West Burton Solar Project

Environmental Statement

Appendix 10.4: Flood Risk Assessment and Drainage Strategy – West Burton 2

Prepared by: Delta-Simons

March 2023

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APFP Regulation 5(2)(e)

West Burton
SOLAR PROJECT

Flood Risk Assessment and Drainage Strategy

Appendix C - West Burton 2

Presented to: West Burton Solar Project

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Delta-Simons Project No: 22-1098.3

Protecting people and planet

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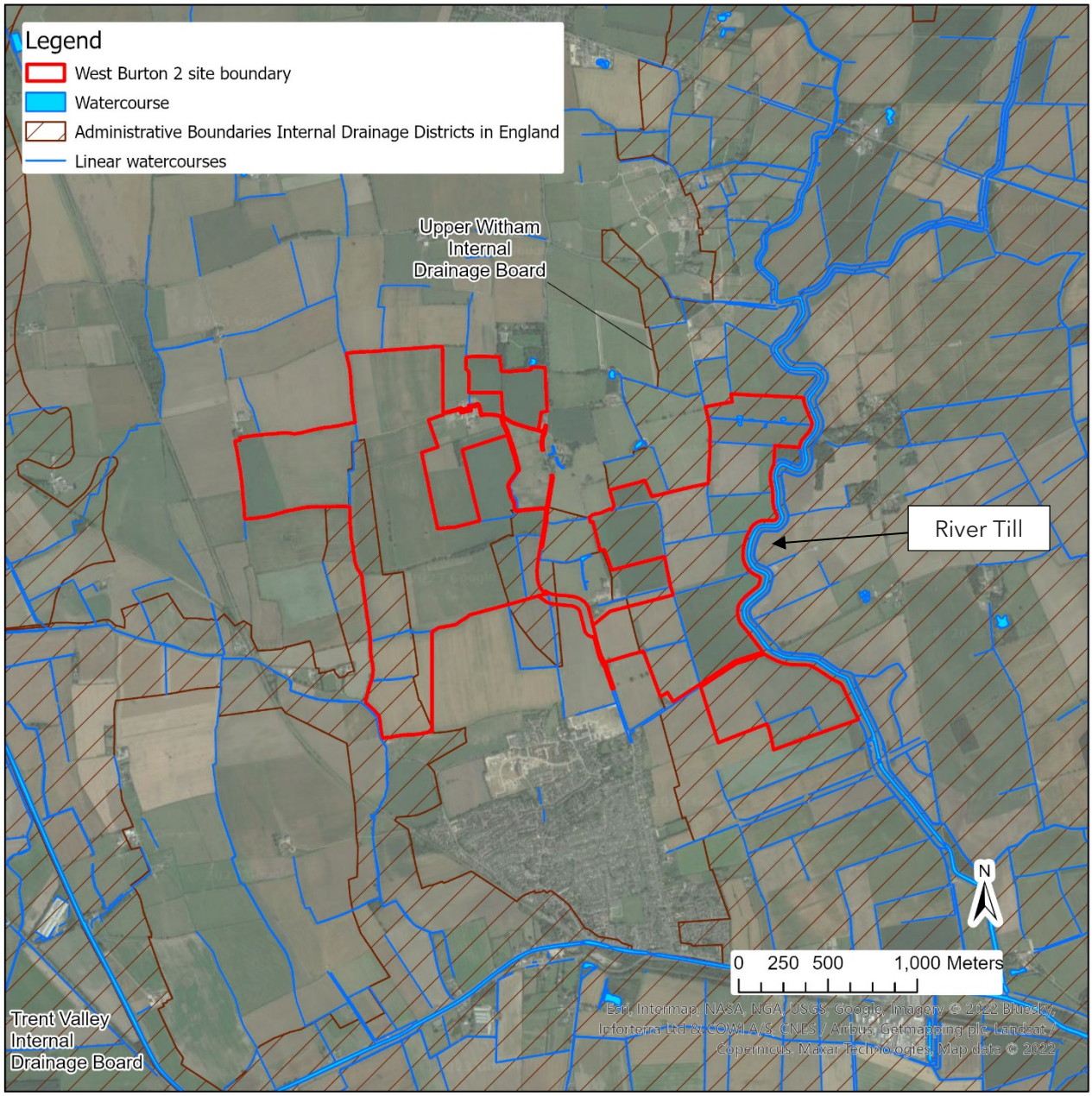
1.0 Site Description

1.1.1 The term "Site" has been used in reference to the land parcels which make up the overall Scheme. For further details of the Scheme, please see Chapter 4 of the Environmental Statement (ES): Scheme Description [EN010132/APP/WB6.2.4].

