Cottam Solar Project

Environmental Statement Appendix 10.1:

Annex E – 10.1.4

Flood Risk Assessment and Drainage Strategy – Cottam 1 South

Prepared by: Delta-Simons

January 2023

PINS Ref: EN010133

Document reference: APP/C6.3.10.5

APFP Regulation 5(2)(e)

Cottam
SOLAR PROJECT

Flood Risk Assessment and Drainage Strategy

Annex E - Cottam 1 South

Presented to: Cottam Solar Energy Farm Limited

Issued: December 2022

Delta-Simons Project No: 21-1088.03

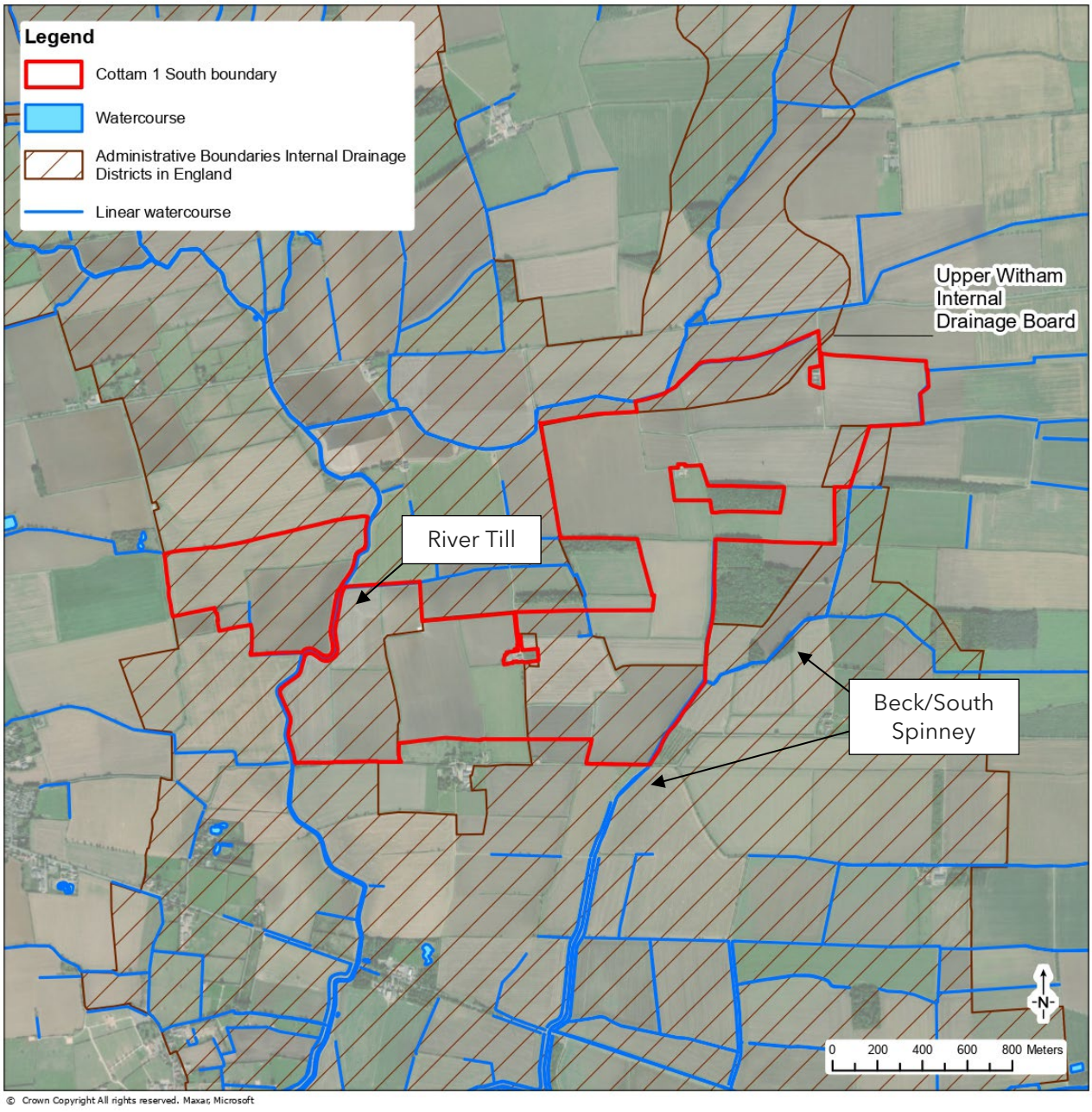
Protecting people and planet

Table of Contents

Annexes

1.0 Site Description

1.1.1 The aim of this section of the report is to outline key environmental information associated with the baseline environment.



Site Location Plan

Co-ordinates	Centred approximately at National Grid Reference (NGR) 491009, 381236	**Area (approx.)**	253 Ha
Site Location	The Cottam 1 South site is located within a rural setting and comprises multiple parcels of agricultural fields, approximately 4.4 km south-west of the village of Ingham and 2 km east of the village of Sturton-on-Stow.		

Existing Site Conditions	Online mapping (including Google Maps / Google Streetview imagery accessed May 2022) shows that the Site is greenfield comprising agricultural / arable fields.
Topography	Topographic levels to metres Above Ordnance Datum (m AOD) have been derived from a 1 m resolution Environment Agency (EA) composite 'Light Detecting and Ranging' (LiDAR) Digital Terrain Model (DTM). A review of LiDAR ground elevation data shows that the Site slopes from approximately 13 m AOD in the east, west and southern peripheries to approximately 6 m AOD within the western extent. Given the size of the Site the gradients are shallow and the Site is relatively flat. A LiDAR extract is included as Annex B.
Hydrology	The River Till flows in a southerly direction through the western extent of the Site. The River Till is a Main River and is therefore the responsibility of the EA to maintain. Another watercourse shown as 'Beck Spinney' and 'South Spinney' flows in a south westerly direction along the south-eastern Site boundary. The upstream stretch of Beck/South Spinney is designated as an Ordinary Watercourse (responsibility of the Lead Local Flood Authority (LLFA) to maintain) but becomes an EA Main River downstream of the Site's south-eastern corner. Other watercourses include several land drains which are located within the vicinity of the Site.
Water Framework Directive Status	The Site is located in the River Till Catchment which has a Cycle 3 2019 Ecological status of Moderate and a Failing Chemical status. A summary of the Water Body Classification for the catchment is included as Annex C.
Geology	Reference to the British Geological Survey (BGS) online mapping (1:50,000 scale) indicates that the far western corner of the Site is underlain by superficial mid-Pleistocene glaciofluvial deposits consisting of sand and gravel. The north-eastern and south-eastern corners and western extent of the Site which the River Till runs through are underlain by superficial deposits of Alluvium consisting of clay, silt, sand and gravel. The majority of the eastern extent of the Site is underlain by mid-Pleistocene Diamicton Till. Some portions of the Site in the west, centre and east are shown to have no superficial deposits present. The far western extent of the Site is underlain by bedrock deposits of Scunthorpe Mudstone Formation (interbedded limestone and mudstone), with the remaining portion of the Site underlain by Charmouth mudstone formation consisting of mudstone. The geological mapping is available at a scale of 1:50,000 and as such may not be accurate on a Site-specific basis.
Hydrogeology	According to the EA's Aquifer Designation data, obtained from MAGIC Map's online mapping [Accessed: May 2022], the mid-Pleistocene glaciofluvial deposits and Alluvium deposits are classified as Secondary A Aquifers. Secondary A Aquifers are 'permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers'; The Till deposits are classified as a Secondary Undifferentiated Aquifer which are assigned in 'cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously

