 86.800

Swales with Impermeable Liner
Areas: 217m² and 442m²
Depths: 0.60 and 0.30 m
Total Volume: 94 m³

HW CL 87.650 IL 87.050

HW CL 87.500 IL 87.000

HW CL 87.220 IL 86.920

15000 HYDROBRAKE CL 87.900 IL 86.970

HW CL 87.000 IL 86.450

150mmØ Catchpit Chamber Outfall CL 87.200 IL 86.220

15000 CL 87.200 IL 86.220

HW CL 87.000 IL 86.400

15000 CL 87.300 IL 86.315

15000 HYDROBRAKE CL 87.300 IL 86.365

HW CL 87.000 IL 86.400

Attenuation Basin with Impermeable Liner
Area: 182m²
Depth: 0.60 m
Slopes: 1:3
Total Volume: 78 m³

HW CL 88.200 IL 87.600

Pervious Pavement with Impermeable Liner
Area: 8093m²
Depth: 0.40 m
Total Volume: 971 m³

Attenuation Basin with Impermeable Liner
Area: 648 m²
Depth: 0.60 m
Slopes: 1:3
Total Volume: 331 m³

Existing IDB ditch (ordinary watercourse) to be decommissioned within development footprint. This will require land drainage consent once planning permission obtained.

Pervious Pavement
Area: 2556m²
Depth: 0.40 m
Total Volume: 312 m³

Existing IDB ditch (ordinary watercourse) to be permanently culverted within development footprint in two locations. This will require land drainage consent once planning permission obtained.

It is proposed construction materials are used to raise the access level by a minimum of 300mm to ensure the proposed permanent operational access is above the surface water flood level during the lifetime of the development

It is proposed the temporary access (including the adjacent construction compound areas) design raises the level by a minimum of 300mm along its length, and ensures surface water flooding is not displaced to off-site areas. The temporary construction vehicle access road and construction compounds are to be built on crushed rock with a minimum 30% void ratio to facilitate the percolation and long term storage of surface water in these locations.

Pervious Pavement
Area: 2759m²
Depth: 0.40 m
Total Volume: 331 m³

15000 HYDROBRAKE CL 88.900 IL 88.190

Glass reinforced cement headwall outfall for 150mmØ pipe installed in accordance with manufacturers requirements CL 88.800 IL 88.050

The EA surface water flood mapping does not consider the presence of the culvert under the disused railway track in this location, therefore the flooding appears worse than it would actually be.

HV 400kV ELE HV 400kV ELE HV 400kV ELE HV 400kV ELE HV 132kV ELE HV 132kV

0 20 40 60 80m
SCALE IN METRES
1:1000

Notes

1. All levels and dimensions are to be checked on site before any work commences. All dimensions are in metres unless stated otherwise.
2. Any discrepancies shall be reported to the engineer immediately, so that clarification can be sought prior to the commencement of works.
3. This drawing shall be read in conjunction with all other relevant engineering details, drawings and specification.
4. The contractor is to keep a record of any variations made on site, including the relocation of sewers or drains, for their "as built" drawings to be prepared upon project completion.
5. All works to adopted systems are to be carried out in accordance with Sewerage Sector Guidance Appendix C, Approved Version 2.1, 25 May 2021. All works to private drainage systems are to be in accordance with the Building Regulations Approved Document Part "H" 2015 edition.
6. 900mm min cover to be provided for private pipes laid beneath agricultural land and public open spaces unless not practicable, 1200mm min cover to be provided for highways and parking areas with unrestricted access to vehicles with a gross vehicle weight in excess of 7.5 tonnes unless not practicable. Where unachievable, shallow private drains may require protection using ductile iron pipe, concrete surround or concrete slabs bridging the trench, subject to the NHBC inspector's requirements.
7. All pipes shall be laid soffit to soffit with outgoing pipes unless otherwise stated.
8. Manholes situated within areas accessible to motor vehicles are to be fitted with suitable strength covers and frames. Please refer to the manhole schedule for guidance on this.
9. This drawing has been based upon survey information supplied by Warner Surveys and Motion cannot guarantee the accuracy of the data provided.
10. Adjacent areas of hardstanding will comply with building regulations and divert water away from the buildings.
11. The top surface of the pervious pavement should finish at least 150mm below any adjoining DPC level. Advice should always be sought from the manufacturer.
12. Linear drainage channels are required to convey surface water for up to the 100 year + 45% climate change critical flow rate. Construction details and supporting calculations are to be provided at the detailed design stage.
13. The Drainage Strategy is based on preliminary levels and is subject to detailed design.
14. The exact location of all private rainwater pipes are to be confirmed with the architect details prior to commencement of works.
15. Check Dams will be required for the pervious pavement sub-bases and swales to maximise attenuation. Spacing and construction details to be provided at the detailed design stage.
16. The Type C no infiltration pervious pavement sub-base will drain to underlying surface water perforated collector pipes or diffuser units. Construction details are to be provided at the detailed design stage.
17. Purpose Designed Water Pollution Containment Device Chambers will be installed downstream of the last attenuation basins to contain site runoff such as fire water in an emergency.
18. The surface of the proposed main compound and substation areas should finish minimum of 150mm below any buildings and equipment. The scheme levels have been designed to achieve this requirement.