1.1.2 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) 489271, 377918

Site Location	The Site is located within a rural setting and comprises multiple parcels of agricultural fields, approximately 1.8 km north-west of the village of Saxilby, and surrounds the hamlet of Ingleby.
Existing Site Conditions	Online mapping (including Google Maps / Google Streetview imagery, accessed February 2023) shows that the Site is greenfield comprising agricultural / arable fields. The Site is bordered by the River Till to the eastern boundary with greenfield land lying beyond from all orientations. Access to the Site is provided from the B1241 through the centre of the Site, from north to south.
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 14 - 16 m AOD in the north and northwest to approximately 5 m AOD in the southwest, southeast and northeast. Given the size of the site the gradients are shallow and the Site is considered to be relatively flat. A LiDAR extract is included in Annex A.
Hydrology	The nearest watercourse is the River Till, located adjacent to the eastern boundary of the Site. There are also land drains within the Site and along the Site's periphery. The River Till is a Main River and therefore the responsibility of the EA to maintain. The Site is partly located within the Upper Witham Internal Drainage Board (IDB).
Water Framework Directive Status	The eastern extents of the Site are located in the River Till Waterbody Catchment, with the western extents located in the Skellingthorpe Main Drain Water Body Catchment. The overall Cycle 2 (2019) classification for the Lower Till Water Body Catchment is Moderate with a Moderate ecological and Failed chemical status. A summary of the Water Body Classification for the Lower Till Water Body catchment is included as Annex B. The overall classification for the Skellingthorpe Main Drain Water Body Catchment is Moderate with a Moderate ecological and a Failed chemical status. A summary of the Water Body Classification for the Skellingthorpe Main Drain Water Body catchment is included as Annex C.
Geology	Reference to the British Geological Survey (BGS) online mapping (1:50,000 scale) indicates that the majority of the Site is not underlain by superficial deposits, however, the eastern boundary is underlain by Alluvium generally comprising clay, silt, sand and gravel. There is also an isolated area to the northern boundary underlain by superficial deposits of River Terrace Deposits (undifferentiated) consisting of sand and gravel. The eastern boundary of the Site is underlain by bedrock deposits of Charmouth Mudstone Formation comprising of mudstone, with the remainder of the Site underlain by bedrock deposits of Scunthorpe Mudstone Formation consisting of mudstone and limestone (Interbedded). The geological mapping is available at a scale of 1:50,000 and as such may not be accurate on a Site-specific basis.

	The BGS borehole Ref: SK87NE27 is located within the centre of the Site (NGR: 489580,377210) and indicates the following geology: • Clay (3.05 m below ground level (bgl)); and • Thick rock bands (15.25 m bgl). BGS borehole Ref: SK87NE26 is also located within the Site (NGR: 489180,377320) and indicates the following geology: • Clay (6.1 m bgl); and • Blue clay with thin layers of hard rock (15.25 m bgl).
Hydrogeology	According to the EA's Aquifer Designation data, obtained from MAGIC Map's online mapping [accessed 07/02/23], the Alluvium deposits and the River Terrace Deposits (undifferentiated) are classified as a 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 underlying Charmouth Mudstone Formation is described as a Secondary (Undifferentiated) Aquifer, whereas the Scunthorpe Mudstone Formation is described as a Secondary B 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'. 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 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 for the Site is for a ground mounted solar photo-voltaic plant and associated conversion units, substation and access roads. A Preliminary Layout Plan is included as Annex D.

2.0 Assessment of Flood Risk

2.1 Tidal Flood Risk

2.1.1 The Site is situated approximately 52 km inland at a minimum elevation of 5 m AOD. Therefore, the risk from tidal flooding is considered to be **Negligible.**

