



# Technical Appendix: Flood Risk Assessment and Drainage Impact Assessment

## Dupplin Solar EIA Report

### TRIO Dupplin Solar LLP

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## Acronyms and Abbreviations

AEP	Annual Exceedance Probability
AOD	Above Ordnance Datum
CC	Climate Change
CIRIA	Construction Industry Research and Information Association
DNO	Distribution Network Operator
FEH	Flood Estimation Handbook
FRA	Flood Risk Assessment
LDP	Local Development Plan
LiDAR	Light Detection and Ranging
NFRA	National Flood Risk Assessment
NGR	National Grid Reference
NPF4	National Planning Framework 4
OS	Ordnance Survey
ReFH	Revitalised Flood Hydrograph
SEPA	Scottish Environment Protection Agency
SuDS	Sustainable Drainage Systems
UKCP18	United Kingdom Climate Projections – 2018 dataset



## 1.0 Introduction

SLR Consulting Ltd (SLR) has been appointed by TRIO Dupplin Solar LLP to provide consulting services to support a Section 36 application for a proposed solar photovoltaic (PV) array and associated infrastructure ('the Proposed Development') within Dupplin Estate, north of the A9, in Tibbermore, Perth.

This technical appendix addresses the flood risk and outline drainage aspects associated with the Proposed Development.

### 1.1 Policy and Guidance

This assessment has been completed in accordance with relevant guidance issued by Perth and Kinross Council (PKC), The Scottish Government, and the Scottish Environment Protection Agency (SEPA). It takes cognisance of *National Planning Framework 4*<sup>1</sup> and the *Flood Risk Management (Scotland) Act 2009*<sup>2</sup>. This assessment also references and takes due consideration (where appropriate) of the following principal guidance and policy documents:

- British Standards Institution (2017), *Assessing and Managing Flood Risk in Development – Code of Practice*, Report BS-8533:2017<sup>3</sup>, October 2017;
- CIRIA (2004) *Development and Flood Risk – Guidance for the construction Industry*, Report C624<sup>4</sup>;
- SEPA (2022) *Technical Flood Risk Guidance for Stakeholders*<sup>5</sup> (Reference SS-NFR-P-002), June 2022; and
- SEPA (2024) *Flood Risk and Land Use Vulnerability Guidance*<sup>6</sup>, July 2024;
- SEPA (2025) *Climate Change Allowances for Flood Risk Assessment in Land Use Planning*<sup>7</sup>, Version 6, February 2025;
- The Perth and Kinross Council *Guidance on Flood Risk & Flood Risk Assessments*<sup>8</sup>; and
- *Sewers for Scotland v4.0*<sup>9</sup>, October 2018.

### 1.2 Site Location

The Proposed Development is located within Dupplin Estate, north of the A9, in Tibbermore, Perth and is centred at National Grid Reference (NGR) NO 04810 21645. The Site currently comprises arable farmland.

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<sup>1</sup> [National Planning Framework 4](#), last accessed December 2025

<sup>2</sup> [Flood Risk Management \(Scotland\) Act 2009](#), last accessed December 2025

<sup>3</sup> [BS 8533:2017 Assessing and managing flood risk in development - Code of practice](#), last accessed December 2025

<sup>4</sup> [CIRIA Development and flood risk - guidance for the construction industry \(C624\)](#), last accessed December 2025

<sup>5</sup> [SEPA Technical Flood Risk Guidance for Stakeholders](#), last accessed December 2025

<sup>6</sup> [SEPA Flood Risk and Land Use Vulnerability Guidance](#), last accessed December 2025

<sup>7</sup> [SEPA Climate Change Allowances for Flood Risk Assessment in Land Use Planning, Version 6](#), last accessed December 2025

<sup>8</sup> [Flood Risk and Flood Risk Assessments](#), last accessed December 2025

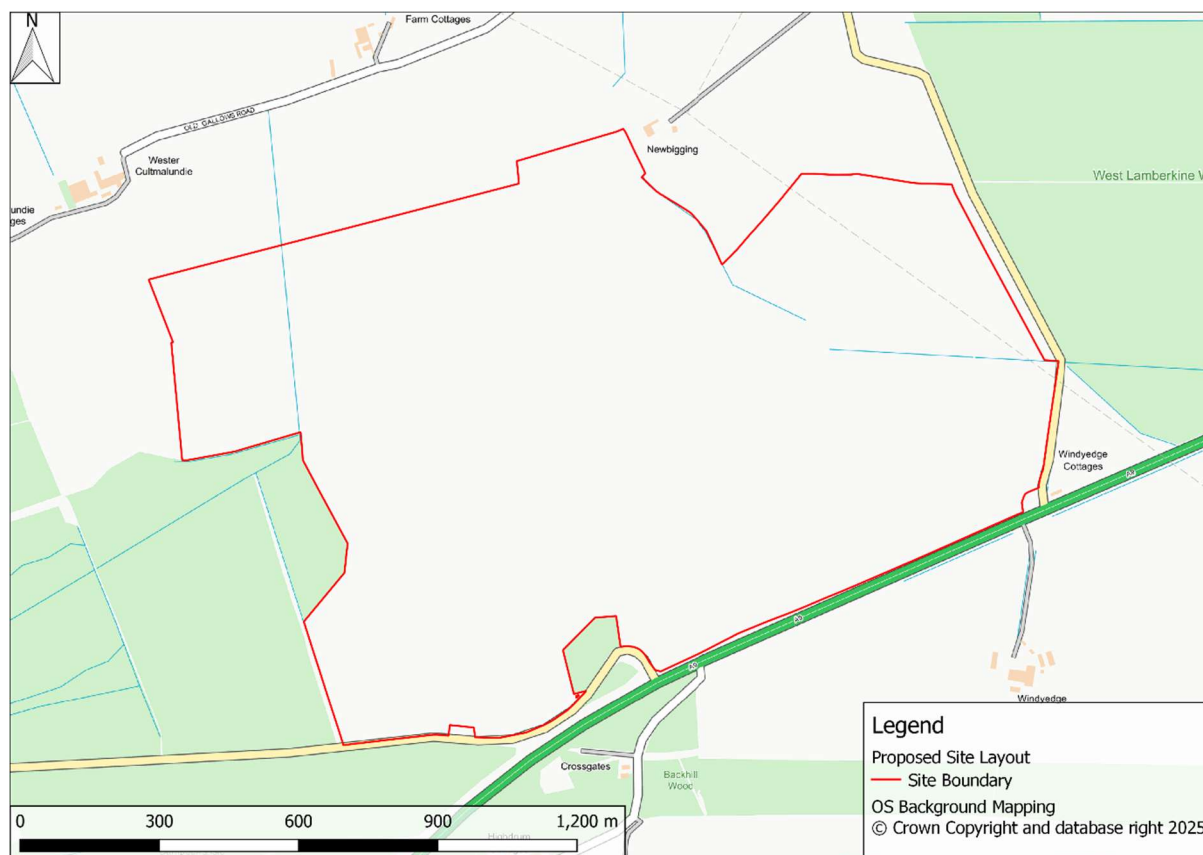
<sup>9</sup> [Scottish Water Sewers for Scotland v4.0](#), last accessed December 2025



Existing access and egress to and from the Site are presently afforded for agricultural vehicles from the south via the C411 Roman Road and A9; and from the east via an existing field entrance off an unnamed road near Tibbermore.

A Site location plan is provided in **Figure 1**.

**Figure 1 : Site Location**



It is understood that the Site location is optimal for operational reasons due to the close proximity to the Perth Burghmuir grid connection, as well as due to the suitable topography and irradiance levels.

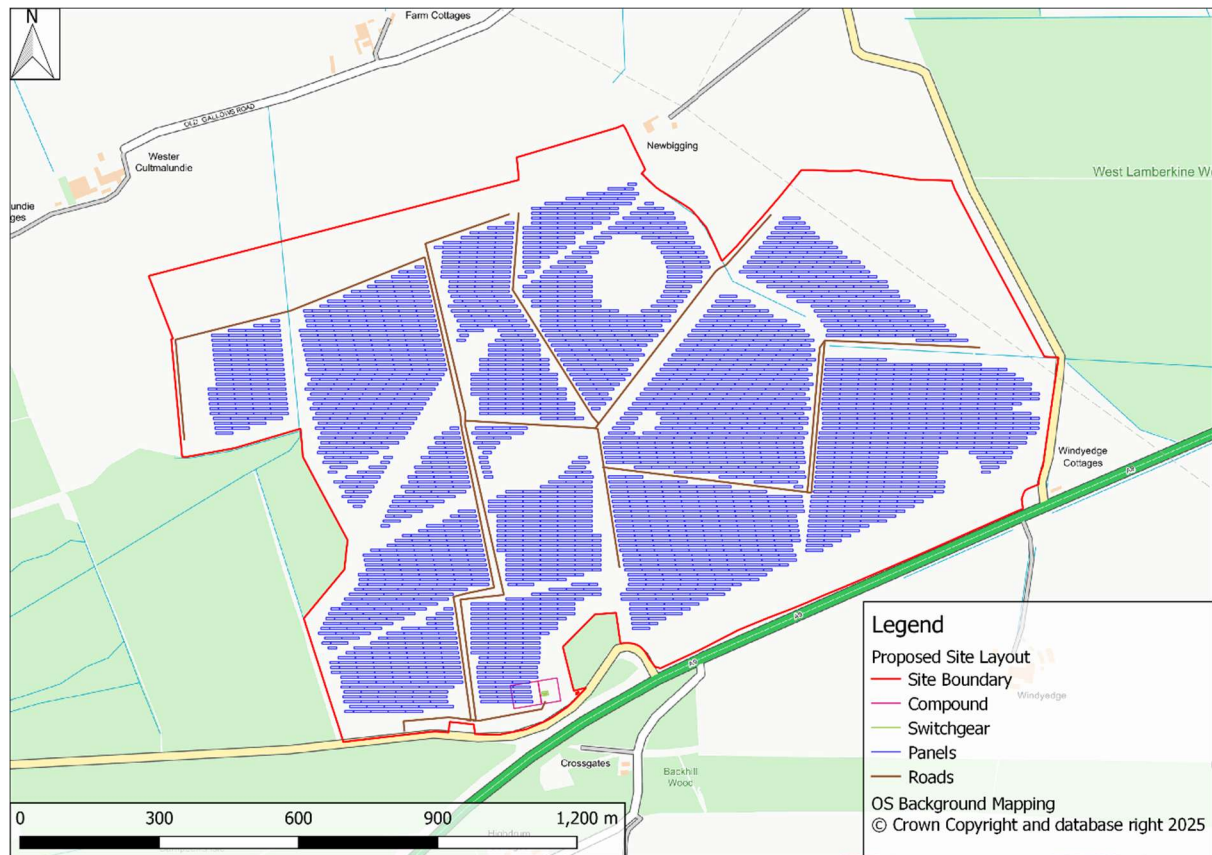
### 1.3 Proposed Development

The Proposed Development is anticipated to consist of a combined ground-mounted solar PV array and associated infrastructure including a Distribution Network Operator (DNO) substation, with a maximum generating capacity of up to 97.5 MW and an export capacity of 75 MW, covering an area of approximately 170 hectares (ha).

A full site layout plan with a key detailing the site components is included as **Appendix A** and discussed in full in **Chapter 3: Proposed Development (Volume 2)** of the Section 36 application. A simplified excerpt of the development layout is provided in **Figure 2** for reference.



**Figure 2 : Simplified Proposed Development Layout**



## 1.4 Topography

The Site topography has been informed by 1 m spatial resolution LiDAR data sourced from the Scottish Remote Sensing Portal<sup>10</sup>, Ordnance Survey (OS) 10 m contours, and the hydrological walkover.

