Report No:	Date:
FCL/644/SW01	**24 Nov 2023**

Project:

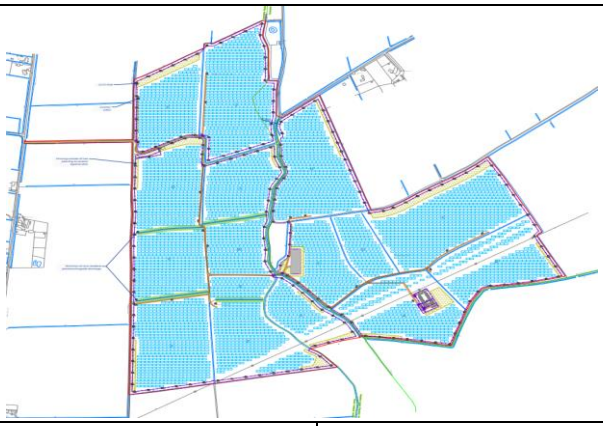
Tydd Solar

Guanock Farm, Sutton St Edmund, Lincolnshire, PE12 0LW

Surface Water Management Plan

Client:

PACE Titan Energy Limited



Revision:	Status:
A	**Issue 1**

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Document Control Sheet

Report Details

Project Title	Tydd Solar Renewable Energy Facility, Guanock Farm, Sutton St Edmund, Lincolnshire, PE12 0LW (UKZ 157)
Report Title	Surface Water Management Plan
Revision	A
Status	Issue 1
Control Date	24 November 2023
Authorised for Issue	Faruk Pekbeken, BEng CEng MICE Technical Director

Distribution

Organisation	*Contact*	*Copies*
PACE	Harman Sond	1 (pdf)
Floodline Consulting	Justin Meredith	1

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1 Introduction

1.1 Scope of Work

Floodline Consulting Ltd has been commissioned to prepare a Surface Water Management Plan (SWMP) in support of a planning application for the proposed development of the Solar Renewable Energy Facility on land at Guanock Farm, Guanockgate Road, Spalding, Lincolnshire, PE12 0LW.

Cambridge County Council (CCC) is the Lead Local Flood Authority (LLFA) under the Flood and Water Management Act 2010, with a responsibility for managing the following types of flooding;

- **Surface Water (SW) Flooding –** this includes flooding from rainfall run-off from surfaces such as roads, roofs and patios.
- **Ordinary Watercourses –** this includes flooding from drains and ditches, but excludes main rivers that are managed by the Environment Agency.
- **Groundwater flooding –** this includes flooding caused by heavy and sustained levels of rainfall capable of increasing the groundwater table.

A SWMP is a plan which outlines the preferred SW management strategy in a given location. In this context SW flooding describes flooding from surface water sewers or drainage channels, groundwater, overland run-off from land and overflow from small watercourses and ditches that occurs as a result of heavy rainfall.

A SWMP study is undertaken in consultation with key local partners who are responsible for SW management and drainage in their area. Partners work together to understand the causes and effects of SW flooding and agree the most cost-effective way of managing SW flood risk for the long term, ie the lifetime of a given development. The process of working together as a partnership is designed to encourage the development of innovative solutions and practices.

A SWMP aims to establish a long-term action plan to manage SW in an area and should influence future capital investment, drainage maintenance, public engagement and understanding, land-use planning, emergency planning and future developments.

The following benefits will be achieved through undertaking a SWMP study;

- Increased understanding of the causes, probability and consequences of surface water flooding.
- Increased understanding of where surface water flooding will occur which can be used to inform spatial and emergency planning functions.
- A co-ordinated action plan, agreed by all partners and supported by an understanding of the costs and benefits, which partners will use to work together to identify measures to mitigate surface water flooding.
- Identifying opportunities where Sustainable Drainage Schemes (SuDS) can play a more significant role in managing surface water flood risk and may also contribute to fulfilling the requirements of the Water Framework Directive helping to meet the requirements of the Flood Risk Regulations.

- Increased awareness of the duties and responsibilities for managing flood risk of different partners and stakeholders.

- Improved public engagement and understanding of surface water flooding.

Information available from various sources including Cambridge County Council, Anglian Water, Environment Agency and from local surveys and site analysis have been reviewed to assess the current and future SW drainage provision and its long term management needs.

The scope of this document is to describe the existing and future drainage strategy taking into account the potential changes caused by land use from arable farming to managed grassland.

The key issues relating to SW drainage is discussed in more detail in this document. The key requirement is to manage the disposal of peak SW run-off in such a way as to comply with the existing drainage provision already serving the current land with consideration made to potential introduction of sustainable drainage techniques, should it become necessary, to ensure peak SW discharge from the proposed facility will not be increased as a result of the new installation.

This report focusses only on the SW management proposals.

1.2 Source of Information

Information obtained from site analysis of the SW drainage systems serving the existing site has been incorporated in this report. The following relevant guidelines and standards were utilised in the preparation of this assessment;

- Environment Agency Pre-App Response (**Appendix A**)

- Cambridge County Council (LLFA) Written response 12 October 2022 (**Appendix B**)

- Cambridge County Council, Standing Advice – Solar Panels (PV) and Solar Farms January 2022

- South-East Lincolnshire and Fenland District Councils Level 1 Strategic Flood Risk Assessments, March 2017 and June 2022 respectively

- National Planning Policy Framework (NPPF), Ministry of Housing, Communities and Local Government, published 27 March 2012, updated 05 September 2023

- NPPF Planning Practice Guidance, Ministry of Housing, Communities and Local Government, published 29 November 2016, updated 25 August 2022

- Environment Agency websites providing maps and guidance pertaining to localised flood risk from tidal, fluvial, surface water, groundwater, stormwater sewers and other potential sources

- Recent guidance published in April 2015 regarding the role of LLFAs, Local Planning Authorities and the Environment Agency with regards to SuDS approval

- Flood and Water Management Act, DEFRA, 2010

- The Building Regulations 2010, Part H (updated 2015)
- The SuDS Manual C753 – CIRIA, 2015
- Sewers for Adoption 8th Edition: A Design and Construction Guide for Developers, published by Water UK and WRc: July 2018 and Code for Adoption – Sewerage by Water UK, effective from 01 April 2020
- Consultation on SuDS Regulations and Standards (2011)
- Defra's Non-statutory technical standards for sustainable drainage systems, March 2015
- Cambridge County Council Planning Checklist (**Appendix C**)

1.3 Study Methodology and Objectives

The objectives of this report are as follows;

1. Determine the SW flood risk from sources for review by the Lead Local Flood Authority.
2. Assess the existing surface water drainage network serving the existing site.
3. Where applicable, ensure the proposed modifications to the existing SW drainage network is compliant with current Building Regulations and associated standards and guidelines.
4. Where applicable, assess the potential to improve drainage for the Solar Renewable Energy Facility and associated access roads.
5. Assess the impact of the proposed SW drainage proposals in terms of discharge rate from the site.
6. Adress specific observations/conditions raised by the LLFA:

    i) To ensure that the principles of sustainable drainage are incorporated into this proposal and to ensure that the proposed development can be adequately drained no development shall commence until details of the strategy for the disposal of surface water on the site have been submitted to and approved in writing by the LPA.

    ii) To ensure clear arrangements are in place for ongoing operation and maintenance of the disposal of surface water drainage no development shall commence until details of the implementation, maintenance, and management of the strategy for the disposal of surface water on the site have been submitted to and approved in writing by the LPA.

    iii) The site layout should account for the existing drainage infrastructure, ensuring clear access for maintenance of all components of the drainage system by a management body. This should include a suitable easement for any maintenance equipment that may be required for future maintenance works.

    iv) Whilst it is broadly accepted that solar farms do not respond in the same way as impermeable surfaces, consideration must be given to the impact that solar photovoltaic farms have on infiltration. Localised channelling of rainfall and the nature

of underlying groundcover and antecedent conditions can influence infiltration rates and surface water run-off characteristics of a site, i.e. if the ground cover beneath panels is proposed as bare earth which is susceptible to hardening in summer months, then peak discharge can increase significantly increasing flood risk downstream. As such, it should be ensured as part of any proposed scheme that grass or wildflower cover will be well-maintained across the site to ensure that proposed schemes will not increase the surface water run off rate, volume or time to peak compared to the pre-development situation. This will also help provide net biodiversity gain.