	been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type'. The Scunthorpe Mudstone Formation is classified as a Secondary B Aquifer. Secondary B Aquifers are 'predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers'. The Charmouth Mudstone Formation is classified as a Secondary Undifferentiated Aquifer. Secondary Undifferentiated Aquifers are assigned in 'cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type'. The EA's 'Source Protection Zones' data, obtained from MAGIC Map's online mapping indicates that the Site is not located within a Groundwater Source Protection Zone.
Proposed Site Conditions	The proposed development at Cottam 1 South is for a ground mounted solar photo-voltaic plant and associated power stations and access road. An Illustrative Layout Plan is included in Annex D.

2.0 Assessment of Flood Risk

2.1 Tidal Flood Risk

2.1.1 The Site is situated inland at a minimum of 6 m AOD. Therefore, the risk from tidal flooding is considered to be Negligible.

2.2 Fluvial Flood Risk

EA Online Flood Maps

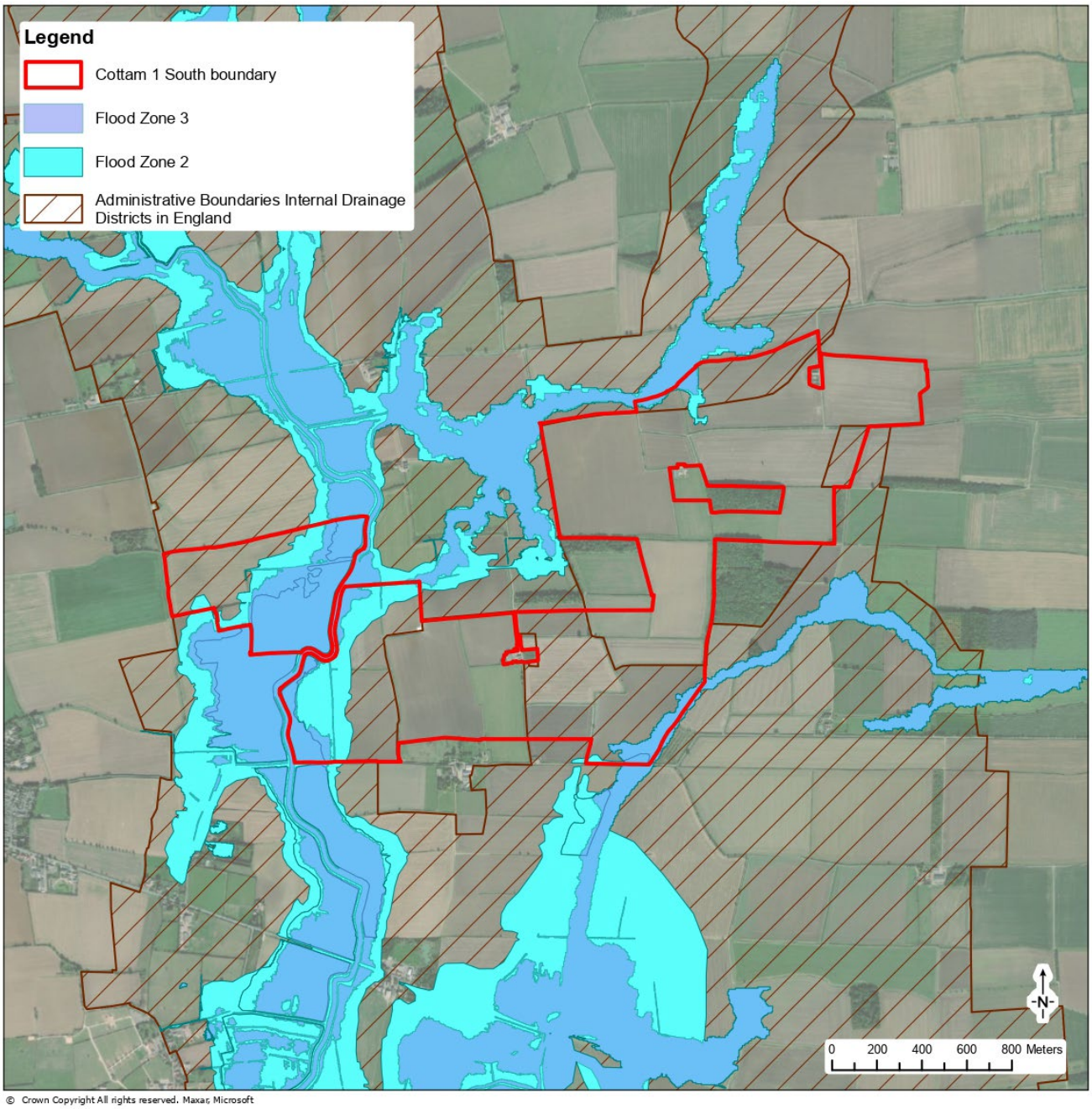


Figure 1: EA's Flood Map for Planning

2.2.1 The EA's Flood Map for Planning (Figure 1) indicates northern, western and a minor portion of the south-eastern extent of the Site are within Flood Zones 2 and 3. Flood Zone 2 is defined as land assessed as having between a 1 in 1000 to 1 in 100 (0.1% to 1% Annual Exceedance Probability (AEP)) of river flooding. Flood Zone 3 defined as land assessed as having a 1 in 100 or greater (>1% AEP) of river flooding.

2.2.2 Fluvial flooding could occur if the River Till or Beck/South Spinney overtopped their banks during or following an extreme rainfall event.

2.2.3 According to the EA's Historic Flood Map (Annex E) the south-western corner of the Site has historically flooded. The dataset indicates that the flood occurred in November 2019 due to 'overtopping of defences'.

Flood Defences

2.2.4 The EA's Spatial Flood Defences dataset indicates that formal EA Flood Defences are present along the length of the River Till that runs through the Site. The defences are shown as 'embankments' on the dataset and are comprised of raised banks. The Standard of Protection (SoP) of the defence is shown as up to the 1 in 10 year event. The upstream crest level of the defence is stated as 7.62 m AOD and the downstream crest level as 7.20 m AOD.

EA Product Data

2.2.5 The EA have made available modelled fluvial depth mapping for the River Till. The flood model is derived from the Upper Witham Lincoln 2015 model.

2.2.6 The Site is considered to be 'Essential Infrastructure' within the Witham Catchment of the Anglian River Basin District and therefore the higher central Climate Change (CC) allowance of 15% for the 2050s epoch should be utilised. The life expectancy of the PV solar panels is not expected to be greater than 30 years and therefore, the 2050s epoch allowance is considered to be appropriate.

2.2.7 The modelled depth information provided by the EA only included a 20% allowance greater than the 15% higher central CC allowance and therefore, depicts a scenario worse than the assessment event.