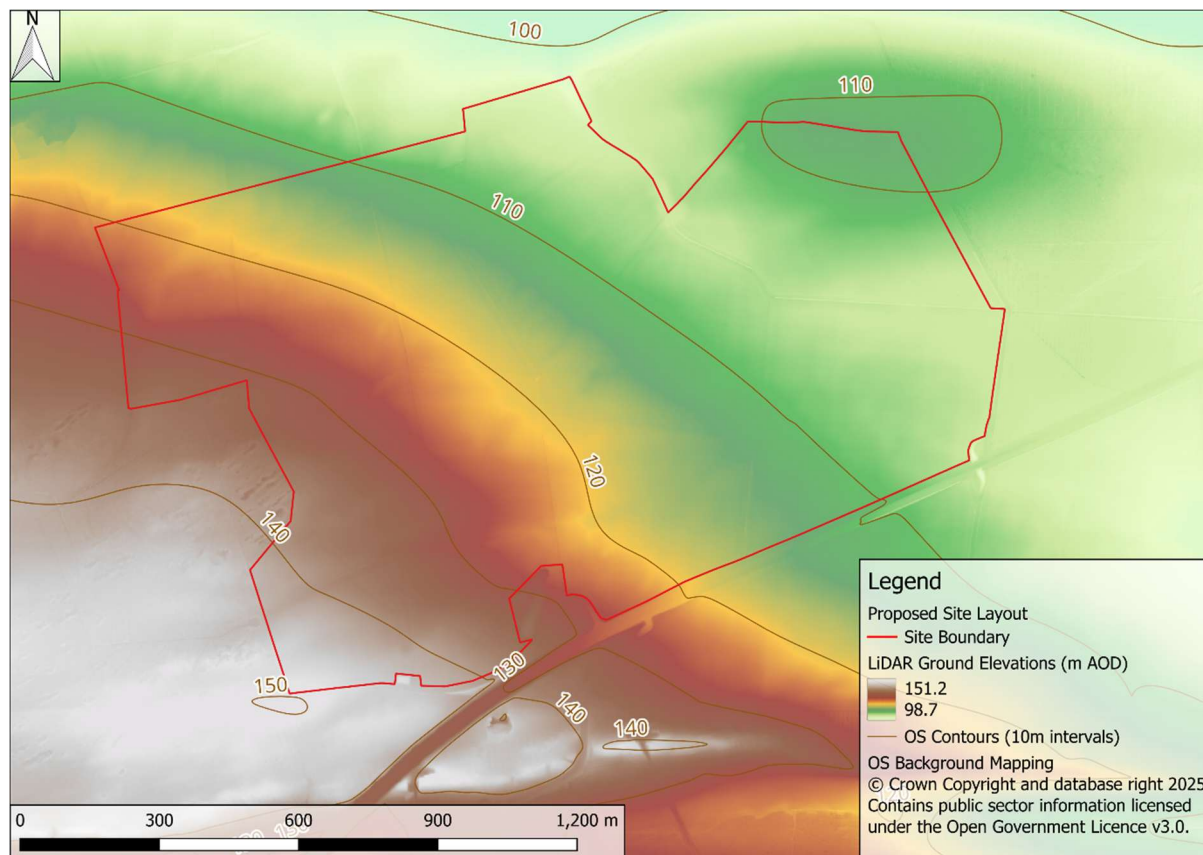
The Site topography generally slopes from south west to north east, with a high point of approximately 149 m above Ordnance Datum (AOD) in the south western extent of the Site, and a low of approximately 101 m AOD on the northern Site boundary by Newbigging.

The Site topography is indicated in **Figure 3**.

<sup>10</sup> [Scottish Remote Sensing Portal](#), last accessed December 2025



**Figure 3 : Local Topography**



It is understood that no land raising is required for the Proposed Development and the following assessment has been carried out on that basis.

## 1.5 Geological Setting

The Soil Map of Scotland<sup>11</sup> indicates that the soils at the Site are freely drained brown earths.

The Site is indicated on British Geological Survey (BGS) mapping<sup>12</sup> to be principally underlain by sandstones of the Scone Sandstone Formation. The north eastern extent of the Site is shown to be underlain by a linear igneous intrusion of the Central Scotland Late Carboniferous Tholeiitic Dyke Swarm comprising quartz-microgabbros. Overlying the majority of the Site bedrock are superficial deposits of glacial till.

There are no BGS borehole records within the Site. Nearby borehole records indicated to be located in areas with the same geology (NO01NW3627/TP52, NO02SE6) suggest that the till in the area is composed of boulder clays and sandy silty clays. The borehole records confirm the sandstone bedrock.

The bedrock has been classified by the BGS as a moderately productivity aquifer which locally can yield moderate amounts of groundwater.

<sup>11</sup> [Scotland's Soils](#), last accessed December 2025

<sup>12</sup> [BGS GeoIndex Onshore](#), last accessed December 2025



## 1.6 Local Hydrology

The northern and western areas of the Site are located within the East Pow surface water catchment, which is part of the wider River Tay catchment. Tributaries of the East Pow flow through the western and northern extent of the Site in a northerly direction. The East Pow is located approximately 2.3 km north of the Site and flows in a north easterly direction.

The southern and eastern areas of the Site are located within the River Earn surface water catchment. The Cotton Burn is located approximately 630 m south east of the Site before discharging into the River Earn approximately 3.6 km south east of the Site. A tributary of the Cotton Burn rises within the eastern extent of the Site and flows eastwards within the Site.

Dupplin Loch is situated approximately 800 m southwest of the Site but is not hydrologically linked to the Site.

The local hydrology is shown in **Figure 8.1** of the Section 36 application.

## 1.7 Storm and Flood Risk Terminology

Flood risks are typically expressed by the probability of the occurrence of a flood event (maximum flood height or other such indicator) of stated magnitude or greater in any one year – termed the Annual Exceedance Probability (AEP). This may be expressed as a percentage (such as 1%, 0.5%, etc.) or by the equivalent chance of occurrence (1:100, 1:200, etc.).

Where flood events have a climate change factor included, the flood event is denoted in this report by “plus CC”. For example, the 1:200 AEP flood event with climate change included is denoted “0.5% AEP plus CC” or “1:200 AEP plus CC”.



## 2.0 Flood Risk Review – Sources of Information

### 2.1 National Floodplain Mapping and Assessment

Strategic-level information regarding the tidal, fluvial and surface water flood risk at the Site has been obtained from SEPA via the online SEPA Flood Maps<sup>13</sup>. Information on potential groundwater flood risk has been obtained from the SEPA Flood Risk Management Maps<sup>14</sup>. Information on flooding from reservoirs has been obtained from the SEPA Reservoirs Map<sup>15</sup>.

The SEPA flood mapping for the Site and surrounds for the design event of 0.5% AEP plus climate change is shown in **Figure 4**. The Site is not indicated to be located within any fluvial floodplain. The SEPA fluvial mapping<sup>16</sup> includes catchments greater than 3 km<sup>2</sup> in area, with smaller catchments being modelled as surface water.

The SEPA surface water flood mapping shows some minor surface water flow paths on the Site, generally associated with field boundaries and draining towards known drainage ditches. Surface water ponding is indicated in a local topographic low point upstream of the road culvert along the eastern site boundary.

**Figure 4** shows the surface water flood depths at the Site for the 0.5% AEP plus Climate Change event. The surface water flooding in the vicinity of the Proposed Development is indicated to generally be less than 300 mm in depth, with deeper areas being confined to the topographic low point at the road culvert in the eastern extent of the Site, where flooding up to 1m in depth is suggested, and to a low point in the southeastern extent of the Site, where flood depths in excess of 1 m are indicated.

A more detailed view of the flooding in the eastern extent of the Site is provided in **Figure 5**. The proposed panels are all positioned outwith the deeper (>300 mm depth) areas of surface water flooding indicated on the SEPA mapping.

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<sup>13</sup> [SEPA Flood Maps](#), last accessed December 2025

<sup>14</sup> [SEPA Flood Risk Management Maps](#), last accessed December 2025

<sup>15</sup> [SEPA Reservoirs Flood Maps](#), last accessed December 2025

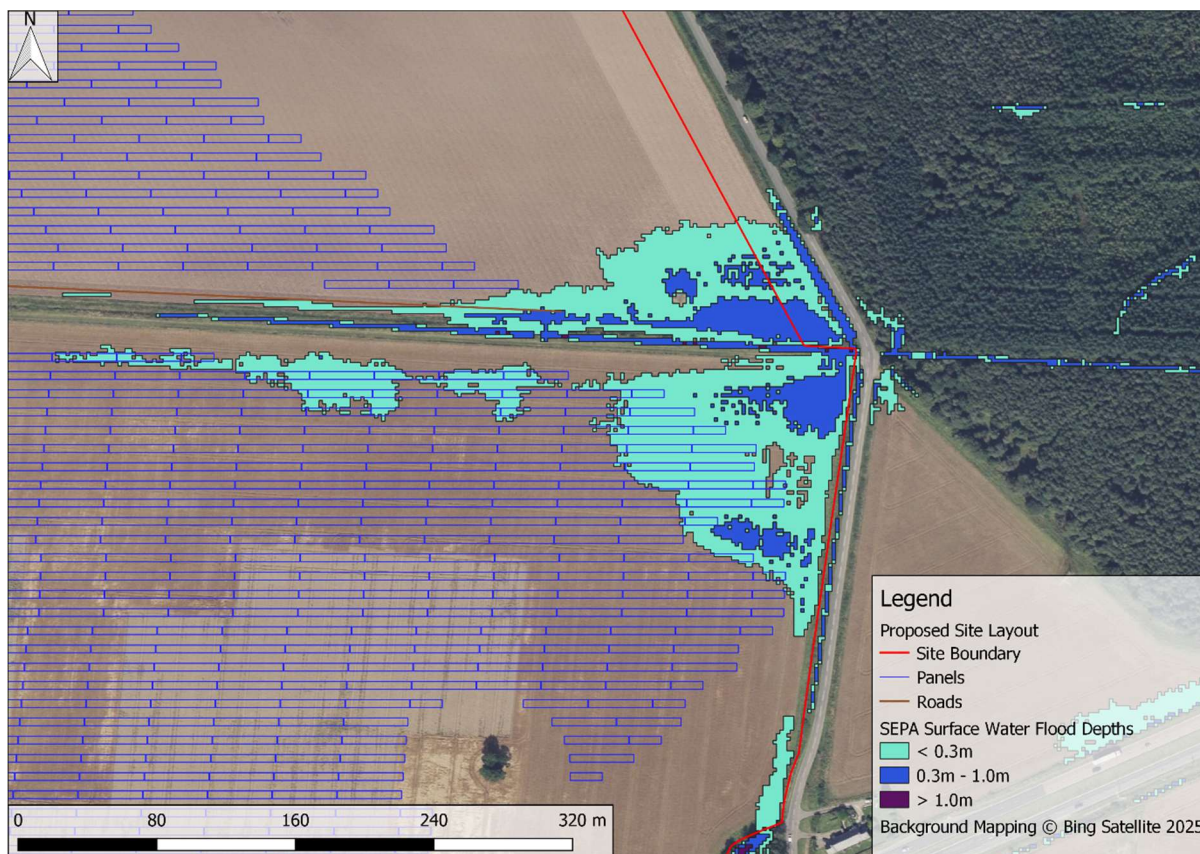
<sup>16</sup> [SEPA River Flooding Summary: Methodology and Mapping](#), last accessed December 2025



**Figure 4 : SEPA Surface Water Flood Depths (0.5% AEP event + CC)**



**Figure 5 : SEPA Localised Surface Water Flood Depths (0.5% AEP event + CC)**



## 2.2 Mapping and Terrain Data

Aerial imagery, OS contour data (10 m intervals), 1 m spatial resolution LiDAR data sourced from the Scottish Remote Sensing Portal<sup>17</sup> and the Site walkover have been used to assess the context of the Site and its immediate surroundings.

## 2.3 Flood History and Records

The Site is partially designated as a 2018 Potentially Vulnerable Area (PVA), defined as the Perth and Almondbank PVA (02/08/12) by the SEPA National Flood Risk Assessment (NFRA)<sup>18</sup>. The historical flooding noted for this PVA is generally fluvial flooding due to the River Tay and River Almond. No historical flooding at the Site itself is noted for the PVA.

The Site is not designated as a PVA in the updated SEPA PVAs for 2028-2034<sup>19</sup>.

## 2.4 Consultation

### 2.4.1 Perth and Kinross Council

A data request with regard to historical flooding in the area or any relevant information on the nearby burns was submitted to the PKC flooding team on 18 July 2025. A response was received on 14 August 2025, with historical flooding information being provided.

Information on 11 historical flooding events between 1999 and 2015 was provided. Of these events, five were attributed to pluvial sources, two to surface water, and four to fluvial flooding due to the River Almond, Scouring Burn, and an unnamed watercourse near Methven.

The closest historical flood events to the Site consisted of two pluvial flood events on roads at and around Tibbermore.

No historical flooding records were held for the Site itself.

### 2.4.2 SEPA

A data request with regard to historical flooding in the area or any relevant information on the nearby burns was submitted to SEPA on 18 July 2025. A response was received on 28 August 2025.

SEPA confirmed that they hold 135 records of flooding between 1852 and 2024 within 5 km of the Site. 94 of these records owe to river flooding, 19 to surface water flooding, 19 due to other sources, and three have no associated source.

No spatial information associated with the historical records was provided.

### 2.4.3 Scottish Water

Scottish Water Asset Plans were received on 28 July 2025 and were reviewed with regard to any assets within the Site boundary. A 15-inch trunk water supply main, 450 mm trunk main, and a 9-inch public water distribution pipe were noted along the southern boundary of the Site, generally following the A9.