1.4 Site-specific Flood Risk Assessment (FRA) report

A site FRA report has been prepared for this site to support the planning application and issued under separate cover (ref: FCL/644/F01). The FRA confirms the post-development risk of Surface Water flooding at the site as being 'low'.

The site is protected by formal flood defences providing protection from the 1 in 150 year flood event. The design life of a solar farm is typically 30 to 40 years. The defences are managed and maintained by the Environment Agency and they have confirmed, in writing, the suitability of the site in Flood Zone 3a as a solar farm is classified 'essential infrastructure'.

2 Site Details

2.1 Site Location and Description

The proposed development site is located straddling the boundaries of South Holland District Council and Fenland District Council and is accessible via Guanockgate Road to the west and Broad Drove West Road to the east.

The existing agricultural site is approximately 141.6 hectares (350 acres) in plan area, **See Figure 1** below, and surrounded by agricultural fields on all sides. There is an existing watercourse 'Lady Nunn's Old Eau' which intersects the site north to south before draining into the North Level Main Drain to the south of the site. The fields are also served by a network of ditches which drain to the main watercourses.

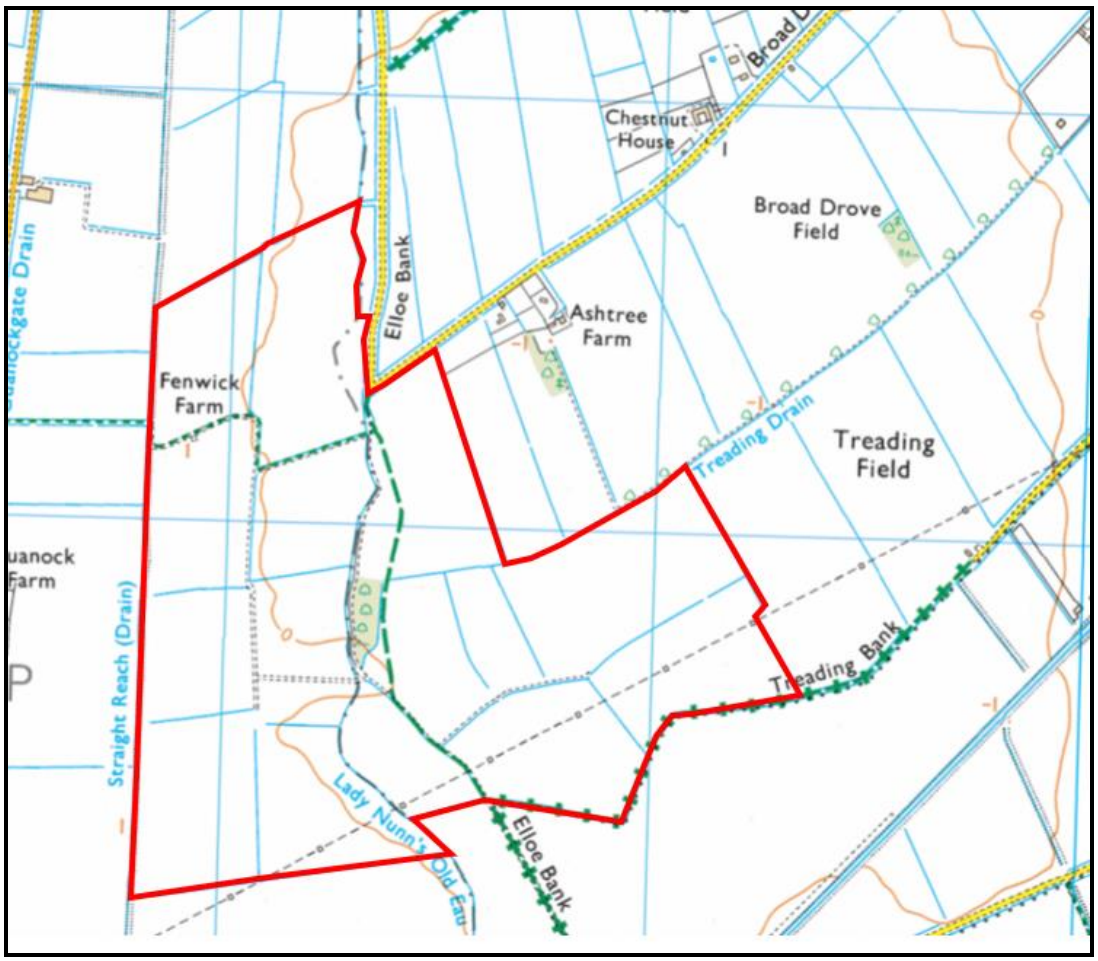

***Figure 1**: Site Location Plan*

The existing site is almost entirely agricultural land with 99.9% formed of permeable vegetated surfacing and porous access tracks with the remaining 0.1% represented by impermeable road surfaces and other tracks.

Figure 2 below shows an indicative layout for the renewable energy facility and illustrates its interaction with the various drainage ditches and Lady Nunn's Old Eau.