2.2 Fluvial Flood Risk

EA Online Flood Maps

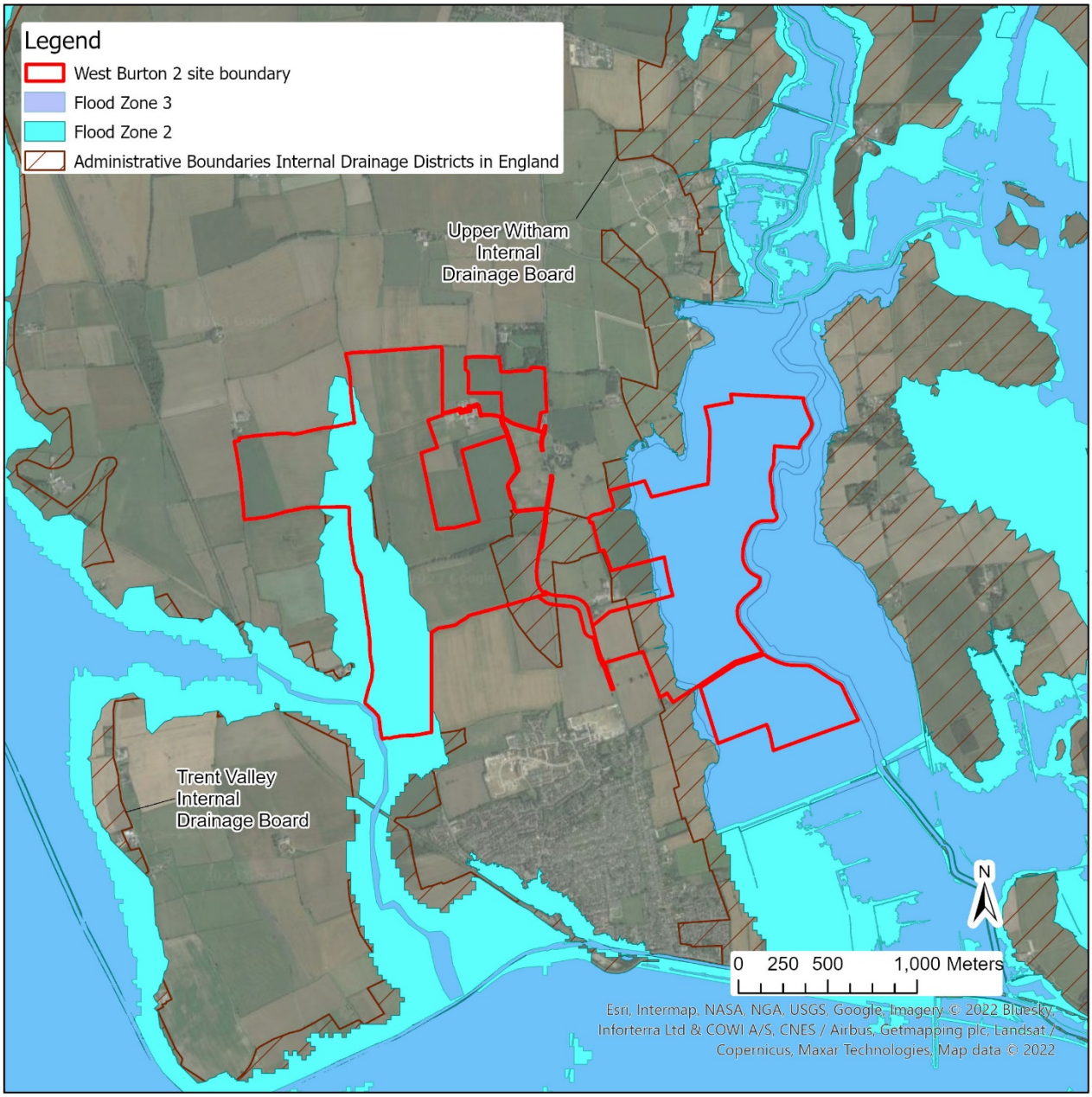


Figure 1: EA's Flood Map for Planning

2.2.1 The EA's Flood Risk Map for Planning (Figure 1) indicates that the eastern extent of the Site is partly situated within Flood Zone 3 (High Probability) which forms part of the Till Washland (Flood Storage Area), see Annex E. The west and south-west of the Site is situated within Flood Zone 2 (Medium Probability). Flood Zone 3 is defined as fluvial flooding with a 1 in 100 or greater annual probability, whereas Flood Zone 2 is defined as a 1 in 100 and 1 in 1000 annual probability of fluvial flooding.

2.2.2 The nearest watercourses are the River Till which flows directly to the east of the Site and several land drains which run throughout the Site and the surrounding area. Fluvial flooding could occur if the River Till and/or land drains overtopped or breached their banks during or following an extreme rainfall event.

2.2.3 The EA 'Historical Flood Map' indicates that sections of the Site have previously flooded (Annex F), in the eastern section adjacent to the River Till and also small section in the southwest of the Site. However, the data shows that the flooding event that impacted more of the Site occurred in February 1795, and another event in November 2000 which only impacted a small section of the Site, in the area to the east where it was agreed that development should be avoided.

Flood Defences

2.2.4 The EA's Spatial Flood Defences Dataset indicates that there are embankments present within the vicinity of the Site, surrounding the River Till. The embankments have an upstream crest level of 7.42 m AOD and a downstream crest level of 7.75 m AOD. The Standard of Protection (SoP) of the embankments is 1 in 10 years.

