

# SUNNICA ENERGY FARM

EN010106

8.14 Statement of Common Ground with the Environment Agency

Planning Act 2008

Infrastructure Planning (Examination Procedure) Rules 2010



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**The Infrastructure Planning  
(Examination Procedure) Rules 2010**

**Sunnica Energy Farm**

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# 1 Introduction

## 1.1 Purpose of this document

- 1.1.1 This Statement of Common Ground (SoCG) has been prepared in respect of the application for the proposed Sunnica Energy Farm Development Consent Order ("the Application") made by Sunnica Limited ("Sunnica") to the Secretary of State for the Department for Business, Energy and Industrial Strategy ("Secretary of State") for a Development Consent Order ("the Order") under section 37 of the Planning Act 2008 ("PA 2008").
- 1.1.2 The order, if granted, would authorise Sunnica to construct, operate (including maintain) and decommission a ground mounted solar photovoltaic ('PV') farm across Sunnica East Site A, Sunnica East Site B and Sunnica West Site A. The Scheme includes the following key components:
- a. Solar PV modules;
  - b. PV module mounting structures;
  - c. Inverters;
  - d. Transformers;
  - e. Switchgear;
  - f. Onsite cabling (including high and low voltage cabling) and cabling between the Sites and to the Burwell National Grid Substation;
  - g. One or more BESS (expected to be formed of lithium ion batteries storing electrical energy) on Sunnica East Site A, Sunnica East Site B, and Sunnica West Site A;
  - h. An electrical compound comprising a substation and control building (Sunnica East Site A, Sunnica East Site B, and Sunnica West Site A only);
  - i. Office/warehouse (Sunnica East Site A and Sunnica East Site B only)
  - j. Fencing and security measures;
  - k. Drainage;
  - l. Internal access roads and car parking;
  - m. Landscaping including habitat creation areas; and
  - n. Construction laydown areas.
- 1.1.3 This SoCG does not seek to replicate information which is available elsewhere within the Application documents. All documents are available in the deposit locations and/or the Planning Inspectorate website.
- 1.1.4 This SoCG has been produced to confirm to the Examining Authority (ExA) where agreement has been reached between the parties to it, and where agreement has

not (yet) been reached. SoCGs are an established means in the planning process of allowing all parties to identify and so focus on specific issues that may need to be addressed during the examination.

## 1.2 Parties to this Statement of Common Ground

- 1.2.1 This SoCG has been prepared by (1) Sunnica as the Applicant and (2) the Environment Agency.
- 1.2.2 Sunnica is a Special Purpose Vehicle (SPV) incorporated in December 2013 to construct, operate, and decommission the Sunnica Energy Farm.
- 1.2.3 The Environment Agency is an interested party to the Examination of the Application.
- 1.2.4 Collectively Sunnica and the Environment Agency are referred to as 'the parties'.

## 1.3 Terminology

- 1.3.1 In the tables in the Issues chapter of this SoCG:
  - a. "Agreed" indicates where the issue has been resolved.
  - b. "Not Agreed" indicates a final position, and
  - c. "Under discussion" indicates where these points will be the subject of on-going discussion wherever possible to resolve, or refine, the extent of disagreement between the parties.
- 1.3.2 It can be taken that any matters not specifically referred to in the Issues chapter of this SoCG are not of material interest or relevance to the Environment Agency's representation and therefore have not been considered in this document. It is recognised however that engagement between both parties will need to continue due to their joint interest in matters arising from the Scheme.

## 2 Record of Engagement

- 2.1.1 A summary of the meetings and correspondence that has taken place between Sunnica and the Environment Agency in relation to the Application is outlined in **Table 1**. There has been email correspondence between the parties to discuss the sharing of information, arrangement of meetings and for them to comment on draft documentation, but this table reflects the key meetings and emails of note that have taken place between the parties.

**Table 1: Record of Engagement**

Date	Form of correspondence	Key topics discussed and key outcomes (the topics should align with the Issues tables)
13.03.2019	Email from Sunnica	Issue of EIA Scoping Report
11.04.2019	Email from Environment Agency	EIA Scoping Response submitted to PINS.