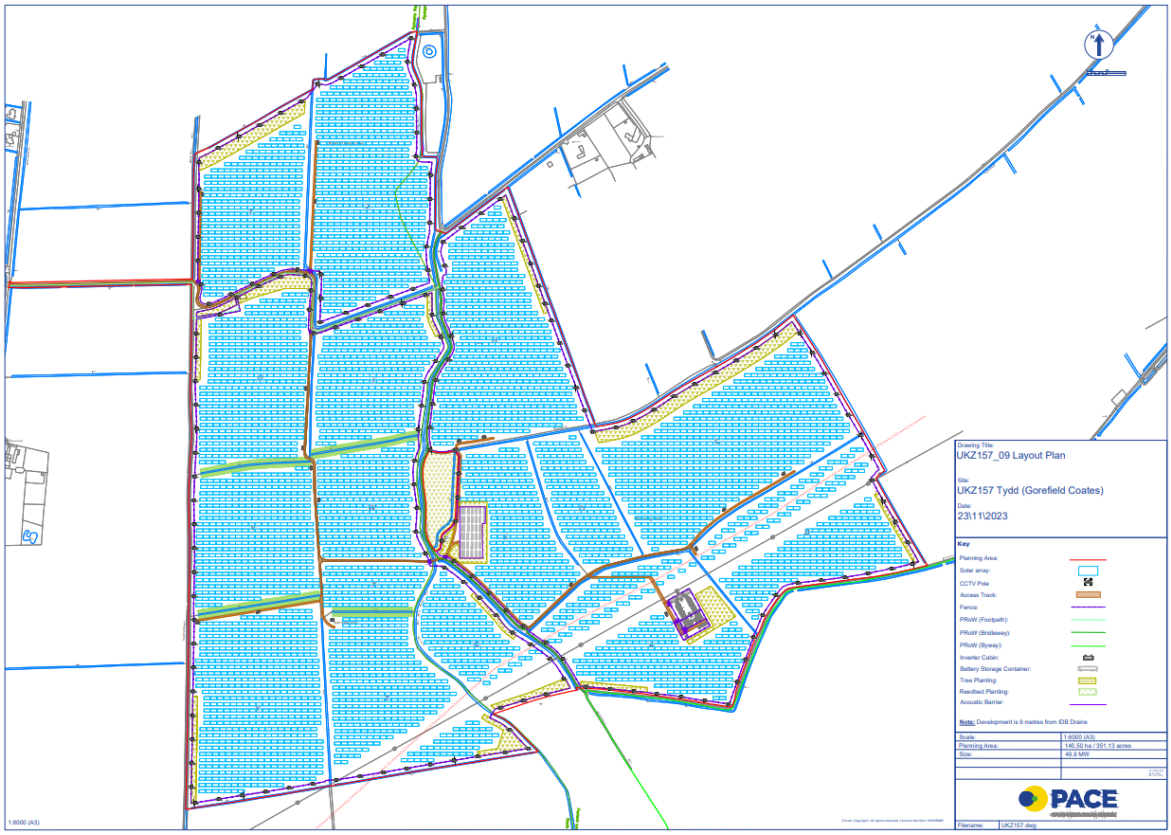

***Figure 2**: Indicative Solar Renewable Energy Facility – Tydd Solar*

2.1 Topography

The Lidar map shows overall contours and falls across the site. The ground levels fall gently from west **+2.44m AOD** to east **0m AOD** towards Lady Nunn's Old Eau and to **-0.9m AOD** to Treading Drain on the eastern boundary. The central part of the site forms a low area at approximately **-0.9m AOD** as shown on the GAIA GPS topographical map in **Figure 3** below.

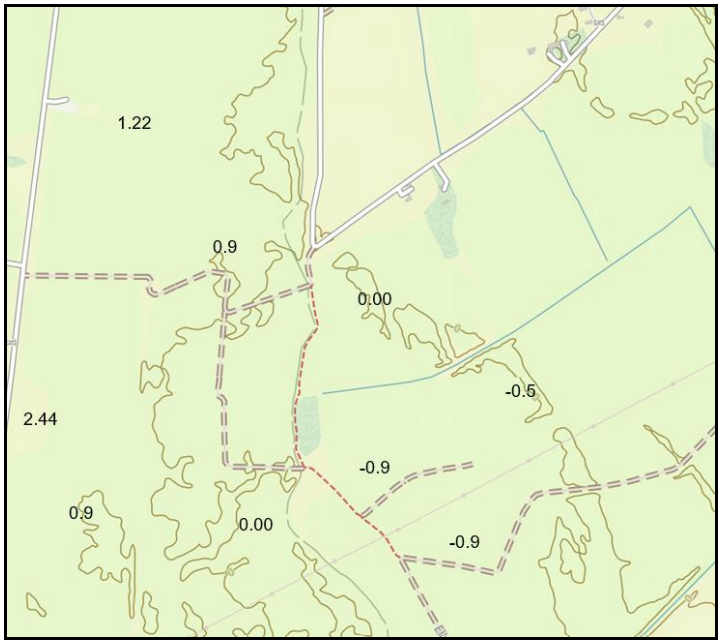

***Figure 3:** Topogrpahical Survey Tydd Farm GAIA GPS Maps*

2.2 Flood Risk

All potential sources of flood risk has been assessed for the site and a site-specific Flood Risk Assessment (FRA) Report (Ref: FCL/688/F01) has been produced and issued by Floodline Consulting under separate cover and will form part of the planning application documents.

Figure 4 below shows the location of the proposed site in relation to the Environment Agency's latest Indicative Floodplain Map. The FRA confirms the site to be entirely located in Flood Zone 3 (medium flood risk zone in England) and this zone is assessed as being within a 1 in 100yr annual probability of river or sea flooding (< 1% AEP) in any given year.

Liaison with the EA, **Appendix A,** has confirmed that the site is outside of the tidal hazard mapping for a breach in the defences for a flood that has a 0.1% chance of occurring in any one year up to 2115 and are satisfied that the proposed mitigation is appropriate and that there should be no ground level raising and no fencing material blocking overland flows.

The proposal has a vulnerability classification of 'Essential infrastructure' and therefore would need to remain operational during a flood. The EA are satisfied that the proposed mitigation is appropriate.

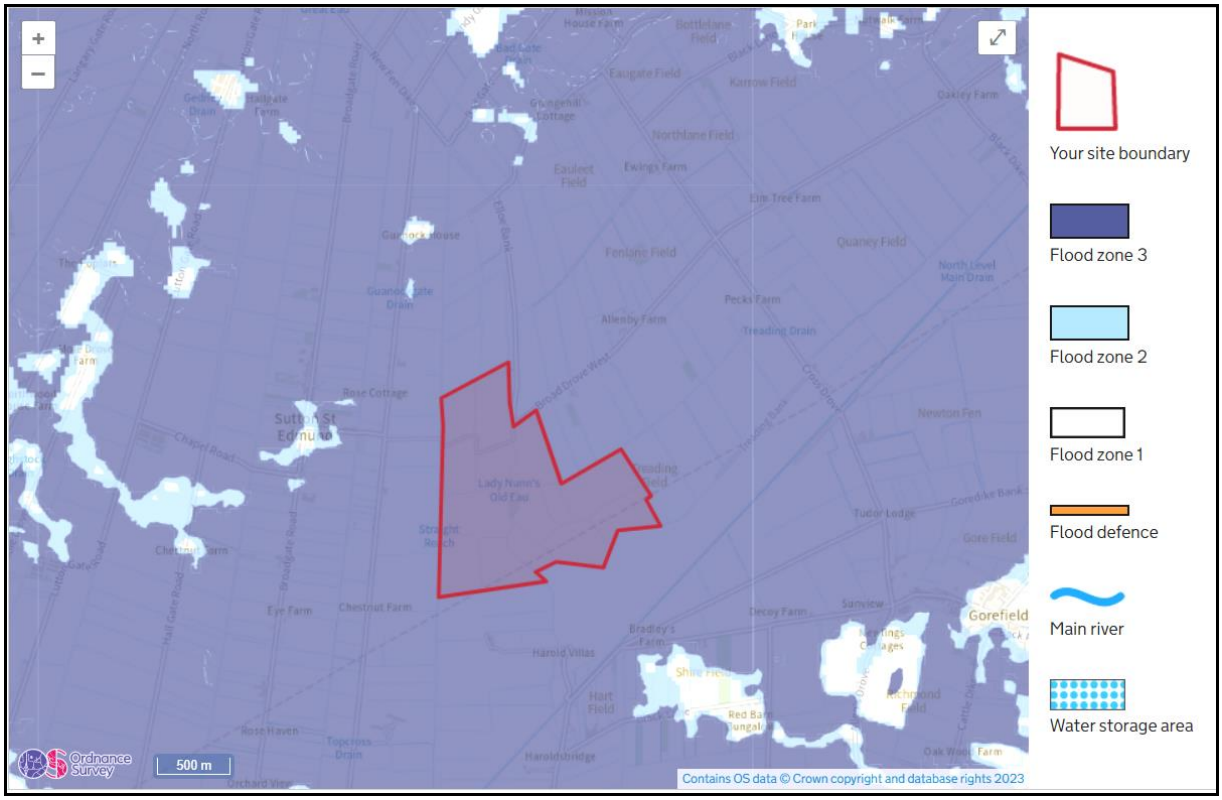

***Figure 4**: Proposed Site shown on the EA's Latest Indicative Floodplain Map, Sept 2021*

Fenland District Council SFRA 2022 and South-East Lincolnshire SFRA 2017 classifies the site as being in FZ3a.