EA Product Data / Consultation

2.2.5 Following consultation with the EA, it was stated that the Till Washland is designed to act as an effective bowl storage area to store water to a level of 6.65 m AOD, resulting in depths of around 2 m. Development should be avoided in this area.

2.2.6 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.

2.2.7 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 operational life of the Scheme will not exceed 40 years and therefore, the 2050s epoch allowance is considered to be appropriate.

2.2.8 The modelled depth information provided by the EA only included a 20% allowance and therefore depicts a worse-case scenario.

2.2.9 During the 1% AEP + 20% CC flood event (Annex G) the majority of the Site is shown to remain flood free apart from the eastern portion of the Site which is located within the Till Storage Area where no development is proposed.

2.2.10 During the 0.1% AEP + 20% CC flood event (Annex H) the flood extents present in the east of the Site within the Flood Storage Area extend slightly, with a very minor portion of flooding with depths > 0.27 m shown to extend past the flood storage area.

2.2.11 It should be noted that on the basis that the Site's operational phase will not exceed 40 years, the 0.1% AEP + 20% CC is extremely unlikely to occur within this time period and is considered a residual risk.

Summary

2.2.12 Based on the evidence provided above, the majority of the Site is expected to remain flood free during the 1% AEP + 20% CC event with only the eastern extent of the Site which acts as a Flood Storage Area for the River Till shown to be impacted by flooding. Development has been sequentially located away from the area of the Site located within the Flood Storage Area.

2.2.13 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 appendix.

2.2.14 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) (Figure 2) indicates that the majority of the Site is at Very Low Risk (< 0.1% annual probability) from surface water flooding. Areas of Medium (1% - 3.3% annual probability) and High (≥ 3.3% annual probability) risk are present in the west and southwest.