2.2.8 During the 1% AEP + CC scenario (Annex F), flows are shown to overtop the right bank of the River Till and cover a minor portion of the Site in the south. The vast majority of the on-Site flooding is shown to be below 0.6 m however there are some minor areas shown to hold depths above 0.9 m in the south-western corner. It should be noted that the EA's model does not cover the entire Site and therefore in the south-west corner of the Site there is a 'clear' zone of no flood risk is shown. This model extent was discussed with the EA and confirmed. On comparison to LiDAR data, the elevation levels of the land in the flood free zone are not raised above the surrounding land, therefore there is no indication that flows would not reach this area. It should be assumed that flows would also extend over this area of the Site.

2.2.9 During the 0.1% AEP + CC scenario (Annex G), the majority of the Site remains flood free however a greater proportion of the Site is shown to hold flooding with a depth greater than 0.9 m.

Summary

2.2.10 Based on the evidence provided above, the majority of the Site remains flood free during the 1% AEP + 20% CC event with only minor flood depths < 0.9 m in the south-western corner of the Site. The proposed solar panels will be raised above surrounding ground levels with associated power infrastructure appropriately waterproofed. Embedded mitigation measures are considered in 3.2 of the covering report and in section 2.7 of this annex.

2.2.11 It can therefore be concluded that the Site is at **Low** risk of fluvial flooding, therefore no specific mitigation is considered necessary.

2.3 Surface Water Flood Risk

2.3.1 The EA's Long Term Flood Risk Map (Surface Water), shown in Figure 2, indicates that the majority of the Site is at Very Low (< 0.1% annual probability) risk of surface water flooding. Surface water flooding with a Medium (1% - 3.3% annual probability) and High (>3.3% annual probability) risk of occurrence is present in the western extent of the Site and along parts of the eastern Site boundary.

2.3.2 The extents of the surface water risk largely concur with the courses of the watercourses which run through the west and east of the Site.

2.3.3 During the High risk scenario (>3.3% annual probability) a minor portion of surface water flooding with depths greater than 0.3 m is present in the west of the Site, to the east of the River Till.

2.3.4 During the Medium risk scenario (1% - 3.3% annual probability), the ponding to the east of the Till expands slightly and some additional ponding above 0.3 m appears in the south-eastern corner.

2.3.5 During the Low risk scenario (<1% annual probability) surface water flooding with depths greater than 0.3m appears across the land which borders the River Till, the south-eastern corner of the Site and a portion of the northern boundary.

2.3.6 There is no indication within relevant third party reports to suggest that the Site has historically experienced surface water flooding.

2.3.7 Based on the above and considering the embedded mitigation as part of the design of the solar panels, the overall risk of surface water flooding is considered to be **Low**. The proposed solar panels will be raised above surrounding ground levels and will be appropriately waterproofed thereby reducing the potential to be impacted in the event of surface water flooding.

2.3.8 The impact of the development on surface water risk is covered in Section 5.0 of the Covering Report to ensure that surface water risk is not exacerbated through appropriate SuDS measures.

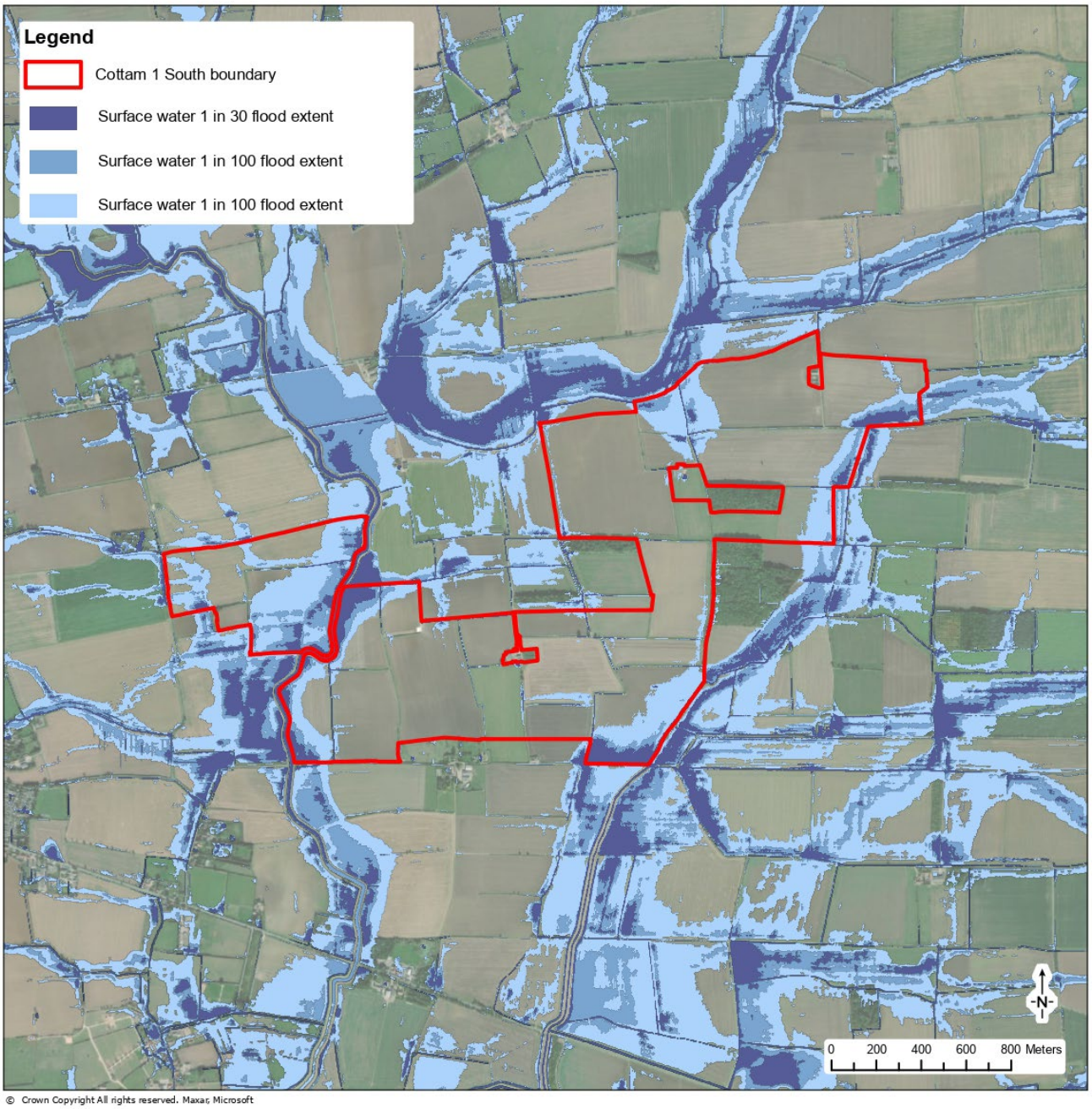


Figure 2: EA's Long-Term Flood Risk Map (Flood Risk from Surface Water)

2.4 Groundwater Flood Risk

2.4.1 There is no information within relevant third party reports to suggest that the Site has experienced historical groundwater flooding.