DEFRA Magic Map confirms the risk of groundwater vulnerability to be 'unproductive'. The underlying geology is formed of Loamy and clayey soils of coastal flats with naturally high groundwater'. The risk

of ground water flooding is considered low and shallow screw-piled or traditional foundations will have no impact on groundwater rise, fall or groundwater conveyance.

Risk of flooding from groundwater is therefore considered 'low' for this development proposal. There are no sewers at the site therefore, the current risk of sewer flooding is considered to be 'very low'.

2.3 Underlying Geology

The Fenland District Council SFRA as shown in **Figure 5** below shows that bespoke infiltration SuDS may be possible.

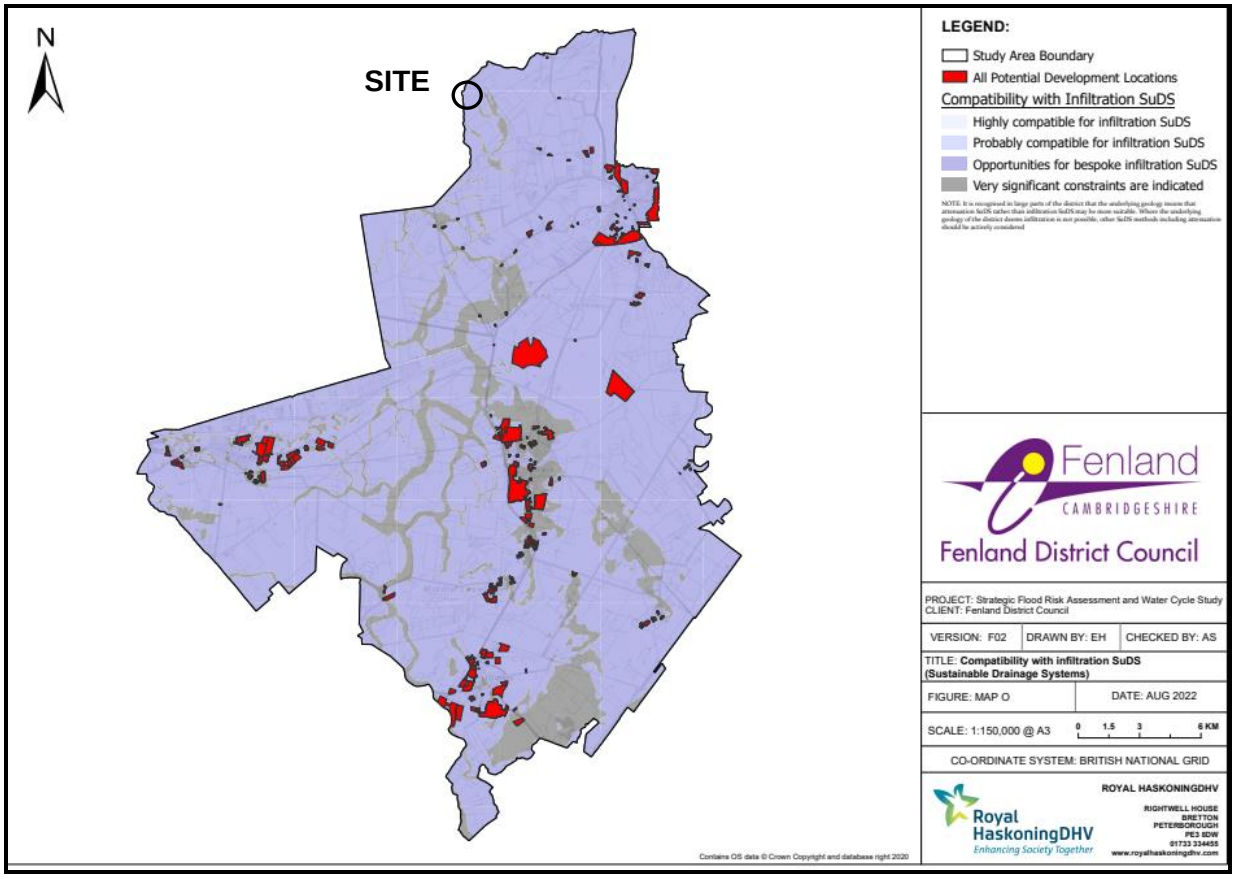

***Figure 5**: Geology of the Site – Opportunities for Bespoke Infiltration SuDS – SFRA 2022*

British Geological Survey mapping shows the entirety of the site to be Bedrock: West Walton Formation and Ampthill Clay Formation - Mudstone. Sedimentary bedrock formed between 163.5 and 157.3 million years ago during the Jurassic period and Superficial Deposits: Tidal Flat Deposits, 1 - Clay and silt. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.

The site is not located within a Groundwater Source Protection Zone (SPZ) therefore shallow soakaway French Drains and swales are suitable as infiltration techniques where applicable.

As this is an agricultural greenfield site, existing run-off characteristics will be governed by topography, soil type and the nature of the overlying surfaces. Subsoil conditions are clayey therefore initial rainfall will be absorbed by the topsoil and is unlikely to infiltrate further. the chalk subsoil. It is unlikely for rainfall to exceed the surface and sub-surface infiltration capacity, but if this occurred the natural fall of the land is both to the east and west towards Lady Nunn's Old Eau.

3 The Proposed Solar Renewable Energy Facility

3.1 Proposed Solar Renewable Energy Facility Use

The proposals comprise solar photovoltaic panels and associated infrastructure with a capacity of 49.9MW generating 69.4 GWh of clean renewable energy annually to homes and businesses via a connection on-site to the electricity grid. Included within the proposal are 30MW of battery storage across 54 containers so that excess energy can be stored and distributed to the grid at times of high demand. The site is designed to enable continued agriculture in the form of grazing of small animals, such as sheep. Layout of the proposed Solar Farm is shown in **Figure 6a** below.