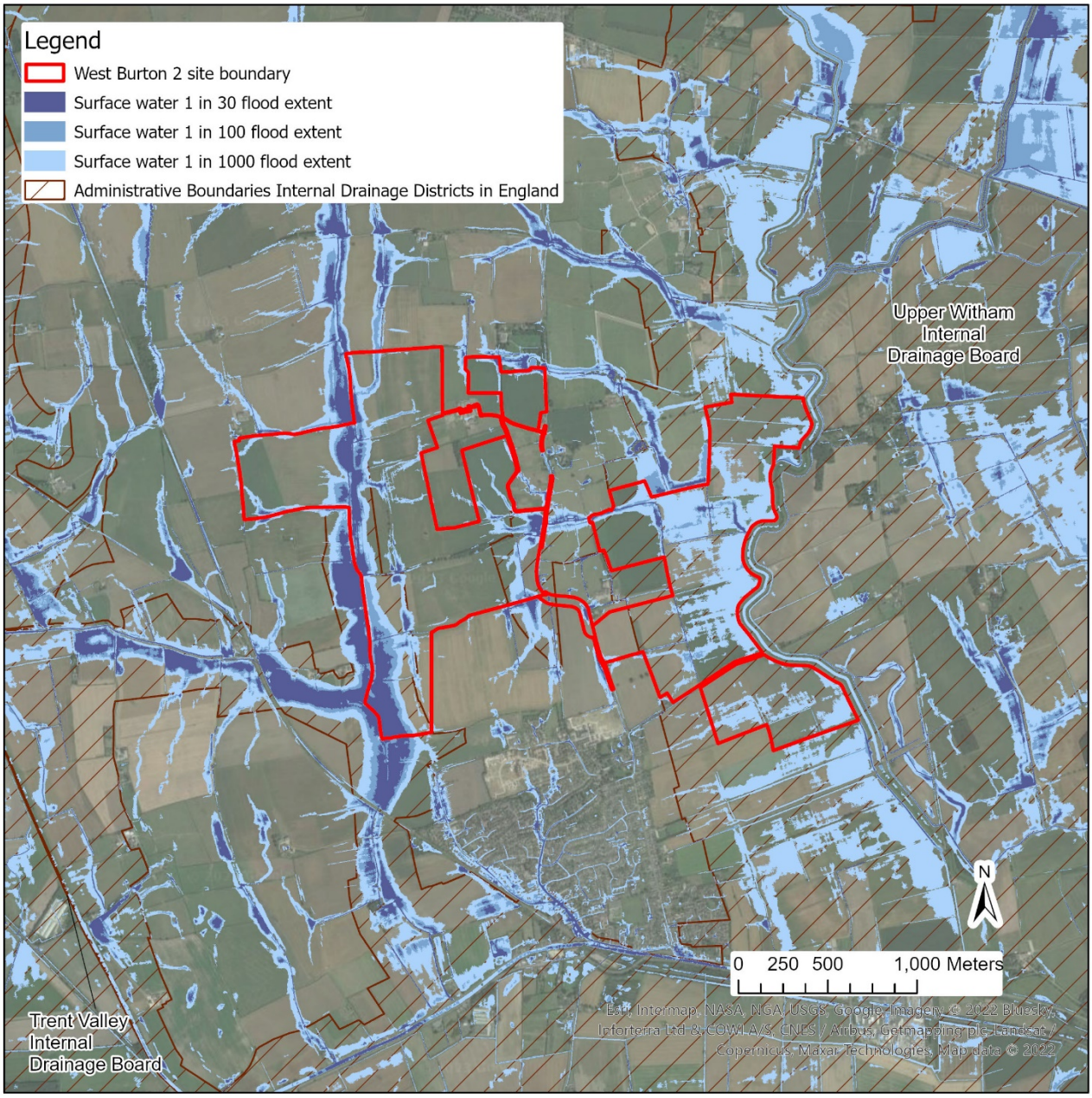


Figure 2: EA's Long-Term Flood Risk Map (Surface Water)

2.3.2 The High risk flow paths in the west and centre of the Site are associated with land drains that run through the Site.

2.3.3 Flood depths are expected to remain below 300 mm during the High and Medium Risk scenarios in all areas excluding the land drains within the centre of the Site and to the west of the Site, which are expected to reach depths between 300 and 900 mm likely due to being a topographic depression.

2.3.4 According to Figure 2, the area of high risk in the centre of the Site has a distinct flow route associated with it, however the flows are shown to direct water away from the Site towards the River Till in the east. Additionally, there are distinct flow routes associated with the high risk area in the west, however, the flows are directed southwards off the Site, following the sloping topography. Any shallow depth surface water flooding is predicted to drain naturally into the surrounding land drainage ditch network.

2.3.5 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.

2.3.6 The impact of the development on surface water risk is covered in Section 5.0 to ensure that surface water risk is not exacerbated.

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 Flooding

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

2.5.5 The EA 'Flood Risk from Reservoirs' map shows that the Site is not within the extents of a reservoir breach. The EA state that reservoir flooding is extremely unlikely to happen[1]. 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**.

Canal Flooding

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

[1] https://www.gov.uk/guidance/reservoir-flood-maps-when-and-how-to-use-them

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 it would be prudent to include the below mitigation measures.

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 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.

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

2.7.4 The minimum height of the lowest part of the fixed solar panel units will be 0.6 m above ground level. There is potential to increase the height of the lower part of the fixed panels by raising the lower end of the panel mounting frames, which could provide at least 0.6 m of freeboard above any flooding. The maximum specified height of the upper edge of the fixed panels will remain at 3.5 m above ground level. It should be noted that no flooding with depths greater than 0.6 m is expected across the Site outside of the area that is located within the River Till Flood Storage Reservoir during the 1% AEP + CC and 0.1% AEP + CC events.

2.7.5 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.

2.7.6 Based on the above, the majority of the Site can accommodate either fixed or tracker panels with the exception of the area located in the River Till storage reservoir, where no development should occur.

2.7.7 The conversion units associated with the panels can be adequately waterproofed to withstand the effect of flooding. Where possible the conversion units have been located in parts of the Site that are within Flood Zone 1. Where this hasn't been possible the conversion units will be raised 0.6 m above the 0.1% AEP + CC flood level or where this is not possible as high as practicable.

Flood Warnings and Evacuation

2.7.8 The Site's area is part of the Lincs and Northants Flood Warnings / Flood Alerts area. In addition, 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 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 located within Flood Zones 1, 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 development proposed within the Site.

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 and the River Till 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.

Annex A – LiDAR Plan

Legend

West Burton 2 site boundary

Contours

LiDAR

39.36

1.93

0 150 300 450 600 Meters

N

Figure	LiDAR & Contours		
Job	West Burton Solar Scheme		
Client	West Burton Solar Scheme		
Figure No. B	Revision A	Date 02/02/2023	
Drawn KH	Checked EB	Scale 1:15,000 @ A3	
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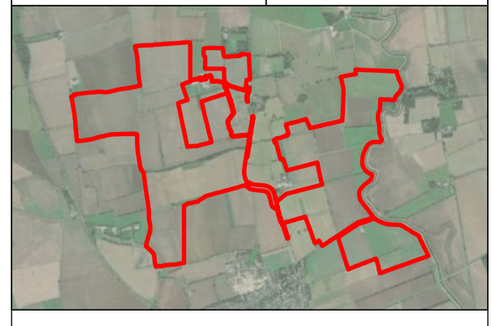