2.4.2 No buildings other than the supporting unstaffed infrastructure and no basement levels are identified on plans which may otherwise be at increased risk from groundwater seepage.

2.4.3 It can therefore be concluded that the risk of groundwater flooding is **Low** and no specific mitigation measures are required.

2.5 Artificial Sources Flood Risk

Sewer Flooding

2.5.1 No site-specific incidents of sewer flooding have been identified from relevant third party reports.

2.5.2 On the basis of the Site's rural setting, the presence of sewerage infrastructure is unlikely.

2.5.3 It can therefore be concluded that the risk of sewer flooding is **Low.**

Reservoir and Canal Flooding

2.5.4 There are no canals within the vicinity of the Site. Therefore, the risk from canal flooding is considered to be **Negligible**.

2.5.5 The EA 'Flood Risk from Reservoirs' map shows that the west of the Site is within the extents of a reservoir breach.

2.5.6 The EA states within their Preliminary Flood Risk Assessment for England (dated October 2018) that 'reservoir flooding is extremely unlikely to happen'. All large reservoirs must be inspected and supervised by reservoir panel engineers. As the enforcement authority for the Reservoirs Act 1975 in England, the EA ensure that reservoirs are inspected regularly, and essential safety work is carried out. It can therefore be concluded that the risk from reservoir flooding is considered to be **Low.**

2.6 Summary of Flood Risk

2.6.1 It can be concluded that the risk to the Site from all sources of flooding is **Negligible to Low**, and therefore mitigation is not required in this instance. However, protective measures are proposed to be incorporated as part of the Scheme, which are set out below.

2.7 Embedded Mitigation

2.7.1 8m easements have been established around all watercourses, including Main Rivers and Ordinary Watercourses and 9 m from IDB assets.

2.7.2 Either fixed or tracker panels will be utilised throughout the Sites.

2.7.3 The minimum height of the lowest part of the fixed solar panel units will be 0.6 m above ground level.

2.7.4 The tracker solar panel units will be mounted on raised frames (usually raised a minimum of 0.4 m) when on maximum rotation angle) and will therefore be raised above surrounding ground levels and fitted with a tracking system. During times of flooding, solar panels may be stowed by the tracking system algorithm onto a horizontal plane, to the minimum post height of 2.3 m above ground level. This ensures that all sensitive and electrical equipment on the solar panel is raised to a minimum of 2.3 m above ground level in the horizontal position.

2.7.5 Fixed panels should be located within areas of the Site which are located in Flood Zone 1 whereas tracker panels can be located in areas that are within Flood Zones 2 and 3 on the basis of the additional flood protection offered by their potential to be stowed horizontally.

2.7.6 Electrical infrastructure associated with the panels can be adequately waterproofed to withstand the effect of flooding. Where possible the sensitive electrical equipment has been located in parts of the Site that are within Flood Zone 1. Where this hasn't been possible the equipment will be raised 0.6 m above the 0.1% AEP flood level or where this is not possible as high as practicable.

Flood Warnings and Evacuation

2.7.7 Flood Warnings / Flood Alerts do partly cover the Site. However, access to the Site will be required relatively infrequently, typically by technicians for maintenance and inspection works or Site management. Such works can be scheduled as to avoid the site during times of flood.

2.8 Residual Risks

2.8.1 A residual risk is an exceedance event, such as the 1 in 1000 year (0.1% AEP) flood event that would overtop the River Till and Beck/South Spinney and potentially impact the Site. As the probability of a 1 in 1000 year flood event occurring is 0.1% in any given year, the probability is low and, therefore, no further mitigation beyond what is proposed is required.

2.8.2 In the event of the defences failing or an exceedance event occurring, the residual risk to people working within the Site can be managed through the implementation of an appropriate Site management plan, which recognises the residual risks and details what action is to be taken by staff in the event of a flood to put occupants in a place of safety.

2.9 Impact on Off-Site Flood Risk

2.9.1 The solar panels will be mounted on frames and raised above ground level allowing flood water to flow freely underneath. Therefore, there will be no loss of floodplain volume as a result of the proposed development and no increased in flood risk elsewhere.

2.9.2 The supporting infrastructure will be insignificant in size and should not increase flood risk elsewhere.

2.9.3 Surface water management has been considered in Section 5.0 of the Covering Report.

3.0 Conclusions and Recommendations

3.1 Conclusions

3.1.1 The proposed development is for a ground mounted solar farm and associated infrastructure and access roads.

Flood Risk

3.1.2 The EA 'Flood Map for Planning' map shows that the Site is partly located within Flood Zones 2 and 3.

3.1.3 The risk of flooding from all sources has been assessed and the flood risk to the Site is considered to be **Negligible to Low** and therefore does not require Site-specific mitigation measures.

3.1.4 The solar panels will be mounted on raised frames and therefore raised above surrounding ground level allowing flood water to flow freely underneath. Therefore, there will be no loss of floodplain volume as a result of the proposed development.

Drainage Strategy

3.1.5 The proposed development is free draining through perimeter gaps around all panels, allowing for infiltration as existing within the grassland/vegetation surrounding and beneath the panels. There will be minimal increase in impermeable area meaning the proposals will not increase surface water flood risk elsewhere.

3.1.6 Any surface water exceeding the infiltration capacity of the surrounding strata will naturally drain to the surrounding Land Drains in line with the existing scenario.

3.1.7 The heavily managed agricultural land will be replaced with grassland. This will help to reduce run off rates by increasing the roughness of the ground, help to increase infiltration by reducing compaction, and improve water quality by reducing erosion and mobilisation of pollutants. As a result, runoff rates may be reduced following development when compared to the existing greenfield scenario.

3.2 Recommendations

3.2.1 The recommendations below have been taken into account in the design of the Illustrative Site Layout:

- 8m easements have been established around all watercourses, including Main Rivers and Ordinary Watercourses and 9 m from IDB assets;
- All service cabling should be designed and installed to be flood resilient / water compatible. This should be achieved in accordance with appropriate design standards and best practise guidance; and
- Locate sensitive electrical equipment in parts of the Site outside of the 0.1% AEP + 20% CC extent and at Very Low risk of surface water flooding.