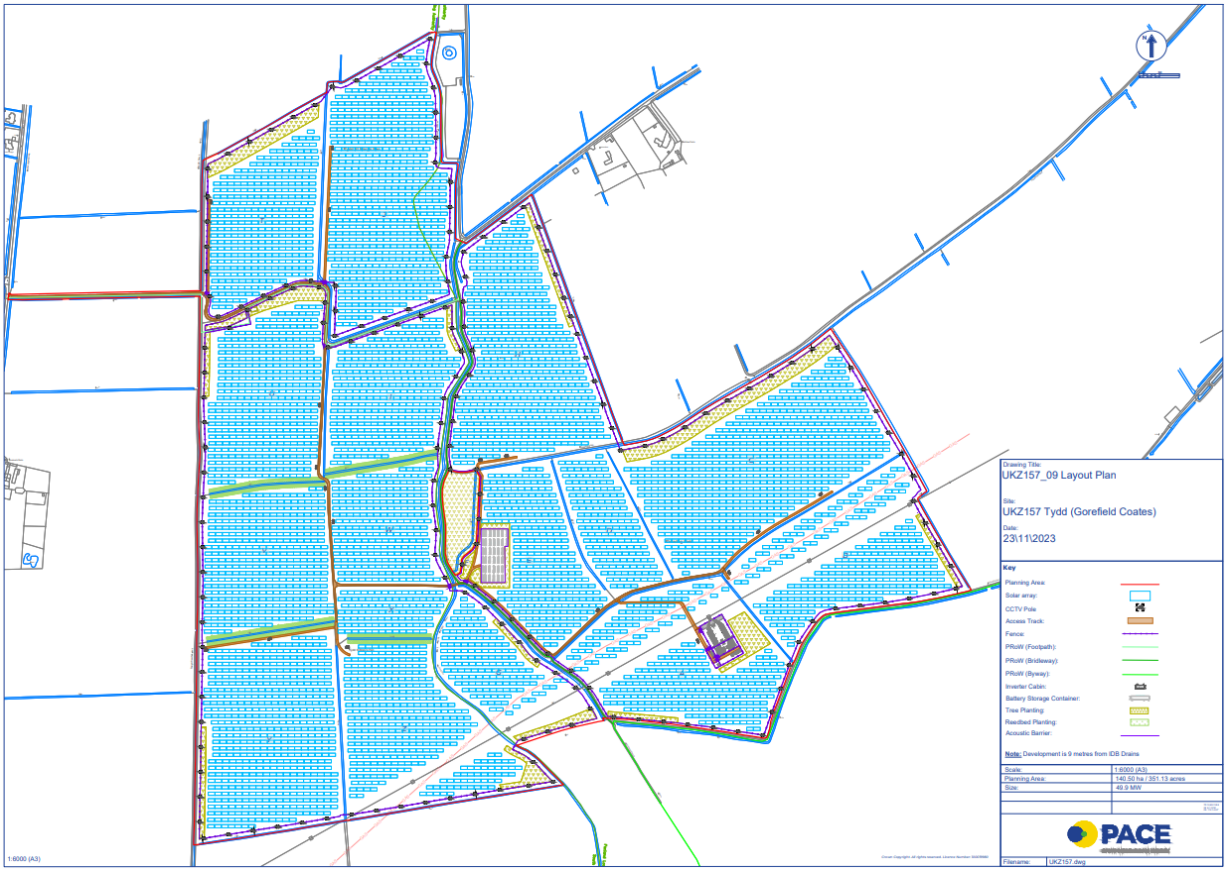

Figure 6a: *Proposed Solar Renewable Energy Facility with associated Infrastructure*

The solar panels will be mounted on galvanised metal frames set into the ground by either direct or screw piling or on a non-intrusive ballast system to protect any below-ground archaeological remains, if any are present. The photovoltaic panels will be arranged in east-west rows tilted southwards at 15-25 degrees. Each module will be spaced over 5m apart to allow rainfall directly to ground (see **Figure 6b** below); the 20, 40 and 80 modules racks typically have 8, 12 and 24 support posts respectively for each table.

The height of the solar arrays will be a maximum of 3 metres from ground level to the top of the back of the panel frame across the site. The lowest edge of the panels will be raised above the ground by around 0.8 metres to allow grazing of small livestock underneath and around the frames yet the panels will be low enough to minimise visibility from surrounding areas.

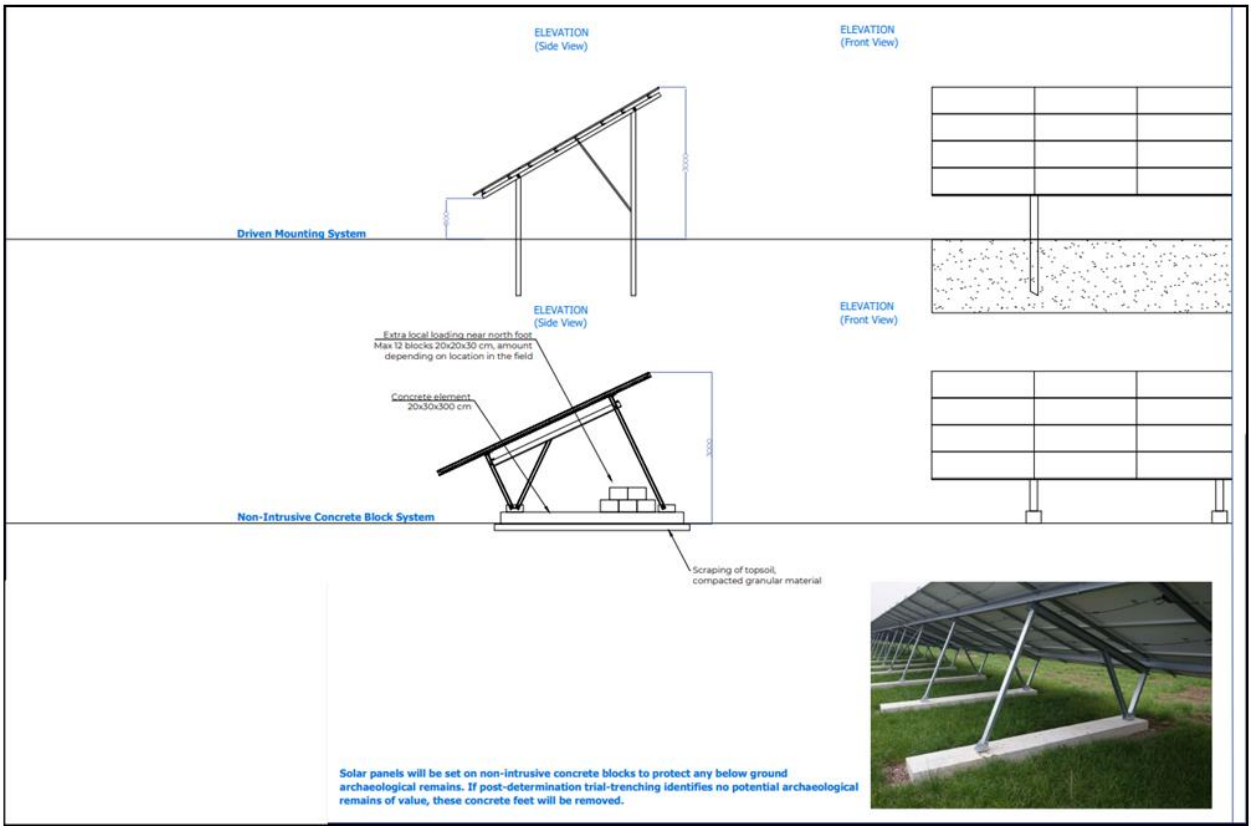

Figure 6b: *PV Modules Non-Intrusive Concrete Block System*

The module posts will be aligned horizontally in rows 5m apart. A minimum 25mm gap will allow water to drain between the modules (the 25mm gap surrounds all sides of each module). Therefore, the drainage path across the units will be a maximum of 1m. Surface water run-off is discussed further in this Surface Water Management Plan.

The modules will be served by inverter stations and a sub-station/switchgear unit as shown in **Figure 6c** below. The inverter stations, when built as shown, do not impact on the permeability of the underlying soil and do not prevent surface water run-off over the ground.