Date	Form of correspondence	Key topics discussed and key outcomes (the topics should align with the Issues tables)
12.07.2019	Email from Environment Agency	Non-statutory consultation response.
26 <sup>th</sup> July 2019	Email to Environment Agency requesting baseline information	Requesting for baseline information, Response Ref: EAN/2019/136538 dated 30.08.2019.
16.04.2021	Meeting	Key topics: <ul style="list-style-type: none"> <li>• Design update</li> <li>• Water receptors</li> <li>• Issues and scope of assessment</li> <li>• Assessment outcomes, mitigation and enhancement</li> <li>• Construction risks</li> </ul>
16.04.2021	Email from Sunnica	Queries regarding the Burwell Substation flood risk element of the assessment and SSSI impacts and request to review FRA.
26.04.2021	Email from Environment Agency	Comments from the Groundwater & Contaminated Land Team on dewatering methods
30.04.2021	Email from Sunnica	Response to Groundwater & Contaminated Land Team comments on dewatering methods
14.05.2021	Email from Environment Agency	Comments on the FRA.
18.05.2021	Email from Environment Agency	Response to Sunnica's email from 30.04.2021 confirming that the proposed approach is considered appropriate.
28.05.2021	Email from Sunnica	Response to the EA's comments on the FRA and submission of updated draft.
11.06.2021	Email from Environment Agency	Response accepting approach to PV panels in the floodplain in the River Lark.
02.08.2021	Letter from Environment Agency	Notification of the Environment Agency's receipt of a request for information under the Freedom of Information Act 2000.
14.09.2021	Email from Sunnica	Request for feedback on the reduction of panel height.
22.09.2021	Email from Environment Agency	Confirmation that the reduction in panel height to 850mm in floodplain of River Lark should be acceptable and request that the West Suffolk SFRA from April 2020 conclusion be incorporated into the FRA (note, FRA already included SFRA reference).
24.11.2021	Email from Environment Agency	Confirmation that a piling risk assessment would be required should be piling be needed.

Date	Form of correspondence	Key topics discussed and key outcomes (the topics should align with the Issues tables)
05.01.2022	Email from Sunnica	Details of how the potential for piling has been addressed in the Environmental Statement submitted with the DCO Application.
07.03.2022	Meeting with the Environment Agency	Meeting between the Applicant and the Environment Agency to discuss the Flood Risk Assessment and responses to Burwell substation extension.
10.10.2022	Meeting with the Environment Agency	Further Meeting between the Applicant and the Environment Agency to discuss the Flood Risk Assessment and responses to Burwell substation extension.
02.11.2022	Meeting with the Environment Agency	Further Meeting between the Applicant and the Environment Agency to discuss the Flood Risk Assessment and responses to Burwell substation extension.
22.11.2022	Meeting with the Environment Agency	Further Meeting between the Applicant and the Environment Agency to discuss the Flood Risk Assessment and responses to Burwell substation extension.
23.11.2022	Email from Environment Agency	Requesting FRA Addendum be a certified document in the DCO.
28.11.2022	Email from Environment Agency	Response to review of SoCG and FRA Addendum/FRA Tech Note Updates
30.11.2022	Email from Environment Agency	Response to review of SoCG and FRA Addendum/FRA Tech Note Updates
01.12.2022	Email from Environment Agency	Response to review of Flood Risk Tech Note Updates
02.12.2022	Email from Environment Agency	Response to review of Flood Risk Tech Note Updates and FRA Addendum Updates
05.12.2022	Email from Environment Agency	Response to review of Flood Risk Tech Note Updates and FRA Addendum Updates
06.12.2022	Email from Environment Agency	Confirmation FRA Addendum and SoCG sufficiently addresses flood risk. Request to include in SoCG commitment to FRA Addendum and Tech Note to Schedule 10 of DCO.

2.1.2 It is agreed that this is an accurate record of the key meetings and consultation undertaken between (1) Sunnica and (2) the Environment Agency in relation to the issues addressed in this SoCG as at the date of this SoCG.

2.1.3 The issues and matters highlighted in **Table 2** to **Table 4** summarise the key issues that have been in discussion between the two parties.

## 3 Issues

### 3.1 Matters Agreed

3.1.1 **Table 2** below details the matters agreed with Environment Agency.