Annex A – Limitations

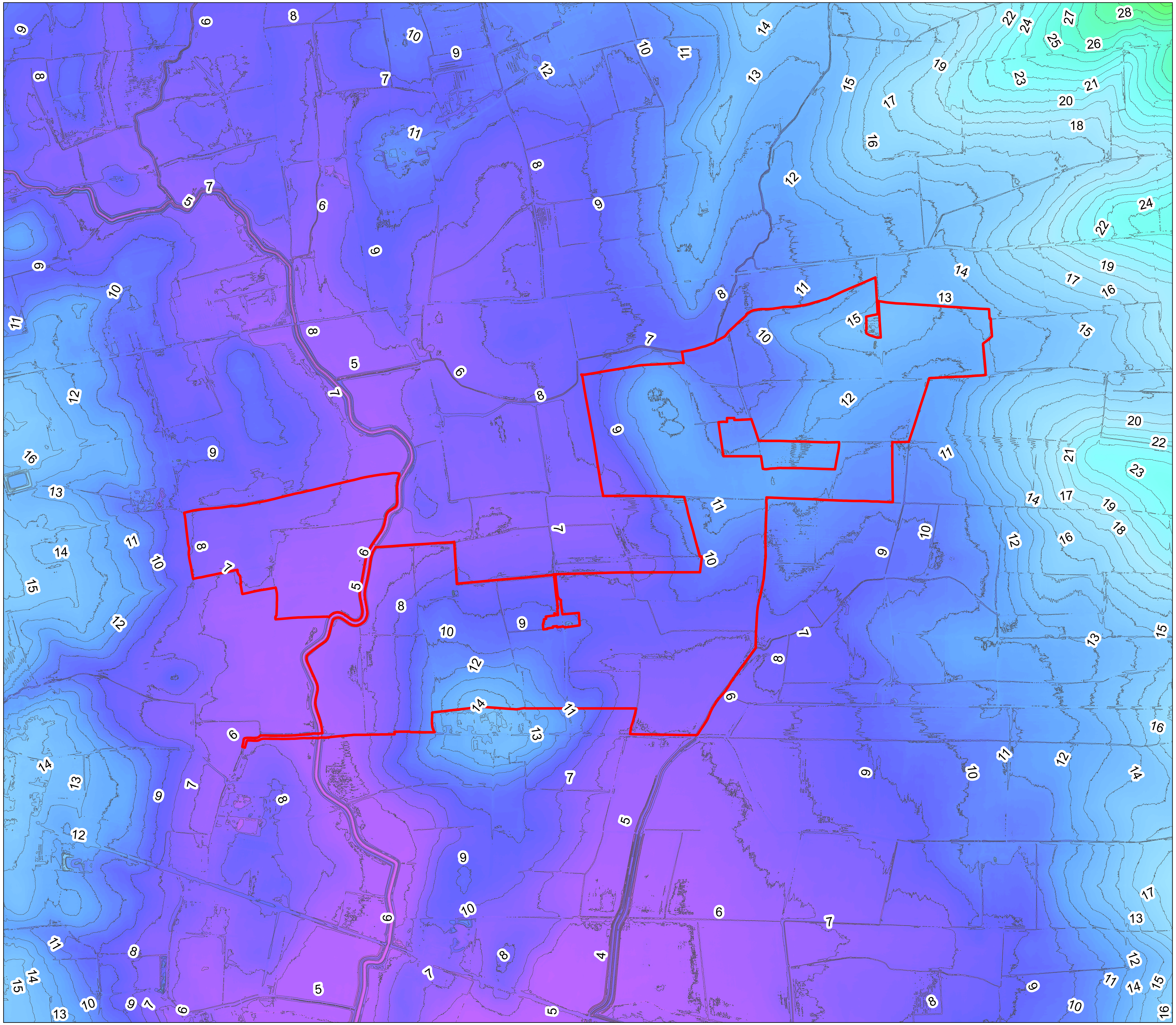
Limitations

The recommendations contained in this Report represent Delta-Simons professional opinions, based upon the information listed in the Report, exercising the duty of care required of an experienced Environmental Consultant. Delta-Simons does not warrant or guarantee that the Site is free of hazardous or potentially hazardous materials or conditions.

Delta-Simons obtained, reviewed and evaluated information in preparing this Report from the Client and others. Delta-Simons conclusions, opinions and recommendations has been determined using this information. Delta-Simons does not warrant the accuracy of the information provided to it and will not be responsible for any opinions which Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

This Report was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

Annex B – LiDAR Plan



Legend

Cottam 1 South boundary

Contours

LiDAR

70.96

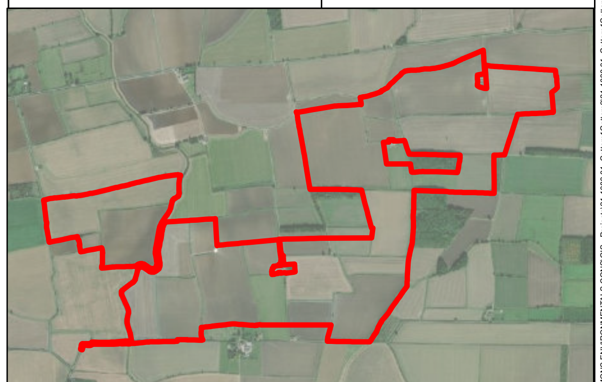
1.93

0 150 300 450 600 Meters

N

Figure	LIDAR & Contours
Job	Cottam 1 South
Client	Island Green Power

Appendix	B	Revision	A	Date	03/11/2022
Drawn	KH	Checked	EB	Scale	1:15,000 @ A3
Job No.	21-1088.03			Central GR	491627E 381582N



DO NOT SCALE.

NOT FOR CONSTRUCTION.

DeltaSimons

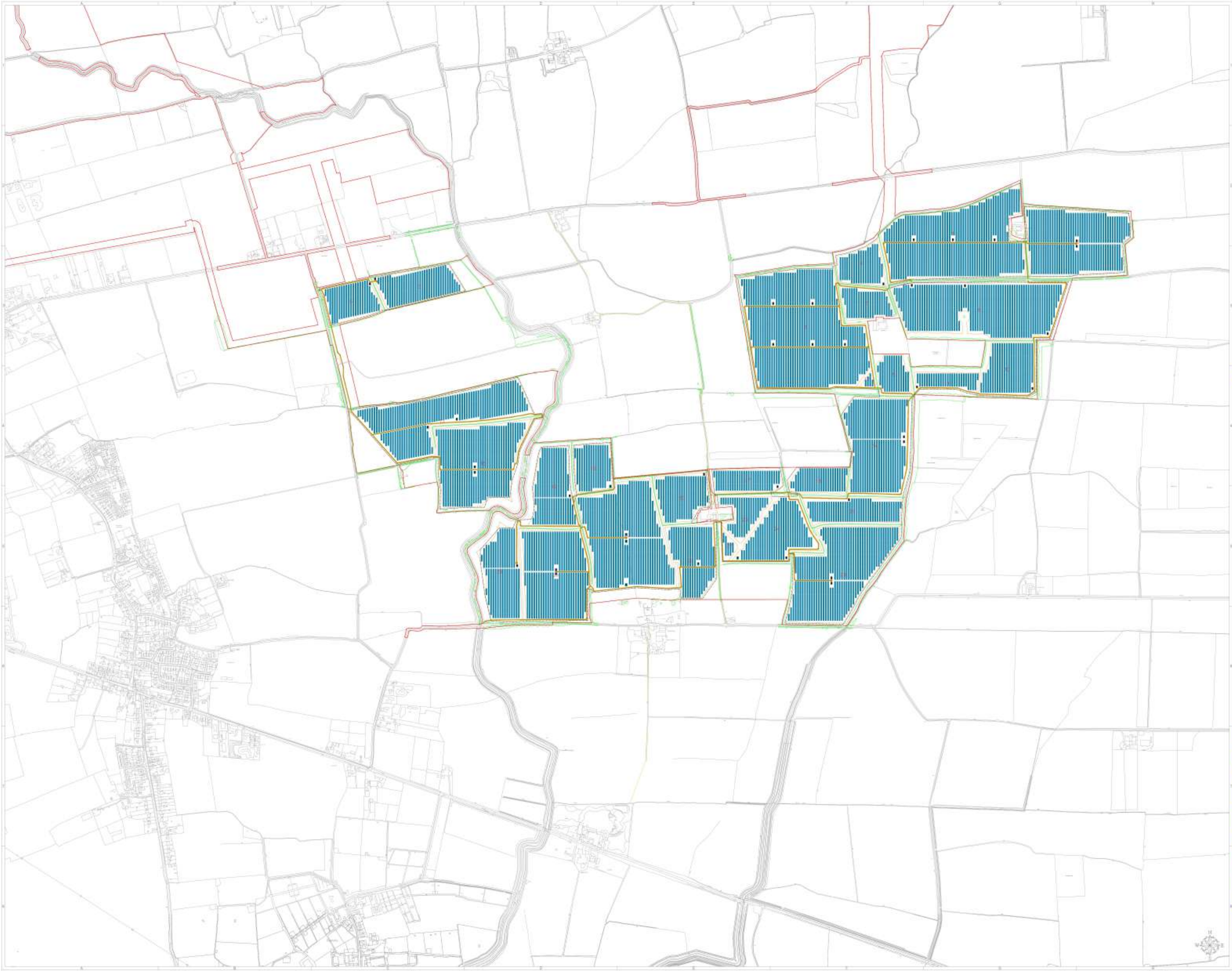
Annex C – Lower Till Water Body Classification