Figure 6c – *Inverter and Sub-station Switchgear*

The battery units are supplied in container form (See **Figure 6d and 6e** below) to be installed within the site boundary. The units are located on metal platforms off the ground to allow water to pass under the units and will have no impact on surface water flow routes.

Figure 6d *– Battery Storage Units*

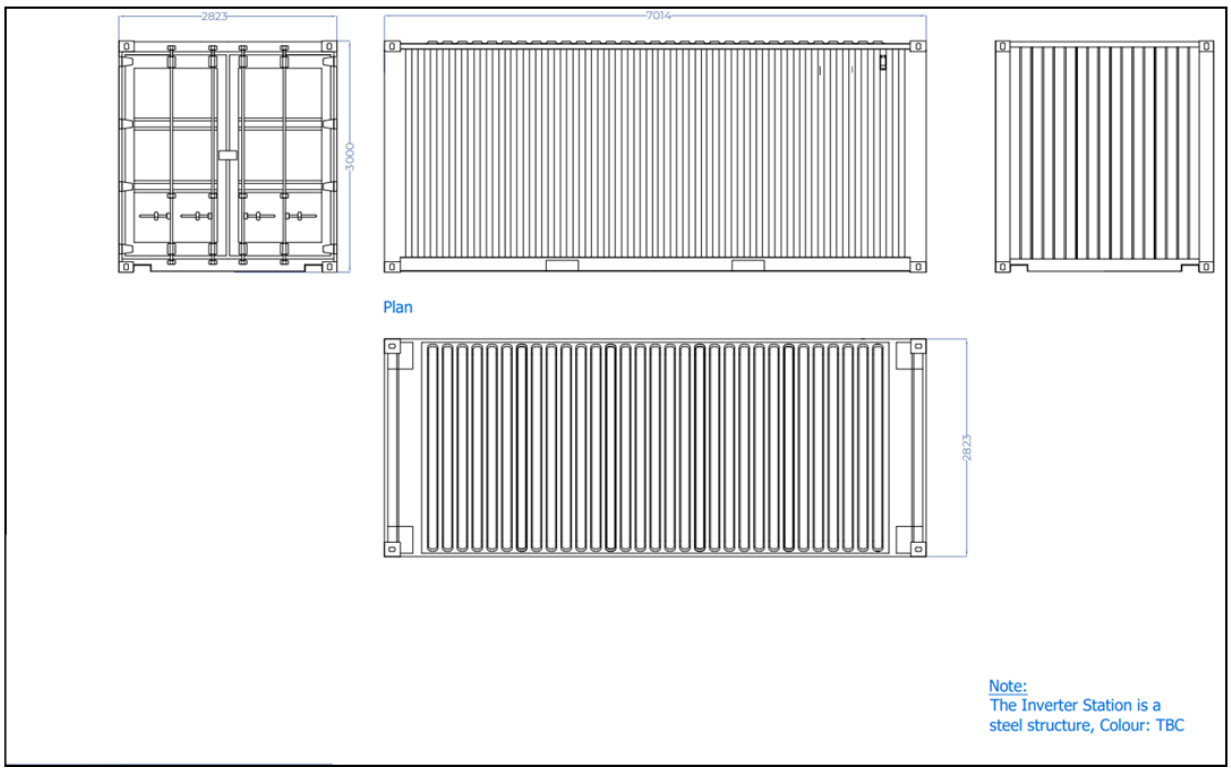

Figure 6e: *Proposed Inverter Cabin*

The batteries and inverters will be accessed by 4m wide access tracks constructed using permeable surfacing (using crushed stone or an alternative permeable material) see **Figure 6f** below. The routes of the existing tracks crossing the current site will be used for this purpose as far as practicable. Further landscaping works have been proposed as part of the overall design considerations.

The footings of the inverter and battery installations are likely to be set at least 300mm above the surrounding ground level to protect these units from any potential risk from surface water run-off or ground water flooding.

The proposed 2 meter high fencing will have a limited impact on the flow route for surface water run-off however it is proposed to introduce a swale or French Drain to the outside perimeter of the fencing to divert any excess water around the fencing.

All services (cabling etc) are to be designed and installed to be flood resilient and water compatible. This shall be achieved in accordance with appropriate design standards and best practise guidance. The panels will be supported by posts/piles which are adequately spaced to allow for the free flow of water between them.

The security fencing will be a mesh-type that will not impede any overland flow from the site.

Should any of the proposed foundations be installed on concrete plinths rather than steel frames, the overall area of the plinths will be less than 1% of the site area. The overall impact on potential flood routing or rainwater discharged from the predominantly greenfield site will be negligible. In the event plinths are used, French drains or swales shall be installed around the foundations to direct rainwater to ground.

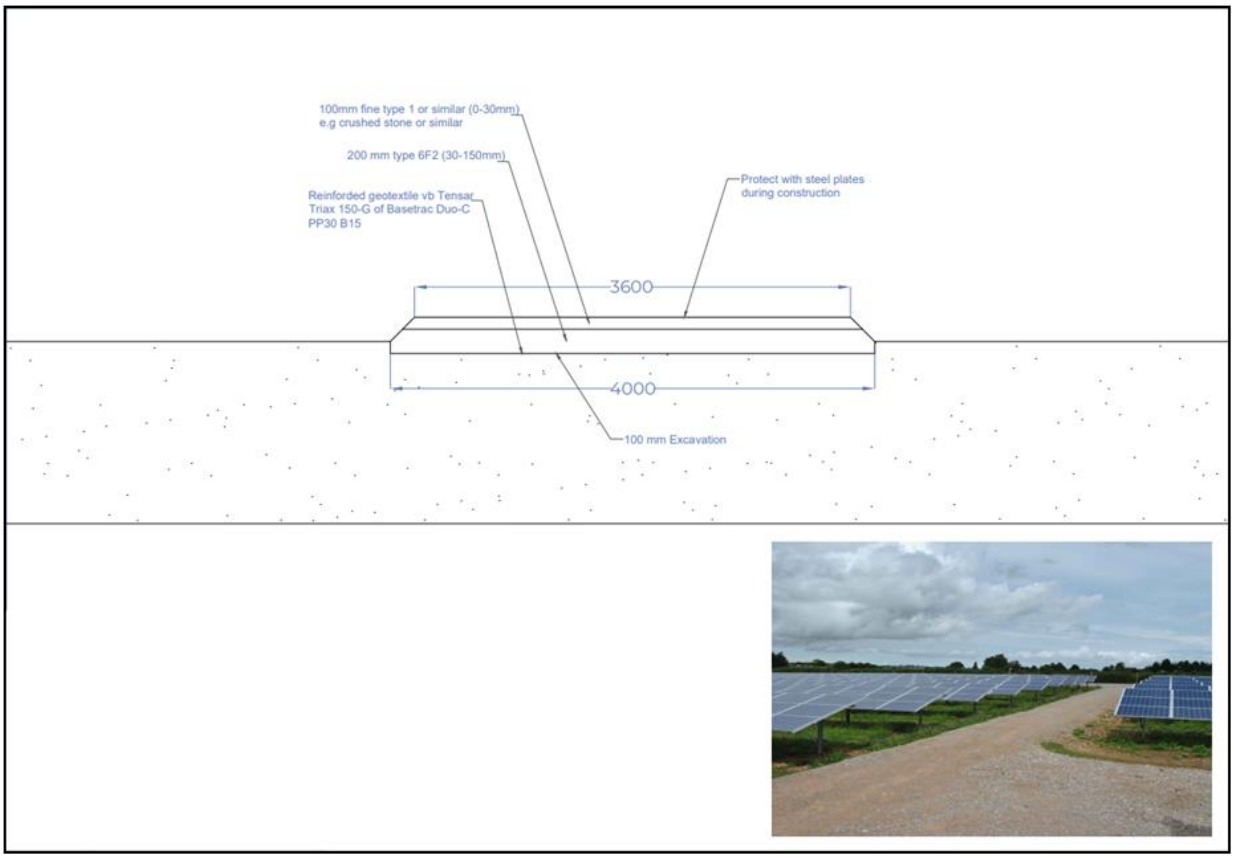

Figure 6f: *Proposed Access track Construction*

3.2 Footprint of the Proposed Plant and Equipment

- **PV Modules**

  The modules are supported above ground on steel tables/racking which fixed to a steel pile. They will have no impact on existing surface water or groundwater routes or flow rates and will not reduce impermeable of the surrounding fields.