**Table 2: Matters Agreed**

Topic	Sub-topic	Details of Matters Agreed
General	Legislation and policy	<p>The Environmental Statement (ES) has identified and appropriately considered all applicable legislation and national policy pertaining to the following assessments undertaken as part of the Environmental Impact Assessment (EIA) of the Scheme:</p> <ul style="list-style-type: none"> <li>• Ecology and Nature Conservation <b>[APP-040]</b>;</li> <li>• Ground conditions <b>[APP-048]</b>;</li> <li>• Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; including a Flood Risk Assessment <b>[AS-007 to 010]</b> and a Flood Risk Addendum (Application Document Reference <b>[EN010106/APP/8.67]</b>; and</li> <li>• Effect Interactions <b>[APP-049]</b>.</li> </ul>
	Study area definition and extents	<p>The study areas adopted by Sunnica within the following assessments reflect current best practice and standards:</p> <ul style="list-style-type: none"> <li>• Ecology and Nature Conservation <b>[APP-040]</b>;</li> <li>• Ground conditions <b>[APP-048]</b>;</li> <li>• Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; and</li> <li>• Effect Interactions <b>[APP-049]</b>.</li> </ul> <p>The geographical extents of the adopted study areas are appropriate to identify the likely direct and indirect effects of the Scheme on sensitive features and receptors.</p>
	Application of expert/professional judgements	<p>The identification of likely significant effects on sensitive features and receptors has been informed by professional judgement and the views of relevant technical specialists, where necessary. The application of professional judgement by its specialists within the following assessments are appropriate and robust:</p> <ul style="list-style-type: none"> <li>• Ecology and Nature Conservation <b>[APP-040]</b>;</li> <li>• Ground conditions <b>[APP-048]</b>;</li> <li>• Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; including a Flood Risk Assessment <b>[AS-007 to 010]</b> and a Flood Risk Addendum (Application Document Reference <b>[EN010106/APP/8.67]</b>; and</li> <li>• Effect Interactions <b>[APP-049]</b>.</li> </ul>
	Assessment assumptions and limitations	<p>The following assessments record the assumptions applied and the approaches taken by Sunnica to reduce any uncertainty resulting from any limitations encountered:</p> <ul style="list-style-type: none"> <li>• Ecology and Nature Conservation <b>[APP-040]</b>;</li> </ul>



Topic	Sub-topic	Details of Matters Agreed
		<ul style="list-style-type: none"> <li>Ground conditions <b>[APP-048]</b>;</li> <li>Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; including a Flood Risk Assessment <b>[AS-007 to 010]</b> and a Flood Risk Addendum (Application Document Reference <b>[EN010106/APP/8.67]</b>; and</li> <li>Effect Interactions <b>[APP-049]</b>.</li> </ul> <p>It is considered by the parties that the assumptions adopted in these assessments are reasonable and appropriate.</p> <p>Noting Table 9-4 response to EA Ref 4.4.9, Table 9-1, and Table 9-12 Importance of Attributes of ES Chapter 9 <b>[APP-041]</b>, and paragraphs relating for Flood Risk assessment, paragraphs 9.8.157 to 9.8.163 and 9.8.220, it is clarified in this report that Burwell Substation extension is incorrectly defined as within Flood Zone 1. The results of the fluvial modelling review indicate the substation is at a residual risk of flooding in the event of a breach of Burwell Lode.</p>
	Presentation of results	<p>The following application documents present the approaches to, and outcomes of, assessments undertaken to identify the likely significant effects of the construction, operation and decommissioning phases of the Scheme:</p> <ul style="list-style-type: none"> <li>Ecology and Nature Conservation <b>[APP-040]</b>;</li> <li>Ground conditions <b>[APP-048]</b>;</li> <li>Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; including a Flood Risk Assessment <b>[AS-007 to 010]</b> and a Flood Risk Addendum (Application Document Reference <b>[EN010106/APP/8.67]</b>;</li> <li>Effect Interactions <b>[APP-049]</b>.</li> </ul> <p>It is considered by the parties that the format and methods used to present the assessments undertake are clear and unambiguous.</p>
Baseline	Data collection methods, baseline data and the identification and sensitivity of relevant features and receptors	<p>The baseline conditions have been collated using desk-based and field-based techniques, and through consultation with stakeholders.</p> <p>It is considered by the parties that the scope, coverage and timing of surveys undertaken to establish the baseline conditions and sensitive features and receptors are in line with best practice and appropriate to inform the assessment of direct and indirect effects reported in the assessments provided within Chapter 9: Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; Chapter 8: Ecology and Nature Conservation <b>[APP-040]</b>; and Ground conditions contained within Chapter 16: Other Environmental Topics <b>[APP-048]</b>.</p>
Assessment findings	Assessment findings: Construction, operation and decommissioning effects	<p>It is considered by the parties that the assessments provided within Chapter 9: Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; Chapter 8: Ecology and Nature Conservation <b>[APP-040]</b>; and Ground conditions contained within Chapter 16: Other Environmental Topics <b>[APP-048]</b> have identified the adverse and beneficial effects that would potentially result from construction, operation and decommissioning of the Scheme; however, none of these would result in significant residual effects.</p>