Classification Item	Cycle 2 2019 Classification	Cycle 3 2019 Classification	Cycle 3 Objectives		
Ecological	N/A	Moderate	Moderate	2015	Disproportionately expensive: Disproportionate burdens; Disproportionately expensive: Unfavourable balance of costs and benefits
Biological quality elements	N/A	Poor	Moderate	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens; Disproportionately expensive: Unfavourable balance of costs and benefits
Fish	N/A	Poor	Moderate	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens; Disproportionately expensive: Unfavourable balance of costs and benefits
Invertebrates	N/A	Good	Good	2015	
Macrophytes and Phytobenthos Combined	N/A		Not assessed	2015	Disproportionately expensive: Disproportionate burdens; Disproportionately expensive: Unfavourable balance of costs and benefits
Physico-chemical quality elements	N/A	Moderate	Moderate	2015	Disproportionately expensive: Disproportionate burdens; Disproportionately expensive: Unfavourable balance of costs and benefits
Acid Neutralising Capacity	N/A	High	Good	2015	
Ammonia (Phys-Chem)	N/A	High	Good	2015	
Dissolved oxygen	N/A	Poor	Good	2015	
Phosphate	N/A	Poor	Moderate	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens; Disproportionately expensive: Unfavourable balance of costs and benefits
Temperature	N/A	High	Good	2015	
pH	N/A	High	Good	2015	
Hydromorphological Supporting Elements	N/A	Supports good	Supports good	2015	
Hydrological Regime	N/A	Supports good	Supports good	2015	

Supporting elements (Surface Water)	N/A	Good	Good	2015	
Mitigation Measures Assessment	N/A	Good	Good	2015	
Specific pollutants	N/A	High	High	2015	
Copper	N/A	High	High	2015	
Mecoprop	N/A	High	High	2015	
Chemical	N/A	Fail	Good	2063	Natural conditions: Chemical status recovery time; Technically infeasible: No known technical solution is available
Priority hazardous substances	N/A	Fail	Good	2063	Natural conditions: Chemical status recovery time; Technically infeasible: No known technical solution is available
Benzo(a)pyrene	N/A	Good	Good	2015	
Dioxins and dioxin-like compounds	N/A	Good	Good	2015	
Heptachlor and cis-Heptachlor epoxide	N/A	Good	Good	2015	
Hexabromocyclododecane (HBCDD)	N/A	Good	Good	2015	
Hexachlorobenzene	N/A	Good	Good	2015	
Hexachlorobutadiene	N/A	Good	Good	2015	
Mercury and Its Compounds	N/A	Fail	Good	2040	Natural conditions: Chemical status recovery time
Perfluorooctane sulphonate (PFOS)	N/A	Fail	Good	2039	Technically infeasible: No known technical solution is available
Polybrominated diphenyl ethers (PBDE)	N/A	Fail	Good	2063	Natural conditions: Chemical status recovery time
Priority substances	N/A	Good	Good	2015	
Cypermethrin (Priority)	N/A	Good	Good	2015	
Fluoranthene	N/A	Good	Good	2015	

Other Pollutants	N/A	Does not require assessment	Does not require assessment	2015	