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<sup>17</sup> [Scottish Remote Sensing Portal](#), last accessed December 2025

<sup>18</sup> [SEPA National Flood Risk Assessment](#), last accessed December 2025

<sup>19</sup> [SEPA Potentially Vulnerable Areas \(PVAs\) 2028-2034](#), last accessed December 2025



Scottish Water were contacted with regard to the trunk main and a response was received on 5 November 2025. The response outlined the required access and stand-off distances for the trunk main, which are presented in **Table 1**.

**Table 1 : Stand-off Distance and Access Distance for each asset**

Pipe Size	Material	Stand-off Distance (Metres)	Access Distance (Metres)
9"	Asbestos Cement	2.5	4.5
15"	Spun Iron	2.5	6.0
450mm	Ductile Iron	7.0	6.0

It is noted that any access road to be built over these mains will have to be engineered to the satisfaction of Scottish Water.

The above information has been incorporated into the design of the development and will be adopted as part of the detailed design to ensure that a sufficient buffer from the Scottish Water assets is maintained as required. The design of the access road will be agreed with Scottish Water during the detailed design stage, should the development be consented.



## 3.0 Planning Context

### 3.1 National Planning Framework 4

National Planning Framework 4 (NPF4)<sup>1</sup> was introduced in February 2023. Flood risk is addressed in Policy 22 of NPF4, which states the following:

- a) Development proposals at risk of flooding or in a flood risk area will only be supported if they are for:
  - i. i. essential infrastructure where the location is required for operational reasons;
  - ii. ii. water compatible uses;
  - iii. iii. redevelopment of an existing building or site for an equal or less vulnerable use; or,
  - iv. iv. redevelopment of previously used sites in built up areas where the LDP has identified a need to bring these into positive use and where proposals demonstrate that long term safety and resilience can be secured in accordance with relevant SEPA advice.

The protection offered by an existing formal flood protection scheme or one under construction can be taken into account when determining flood risk. In such cases, it will be demonstrated by the applicant that:

- all risks of flooding are understood and addressed;
- there is no reduction in floodplain capacity, increased risk for others, or a need for future flood protection schemes;
- the development remains safe and operational during floods;
- flood resistant and resilient materials and construction methods are used; and,
- future adaptations can be made to accommodate the effects of climate change.

Additionally, for development proposals meeting criteria part iv), where flood risk is managed at the site rather than avoided these will also require:

- the first occupied/utilised floor, and the underside of the development if relevant, to be above the flood risk level and have an additional allowance for freeboard; and,
  - that the proposal does not create an island of development and that safe access/ egress can be achieved.
- b) Small scale extensions and alterations to existing buildings will only be supported where they will not significantly increase flood risk.
  - c) Development proposals will:
    - i. i. not increase the risk of surface water flooding to others, or itself be at risk.
    - ii. ii. manage all rain and surface water through sustainable urban drainage systems (SuDS), which should form part of and integrate with proposed and existing blue green infrastructure. All proposals should presume no surface water connection to the combined sewer; and,
    - iii. iii. seek to minimise the area of impermeable surface.
  - d) Development proposals will be supported if they can be connected to the public water mains. If connection is not feasible, the applicant will need to demonstrate



that water for drinking water purposes will be sourced from a sustainable water source that is resilient to periods of water scarcity.

- e) Development proposals which create, expand or enhance opportunities for natural flood risk management, including blue and green infrastructure, will be supported.

For planning purposes, at risk of flooding or in a flood risk area means land or built form with an annual probability of being flooded of greater than 0.5% (1:200 AEP) which must include an appropriate allowance for future climate change.

This risk of flooding is indicated on SEPA's future flood maps or may need to be assessed in a flood risk assessment. An appropriate allowance for climate change should be taken from the latest available guidance and evidence available for application in Scotland. The calculated risk of flooding can take account of any existing, formal flood protection schemes in determining the risk to the site.

Where the risk of flooding is less than this threshold, areas will not be considered 'at risk of flooding' for planning purposes, but this does not mean there is no risk at all, just that the risk is sufficiently low to be acceptable for the purpose of planning. This includes areas where the risk of flooding is reduced below this threshold due to a formal flood protection scheme.

Based on the above it is considered that the Proposed Development falls under exception i) of NPF4 Policy 22 a) as "essential infrastructure where the location is required for operational reasons".

## 3.2 Local Plan

The Perth and Kinross Council Local Development Plan<sup>20</sup> sets out guidance with regard to flood risk and drainage.

Policy 52 on Flooding states the following:

*Within the parameters as defined by this policy the Council supports the delivery of the actions and objectives to avoid an overall increase, reduce overall, and manage flood risk as set out within the relevant SEPA Flood Risk Management Strategies and the Local Flood Risk Management Plans.*

*There will be a general presumption against proposals for built development or land raising on a functional flood plain and in areas where there is a medium to high risk of flooding from any source, or where the proposal would increase the probability of flooding elsewhere. In addition, built development should avoid areas at significant risk from landslip, coastal erosion, wave overtopping and storm surges. Where a risk of fluvial/coastal flooding is known or suspected the Council will use the flood risk framework shown in the diagram overleaf and considers that areas of:*

- 1 *medium to high flood risk are not suitable for civil infrastructure;*
- 2 *low to medium flood risk are suitable for most forms of development; and*
- 3 *little or no flood risk shown present no flood related constraints on development.*

*Infrastructure and buildings should generally be designed to be free from surface water flooding in greater than 0.5% rainfall events. A Drainage Impact Assessment (DIA) will be required to consider pluvial flooding for any proposed development greater than 1,000m<sup>2</sup>.*

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<sup>20</sup> Perth and Kinross Council (2019), Local Development Plan, available at: [https://www.pkc.gov.uk/media/45242/Adopted-Local-Development-Plan-2019/pdf/LDP\\_2\\_2019\\_Adopted\\_Interactive.pdf?m=1576667143577](https://www.pkc.gov.uk/media/45242/Adopted-Local-Development-Plan-2019/pdf/LDP_2_2019_Adopted_Interactive.pdf?m=1576667143577), last accessed December 2025



Policy 53C on Surface Water Drainage states the following:

*All new development will be required to employ Sustainable Urban Drainage Systems (SuDS) measures including relevant temporary measures at the construction phase. SuDS will be encouraged to achieve multiple benefits, such as floodwater management, landscape, green infrastructure, biodiversity and opportunities to experience nature near where people live. Ecological solutions to SuDS will be sought and SuDS integration with green/blue networks wherever possible.*

The Supplementary Guidance on Flood Risk & Flood Risk Assessments<sup>21</sup> sets out the guidance in further detail. This document specifies that the SEPA Checklist and a Compliance Certificate (provided within the guidance document) are required to be submitted with the FRA document. These items are attached as **Appendix D** and **E** respectively.

### 3.3 SEPA Guidance

The SEPA Flood Risk and Land Use Vulnerability Guidance<sup>22</sup> outlines how SEPA assess vulnerability of flooding of different land use with the following Categories:

- Most Vulnerable Uses;
- Highly Vulnerable Uses;
- Least Vulnerable Uses;
- Essential Infrastructure; and,
- Water Compatible Uses.

With reference to Table 1 (SEPA Land Use Vulnerability Classification) of the guidance, the Proposed Development is considered to fall under the **Essential Infrastructure** category as ‘All forms of renewable, low-carbon and zero emission technologies for electricity generation and distribution and transmission electricity grid networks and primary sub stations’.

### 3.4 Climate Change & Design Event

The relevant SEPA climate change allowances<sup>23</sup> have been assessed for the Site, which lies in the Tay river basin. Based on the small size of the local surface water catchments, the recommended allowance for the assessment of flood risk to the Site from these sources and for the outline drainage design would be a 39% applied to peak rainfall intensities.

It is noted that the SEPA surface water and small watercourses mapping<sup>24</sup> that has been used to assess flood risks to the development applies a “worst-case” storm mosaic based on the 1-, 6-, and 12-hour storms. A different climate change allowance is applied to each of these storm durations for each modelled event.

The future surface water flood map (0.5% AEP event plus climate change) applies climate change uplifts for the central estimate (50th percentile) for the 2070 time horizon and for the 100 year return period to the 200 year present-day rainfall depths.

The climate change uplifts applied to each duration are as follows:

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<sup>21</sup> [PKC Flood Risk and Flood Risk Assessments](#), last accessed December 2025

<sup>22</sup> [SEPA Flood Risk and Land Use Vulnerability Guidance](#), last accessed December 2025

<sup>23</sup> [SEPA Climate Change Allowances for Flood Risk Assessment in Land Use Planning](#), last accessed December 2025

<sup>24</sup> [SEPA Surface Water and Small Watercourses Flooding Summary: Methodology and Mapping](#)



- 35% for the 1-hour storm duration;
- 33% for the 6-hour storm duration; and
- 25% for the 12-hour storm duration.

This flood risk assessment is therefore based on review of the worst-case storm mosaic future flood mapping as opposed to the latest SEPA-recommended climate change uplift of 39%. Although the SEPA surface water and small watercourses future flood mapping has a marginally lower climate change allowance (4% for the 1-hour event), the mapping has been recently published and is based on analysis of the UK Climate Projections 18 (UKCP18) high resolution (UKCP Local) projections for Representative Concentration Pathway 8.5 (RCP8.5), and is therefore considered suitable to assess flood risks to the development.



## 4.0 Potential Sources of Flooding

### 4.1 Methodology and Best Practice

This FRA report has been prepared in accordance with the advice and requirements prescribed in current best practice documents relating to management of flood risk in development outlined in NPF4, SEPA, and PKC guidance.

A screening study has been completed to identify whether there are any potential sources of flooding at the site which may warrant further consideration. If required, any potential significant flooding issues identified in the screening study are then considered in subsequent sections of this assessment.

### 4.2 Screening Study

Potential sources of flooding include:

- flooding from the sea or tidal flooding;
- flooding from rivers or fluvial flooding;
- flooding from surface water and overland flow;
- flooding from groundwater;
- flooding from sewers;
- flooding from reservoirs, canals, and other artificial sources; and,
- flooding from infrastructure failure.

Flood risk definitions within the screening assessment are based on qualitative technical assessment considering the information reviewed, risk to site users and the development itself.

The flood risk from each of these potential sources is assessed in **Table 2**.



**Table 2 : Flood Risk Screening**

Source of Flood Risk	Description	Flood Risk Assessment
Tidal	<p>The Site is located approximately 12 km from the tidal reach of the River Tay and is elevated above 100 m AOD.</p> <p>It is therefore considered that the Proposed Development is not at tidal flood risk.</p>	No Flood Risk for Planning Purposes
Fluvial	<p>The Site is not indicated on the SEPA mapping to be at fluvial flood risk up to and including the design event of 0.5% AEP plus CC event.</p> <p>Flood risks from the watercourses/ditches at and around the Site are included in the SEPA surface water mapping as opposed to in the fluvial mapping, as catchments less than 3 km<sup>2</sup> in area are not included in the fluvial flood mapping<sup>25</sup> and are instead modelled as surface water and small catchments.</p> <p>It is therefore considered that the Proposed Development is not at fluvial flood risk, and any flood risks from the minor tributary watercourses/ditches will be assessed as surface water flood risk.</p>	No Flood Risk for Planning Purposes
Pluvial (i.e., direct rainfall)	<p>The impermeable areas of the Proposed Development are to be served by Sustainable Drainage Systems (SuDS) as outlined in <b>Section 6.0</b> of this report. The proposed SuDS systems will be designed to attenuate up to and including the 0.5% AEP event + CC with no flooding.</p> <p>It is not expected that direct rainfall will pose a risk to the solar development, as the panels themselves are generally raised a minimum of 1 m from ground level and do not pose as a barrier to the infiltration of direct rainfall.</p> <p>It is therefore considered that the Proposed Development is not at pluvial flood risk.</p>	Flood Risks Mitigated - Sections 5.0 and 6.0
Surface Water Flows	<p>SEPA surface water and small watercourse (&lt;10 km<sup>2</sup> catchments) flood mapping indicates surface water flood flow paths are present within the Site, particularly to the eastern boundary of the Site associated with the presence of existing drainage ditches. As noted within <b>Section 2.1</b> of this report, the indicated flood flow paths within the Site are shown to follow the corridors of mapped drainage ditches.</p> <p>SEPA mapping indicates surface water flood depths at the Site are generally indicated to be less than 300 mm in depth. Areas of 300 mm or deeper are shown to be associated and confined to ditch channels within the Site as well as within lower ground to the eastern extent</p>	No Flood Risk for Planning Purposes

<sup>25</sup> [SEPA River Flooding Summary: Methodology and Mapping](#)