Topic	Sub-topic	Details of Matters Agreed
Mitigation	Construction	<p>Measures outlined within Chapter 9: Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; Chapter 8: Ecology and Nature Conservation <b>[APP-040]</b>; Ground conditions contained within Chapter 16: Other Environmental Topics <b>[APP-048]</b>; and the Framework Construction Environmental Management Plan <b>[REP3-016]</b> are considered acceptable by the parties to mitigate potential impacts and manage potential affects during the construction phase.</p> <p>The proposed firewater basins/lagoons will be lined to prevent a pathway to ground or surface water.</p> <p>During construction foul drainage will be self-contained, such as a cess pit sealed tank, or portaloos, with no discharge to ground.</p>
	Operation	<p>Measures outlined within the Chapter 9: Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; Chapter 8: Ecology and Nature Conservation <b>[APP-040]</b>; Ground conditions contained within Chapter 16: Other Environmental Topics <b>[APP-048]</b>; and the Framework Operation Environmental Management Plan <b>[REP2-030]</b> are considered acceptable by the parties to mitigate potential impacts and manage potential affects during the operational phase.</p>
	Decommissioning	<p>Measures outlined within the Chapter 9: Flood Risk, Drainage and Water Resources <b>[APP-041]</b>; Chapter 8: Ecology and Nature Conservation <b>[APP-040]</b>; Ground conditions contained within Chapter 16: Other Environmental Topics <b>[APP-048]</b>; and the Framework Decommissioning Environmental Management Plan <b>[REP2-028]</b> are considered acceptable by the parties to mitigate potential impacts and manage potential affects during the decommissioning phase.</p>
Drainage Strategy	Methodology	No concerns have been raised regarding the methodology and scope used in the Drainage Strategy (Annex F – Drainage Technical Note <b>[AS-010]</b> ).
	Proposed solution	No concerns have been raised regarding the proposed drainage solution outlined in the Drainage Strategy (Annex F – Drainage Technical Note <b>[AS-010]</b> ).
	Firefighting water	The approach outlined to managing potential firewater, and its potential contaminates, as outlined in the Drainage Strategy (Annex F – Drainage Technical Note <b>[AS-010]</b> ) are agreed.
Surface and Ground Water	WFD Assessment	No concerns have been raised regarding the methodology and scope used in the WFD Assessment (Appendix 9B of the Environmental Statement <b>[APP-094]</b> ). The Scheme would not impact on the WFD status or objectives of any associated surface water or groundwater bodies within the Scheme's zone of influence, subject to the proposed mitigation measures being applied, as outlined in the WFD Assessment (Appendix 9B of the Environmental Statement <b>[APP-094]</b> ).
	Geo-environmental investigation	The approach to the geo-environmental investigation to confirm ground conditions and update conceptual site models and risk assessments is line with relevant guidance.