Annex D – Illustrative Layout Plan

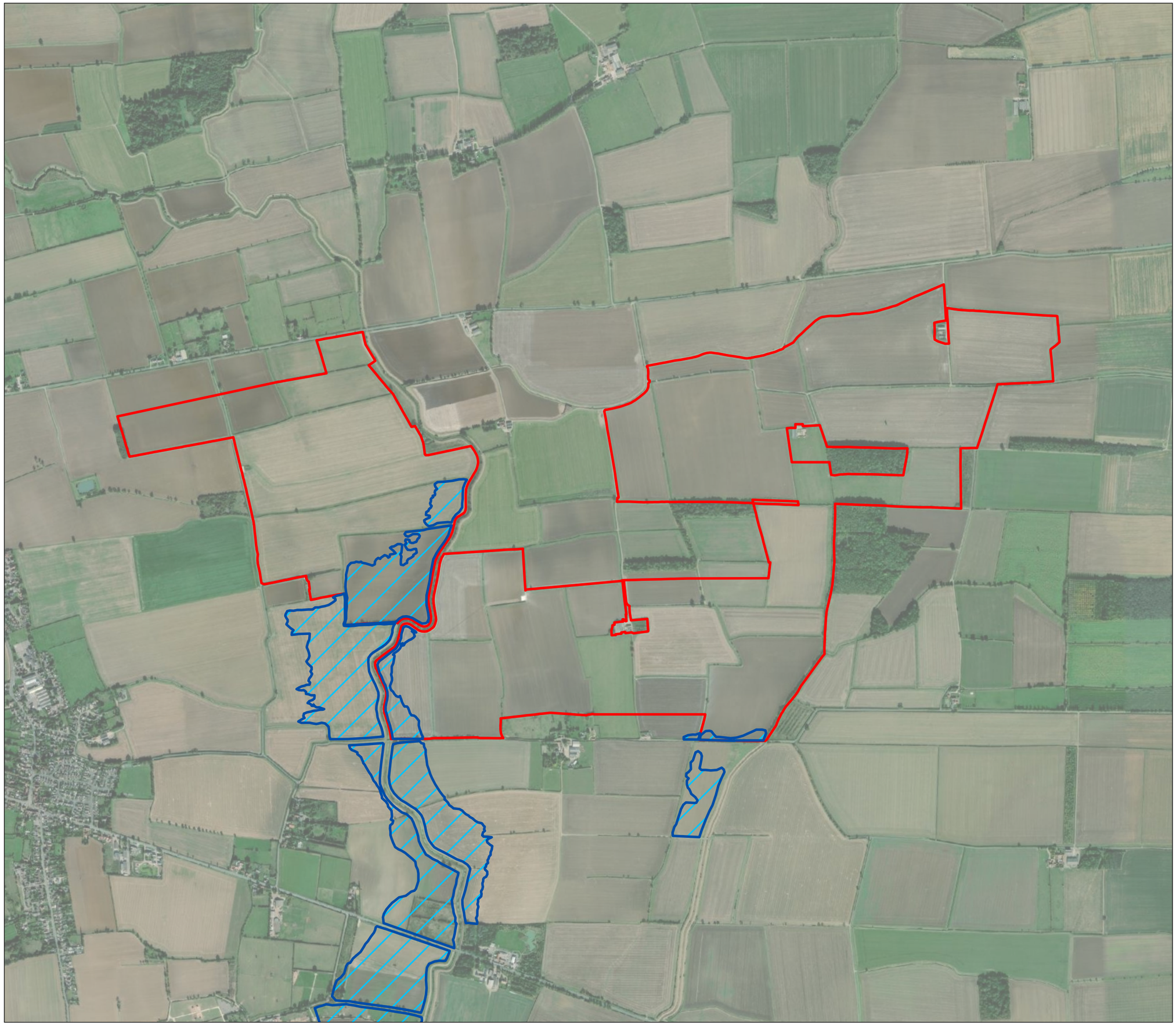


Project	Cotham 1 South Solar Project
Project Location	Land near Coates, Lincolnshire, LN1 2DW
Ownership	Cotham Solar Project Limited
Document Title	Layout
Sheet format	A0 "1189 x 841"
Scale	1:5000

Document amendments			Comments
v.1	12/03/2022	A.A	Preliminary Layout
v.2	14/04/2022	A.A	Updated Layout
v.3	13/08/2022	A.A	Final Layout
v.4	14/10/2022	A.A	Updated Application Boundary

Company: Island Green Power UK Limited
Unit 20.2, Coda Studios
189 Munster Road, London SW6 6AW

Annex E – EA Historic Flood Map



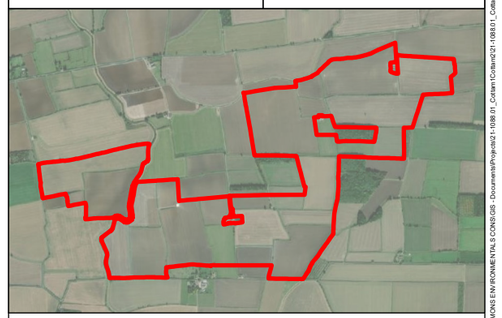
Legend

- Cottam 1 South Boundary
- Historic Flood Map

0 100 200 300 400 Meters

N

Figure	EA Historic Flood Map		
Job	Cottam 1 South		
Client	Island Green Power		
Appendix E	Revision A	Date 27/10/2022	
Drawn BB	Checked EB	Scale 1:15,000 @ A3	
Job No. 21-1088.01		Central GR 491341E 381607N	

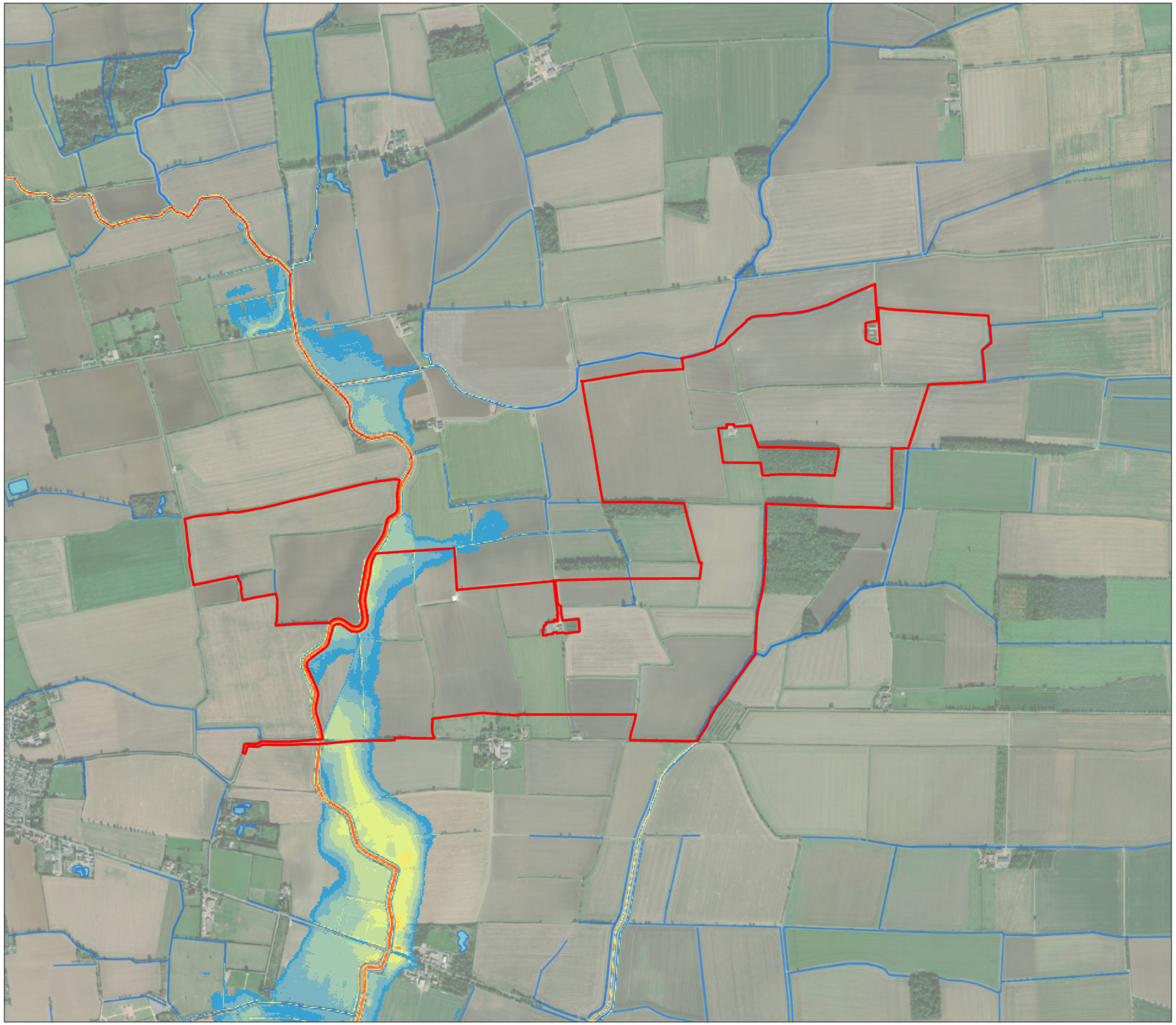


DO NOT SCALE.
NOT FOR CONSTRUCTION.