Source of Flood Risk	Description	Flood Risk Assessment
	<p>of the Site, where the tributary of the Cotton Burn is culverted. Flood depths in this area are indicated to reach up to 1 m for the design event of 0.5% AEP + CC.</p> <p>Any direct rainfall on the DNO substation area would be expected to be intercepted and attenuated by the proposed surface water drainage systems, and there are no surface water flow paths indicated through the DNO substation area.</p> <p>Surface water flooding is therefore not expected to present a flood risk to the Proposed Development.</p>	
Groundwater	<p>SEPA flood mapping indicates that the south eastern extent of the Site is located within an area at low likelihood of groundwater flooding. It is expected that any groundwater in the local area would be in connectivity with the minor watercourses/ditches and therefore would not present a flood risk to the Proposed Development.</p> <p>The bedrock underlying the Proposed Development is noted to be classified as a moderately productivity aquifer which locally can yield moderate amounts of groundwater, however this is capped by glacial till which is indicated by borehole records to be primarily comprised of clays, which would be expected to act as a barrier to the upwelling of groundwater.</p> <p>Based on these considerations, there is a negligible risk of groundwater flooding to the Proposed Development.</p>	No Flood Risk for Planning Purposes
Sewers and Artificial Drainage Systems, and Water Supply	<p>There are no known foul drainage systems at the Site.</p> <p>A review of the Scottish Water Asset Plans for the Site and surrounds indicates that a 15-inch trunk main follows the southern boundary of the Site. Any flows resulting from a failure of the trunk main would be expected to follow the natural topographical gradients towards the Cotton Burn tributary ditch in the eastern extent of the Site. In the highly unlikely event of a failure of the trunk main, this could result in damage to individual solar panels but would not be expected to compromise the wider operation of the development.</p> <p>It is therefore considered that the Site is not at flood risk from these sources for planning and operational purposes.</p>	No Flood Risk for Planning Purposes
Infrastructure Failure (i.e., reservoirs, canals, culvert blockage, etc.)	<p>The Site is not indicated on the SEPA mapping to lie within the breach extents of any reservoirs.</p> <p>A road culvert is located within the ditch at the easternmost Site boundary in a topographic low point. The culvert was measured as part of the hydrological walkover to be 900 mm in diameter. Ponding of up to 1m in depth is indicated outside the watercourse/ditch channel in this area on the SEPA mapping, likely owing to the road culvert.</p>	No Flood Risk for Planning Purposes



Source of Flood Risk	Description	Flood Risk Assessment
	<p>A review of the LiDAR in this area indicates a low point on the road of approximately 105.8 m AOD. The panels in this area are located on ground at a minimum level of 105.4 m AOD. It is therefore considered that in the event of a blockage, flood depths of up to 400 mm could be experienced in this area prior to flows spilling over the road and passing to lower levels eastwards.</p> <p>Whilst there would still be 600 mm freeboard from the flood levels in the event of a blockage, it would be recommended that regular inspections of the culvert are carried out as part of the operational works at the Site once developed, with removal of leaf litter and debris carried out as and when required. It would be recommended that a culvert maintenance plan is developed at the post-planning stage.</p>	



## 5.0 Flood Risk Summary

The NPF4<sup>1</sup> defines an area at risk of flooding as follows:

*For planning purposes, at risk of flooding or in a flood risk area means land or built form with an annual probability of being flooded of greater than 0.5% (1:200 AEP) which must include an appropriate allowance for future climate change.*

It is considered that the Proposed Development falls under exception a)i) of NPF4<sup>1</sup> Policy 22, as follows:

- a) *Development proposals at risk of flooding or in a flood risk area will only be supported if they are for:*
  - i. essential infrastructure where the location is required for operational reasons.

The Proposed Development satisfies this exception as “*all forms of renewable, low-carbon and zero emission technologies for electricity generation and distribution and transmission electricity grid networks and primary sub stations*” and is required to be located at the Site for operational reasons due to its proximity to the Perth Burghmuir grid connection, as well as due to the optimal conditions with regard to topography and irradiance.

The Proposed Development is therefore considered to fall under this exception of Policy 22 of the NPF4<sup>1</sup> and needs to demonstrate that:

- all risks of flooding are understood and addressed;
- there is no reduction in floodplain capacity, increased risk for others, or a need for future flood protection schemes;
- the development remains safe and operational during floods;
- flood resistant and resilient materials and construction methods are used; and
- future adaptations can be made to accommodate the effects of climate change.

### 5.1 All risks of flooding are understood

The flood risk screening presented in **Table 2** demonstrates that all risks of flooding to the site are understood and addressed in line with NPF4. The SEPA surface water mapping indicates some areas of flooding of up to 1 m in depth in the eastern extent of the Site, likely due to the potential backing up of flows at the road culvert inlet and the topographical low points in this area.

Given that the solar panel arrays are to be located in flood-free areas or areas with minor surface water flooding of up to 300 mm in depth on the SEPA mapping, and that the panels are to be raised a minimum of 1 m from existing ground levels, it is considered that the panels themselves are not at flood risk and have 700 mm freeboard from potential surface water flooding. SEPA recommend a minimum of 600 mm freeboard from flood levels and this criteria is therefore satisfied.

The screening and review of deeper areas of flooding on the SEPA flood maps indicates that the development is not at flood risk from any source and would remain safe and operational during flood events.

Blockage of the road culvert at the eastern culvert could exacerbate flooding in this localised area of the Site and potentially increase flood depths up to approximately 400 mm. Whilst there is still sufficient freeboard of 600 mm from these flood depths, it would be recommended that regular culvert inspection and maintenance should be carried out as part



of the operational works at the Site. It would be recommended that a culvert maintenance plan is developed at the post-planning stage.

It is therefore considered that the requirements of NPF4, SEPA guidance, and PKC guidance are met with regard to flood risks to the development.

## **5.2 No reduction in floodplain capacity, increase for others**

The Proposed Development is not located within the functional fluvial floodplain and as such does not reduce the functional floodplain capacity nor increase the flood risk to others from this source. There is therefore no requirement for compensatory storage as a result of the Proposed Development.

The solar panels allow the runoff of direct rainfall and for existing overland flow paths to be maintained, and as such are not displacing surface water offsite. There are no other major impermeable areas or structures associated with the Proposed Development that would be barriers to flow.

It is therefore considered that the requirements of NPF4 and PKC have been met with regard to flood risk to others.

## **5.3 The development remains safe and operational during floods**

SEPA mapping indicates some surface water flooding of up to 1 m depth in the eastern extent of the site near the road culvert for the design event of 0.5% AEP plus climate change. Across the wider Site, some areas of flooding of depths of up to 300 mm are indicated in isolated locations.

The proposed panels have been reviewed against the SEPA surface water flood depths and local topographical information and are to be raised a minimum of 700 mm above the flood depths indicated on the SEPA mapping. It is therefore considered that the panels are not at flood risk and would remain safe and operational during floods.

There is indicated to be flood-free access and egress to/from the Site via the A9 for the design event of 0.5% AEP plus climate change.

It is therefore considered that there is no significant flood risk to the Site access/egress and the Proposed Development would remain operational and safe during floods.

## **5.4 Flood resistant and resilient materials and construction methods are used**

Given that the sensitive elements of the development such as the DNO substation are located in flood-free areas for the 0.5% AEP event plus climate change, it is considered that flood resistant and resilient materials are not required in this case.

The solar panels are inherently flood resilient given their raised position from ground levels and have over 600 mm freeboard from any surface water flooding in line with SEPA guidance.

It is therefore considered that this point is addressed.



## 5.5 Future adaptations can be made to accommodate the effects of climate change

The design of the Proposed Development takes into account of climate change and allows more than the required freeboard from any flood levels on site. Additionally, the SuDS design detailed in **Section 6.0** has been sized with reference to the latest climate change allowances, and could be adapted in the future with regard to outflow and depth to accommodate any increases in rainfall due to the effects of climate change.

The SuDS design detailed in **Section 6.0** will be developed further as part of the detailed design stage of the Proposed Development and would be agreed with PKC and SEPA prior to construction. It is anticipated that this will be secured by a planning condition.



## 6.0 Drainage Impact Assessment

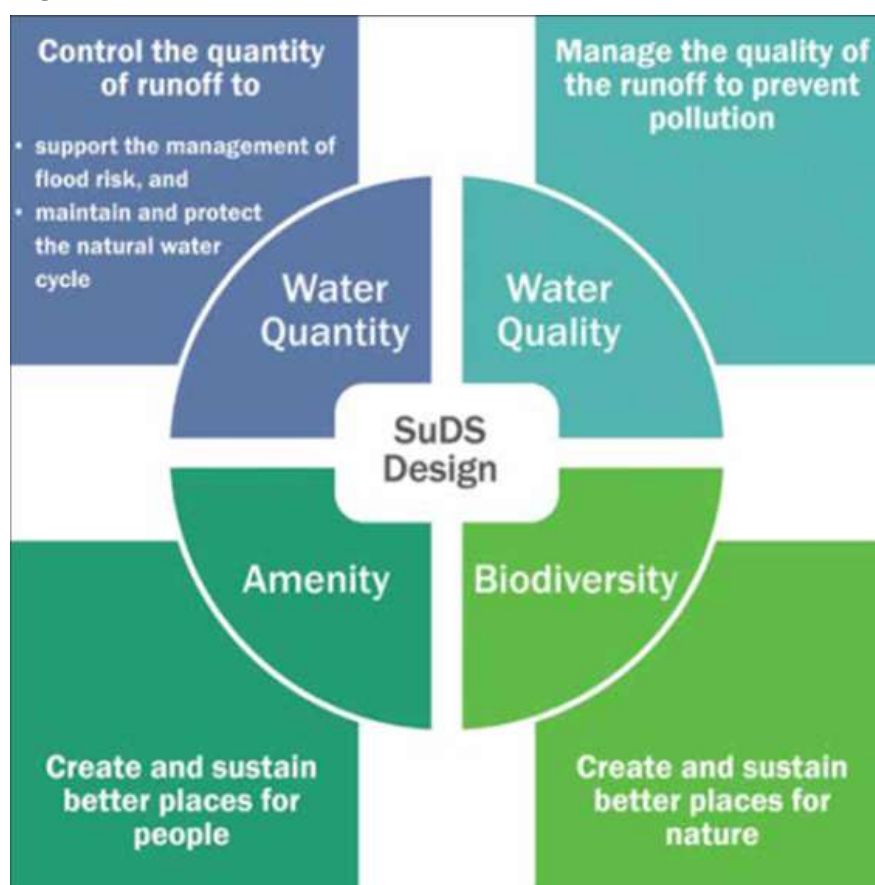
This Drainage Impact Assessment (DIA) sets out high-level principles for managing storm water for the Proposed Development in line with best practice and the requirements of PKC.

This assessment is intended to demonstrate that, given the nature and quantum of development proposed, it will be feasible to drain the site in line with planning requirements.

### 6.1 Key Principles of Surface Water Management

Current best practice document; The Sustainable Drainage System (SuDS) Manual (CIRIA Report C753F)<sup>26</sup>, promotes sustainable water management through the use of SuDS. There are four main categories of SuDS which are referred to as the ‘four pillars of SuDS design’ as depicted in Figure 6.

Figure 6 : Four Pillars of SuDS (extract from CIRIA Report C753)



The SuDS Manual identifies a hierarchy of SuDS for managing runoff, which is commonly referred to as a ‘management train.’ The hierarchy of techniques is identified as:

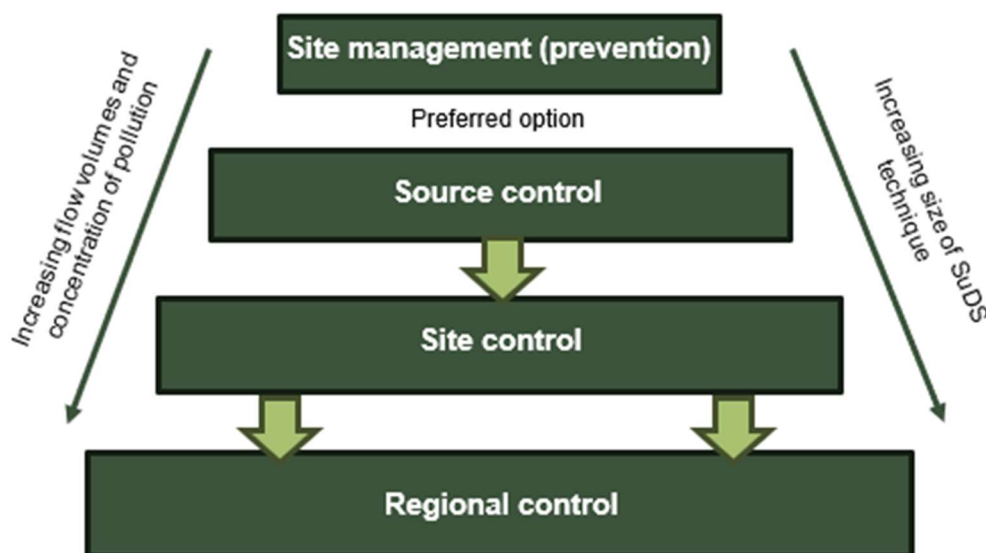
- Prevention – the use of good site design and housekeeping measures on individual sites to prevent runoff and pollution (e.g., minimise areas of hard standing).
- Source Control – control of runoff at or very near its source (such as the use of rainwater harvesting).