Topic	Sub-topic	Details of Matters Agreed
Flood Risk	Solar stations located within Flood Zone 3	<p>Sunnica has reviewed the EA Eastern Rivers model for the 1% AEP + 20% climate change scenario to determine the flood depth/level at the location of identified Solar Stations potentially located within the flood extent. This included for PV areas W10, W11, W12, W15, E01, E02, E03 and E05.</p> <p>Model outputs for parcels indicate W10, W11, W15 are not within the climate change fluvial extents (for the 1 in 100 year plus 20% climate change event).</p> <p>For the same design storm event, PV areas E01 and E02, E03 and E05 are very marginally within the climate change Flood Zone 3a extents. However, review of the flood level for parcel areas E01, E02, E03 and E05 confirms solar stations are not within the flood extents. No fluvial floodplain compensation is required.</p>
Flood Risk Assessment	Inadequate assessment of residual flood risk at Burwell Substation.	<p>The AECOM hydraulic model of the Cam Lodes model provided by the EA, discussed within the FRA Addendum, has been reviewed to determine the fluvial flood risk for Option 2, with and without a breach of Burwell Lode.</p> <p>A fluvial model technical note has been prepared to undertake the level assessment and is included as Annex C in the FRA Addendum which has been submitted to the EA and PINS at Deadline 4 <b>[EN010106/APP/8.67]</b>.</p> <p>The model results, as shown in Figure 2.1 and 2.2 of the Fluvial model Technical Note indicate:</p> <ul style="list-style-type: none"> <li>Option 2, with no bank failure is at low risk of fluvial flooding during the 1 in 100 year plus 20% climate change event.</li> <li>Option 2 during a breach of Burwell Lode, with 19% and 45% climate change, is within the inundation zone, up to a peak depth of 700mm and 750mm respectively along the western boundary. However, the majority of the Option 2 site does not experience depths greater than 500mm in either of the event scenarios. The proposal to raise finished floor levels by 850mm is considered sufficient with at least 100mm freeboard above the peak inundation level.</li> </ul> <p>The EA responded to the AECOM hydraulic model assessment suggesting the EA model was not suitable to base the above levels on. It was agreed with the Environment Agency on 02.11.2022 to model 45% climate change with current model, to provide a robust test for the 19% climate change scenario without the need to produce an updated model. The test is also for credible maximum scenario sensitivity, instead of 22%, to provide a cautionary increase in flood risk and appropriate mitigation to ensure the substation will remain operational.</p> <p>Figure 2.2 of the Fluvial Model Technical Note indicates that following a breach of the flood defences along the right bank of the Burwell Lode during the 1% AEP + 45% climate change event, 'Option 2' sits within the modelled inundation zone. A maximum flood depth of approximately 0.75m and a maximum flood level of 1.08m AOD are recorded at the western boundary of 'Option 2'.</p> <p>The reason why the flood depths and level are not that different between the two climate change events is because during the +45% event, more overtopping occurs in other areas of the model and therefore the amount</p>



Topic	Sub-topic	Details of Matters Agreed
		<p>of water that flows through the breach does increase with magnitude, but not enough to significantly increase flood depths at the Option 2 site.</p> <p>Based on the hydraulic modelling results presented above, the proposed measure of raising the finished floor levels of the substation by 850mm in the FRA would be sufficient and would allow a freeboard of approximately 0.15m during the 1% AEP + 19% climate change event and 0.10m during the 1% AEP + 45% climate change event.</p> <p>The results indicate the proposed measure of raising the finished floor levels of the substation by 850mm in the FRA [AS-010] would be sufficient and would allow a freeboard of approximately 150mm during the 1% AEP + 19% climate change event and 100mm during the 1% AEP + 45% climate change event.</p> <p>The reason why the flood depths and level are not that different between the two climate change events is because during the +45% event, more overtopping occurs in other areas of the model and therefore the amount of water that flows through the breach does increase with magnitude, but not enough to significantly increase flood depths at the Option 2 site.</p> <p>It is demonstrated the substation Option 2 will remain operational in times of flood.</p>
Flood Risk Assessment	Solar PV panels located within Flood Zone 3.	<p><u>PV Panel areas:</u></p> <p><u>E01, E02</u></p> <p>From the fluvial hydraulic assessment of the Eastern Rivers model, the 1 in 100 year plus 20% climate change flood level was derived to be 2.94m AOD.</p> <p>Later EA supplied Product 4 data (provided on 13<sup>th</sup> and 17<sup>th</sup> October for areas E01/E02 and E03/E05 respectively), noted the 1% AEP plus 20% climate change level as 2.97m AOD and 2.98m AOD for E01 and E02 respectively. These levels have been used to assess flood depths, superseding the previous model data levels.</p> <p>The minimum ground level in Area E01 is 3.00m AOD, taken from the topographical survey (Annex A). As the topographical survey (Annex A) indicates a minimum ground level of 3.00m AOD, it is considered the PV panels are at low risk of flooding during the design 1 in 100 year plus 20% climate change event.</p> <p>In Area E02, the minimum ground level is 2.85m AOD, taken from the topographical survey (Annex A).</p> <p>The flood depth on site would be 130mm. The standard 600mm panel height will provide a freeboard in excess of 300mm above the design 1 in 100 year plus 20% climate change event.</p> <p>It is considered the PV panels are at low risk of flooding during the design 1 in 100 year plus 20% climate change event</p> <p><u>E03</u></p> <p>The provided Eastern Rivers model showed no model result data on a length of the Lee Brook between Beck Road and the confluence with the River Lark. This section of watercourse runs between PV panel areas E03 and E05.</p> <p>The EA noted in an email on 11 October that AECOM had not received all Product 4 model data for the Lee Brook, and subsequently provided</p>