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Annex B – Skellingthorpe EA Water Body Classification Summary

Classification Item	Cycle 2 2016 Classification	Cycle 3 2019 Classification	Cycle 3 Objectives		
Ecological	Moderate	Moderate	Moderate	2015	Disproportionately expensive: Disproportionate burdens;Disproportionately expensive: Unfavourable balance of costs and benefits;Technically infeasible: No known technical solution is available
Biological quality elements	Moderate	Moderate	Moderate	2015	Disproportionately expensive: Unfavourable balance of costs and benefits;Technically infeasible: No known technical solution is available
Invertebrates	Moderate	Moderate	Moderate	2015	Disproportionately expensive: Unfavourable balance of costs and benefits;Technically infeasible: No known technical solution is available
Macrophytes and Phytobenthos Combined	NA	NA	Not assessed	2015	
Physico-chemical quality elements	Moderate	Moderate	Moderate	2015	Disproportionately expensive: Disproportionate burdens;Disproportionately expensive: Unfavourable balance of costs and benefits;Technically infeasible: No known technical solution is available
Ammonia (Phys-Chem)	High	High	Good	2015	
Dissolved oxygen	Bad	Bad	Poor	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens;Disproportionately expensive: Unfavourable balance of costs and benefits;Technically infeasible: No known technical solution is available
Phosphate	High	High	Good	2015	
Temperature	High	High	Good	2015	
pH	High	High	Good	2015	
Hydromorphological Supporting Elements	Supports good	Supports good	Supports good	2015	
Hydrological Regime	Supports good	Supports good	Supports good	2015	
Supporting elements (Surface Water)	Moderate	Moderate	Good	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens
Mitigation Measures Assessment	Moderate or less	Moderate or less	Good	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens
Specific pollutants	NA	NA	Not assessed	2015	
Arsenic	NA	NA	NA	NA	
Chlorothalonil	NA	NA	NA	NA	
Chromium (VI)	NA	NA	NA	NA	
Copper	NA	NA	NA	NA	
Iron	NA	NA	NA	NA	
Manganese	NA	NA	NA	NA	
Pendimethalin	NA	NA	NA	NA	
Zinc	NA	NA	NA	NA	
Chemical	Good	Fail	Good	2063	Natural conditions: Chemical status recovery time
Priority hazardous substances	Does not require assessment	Fail	Good	2063	Natural conditions: Chemical status recovery time
Benzo(a)pyrene	NA	Good	Good	2015	
Dioxins and dioxin-like compounds	NA	Good	Good	2015	
Heptachlor and cis-Heptachlor epoxide	NA	Good	Good	2015	
Hexabromocyclododecane (HBCDD)	NA	Good	Good	2015	
Hexachlorobenzene	NA	Good	Good	2015	
Hexachlorocyclohexane	NA		Good	2015	
Mercury and Its Compounds	NA	Fail	Good	2040	Natural conditions: Chemical status recovery time
Perfluorooctane sulphonate (PFOS)	NA	Good	Good	2015	
Polybrominated diphenyl ethers (PBDE)	NA	Fail	Good	2063	Natural conditions: Chemical status recovery time

Priority substances	Does not require assessment	Good	Good	2015	
Cypermethrin (Priority)	NA	Good	Good	2015	
Fluoranthene	NA	Good	Good	2015	
Other Pollutants	Does not require assessment	Does not require assessment	Does not require assessment	2015	