<sup>26</sup> Report C753, The SuDS Manual; CIRIA (2015). Report C753F, December 2015.



- Site Control – management of water from several sub-catchments.
- Regional Control – management of runoff from several sites, typically in a retention pond or wetland.

**Figure 7 : SuDS Management Train**



It is generally accepted that the implementation of SuDS, as opposed to conventional drainage systems, provides a number of benefits by:

- reducing peak flows to watercourses or sewers and potentially reducing the risk of flooding downstream;
- reducing the volumes and frequency of water flowing directly to watercourses or sewers from developed sites;
- improving water quality over conventional surface water sewers by removing pollutants from diffuse pollutant sources;
- reducing potable water demand through rainwater harvesting; and,
- improving amenity through the provision of public open spaces and wildlife habitat; and replicating natural drainage patterns, including the recharge of groundwater so that base flows are maintained.

## 6.2 Existing Surface Water Drainage Regime

The Proposed Development is located on undeveloped agricultural land. There are no known existing below-ground drainage provisions at the Site. The Site drains overland to an existing drainage ditch network.



### 6.3 Pre-Development Runoff Rates (Greenfield)

Greenfield runoff rates for the area equivalent to the proposed impermeable areas resulting from the development were estimated using industry-standard ReFH2 methodology<sup>27</sup>, with the application of the latest FEH22 rainfall data and hydrological descriptors from the Flood Estimation Handbook (FEH) Web Service<sup>28</sup>.

The impermeable area of the DNO substation compound of 0.21 ha was applied to the greenfield runoff estimation.

It is understood that some areas within the DNO substation location may comprise gravelled/permeable surfacing. Any changes will be incorporated at the detailed design stage.

The greenfield runoff rates for the assumed impermeable areas of the Proposed Development resulting from the ReFH2 analysis are summarised below in **Table 3**. Full ReFH2 calculations and results are included in **Appendix B**.

**Table 3 : Greenfield Runoff Rates**

Annual Exceedance Probability	Greenfield Runoff Rate	
	l/s*	l/s/ha
1:1	0.25	1.18
1:2	0.28	1.32
1:30	0.58	2.76
1:30 + 39%CC	0.86	4.09
1:200	0.89	4.28
1:200 + 39%CC	1.37	6.52

\*Based on an impermeable area of 0.21 ha for the DNO substation compound.

### 6.4 Proposed Discharge Arrangement

With reference to the SuDS Manual, the hierarchy of preferred disposal options for surface water runoff from development sites in decreasing order of sustainability is as follows:

- infiltration to ground;
- discharge to surface waters; or,
- discharge to sewer.

**Table 4** summarises the suitability of disposal methods in the context of the Site and the Proposed Development. Based on this, runoff from the Site is proposed to drain to a watercourse.

<sup>27</sup> Wallingford Hydro Solutions (2023), ReFH 2, available at: <https://www.hydrosolutions.co.uk/software/refh-2/>, last accessed June 2025

<sup>28</sup> UK Centre for Ecology and Hydrology, Flood Estimation Handbook Web Service, available online at <https://fehweb.ceh.ac.uk/>, last accessed June 2025



**Table 4 : Suitability of Surface Water Disposal Methods**

Surface Water Disposal Method (in order of preference)	Suitability Description	Method Suitable (Y / N)
Infiltration to Ground	As discussed in <b>Section 1.5</b> , the Site is underlain by superficial deposits of Devensian till (diamicton) overlain by freely drained brown earth soils. Review of nearby borehole records indicates that the till superficial deposits are comprised of boulder clays and sandy silty clays. Clays are generally considered poor infiltration media, and as such infiltration is not considered a viable drainage option.	N
Surface Water Discharge	There are no major or named watercourses within the Site or in its immediate surroundings. Minor tributaries of the Cotton Burn and East Pow flow through the site. The two watercourses in the north eastern extent of the Site were noted to be artificial ditches. The watercourse indicated in the western area of the Site was noted to be a dry ditch at the time of the inspection.  A new connection would be required to one or both of these ditches to drain the Proposed Development.  The proposed method of drainage for the DNO substation would be drainage to a detention basin with limited outflow to a swale.  Any exceedance of the detention basin and/or swale would be expected to follow the natural/existing drainage regime to ultimately discharge to the tributary ditch of the Cotton Burn.	Y
Sewer Discharge	There are no formal sewers serving the site.	N

## 6.5 Conceptual Surface Water Drainage Strategy

The proposed drainage strategy detailed below will manage surface water runoff as close to the source as possible, seeking to mimic the existing runoff regimes and ensuring that there are no increases in peak discharge from the proposed impermeable areas on site. The analysis has been carried out using Causeway Flow v15.0 software.

The final routing and details of the surface water drainage strategy which could be applied at the site are to be determined at detailed design stage. This would normally be undertaken during the post-planning stage or via an appropriately worded planning condition, in which individual hydraulic design parameters would be detailed as required. Notwithstanding this, the following sections provide details of the intended system concept.

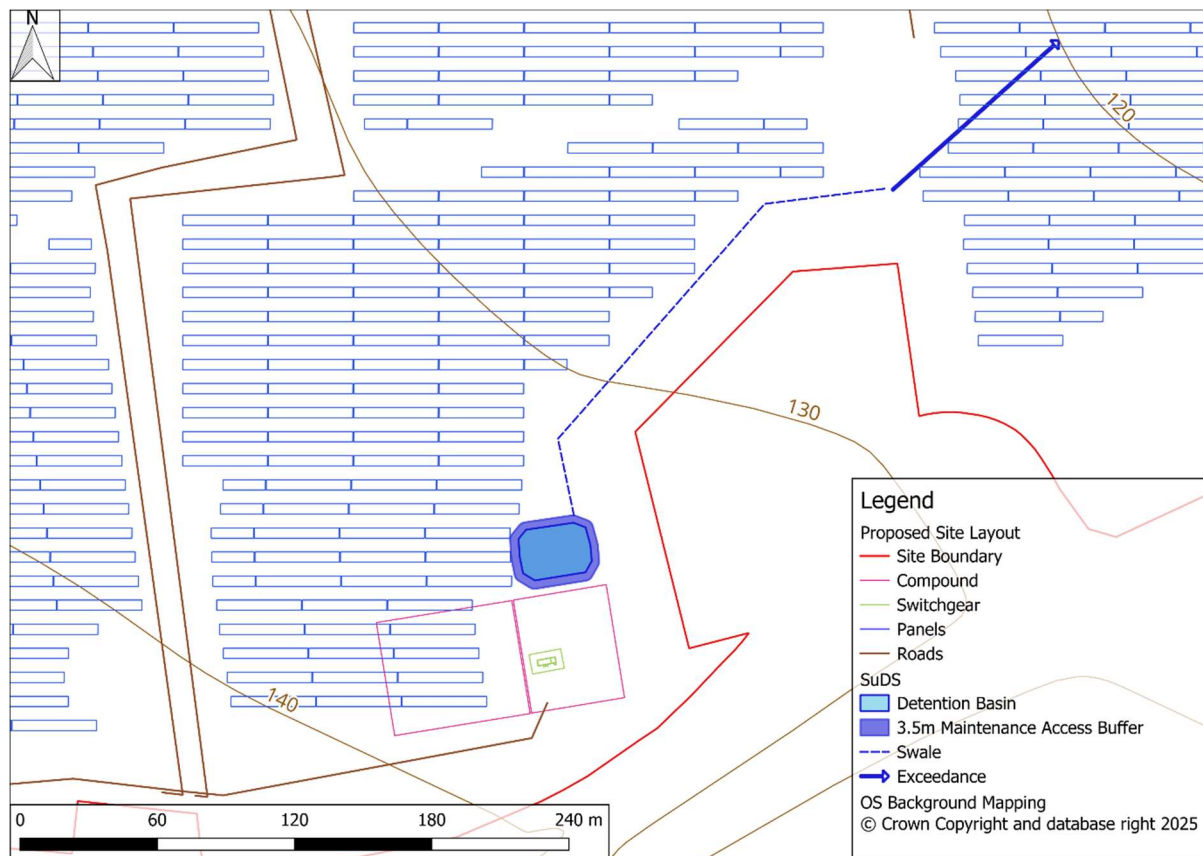
The Site is understood to have no existing formal surface water drainage network, and is drained by a series of field boundary ditches. For a conservative approach to the drainage provisions at this initial stage, it is assumed that the full 0.21 ha area surrounding the DNO substation is to be of impermeable surfacing.

The proposed surface water drainage strategy in this area will require the installation of interceptor drains/ditches to capture water and feed into a detention basin. The flows would then be discharged at a limited rate to a swale. Any exceedance flows from the swale will



flow overland following existing flow paths and natural topographical gradients to the nearby tributary ditch of the Cotton Burn. The conceptual drainage strategy is shown in **Figure 8**.

**Figure 8 : Conceptual Outline SuDS Strategy**



## 6.6 SuDS Attenuation Storage

It is proposed that the required surface water attenuation is provided by a detention basin, which will be situated to the north of the compound, ensuring that surface water runoff can drain to the basin via gravity through interceptor drains. The proposed basin is proposed to be privately operated and maintained.

The parameters outlined in **Table 5** have been incorporated in the modelling of the proposed detention basin, however, the exact dimensions will be determined at the detailed design stage. For a conservative approach, no infiltration has been assumed, however, the basin will be unlined.

**Table 5 : Preliminary Drainage Model Parameters**

Attribute	Swale
Impermeable area	0.21 ha (+0.1 ha detention basin area)
Side slopes	1:3
Cover Level	134 m AOD (based on LiDAR data downslope of DNO substation area – at detailed design stage the cover level should be a minimum of 600 mm below the DNO substation level to allow suitable freeboard)



Attribute	Swale
Depth	1 m
Dimensions	400 m <sup>2</sup> at base 641 m <sup>2</sup> at 1m from base

The discharge rate from the detention basin to the minor watercourse is proposed to be restricted to a rate of 1.0 l/s, greater than the 1:1 AEP greenfield runoff rate of 0.25 l/s, to prevent blockage risk. It is proposed that the discharge rate is restricted to 1.0 l/s for all events up to and including the 0.5% AEP + CC event.

The volume of storage required for the 0.5% AEP + CC event with this discharge rate would be 321.9 m<sup>3</sup>. The basin dimensions are oversized for this event, allowing for a total attenuation volume of 526.7 m<sup>3</sup> in order to allow 300 mm freeboard from the cover level of the basin for the design event of 0.5% AEP + CC.

Additionally, the basin is proposed to drain to a swale which will provide additional storage for events in excess of the 0.5% AEP + CC, future-proofing the design.

Attenuation calculations demonstrating the performance of the proposed detention basin is included in **Appendix C**.



## 6.7 SuDS Performance Assessment: Water Levels

It is proposed that attenuation will be provided by a detention basin. In line with NPF4 and PKC guidance, the proposed SuDS systems accommodate up to and including the 0.5% AEP event plus an allowance for climate change with no flooding.

Full results for the critical events are presented in Appendix C, and the 3.33% AEP + CC and 0.5% AEP + CC events are summarised in **Table 6**.

**Table 6 : Summary of SuDS Performance – Attenuation Volume**

SuDS Feature	AEP Event	Peak Water Depth (m)	Peak Water Volume (m <sup>3</sup> )	Flood Volume (m <sup>3</sup> )
Detention Basin (BESS)	3.33% AEP + 39%CC	0.45	207.9	0
	0.5% AEP + 39%CC	0.66	321.9	0

## 6.8 SuDS Performance Assessment – Water Quality

The Simple Index Method, as outlined within the SuDS Manual, provides a way of quantifying the benefit to water quality of the SuDS Management Train. The pollution hazard from the land use and the mitigation from the SuDS component are each assigned an index. The total mitigation index must be greater than the pollution hazard index for adequate treatment to be delivered.

**Total SuDS mitigation index ≥ pollution hazard index**  
**(for each contaminant type) (for each containment type)**

The total SuDS mitigation is the summation of the first components mitigation index and half the mitigation index of any subsequent component.

With reference to the SuDS Manual, post-development surface water runoff generated from each of the developments is considered to have a 'Low' Pollution Hazard Level respectively as presented in **Table 7**.

**Table 7 : Pollution Hazard Potential for the Proposed Development**

Land Use	Pollution Hazard Level	Pollution Hazard Indices		
		Total Suspended Solids (TSS)	Metals	Hydro-Carbons
Other Roofs (typically commercial/industrial roofs)	Low	0.3	0.2	0.05
Low Traffic Surfaces with Infrequent Change	Low	0.5	0.4	0.4

The proposed surface water drainage system is required to provide sufficient treatment to mitigate the Pollution Hazard Indices indicated in the above table. The SuDS Mitigation Indices are therefore indicated in **Table 8**.