Topic	Sub-topic	Details of Matters Agreed
		<p>the additional flood risk Product 4 data on 17<sup>th</sup> October for the Lee Brook reach adjacent to E03 and E05.</p> <p>The modelled 1% AEP plus 20% climate change level from the Product 4 for E03 is 2.96m AOD. This level has been used to assess flood depths; superseding the previous interpolation used from the previous model data.</p> <p>The minimum ground level in area E03, from the topographical survey, is 3.45m AOD, 490mm above the predicted flood level.</p> <p><u>E05.</u></p> <p>The modelled 1% AEP plus 20% climate change level from the Product 4 for E05 is 3.91m AOD. This level has been used to assess flood depths; superseding the previous interpolation used from the previous model data.</p> <p>From the topographical survey and LiDAR data the minimum ground level in E05 is 3.60m AOD, 310mm below the design flood level, i.e. a max flood depth of 310mm.</p> <p><b>Credible Maximum Scenario Review</b></p> <p>Sensitivity analysis to take into account the credible maximum scenario has also to be taken into account, with agreement on 17 October 2022 with the EA to use 22% climate change for this sensitivity test for a design life epoch for the 1950s. This is intrinsically linked to the agreement above by the EA not to undertake further modelling but to review the flood level data and topographical survey to assess this risk. This discussion is also ongoing with the EA.</p> <p>A fluvial model technical note has been prepared to undertake the level assessment and is included as an Annex in the FRA Addendum which has been submitted to the EA and PINS Deadline 4 [EN010106/APP/8.67].</p> <p>Design flood levels have been agreed for areas E01, E02, E03 and E05. The credible maximum scenario review is set out below, to demonstrate the PV areas remain operational during the 1 in 100 year plus 22% climate change event.</p> <p>The EA agreed to use an interpolation technique, using the existing Product 4 river flow and level data to provide a cautionary level for the credible maximum scenario for areas E01, E02, E03 and E05, for the 22% climate change scenario.</p> <p><u>Parcels E03 and E05</u></p> <p>According to the results provided by the Environment Agency for the Eastern Rivers (River Kennett) model, the difference between the 1% AEP flood level (2.91m AOD) and the 1% AEP + 20% climate change (2.96m AOD) at the location of parcel E03 is 0.05m. Applying a conservative approach, an increase of 0.10m has been assumed for the 1% AEP + 22% climate change event, resulting in a flood level of 3.01m AOD.</p> <p>The same approach has been applied for parcel E05. The difference between the 1% AEP flood level (3.86m AOD) and the 1% AEP + 20% climate change (3.91m AOD) is 0.05m. Applying a conservative approach, an increase of 0.10m has been assumed for the 1% AEP + 22% climate change event, resulting in a flood level of 3.96m AOD.</p> <p><u>Parcels E01 and E02</u></p>