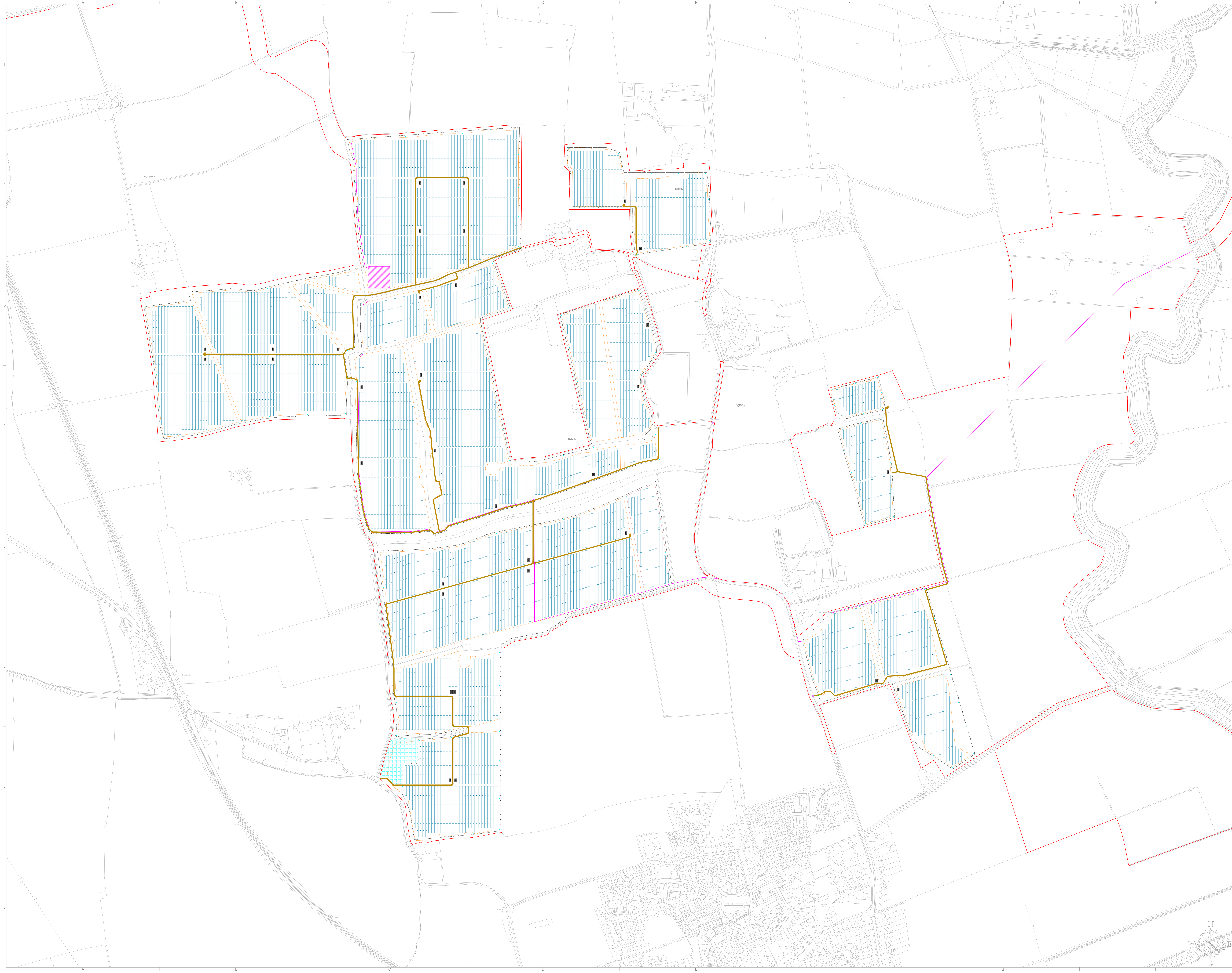
Annex C – River Till EA Water Body Classification Summary

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 Site Layout Plan



General Legend:
Order Limits
Fence
Potential Development Area
Mounting Structures and Solar PV Modules
Conversion Units
Electrical Substation
High Voltage Electricity Cable
Maintenance Tracks
Nature Project Area
Gates
Site Access
CCTV

Project:	West Burton 2 Solar Project
Project Location:	Birch Holt Farm, Burton, Lincoln Lincolnshire, LN1 2RD, England
Ownership:	West Burton Solar Project Limited
Document Title:	Figure 4.2 Illustrative Site Layout Plan(WB2) APP/WB6.4.4.2 5(2)(a)

Sheet format:	A1 "841 x 594"	Scale:	1:5000

Document amendments:			Comments:
v.4	25/10/2022	A.A.	Illustrative Layout
v.5	09/11/2022	A.A.	Updated HV Cabling
v.6	06/01/2023	A.A.	Layout for Submission
v.7	24/01/2023	A.A.	Revised RLB
v.8	02/02/2023	A.A.	Layout for Submission

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

0 50 100 250

Annex E – River Till Flood Storage Area

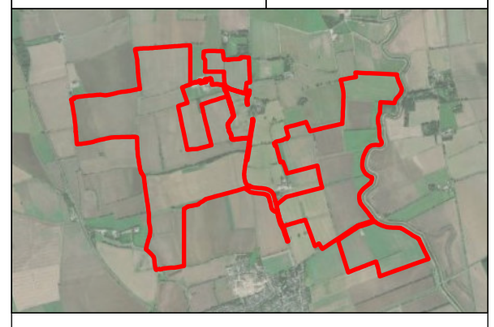
Legend

- West Burton 2 site boundary
- Flood Storage Area
- Watercourse
- Linear watercourses