**Table 8 : SuDS Mitigation Indices for Proposed Development**

SuDS Component	Pollution Hazard Indices		
	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Detention Basin	0.5	0.5	0.6

**Table 9** compare the SuDS Mitigation Indices, provided by the proposed ‘Source Control’, ‘Conveyance’ and ‘Site Control’ measures against the Pollution Hazard Indices for each of the SuDS features.

**Table 9 : SuDS Performance: Water Quality Indices Assessment – Detention Basin**

Land Use	Pollution Hazard Level	Pollution Hazard and SuDS Mitigation Indices Comparison					
		Total Suspended Solids (TSS)		Metals		Hydrocarbons	
		Pollution Index	SuDS Mitigation Index	Pollution Index	SuDS Mitigation Index	Pollution Index	SuDS Mitigation Index
Other Roofs (typically commercial/ industrial roofs)	Low	0.3	0.5	0.2	0.5	0.05	0.6
Low Traffic Surfaces with Infrequent Change	Low	0.5	0.5	0.4	0.5	0.4	0.6

As the SuDS Mitigation Index provided by the proposed SuDS measures are greater than or equal to the Pollution Hazard Index, the water quality assessment criteria are satisfied for all Land Use criteria.

## 6.9 SuDS Operational Maintenance Requirements

A full SuDS maintenance plan would be produced as part of the detailed drainage design post-development and the precise requirement would depend on manufacture specification of the final design.

A recommended operation and maintenance plan for the detention basin is summarised in **Table 10**.

**Table 10 : Detention Basin Operation and Maintenance Requirements**

Maintenance Schedule	Required Action	Minimum Frequency
Regular maintenance	Remove litter and debris	Monthly, or as required
	Cut grass – for spillways and access routes	Monthly (during growing season), or as required
	Cut grass – meadow grass in and around basin	Half yearly (spring – before nesting season, and autumn)
	Manage vegetation/remove nuisance plants	Monthly at start, then as required



Maintenance Schedule	Required Action	Minimum Frequency
	Inspect inlets, outlets, and overflows for blockages, and clear if required	Monthly
	Inspect banksides, structures, pipework etc for evidence of physical damage	Monthly
	Inspect inlets and facility surface for silt accumulation. Establish appropriate silt removal frequencies.	Monthly (for first year), then annually or as required
	Check any penstocks and other mechanical devices	Annually
	Tidy all dead growth before start of growing season	Annually
	Remove sediment from inlets, outlet and forebay	Annually (or as required)
	Manage wetland plants in outlet pool – where provided	Annually
Occasional maintenance	Reseed areas of poor vegetation growth	As required if bare soil is exposed within 10% or more of the basin treatment area
	Prune and trim any trees and remove cuttings	Every 2 years, or as required
	Remove sediment from inlets, outlets, forebay, and main basin when required	Every 5 years, or as required
Remedial actions	Repair erosion or other damage by re-turfing or reseedling	As required
	Relevel uneven surfaces and reinstate design levels	As required
	Repair/rehabilitation of inlets, outlets and overflows	As required
	Relevel uneven surfaces and reinstate design levels	As required

## 6.10 Exceedance

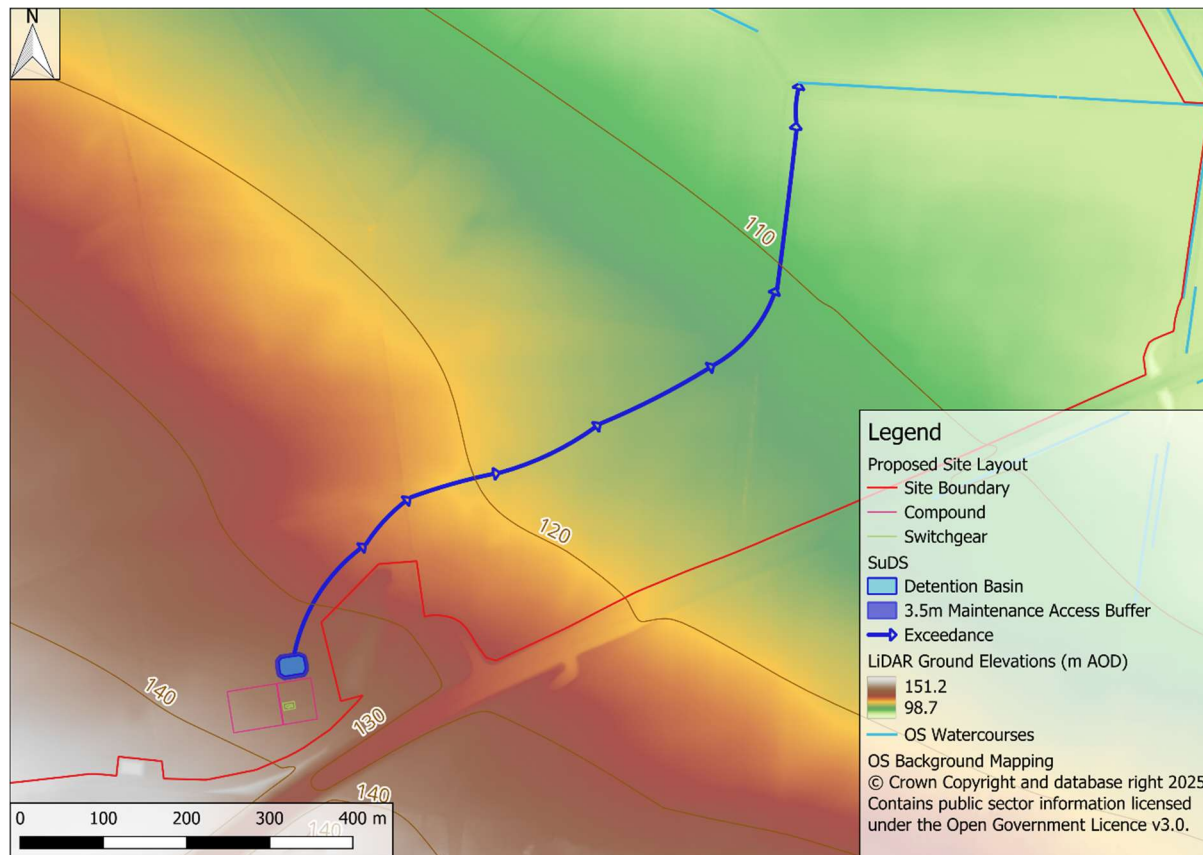
In the low probability event of exceedance of the detention basin, flows would be expected to follow natural topographical gradients, flowing in a north easterly direction as per the existing surface water flow paths onsite.

Given that the proposed compound and DNO substation are located upgradient of the pond, it is considered that the exceedance flow paths will not pose a flood risk to site operations.

The exceedance flow paths are demonstrated in Figure 9.



**Figure 9 : Drainage Exceedance**



## 6.11 Foul Water Drainage Strategy

The Proposed Development is to be unmanned during normal operation. As such, no provision for foul drainage is required. There is therefore no requirement for a foul water drainage strategy for this Proposed Development.



## 7.0 Conclusions

### 7.1 Flood Risk

It is considered that the Proposed Development falls under exception a)i) of NPF4<sup>1</sup> Policy 22 as “*all forms of renewable, low-carbon and zero emissions technologies for electricity generation and distribution and transmission electricity grid networks and primary sub stations*”.

The flood risk summary in **Section 5.0** demonstrates compliance with NPF4, PKC, and SEPA requirements relating to flood risk for this exception.

The flood risk screening indicates that the Site is not at flood risk for the NPF4 design event of 0.5% AEP + CC for the Proposed Development. It is understood that flood-free access/egress is afforded to and from the Site via the A9 for the design event.

Some isolated pockets of surface water flooding of less than 300 mm in depth are indicated to be located in the eastern extent of the Site but are not expected to present a risk to the development given that the panels are to be raised a minimum of 700 mm above the flood depths.

It is recommended that regular inspection and maintenance should be carried out as part of the operational works at the Site.

Any direct rainfall on the impermeable areas of the Site will be managed through the SuDS design, and direct rainfall on the solar panels would be expected to run off to existing surface water flow paths as per the pre-development scenario.

Given that the Proposed Development is not at flood risk and does not increase flood risk elsewhere, it is considered that the requirements of NPF4 and the Perth and Kinross Local Development Plan have been met.

### 7.2 Surface Water Drainage Strategy

It is proposed that surface water runoff from the impermeable areas associated with the proposed development is captured, attenuated, and drained via a SuDS system.

A detention basin is proposed for the proposed DNO substations, discharging surface water at a restricted rate of 1 l/s to existing overland flow paths via a swale. The total volume of the proposed detention basin is 526.7 m<sup>3</sup>. For a conservative approach, no infiltration has been assumed.

The proposed surface water drainage designs are indicative only and exact dimensions and levels will be determined at the detailed design stage.





# Appendix A Proposed Site Layout

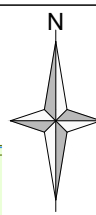
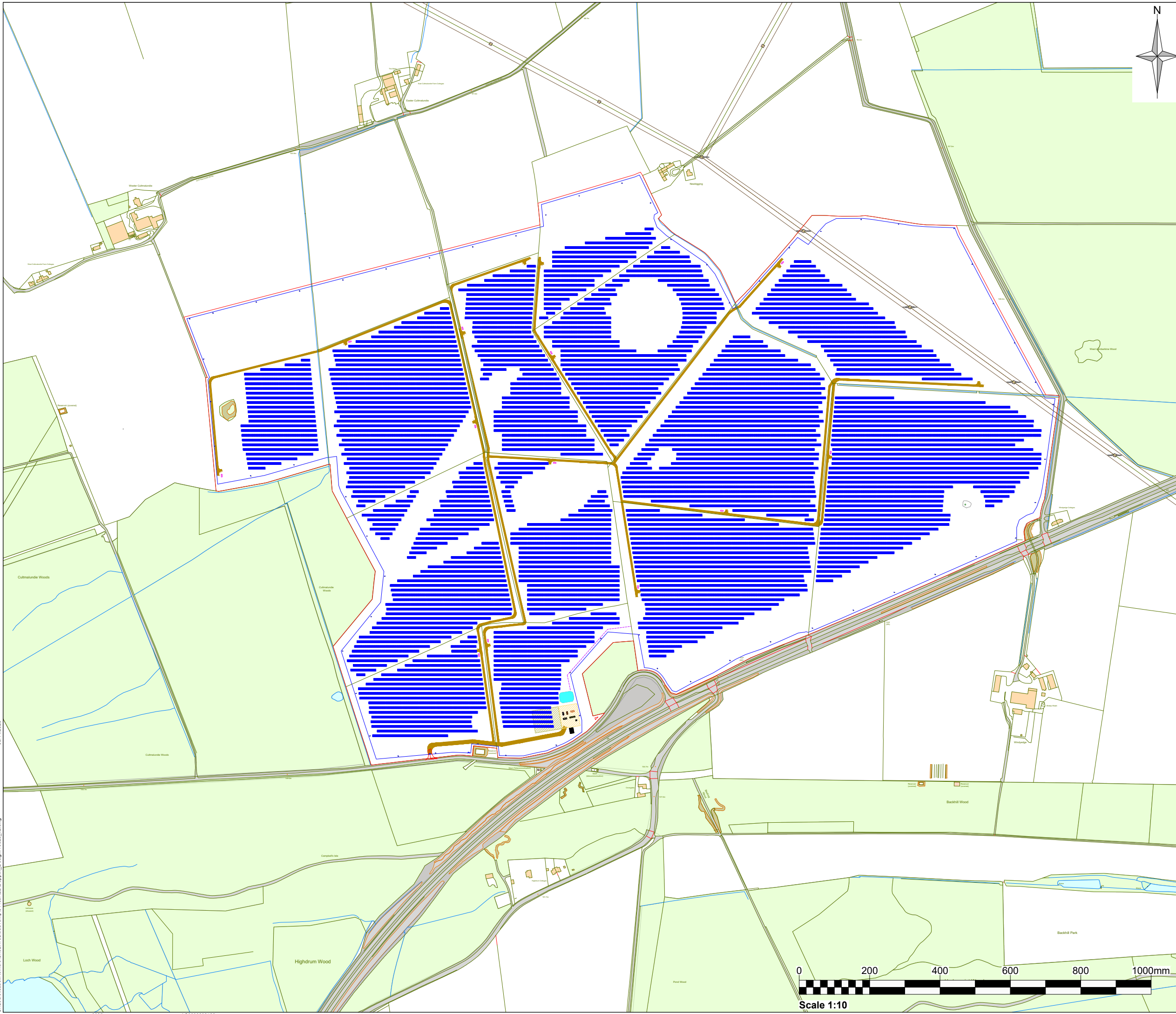
## Technical Appendix: Flood Risk Assessment and Drainage Impact Assessment