Topic	Sub-topic	Details of Matters Agreed
		<p>For parcels E01 and E02 a different approach has been applied as data is assessed from a different watercourse (River Lark) and therefore a different model (Lower Rivers model). For these parcels the 1% AEP + 20% climate change flood level is 2.97m AOD and 2.98m AOD respectively. Adopting a conservative approach, it has been assumed that the 1% AEP + 22% climate change flood level would not exceed the 0.1% AEP flood level which is 3.02m AOD for parcel E01 and 3.03m AOD for parcel E02. These levels have therefore been considered for this climate change event.</p> <p>To validate this approach, a stage-discharge curve was developed for each parcel using the results provided by the Environment Agency for the Lower Rivers model and Eastern Rivers model (Appendix C). This confirmed that the flood levels generated from the stage-discharge approach (2.99m AOD for E01, 3.00m AOD for E02, 2.97m AOD for E03 and 3.92m AOD for E05) are less than those levels proposed above.</p> <p>With these increases the following levels are estimated for the credible maximum scenario;</p> <p>E01: 3.02m AOD</p> <p>E02: 3.03m AOD</p> <p>E03: 3.01m AOD</p> <p>E05: 3.96m AOD</p> <p><u>For areas E01 and E03:</u></p> <p>The flood depths would increase by up to 53mm (as the current 20% allowance does not reach the panel areas), which, therefore still provides in excess of the 300mm freeboard with the standard panel height of 600mm.</p> <p><u>For Area E02:</u></p> <p>Flood depths would increase to 160mm, which still provides in excess of the 300mm freeboard with the standard panel height.</p> <p><u>For Area E05:</u></p> <p>The peak flood depth would increase to 360mm. It is proposed to raise panels in the flood extent by a further 100mm to 700mm overall depth (i.e. this would maintain 340mm freeboard, which exceeds the minimum requirement for 300mm).</p> <p>It is demonstrated the PV panels will remain operational in times of flood.</p> <p><u>PV areas W08, W10, W11, W12 and W15</u></p> <p>Refer to Topographical Survey in Annex A of the FRA [AS-010] for level data.</p> <p>Referencing the EA flood map for planning.</p> <p>The flood map for planning indicates fluvial floodplain extents extend from the Lee Brook across PV areas W08, W10, W11, W12 and across La Hogue Road eastwards, across the A14 into PV area W15.</p> <p>It has been proposed that the fluvial model levels, with 20% climate change, would not impact areas W10, W11, W12, and W15, as the model fluvial data indicates.</p> <p>The Applicant seeks to demonstrate to the EA that the fluvial flood extents shown on the flood map for planning would not occur when</p>

Topic	Sub-topic	Details of Matters Agreed
		<p>reviewing the topographical data and fluvial model results, and obtain agreement from the EA that PV areas W10, W11, W12 and W15 are effectively at very low risk of fluvial flooding, contrary to the flood map for planning. For comparison, the SFRA mapping which includes a 65% allowance for Climate change corroborates the discussion below.</p> <p>With reference to the topographical survey, identified levels in PV areas W08, W10, W11, W12 and W15 (Annex A) are noted below:</p> <ul style="list-style-type: none"> <li>• The minimum ground level in PV area W08 is approximately 19.6m AOD.</li> <li>• The minimum ground level in W10 is 19.80m AOD. Ground levels in W10 are noted to rise westward up to 22.0m AOD. Levels then continue rising uniformly westward into PV areas W11 and W12 to a height of up to 27.5m AOD.</li> <li>• The minimum ground level in PV area W15 is 23.5m AOD in the east, with levels rising westward up to 27.5m AOD adjacent to the A14 eastern boundary. PV area W15 is separated from the Lee Brook floodplain by the A14 trunk road, which is at a minimum approximate level of 28.0m AOD adjacent to W12, rising northwards to approx. 30m AOD alongside area W15, effectively cutting off flow paths to area W15.</li> <li>• La Hogue Road runs adjacent to PV areas W10, W11 and W12. This road crosses the Lee Brook watercourse. The lowest level of the road by W10 in the western extent of the PV area is 22.0m AOD. Where La Hogue Road crosses the watercourse further west, the level is approximately 19.78m AOD.</li> </ul> <p>Fluvial model assessment (AECOM).</p> <ul style="list-style-type: none"> <li>• The 1 in 100 year + 20% climate change level adjacent to area W8, upstream of W10, from the fluvial model, is 19.29m AOD. The topographical review indicates PV Panels W08, W10, W11, W12 and W15 are not impacted by this flood level.</li> <li>• With regards La Hogue Road and the culvert carrying the Lee Brook; should flood waters back up against the culvert headwall during a blockage scenario, the maximum water level that could be reached before overtopping would be 19.78m AOD, approximately 0.45m higher than the modelled flood level. Should this occur, flood water would spill northwards and westward away from the PV panels, i.e. not entering the land and would not be able to flow eastward due to level rising uniformly above 22m AOD up to the A14 at approximately 28.3m AOD.</li> <li>• In area W08, in this scenario with La Hogue Road, during a blockage scenario, flood levels could reach a depth of 180mm, which still provides 300mm freeboard to the PV panels.</li> </ul> <p><u>Credible Maximum Scenario Review:</u></p> <p>When applying 20% climate change to the 1 in 100 year event, flood levels are approximately 50mm above the 1 in 100 year flood event. Applying an interpolation to the credible maximum scenario climate change allowance of 22%, using a cautionary approach, the flood level is estimated to increase by less than 10mm; however, a further 50mm for the 2% increase has been applied. This would raise the flood level adjacent to W08 from 19.29 to 19.34m AOD.</p> <p>The fluvial model results and topographic survey levels demonstrate flood extents from the Lee Brook effectively cannot reach PV areas W10, W11, W12 and W15 during the 1 in 100 year event, including</p>