Legend

- Planning Site Boundary
- Proposed Type C no infiltration pervious pavement
- Proposed Type C no infiltration pervious pavement Lined with Impermeable Separating Geomembrane at the Sides and Base
- New Surface Water Gravity Pipe
- New Surface Water Catchpit Chamber
- New Surface Water Linear Drainage with Sump Unit
- Exceedance flow route
- New Surface Water Filter Drain with Perforated Collector Pipe and fill material that has a minimum 30% void ratio to facilitate the percolation and routing of surface water
- Proposed Swale
- Proposed Attenuation Basin
- New Surface Water Hydro-Brake Flow Control Chamber - Refer to MicroDrainage Calculations for 100 + 40% climate change critical flow rate
- Proposed Headwall
- EA Risk of Flooding from Rivers and Sea - Climate Change 1 - shows the overall risk, rather than the risk associated with a specific event or scenario - includes the 'Central' climate change allowance for the 2050s epoch (2040-2069) for risk of flooding from rivers - Last Updated 28 January 2025)
- EA Flood Map for Planning - Climate Change Extents (undefended) - shows the overall risk, rather than the risk associated with a specific event or scenario - includes the 'Central' climate change allowance for the 2080s epoch (2070-2125) for risk of flooding from rivers - Last Updated 25 March 2025)
- EA Risk of Flooding from Surface Water - Climate Change 1 - with Low Yearly Chance Extent Removed by Motion - shows the overall Medium and High risk, rather than the risk associated with a specific event or scenario - includes the 'Central' climate change allowance for the 2050s epoch (2040-2060) for the Medium and High risk of flooding from surface water - Last Updated 28 January 2025)
- New Purpose Designed Water Pollution Containment Device Chamber
- 8m LLFA Buffer Zone
- 9m IDB Buffer Zone
- 10m Ecological Buffer Zone

Rev.	Description	Drn	Chk	App	Date
P07	Seventh Issue	ST	CG	JM	23/04/2025
P06	Sixth Issue	ST	CG	JM	13/04/2025
P05	Fifth Issue	ST	CG	JM	08/04/2025
P04	Fourth Issue	ST	CG	JM	02/04/2025
P03	Third Issue	ST	CG	JM	07/03/2025
P02	Second Issue	ST	CG	JM	20/12/2024
P01	First Issue	ST	CG	JM	17/10/2024

Drawing Status:
FOR PLANNING
NOT FOR CONSTRUCTION

motion
Guildford - Reading - London
www.motion.co.uk

Client:
Lichfields

Project:
East Claydon Greener Grid Park

Title:
Proposed Drainage Strategy

Scale: 1:1000 (@ A1)

Drawing: 2404003-0501-01
Revision: P07

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