0 150 300 450 600 Meters

N

Figure	Till Storage Area		
Job	West Burton Solar Scheme		
Client	West Burton Solar Scheme		
Figure No. C	Revision A	Date 02/02/2023	
Drawn KH	Checked EB	Scale 1:15,000 @ A3	
Job No. 21-1098.03		Central GR 489175E 377381N	



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Annex F – EA Historic Flood Map

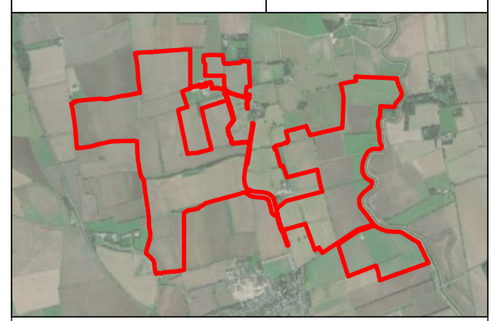
Legend

- West Burton 2 site boundary
- Historic Flood Map

0 150 300 450 600 Meters

N

Figure	Historic Flood Map		
Job	West Burton Solar Scheme		
Client	West Burton Solar Scheme		
Figure No. X	Revision A	Date 08/02/2023	
Drawn KH	Checked EB	Scale 1:15,000 @ A3	
Job No. 21-1098.03		Central GR 489175E 377381N	



DO NOT SCALE.
NOT FOR CONSTRUCTION.

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Annex G – 1% AEP + 20% CC Event Flood Depth Map

Legend

- West Burton 2 site boundary
- Watercourse
- Linear watercourses

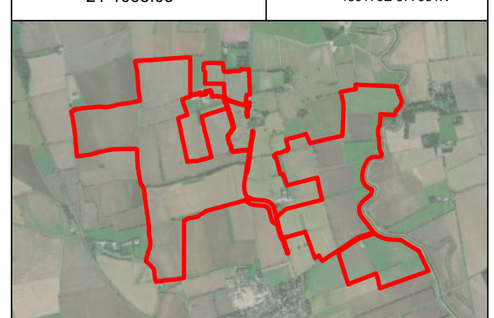
1 in 100 year event + CC depth (m)

- 0.01 m - 0.23 m
- 0.24 m - 0.5 m
- 0.6 m - 0.8 m
- 0.9 m - 1.1 m
- 1.2 m - 1.4 m
- 1.5 m - 1.7 m
- 1.7 m - 2.1 m
- 2.1 m - 2.57 m
- 2.57 m - 3.9 m
- 3.9 m - 4.83 m

0 150 300 450 600 Meters

N

Figure	1% AEP + CC Flood Depth Map				
Job	West Burton Solar Scheme				
Client	West Burton Solar Scheme				
Figure No.	D	Revision	A	Date	02/02/2023
Drawn	KH	Checked	EB	Scale	1:15,000 @ A3
Job No.	21-1098.03			Central GR	489175E 377381N



DO NOT SCALE.
NOT FOR CONSTRUCTION.

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Annex H – 0.1% AEP + 20% CC Event Flood Depth Map

Legend

- West Burton 2 site boundary
- Watercourse
- Linear watercourses

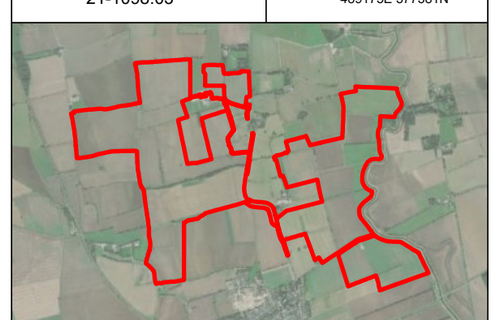
1 in 1000 year event + CC depth (m)

- 0.01 m - 0.27 m
- 0.28 m - 0.57 m
- 0.58 m - 0.88 m
- 0.89 m - 1.2 m
- 1.3 m - 1.55 m
- 1.55 m - 1.9 m
- 1.91 m - 2.26 m
- 2.27 m - 2.7 m
- 2.7 m - 3.3 m
- 3.4 m - 5.2 m

0 150 300 450 600 Meters

N

Figure	0.1% AEP + CC Flood Depth Map		
Job	West Burton Solar Scheme		
Client	West Burton Solar Scheme		
Figure No. E	Revision A	Date 02/02/2023	
Drawn KH	Checked EB	Scale 1:15,000 @ A3	
Job No. 21-1098.03		Central GR 489175E 377381N	



DO NOT SCALE.
NOT FOR CONSTRUCTION.

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