Topic	Sub-topic	Details of Matters Agreed
		<p>allowances up to 22% climate change. Therefore, no mitigation is proposed in these PV areas as a result.</p> <p>It is considered the maximum flood level in W08 could be 19.78m AOD, i.e. the level of La Hogue Road, during a blockage scenario, with a depth of flooding of 180mm. This still provides greater than 300mm freeboard to PV panels.</p> <p>It is demonstrated the PV panels will remain operational in times of flood.</p> <p>The Flood Risk Technical Note discussing the flood risk levels across the Scheme is included within Annex C of the FRA Addendum <b>[EN010106/APP/8.67]</b>. The FRA Addendum, including all Annexes, will be noted within Schedule 10 (documents to be certified) of the DCO.</p>
Flood Risk Assessment	No drawings showing site layout in relation to Flood Zones.	<p>The drawings have been updated and are provided within an FRA Addendum Deadline 4 <b>[EN010106/APP/8.67]</b>, which has been submitted to the EA and PINS at Deadline 4, following the completion of the work related to Burwell and River Lark as outlined above.</p> <p>Figures provided within a Flood Risk Modelling Technical Note, that will be annexed with the FRA Addendum identify modelled floodplain, overlain on EA mapping along with the DCO parameter plan layout. Figures show Flood Zone 3a and 3b.</p>
	Temporary use of land within the floodplain.	<p>Temporary compounds and storage areas will not be within areas at risk of flooding.</p> <p>Temporary construction compound areas are noted on Figures 6.1 and 6.2 in Annex B of the FRA Addendum <b>[EN010106/APP/8.67]</b> to confirm areas are outside Flood Zones 2 and 3. Noting the compound area in W12 shown to be adjacent to Flood Zone 2 extent on the flood map for planning; this area is effectively at very low risk of fluvial flooding from the Lee Brook; the flood risk review of fluvial extents is discussed in the FRA Addendum, Section 6 for PV areas W10, W11, W12 and W15, concluding that the fluvial extents would not reach these PV areas due to natural topography being sufficiently high.</p> <p>Furthermore, Requirement 14 (CEMP) is to be secured within the DCO. The CEMP will confirm compound areas and storage areas will be located outside of flood risk extents, which includes Flood Zones 2 and 3.</p>
Water resources	Disapplication of consents	<p>The draft DCO <b>[APP-019]</b> proposes the disapplication of the provisions of any byelaws made under, or having effect as if made under, paragraphs 5, 6 or 6A of Schedule 25 to the Water Resources Act 1991 and the disapplication of the requirement to obtain an environmental permit under the Environmental Permitting (England and Wales) Regulations 2016 for 'flood risk activities'. In accordance with section 150 of the Planning Act 2008 and the Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015, the Environment Agency's consent is required for these disapplications.</p> <p>The Applicant has included in Part 5 of Schedule 12 to the draft DCO, protective provisions for the benefit of the Environment Agency. The terms of those provisions are still under discussion but it is anticipated by the parties that agreement will be reached before the close of the examination and that once protective provisions have been agreed, the Environment Agency would provide its consent to the disapplications.</p>



Topic	Sub-topic	Details of Matters Agreed
		The parties agree that the grant of consent will be recorded in this SoCG or through other appropriate means.

## 3.2 Matters Under Discussion

3.2.1 **Table 3** below details the matters under discussion with Environment Agency.

**Table 3: Matters Under Discussion**

Topic	Sub-topic	Details of Matters Not Agreed
None	None	None

### 3.3 Matters Not Agreed

3.3.1 **Table 4** below details the matters not agreed with Environment Agency.

**Table 4: Matters Not Agreed**

Topic	Sub-topic	Details of Matters Not Agreed
None	None	None

## 4 Signatures

This Statement of Common Ground is agreed:

**On behalf of the Environment Agency:**

Name Adam Ireland

Signature

A black rectangular box redacting the signature of Adam Ireland.

Date 27 January 2023

**On behalf of the Applicant:**

Name Luke Murray

Signature

A black rectangular box redacting the signature of Luke Murray.

Date 20 January 2023