DeltaSimons

C:\Users\Ben.Bowers\DELTA SIMONS E\N\PROJECTS\1 CONSULTS - Documents\Projects\21-1088.01_Cottam 1\Cottam\21-1088.01_Cottam1Cottam2.aprx

Annex F – 1% AEP + 20% CC Flood Depth Map



Legend

- Cottam 1 South boundary
- Watercourse
- Linear watercourse

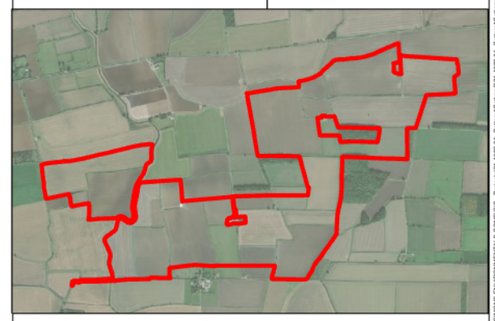
1 in 100 year event + CC depth (m)

- 0.01 m - 0.23 m
- 0.24 m - 0.49 m
- 0.5 m - 0.8 m
- 0.81 m - 1.1 m
- 1.11 m - 1.4 m
- 1.41 m - 1.7 m
- 1.71 m - 2.1 m
- 2.11 m - 2.57 m
- 2.58 m - 3.18 m
- 3.19 m - 4.83 m

0 150 300 450 600 Meters

N

Figure	1% AEP + CC Flood Map		
Job	Cottam 1 South		
Client	Island Green Power		
Appendix	F	Revision A	Date 03/11/2022
Drawn	KH	Checked EB	Scale 1:15,000 @ A3
Job No.	21-1088.03		Central GR 491627E 381609N

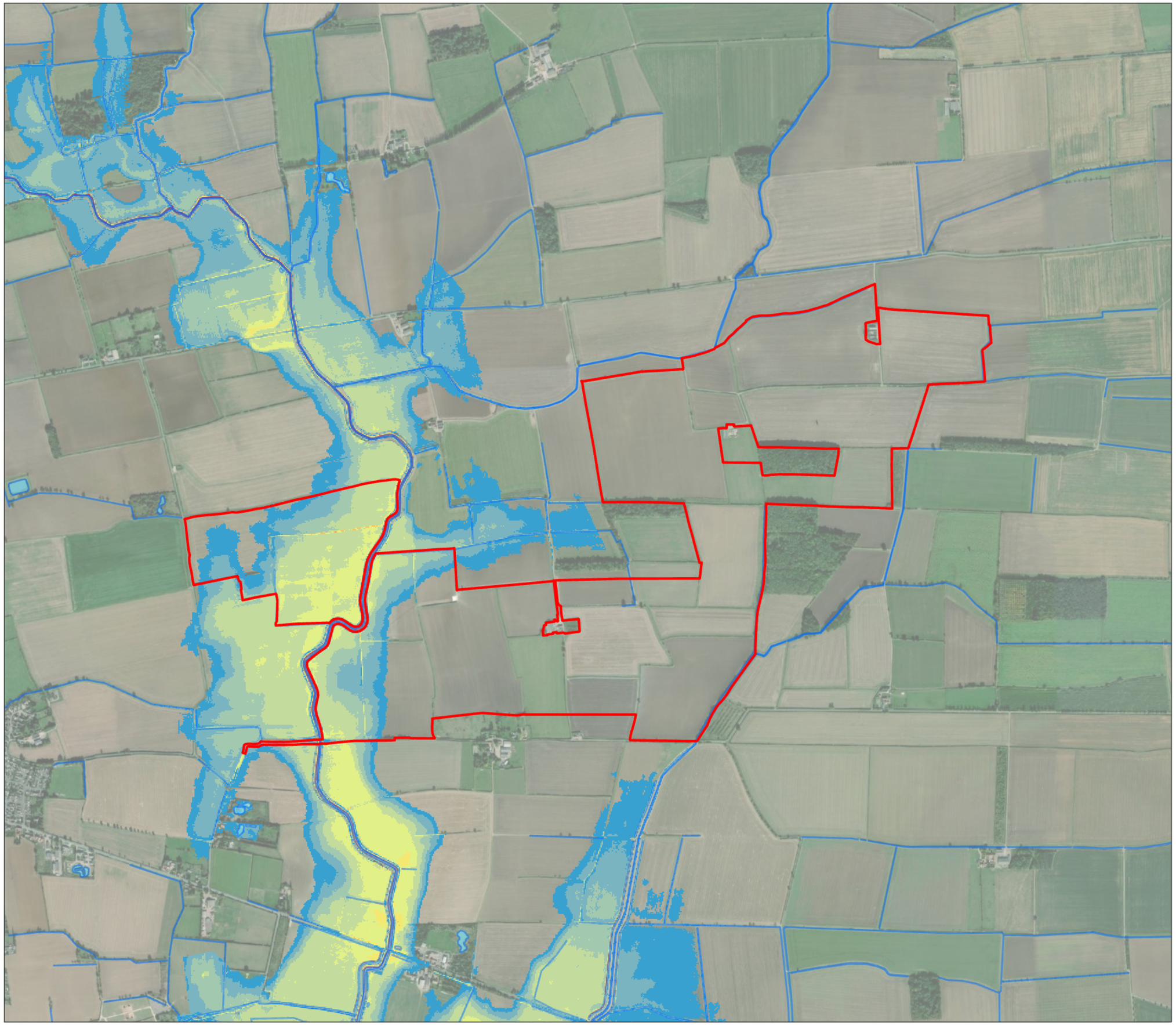


DO NOT SCALE.
NOT FOR CONSTRUCTION.

DeltaSimons

C:\Users\Kirsten.Heath\DELTA SIMONS ENVIRONMENTAL CONSULTA... Project\21-1088.01_Cottam\Cottam2\21-1088.01_Cottam2.aprx

Annex G – 0.1% AEP + 20% CC Flood Depth Map



Legend

- Cottam 1 South boundary
- Watercourse
- Linear watercourse

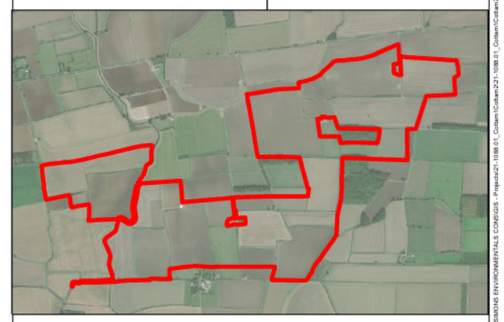
1 in 1000 year event + CC depth (m)

- 0.01 m - 0.27 m
- 0.28 m - 0.57 m
- 0.58 m - 0.88 m
- 0.89 m - 1.2 m
- 1.21 m - 1.55 m
- 1.56 m - 1.9 m
- 1.91 m - 2.26 m
- 2.27 m - 2.69 m
- 2.7 m - 3.3 m
- 3.31 m - 5.2 m

0 150 300 450 600 Meters

N

Figure	0.1% AEP + CC Flood Map		
Job	Cottam 1 South		
Client	Island Green Power		
Appendix	G	Revision A	Date 03/11/2022
Drawn	KH	Checked EB	Scale 1:15,000 @ A3
Job No.	21-1088.03		Central GR 491627E 381609N



DO NOT SCALE.
NOT FOR CONSTRUCTION.

DeltaSimons

C:\Users\Kirsten.Heath\DELTA SIMONS ENVIRONMENTALS CONSULTA - Projects\21-1088.01_Cottam\Cottam2\21-1088.01_CottamCottam2.aprx