- **Inverters & Sub-station Switchgear**

  There are 54nr inverter stations and battery storage containers with a plan area of approx. 36m^2 each (total = 1,944m^2).

  The POC/Switchgear Station and Sub-station have a footprint totalling approx. 2,359m^2.

Consequently, the total impermeable area would be 4,303m^2 which equates to 0.003% of the overall agricultural site. However, the equipment is supplied as contained units or boxed panels without formal guttering etc. Therefore, any rainfall discharges directly to ground around the units and, where the units are raised on a metal platform the impact on overall peak flows from the site is insignificant when compared with the existing peak run-off from the site.

4 Sustainable Drainage

4.1 SuDS Hierarchy

The current SuDS Policy documents state *'Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of sustainable drainage systems'.*

The following receptors have been considered for the SW run-off in order of preference taking into consideration the LLFA's SuDS hierarchy and Standing Advice – Solar Panels (PV) and Solar Farms, January 2022;

1 Discharge by infiltration into the ground: *Optimum option for this site. However, the impact of the development on the natural infiltration to the underlying soil is negligible (as detailed in Section 4.2 below) as rainwater would infiltrate to ground in the same manner as in the undeveloped-site conditions.*

2 Discharge into perimeter swales or filter strips every 10th row of PV panels: *Use of perimeter swales are suitable for this site where necessary.*

3 Discharge into open surface water body: *Not applicable as there are no ponds, lakes or watercourses within close proximity of the site.*

4 Use Green, Brown or Blue Roofs: *Not applicable.*

5 Discharge into SW sewer: *Not applicable.*

6 Discharge into Combined Sewer: *Not applicable.*

SuDS is a concept that incorporates long term environmental and social factors in order to design surface water drainage systems, in accordance with the ideals of sustainable development. SuDS takes into account the quantity and quality of surface water run-off, and the value of surface water to the urban and rural environments.

4.2 Betterment Provided by the Proposed Solar Farm

We are not aware of any formal provision for drainage of the existing land. Planning Policy requires that surface water arising from a developed site should, as far as practicable, be managed in a sustainable manner to mimic surface water flows arising from the site prior to the proposed development.

Figures 6b to 6f show that the impact of the proposed solar power generation facility on the overall permeable area of the greenfield site is negligible and does not affect exceedance flow from the site during a severe storm event as greenfield surfaces remain accessible for natural infiltration to ground.

Changing the site's primary function will have several benefits regarding potential run-off rates from the site. The absence of typical farming activity will provide the following benefits which will serve to reduce run-off rates from the site:

- The fields will no longer be ploughed or furrowed
- The fields will no longer be left without vegetation cover in the winter periods

- The fields will no longer be intensively trodden by heavy animals
- The fields will no longer be regularly traversed by heavy machinery

The Environment Agency's Land Quality Officer has shown that all the above farming activities can considerably increase the rate of run-off from a site, thereby increasing downstream flood risk in terms of water flow rates and silt pollution. As such the absence of farming activity will reduce soil compaction on the site, allowing the soils to become naturally aerated over time. This should improve the soils water acceptance potential and reduce run-off rates from the site.

It is likely longer meadow type grasses and wildflowers at a seed mix ratio of 80/20 grass/wildflower will be allowed to propagate across the site over its predicted 25 year design life. Meadow type vegetation provides high levels of natural attenuation which will serve to limit flows across the site and increase biodiversity.

It is apparent that using the site for solar power generation is likely to ensure that the soil state is improved, and that vegetation cover will be established throughout the seasons. As such the run-off rates from the site will be reduced.

In addition, it is likely that infiltration rates will also be improved. The absence of typical farming activity, along with the drainage features proposed in the Surface Water Management Plan should provide betterment to the existing situation in terms of run-off rates and flood risk.

The batteries and inverters will be accessed by 4m wide access tracks constructed using permeable surfacing, see **figure 6f** (using crushed stone or an alternative permeable material). The routes of the existing tracks crossing the current site will be used for this purpose as far as practicable.

The surface area of the panels is not considered to be an impermeable area that prevents direct infiltration into the ground. Rainwater falling on to each of the solar panels will drain freely into the ground both between and beneath the panels.

The site is to remain 'soft' landscaped with grassland / vegetation surrounding and beneath the panel arrays. Whilst there may be a concentration of rainwater at the front of each panel, this will naturally migrate to beneath the next panel array following the fall of the land. There will be no decrease in permeable area and no increase in run-off, thus mimicking the existing hydrological characteristics of the site.

Any new perimeter fencing will be mesh-type to ensure any run-off from the site is not impeded.

During construction, unnecessary soil disturbance and trafficking of the land shall be avoided to prevent compaction.

4.3 Environmental Considerations and Climate Change

The nature of the development means that SW run-off could originate from the solar panel arrays, solar panel pile system and inverters. The run-off from the panels poses a very low environmental risk. Any waste, however minimal, generated from the maintenance and operation of the solar farm will be appropriately disposed off-site.

The latest climate change allowances identified in the Council LFRMS and guided by the LLFA has been considered in the tidal and fluvial flood risk assessments undertaken by the Environment Agency for watercourses in Lincolnshire and there is no detrimental impact on the site.

4.4 Proposed Surface Water Management Strategy

Figure 7a below shows the surface water flow paths (exceedence routes) at the site. The existing and proposed flow routes remain the same as there is no requirement to alter the existing topography. The site is segregated into defined fields which contain numerous existing swales and ditches located at the permiters to manage run-off. These ditches will be cleared and enhanced and new swales introduced to improve their performance and to provide opportunities for biodiversity.