Dupplin Solar EIA Report

TRIO Dupplin Solar LLP

SLR Project No.: 405.065787.00001

20 January 2026



- Notes:**
1. Development Area: 165.2 Ha
  2. Installed Capacity: 97.8 MWp
  3. System TIC: 75 MVA
  4. Trina Solar TSM-NEG21C.20 - 760Wp
  5. Modules: 128,688
  6. Inverters: 189
  7. Tx: 12
  8. Tilt Angle: 20°
  9. Azimuth: 0°
  10. Orientation: 2 in Portrait

- Legend:**
- Site boundary
  - Solar fence
  - PV modules
  - Gate
  - Internal tracks
  - Transformer station
  - Drainage pipe
  - SuDS basin

Rev	Amendments	Date	By	Chk	Auth
06	SEPA flood areas input	03/11/25	IR	AA	EQ
05	Access update	28/10/25	IR	AA	EQ
04	RLB and constraints update	14/10/25	IR	AA	EQ
03	Additional constraints and SuDS	08/10/25	IR	AA	EQ
02	Site layout with constraints	30/07/25	IR	AA	EQ
01	Initial/Preliminary Issue	23/05/25	IR	AA	EQ



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Drawing Status & Suitability Code **PLANNING**

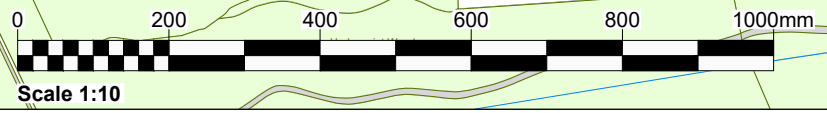
Client **Trio Power Ltd.**



Project **Dupplin Solar**

Drawing Title **Site Layout**

Scale <b>1:10</b>	@ A3	SLR Project No. <b>405.065787.00001</b>	
Designed <b>N/A</b>	Draw <b>IR</b>	Checked <b>AA</b>	Authorised <b>EQ</b>
Date <b>N/A</b>	Date <b>03/11/2025</b>	Date <b>30/07/2025</b>	Date <b>03/11/2025</b>
Drawing Number <b>065787-SLR-XX-XX-D-EA-000001</b>			Rev. <b>06</b>



03/11/2025 C:\Users\labele.Romero\OneDrive\Temp\04460120\Dupplin\_Design\Freeze\_v2.dwg



# **Appendix B    Greenfield ReFH2 Outputs**

## **Technical Appendix: Flood Risk Assessment and Drainage Impact Assessment**

**Dupplin Solar EIA Report**

**TRIO Dupplin Solar LLP**

SLR Project No.: 405.065787.00001

20 January 2026

# UK Design Flood Estimation

Generated on 06 November 2025 17:47:10 by ahay  
Printed from the ReFH2 Flood Modelling software package, version 4.1.8985.14298

## Summary of estimate using the Flood Estimation Handbook revitalised flood hydrograph method (ReFH2)

### Site details

Checksum: D60B-F659

Site name: FEH\_Point\_Descriptors\_304680\_721056\_v5\_0\_1

Easting: 304680

Northing: 721056

Country: Scotland

Catchment Area (km<sup>2</sup>): 0 [0.5]\*

Using plot scale calculations: Yes

Model: 2.3

Site description: None

## Model run: 1 year

### Summary of results

Rainfall - FEH22 (mm):	23.69	Total runoff (ML):	0.01
Total Rainfall (mm):	17.74	Total flow (ML):	0.02
Peak Rainfall (mm):	3.03	Peak flow (m <sup>3</sup> /s):	0.00

### Parameters

*Where the user has overridden a system-generated value, this original value is shown in square brackets after the value used.*

*\* Indicates that the user locked the duration/timestep*

#### Rainfall parameters (Rainfall - FEH22)

Name	Value	User-defined?
Duration (hh:mm:ss)	07:30:00	No
Timestep (hh:mm:ss)	00:30:00	No
SCF (Seasonal correction factor)	0.75	No
ARF (Areal reduction factor)	1 [1]	Yes
Seasonality	Winter	No

#### Loss model parameters

Name	Value	User-defined?
Cini (mm)	77.42	No
Cmax (mm)	560.14	No
Use alpha correction factor	No	No
Alpha correction factor	n/a	No

#### Routing model parameters

Name	Value	User-defined?
Tp (hr)	4.2 [3.95]	Yes
Up	0.65	No
Uk	0.8	No

#### Baseflow model parameters

Name	Value	User-defined?
BFO (m <sup>3</sup> /s)	0	No
BL (hr)	27.83 [13.09]	Yes
BR	1.75	No

#### Urbanisation parameters

Name	Value	User-defined?
Sewer capacity (m <sup>3</sup> /s)	0	No
Exporting drained area (km <sup>2</sup> )	0	No
Urban area (km <sup>2</sup> )	0	No
Effective URBEXT2000	0	n/a
Impervious runoff factor	0.7	No
Imperviousness factor	0.4	No
Tp scaling factor	0.75	No
Depression storage depth (mm)	0.5	No

Time series data

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
00:00:00	0.2652	0.0000	0.0367	0.0000	2.48E-05	2.48E-05
00:30:00	0.3875	0.0000	0.0539	0.0000	2.44E-05	2.46E-05
01:00:00	0.5649	0.0000	0.0790	0.0000	2.39E-05	2.48E-05
01:30:00	0.8210	0.0000	0.1159	0.0000	2.36E-05	2.58E-05
02:00:00	1.1881	0.0000	0.1698	0.0000	2.33E-05	2.79E-05
02:30:00	1.7080	0.0000	0.2485	0.0000	2.3E-05	3.16E-05
03:00:00	2.4217	0.0000	0.3613	0.0000	2.3E-05	3.76E-05
03:30:00	3.0267	0.0000	0.4663	0.0000	2.32E-05	4.71E-05
04:00:00	2.4217	0.0000	0.3848	0.0000	2.37E-05	6.14E-05
04:30:00	1.7080	0.0000	0.2777	0.0001	2.48E-05	8.04E-05
05:00:00	1.1881	0.0000	0.1963	0.0001	2.64E-05	0.000103
05:30:00	0.8210	0.0000	0.1371	0.0001	2.86E-05	0.000128
06:00:00	0.5649	0.0000	0.0950	0.0001	3.16E-05	0.000153
06:30:00	0.3875	0.0000	0.0655	0.0001	3.51E-05	0.000179
07:00:00	0.2652	0.0000	0.0450	0.0002	3.93E-05	0.000203
07:30:00	0.0000	0.0000	0.0000	0.0002	4.39E-05	0.000224
08:00:00	0.0000	0.0000	0.0000	0.0002	4.89E-05	0.000239
08:30:00	0.0000	0.0000	0.0000	0.0002	5.4E-05	0.000247
09:00:00	0.0000	0.0000	0.0000	0.0002	5.9E-05	0.000248
09:30:00	0.0000	0.0000	0.0000	0.0002	6.37E-05	0.000245
10:00:00	0.0000	0.0000	0.0000	0.0002	6.8E-05	0.000239
10:30:00	0.0000	0.0000	0.0000	0.0002	7.19E-05	0.00023
11:00:00	0.0000	0.0000	0.0000	0.0001	7.53E-05	0.00022
11:30:00	0.0000	0.0000	0.0000	0.0001	7.83E-05	0.000209
12:00:00	0.0000	0.0000	0.0000	0.0001	8.07E-05	0.000198
12:30:00	0.0000	0.0000	0.0000	0.0001	8.27E-05	0.000187
13:00:00	0.0000	0.0000	0.0000	0.0001	8.43E-05	0.000178
13:30:00	0.0000	0.0000	0.0000	0.0001	8.56E-05	0.00017
14:00:00	0.0000	0.0000	0.0000	0.0001	8.66E-05	0.000162
14:30:00	0.0000	0.0000	0.0000	0.0001	8.72E-05	0.000154
15:00:00	0.0000	0.0000	0.0000	0.0001	8.77E-05	0.000147
15:30:00	0.0000	0.0000	0.0000	0.0001	8.78E-05	0.000139
16:00:00	0.0000	0.0000	0.0000	0.0000	8.77E-05	0.000132
16:30:00	0.0000	0.0000	0.0000	0.0000	8.74E-05	0.000124

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
17:00:00	0.0000	0.0000	0.0000	0.0000	8.69E-05	0.000117
17:30:00	0.0000	0.0000	0.0000	0.0000	8.62E-05	0.00011
18:00:00	0.0000	0.0000	0.0000	0.0000	8.53E-05	0.000103
18:30:00	0.0000	0.0000	0.0000	0.0000	8.43E-05	9.65E-05
19:00:00	0.0000	0.0000	0.0000	0.0000	8.31E-05	9.11E-05
19:30:00	0.0000	0.0000	0.0000	0.0000	8.18E-05	8.68E-05
20:00:00	0.0000	0.0000	0.0000	0.0000	8.05E-05	8.35E-05
20:30:00	0.0000	0.0000	0.0000	0.0000	7.91E-05	8.08E-05
21:00:00	0.0000	0.0000	0.0000	0.0000	7.77E-05	7.86E-05
21:30:00	0.0000	0.0000	0.0000	0.0000	7.64E-05	7.67E-05
22:00:00	0.0000	0.0000	0.0000	0.0000	7.5E-05	7.51E-05
22:30:00	0.0000	0.0000	0.0000	0.0000	7.37E-05	7.37E-05
23:00:00	0.0000	0.0000	0.0000	0.0000	7.24E-05	7.24E-05
23:30:00	0.0000	0.0000	0.0000	0.0000	7.11E-05	7.11E-05
24:00:00	0.0000	0.0000	0.0000	0.0000	6.98E-05	6.98E-05
24:30:00	0.0000	0.0000	0.0000	0.0000	6.86E-05	6.86E-05
25:00:00	0.0000	0.0000	0.0000	0.0000	6.74E-05	6.74E-05
25:30:00	0.0000	0.0000	0.0000	0.0000	6.62E-05	6.62E-05
26:00:00	0.0000	0.0000	0.0000	0.0000	6.5E-05	6.5E-05
26:30:00	0.0000	0.0000	0.0000	0.0000	6.38E-05	6.38E-05
27:00:00	0.0000	0.0000	0.0000	0.0000	6.27E-05	6.27E-05
27:30:00	0.0000	0.0000	0.0000	0.0000	6.16E-05	6.16E-05
28:00:00	0.0000	0.0000	0.0000	0.0000	6.05E-05	6.05E-05
28:30:00	0.0000	0.0000	0.0000	0.0000	5.94E-05	5.94E-05
29:00:00	0.0000	0.0000	0.0000	0.0000	5.83E-05	5.83E-05
29:30:00	0.0000	0.0000	0.0000	0.0000	5.73E-05	5.73E-05
30:00:00	0.0000	0.0000	0.0000	0.0000	5.63E-05	5.63E-05
30:30:00	0.0000	0.0000	0.0000	0.0000	5.53E-05	5.53E-05
31:00:00	0.0000	0.0000	0.0000	0.0000	5.43E-05	5.43E-05
31:30:00	0.0000	0.0000	0.0000	0.0000	5.33E-05	5.33E-05
32:00:00	0.0000	0.0000	0.0000	0.0000	5.24E-05	5.24E-05
32:30:00	0.0000	0.0000	0.0000	0.0000	5.14E-05	5.14E-05
33:00:00	0.0000	0.0000	0.0000	0.0000	5.05E-05	5.05E-05
33:30:00	0.0000	0.0000	0.0000	0.0000	4.96E-05	4.96E-05
34:00:00	0.0000	0.0000	0.0000	0.0000	4.87E-05	4.87E-05