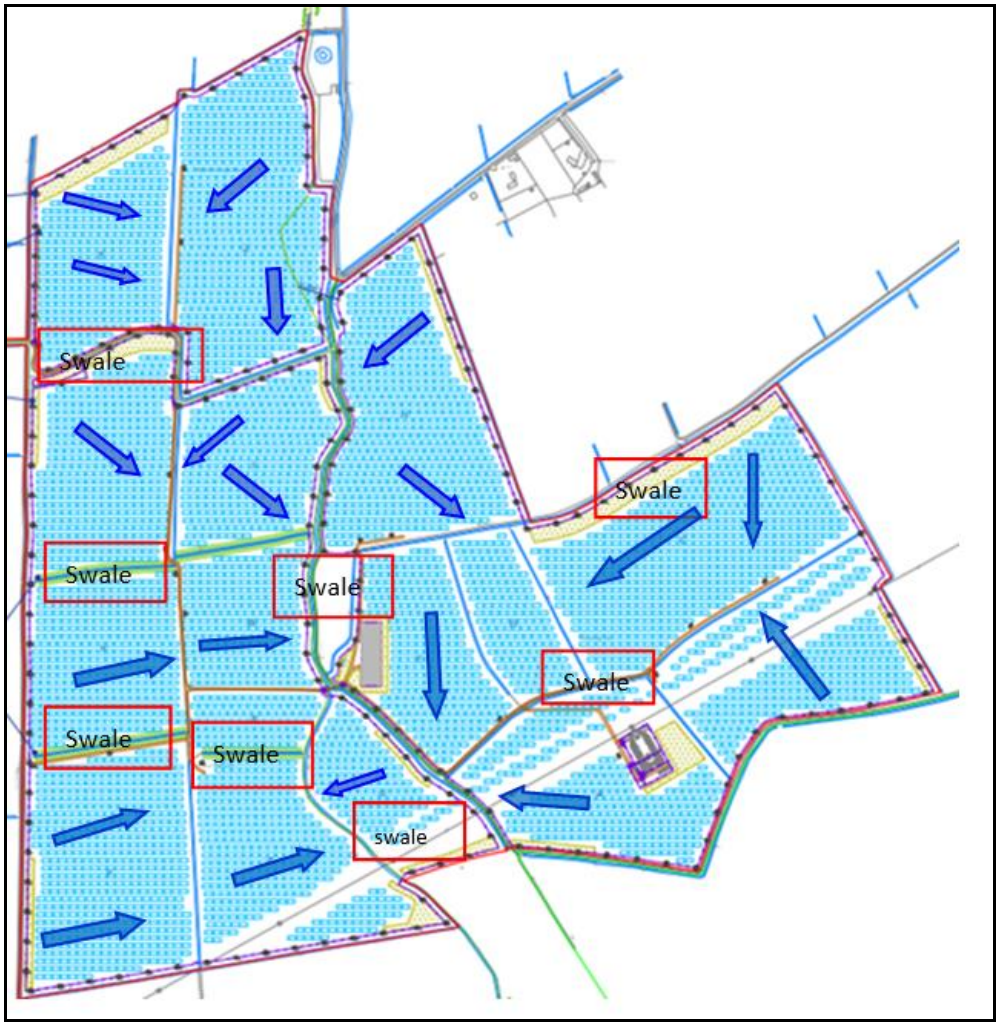

Figure 7a: *Surface Water Flow Routes and Mitigation Plan*

Figure 7b shows the proposed environmental mitigation and enhancement plan for the site. The proposals include new:

1. Log/wood piles as refuge for reptiles and amphibians
2. Native hedging to add to existing hedgerows
3. Native tree planting to supplement existing trees
4. Extensive corridors between stretches of native woodland
5. Deer fencing to protect newly planted trees
6. Management of the existing copse
7. Wildlife and mammal gates at strategic points to maintain access through the site
8. Reed beds
9. Wildflower meadows around/underneath solar panels maintained by managed sheep grazing
10. Maintenance of existing public rights of way

Figure 7b: *Mitigation and Enhancement Plan*

5 Future Operation and Maintenance of the Site

By their nature, Solar Renewable Energy sites are highly managed and controlled facilities supported by a dedicated security and Operations and Management personnel.

Current SuDS policy documents state that, *'The Local Planning Authority must satisfy themselves that clear arrangements are in place for future maintenance of the management arrangements and the LLFA, as statutory consultee, is required to review the drainage proposals to confirm they are appropriate'.*

Maintenance of the site is essential to ensure surface water drains naturally as in the current conditions and the green surfaces are maintained to allow natural drainage to occur. As such the O&M personnel will inspect the site regularly throughout the lifetime of the facility.

The site will remain in private ownership at all times therefore the site operator would be responsible for the maintenance of any drainage features within the site. The developer of the site shall make this responsibility clear to the site operator by providing a maintenance plan for the overall facility.

6 Conclusions

The objectives of this report are satisfied as detailed below;

- Flood risk from all sources has been assessed for the site and detailed in a site-specific Flood Risk Assessment report issued under separate cover to support the planning application for this solar farm. The risk of flooding from all sources is 'low'
- Surface water flood risk at the site is established as being 'low' and there is no historical record of flooding at the site
- The site is located in Flood Zone 3a but it is defended by formal flood defences managed by the Environment Agency (EA). The defences provide protection in the 1 in 150 year event but design life of a solar farm is 30 to 40 years only
- The EA has confirmed the proposed use for a Solar Farm to be acceptable at this location as the renewable energy facility is classified as 'essential infrastructure'
- The operating company will maintain and manage the overall site for the lifetime of the renewable energy facility including the existing and proposed surface water management systems
- A comprehensive environmental mitigation and enhancement plan is proposed for the site to improve habitats and provide opportunities for biodiversity
- Lady Nunn's Old Eau is the only watercourse (Main River or Ordinary Watercourse) in the vicinity of the proposed solar farm which is fed by established drainage ditches. No changes to existing terrain is proposed as a result of the new facilities therefore there is no negative impact on the watercourse
- The existing site is greenfield comprising 99.9% vegetated permeable surfaces. The proposed facility will retain the same permeable area. There will be no increase in peak SW run-off generated from the site thus mimicking the existing hydrological characteristics of the fields
- The surface area of the panels is not considered to be an impermeable area that prevents direct infiltration into the ground. Rainwater falling onto each of the solar panels will drain freely into the ground both between and beneath the panels
- The site is to remain 'soft' landscaped with grassland / vegetation surrounding and beneath the panel arrays. The new accessed tracks will be formed of permeable surfacing (crushed rock or similar material) and any perimeter fencing will be mesh-type to ensure run-off from the site is not impeded. As the site is on a slope, the opportunity for ponding at the site is extremely low
- The current site is presently classed as enclosed agriculture typically modern form comprising a topography which allows natural drainage southwards towards the main drain. Changing the site's primary function will have several benefits regarding potential run-off rates from the site. The absence of typical farming activity will serve to reduce peak SW run-off rates from the site thus providing an overall betterment

- The proposed installations are built on frames above ground level which would have no negative impact on SW/overland flows. Should concrete plinths be used, the overall impermeable area generated will remain less than 0.3% therefore peak SW discharge from the site will not increase as French drains can be installed around the plinths to allow rainwater to infiltrate into the sub-soil

- The run-off from the panels or other supporting plant and equipment poses very low environmental risk. Any waste, however minimal, from the maintenance and operation of the solar farm will be appropriately disposed off-site by the operating company

- The latest climate change allowances identified in the Cambridge County Council LLFA Pre App response has been considered in the overall flood risk assessments undertaken by the Environment Agency for watercourses in the area and there is no detrimental impact on the site

- The SW management proposals are fully compliant with national and local SuDS policy guidelines, NPPF 2023 and the Lead Local Flood Authority standing advice.

7 Limitations and Copyright

Limitations

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8 Appendices

Appendix A - Environment Agency - Pre-App Response

Appendix B - Cambridge County Council (LLFA) - Pre-App 12 October 2023

Appendix C - Cambridge County Council (LLFA) - Planning Checklist

Appendix A

Environment Agency - Pre-App Response

Appendix B

Cambridge County Council (LLFA) - Pre-App 12 October 2023

Appendix C

Cambridge County Council (LLFA) - Planning Checklist