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
34:30:00	0.0000	0.0000	0.0000	0.0000	4.79E-05	4.79E-05
35:00:00	0.0000	0.0000	0.0000	0.0000	4.7E-05	4.7E-05
35:30:00	0.0000	0.0000	0.0000	0.0000	4.62E-05	4.62E-05
36:00:00	0.0000	0.0000	0.0000	0.0000	4.54E-05	4.54E-05
36:30:00	0.0000	0.0000	0.0000	0.0000	4.46E-05	4.46E-05
37:00:00	0.0000	0.0000	0.0000	0.0000	4.38E-05	4.38E-05
37:30:00	0.0000	0.0000	0.0000	0.0000	4.3E-05	4.3E-05
38:00:00	0.0000	0.0000	0.0000	0.0000	4.22E-05	4.22E-05
38:30:00	0.0000	0.0000	0.0000	0.0000	4.15E-05	4.15E-05
39:00:00	0.0000	0.0000	0.0000	0.0000	4.07E-05	4.07E-05
39:30:00	0.0000	0.0000	0.0000	0.0000	4E-05	4E-05
40:00:00	0.0000	0.0000	0.0000	0.0000	3.93E-05	3.93E-05
40:30:00	0.0000	0.0000	0.0000	0.0000	3.86E-05	3.86E-05
41:00:00	0.0000	0.0000	0.0000	0.0000	3.79E-05	3.79E-05
41:30:00	0.0000	0.0000	0.0000	0.0000	3.72E-05	3.72E-05
42:00:00	0.0000	0.0000	0.0000	0.0000	3.66E-05	3.66E-05
42:30:00	0.0000	0.0000	0.0000	0.0000	3.59E-05	3.59E-05
43:00:00	0.0000	0.0000	0.0000	0.0000	3.53E-05	3.53E-05
43:30:00	0.0000	0.0000	0.0000	0.0000	3.46E-05	3.46E-05
44:00:00	0.0000	0.0000	0.0000	0.0000	3.4E-05	3.4E-05
44:30:00	0.0000	0.0000	0.0000	0.0000	3.34E-05	3.34E-05
45:00:00	0.0000	0.0000	0.0000	0.0000	3.28E-05	3.28E-05
45:30:00	0.0000	0.0000	0.0000	0.0000	3.22E-05	3.22E-05
46:00:00	0.0000	0.0000	0.0000	0.0000	3.17E-05	3.17E-05
46:30:00	0.0000	0.0000	0.0000	0.0000	3.11E-05	3.11E-05
47:00:00	0.0000	0.0000	0.0000	0.0000	3.06E-05	3.06E-05
47:30:00	0.0000	0.0000	0.0000	0.0000	3E-05	3E-05
48:00:00	0.0000	0.0000	0.0000	0.0000	2.95E-05	2.95E-05
48:30:00	0.0000	0.0000	0.0000	0.0000	2.89E-05	2.89E-05
49:00:00	0.0000	0.0000	0.0000	0.0000	2.84E-05	2.84E-05
49:30:00	0.0000	0.0000	0.0000	0.0000	2.79E-05	2.79E-05
50:00:00	0.0000	0.0000	0.0000	0.0000	2.74E-05	2.74E-05
50:30:00	0.0000	0.0000	0.0000	0.0000	2.69E-05	2.69E-05
51:00:00	0.0000	0.0000	0.0000	0.0000	2.65E-05	2.65E-05
51:30:00	0.0000	0.0000	0.0000	0.0000	2.6E-05	2.6E-05

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
52:00:00	0.0000	0.0000	0.0000	0.0000	2.55E-05	2.55E-05
52:30:00	0.0000	0.0000	0.0000	0.0000	2.51E-05	2.51E-05

## Appendix

### Catchment descriptors \*

Name	Value	User-defined value used?
BFIHOST	0.65	No
BFIHOST19	0.63	No
PROPWET	0.46	No
SAAR (mm)	853	No

*Values in square brackets are the original values loaded from the FEH Web Service or FEH CD-ROM*

# UK Design Flood Estimation

Generated on 06 November 2025 17:46:04 by ahay  
Printed from the ReFH2 Flood Modelling software package, version 4.1.8985.14298

## Summary of estimate using the Flood Estimation Handbook revitalised flood hydrograph method (ReFH2)

### Site details

Checksum: D60B-F659

Site name: FEH\_Point\_Descriptors\_304680\_721056\_v5\_0\_1

Easting: 304680

Northing: 721056

Country: Scotland

Catchment Area (km<sup>2</sup>): 0 [0.5]\*

Using plot scale calculations: Yes

Model: 2.3

Site description: None

## Model run: 200 year 1.39 CC

### Summary of results

Rainfall - FEH22 (mm):	103.11	Total runoff (ML):	0.03
Total Rainfall (mm):	77.22	Total flow (ML):	0.09
Peak Rainfall (mm):	13.18	Peak flow (m <sup>3</sup> /s):	0.00

### Parameters

*Where the user has overridden a system-generated value, this original value is shown in square brackets after the value used.*

*\* Indicates that the user locked the duration/timestep*

#### Rainfall parameters (Rainfall - FEH22)

Name	Value	User-defined?
Duration (hh:mm:ss)	07:30:00	No
Timestep (hh:mm:ss)	00:30:00	No
SCF (Seasonal correction factor)	0.75	No
ARF (Areal reduction factor)	1 [1]	Yes
Seasonality	Winter	No
Climate change factor	1.39	Yes

#### Loss model parameters

Name	Value	User-defined?
Cini (mm)	77.42	No
Cmax (mm)	560.14	No
Use alpha correction factor	No	No
Alpha correction factor	n/a	No

**Routing model parameters**

<b>Name</b>	<b>Value</b>	<b>User-defined?</b>
Tp (hr)	4.2 [3.95]	Yes
Up	0.65	No
Uk	0.8	No

**Baseflow model parameters**

<b>Name</b>	<b>Value</b>	<b>User-defined?</b>
BF0 (m <sup>3</sup> /s)	0	No
BL (hr)	27.83 [13.09]	Yes
BR	1.74	No

**Urbanisation parameters**

<b>Name</b>	<b>Value</b>	<b>User-defined?</b>
Sewer capacity (m <sup>3</sup> /s)	0	No
Exporting drained area (km <sup>2</sup> )	0	No
Urban area (km <sup>2</sup> )	0	No
Effective URBEXT2000	0	n/a
Impervious runoff factor	0.7	No
Imperviousness factor	0.4	No
Tp scaling factor	0.75	No
Depression storage depth (mm)	0.5	No

Time series data

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
00:00:00	1.1544	0.0000	0.1607	0.0000	2.48E-05	2.48E-05
00:30:00	1.6869	0.0000	0.2392	0.0000	2.44E-05	2.52E-05
01:00:00	2.4591	0.0000	0.3578	0.0000	2.4E-05	2.78E-05
01:30:00	3.5738	0.0000	0.5392	0.0000	2.38E-05	3.37E-05
02:00:00	5.1717	0.0000	0.8206	0.0000	2.39E-05	4.46E-05
02:30:00	7.4347	0.0000	1.2634	0.0000	2.43E-05	6.3E-05
03:00:00	10.5417	0.0000	1.9605	0.0001	2.56E-05	9.32E-05
03:30:00	13.1752	0.0000	2.7292	0.0001	2.79E-05	0.000142
04:00:00	10.5417	0.0000	2.4068	0.0002	3.2E-05	0.000216
04:30:00	7.4347	0.0000	1.8167	0.0003	3.87E-05	0.00032
05:00:00	5.1717	0.0000	1.3220	0.0004	4.86E-05	0.000447
05:30:00	3.5738	0.0000	0.9414	0.0005	6.2E-05	0.000589
06:00:00	2.4591	0.0000	0.6610	0.0007	7.94E-05	0.000741
06:30:00	1.6869	0.0000	0.4597	0.0008	0.000101	0.000896
07:00:00	1.1544	0.0000	0.3175	0.0009	0.000125	0.00105
07:30:00	0.0000	0.0000	0.0000	0.0010	0.000153	0.00118
08:00:00	0.0000	0.0000	0.0000	0.0011	0.000184	0.00128
08:30:00	0.0000	0.0000	0.0000	0.0011	0.000215	0.00135
09:00:00	0.0000	0.0000	0.0000	0.0011	0.000246	0.00137
09:30:00	0.0000	0.0000	0.0000	0.0011	0.000276	0.00136
10:00:00	0.0000	0.0000	0.0000	0.0010	0.000304	0.00133
10:30:00	0.0000	0.0000	0.0000	0.0010	0.000329	0.00129
11:00:00	0.0000	0.0000	0.0000	0.0009	0.000352	0.00123
11:30:00	0.0000	0.0000	0.0000	0.0008	0.000371	0.00116
12:00:00	0.0000	0.0000	0.0000	0.0007	0.000388	0.0011
12:30:00	0.0000	0.0000	0.0000	0.0006	0.000402	0.00104
13:00:00	0.0000	0.0000	0.0000	0.0006	0.000414	0.000986
13:30:00	0.0000	0.0000	0.0000	0.0005	0.000423	0.000937
14:00:00	0.0000	0.0000	0.0000	0.0005	0.000431	0.000891
14:30:00	0.0000	0.0000	0.0000	0.0004	0.000436	0.000847
15:00:00	0.0000	0.0000	0.0000	0.0004	0.000441	0.000804
15:30:00	0.0000	0.0000	0.0000	0.0003	0.000443	0.000762
16:00:00	0.0000	0.0000	0.0000	0.0003	0.000445	0.00072
16:30:00	0.0000	0.0000	0.0000	0.0002	0.000445	0.000677

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
17:00:00	0.0000	0.0000	0.0000	0.0002	0.000443	0.000634
17:30:00	0.0000	0.0000	0.0000	0.0002	0.000441	0.000592
18:00:00	0.0000	0.0000	0.0000	0.0001	0.000437	0.000552
18:30:00	0.0000	0.0000	0.0000	0.0001	0.000432	0.000514
19:00:00	0.0000	0.0000	0.0000	0.0001	0.000427	0.000481
19:30:00	0.0000	0.0000	0.0000	0.0000	0.00042	0.000455
20:00:00	0.0000	0.0000	0.0000	0.0000	0.000414	0.000435
20:30:00	0.0000	0.0000	0.0000	0.0000	0.000407	0.000419
21:00:00	0.0000	0.0000	0.0000	0.0000	0.0004	0.000406
21:30:00	0.0000	0.0000	0.0000	0.0000	0.000393	0.000395
22:00:00	0.0000	0.0000	0.0000	0.0000	0.000386	0.000387
22:30:00	0.0000	0.0000	0.0000	0.0000	0.000379	0.000379
23:00:00	0.0000	0.0000	0.0000	0.0000	0.000372	0.000372
23:30:00	0.0000	0.0000	0.0000	0.0000	0.000366	0.000366
24:00:00	0.0000	0.0000	0.0000	0.0000	0.000359	0.000359
24:30:00	0.0000	0.0000	0.0000	0.0000	0.000353	0.000353
25:00:00	0.0000	0.0000	0.0000	0.0000	0.000347	0.000347
25:30:00	0.0000	0.0000	0.0000	0.0000	0.00034	0.00034
26:00:00	0.0000	0.0000	0.0000	0.0000	0.000334	0.000334
26:30:00	0.0000	0.0000	0.0000	0.0000	0.000328	0.000328
27:00:00	0.0000	0.0000	0.0000	0.0000	0.000323	0.000323
27:30:00	0.0000	0.0000	0.0000	0.0000	0.000317	0.000317
28:00:00	0.0000	0.0000	0.0000	0.0000	0.000311	0.000311
28:30:00	0.0000	0.0000	0.0000	0.0000	0.000306	0.000306
29:00:00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0003
29:30:00	0.0000	0.0000	0.0000	0.0000	0.000295	0.000295
30:00:00	0.0000	0.0000	0.0000	0.0000	0.00029	0.00029
30:30:00	0.0000	0.0000	0.0000	0.0000	0.000284	0.000284
31:00:00	0.0000	0.0000	0.0000	0.0000	0.000279	0.000279
31:30:00	0.0000	0.0000	0.0000	0.0000	0.000274	0.000274
32:00:00	0.0000	0.0000	0.0000	0.0000	0.000269	0.000269
32:30:00	0.0000	0.0000	0.0000	0.0000	0.000265	0.000265
33:00:00	0.0000	0.0000	0.0000	0.0000	0.00026	0.00026
33:30:00	0.0000	0.0000	0.0000	0.0000	0.000255	0.000255
34:00:00	0.0000	0.0000	0.0000	0.0000	0.000251	0.000251

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
34:30:00	0.0000	0.0000	0.0000	0.0000	0.000246	0.000246
35:00:00	0.0000	0.0000	0.0000	0.0000	0.000242	0.000242
35:30:00	0.0000	0.0000	0.0000	0.0000	0.000238	0.000238
36:00:00	0.0000	0.0000	0.0000	0.0000	0.000233	0.000233
36:30:00	0.0000	0.0000	0.0000	0.0000	0.000229	0.000229
37:00:00	0.0000	0.0000	0.0000	0.0000	0.000225	0.000225
37:30:00	0.0000	0.0000	0.0000	0.0000	0.000221	0.000221
38:00:00	0.0000	0.0000	0.0000	0.0000	0.000217	0.000217
38:30:00	0.0000	0.0000	0.0000	0.0000	0.000213	0.000213
39:00:00	0.0000	0.0000	0.0000	0.0000	0.00021	0.00021
39:30:00	0.0000	0.0000	0.0000	0.0000	0.000206	0.000206
40:00:00	0.0000	0.0000	0.0000	0.0000	0.000202	0.000202
40:30:00	0.0000	0.0000	0.0000	0.0000	0.000199	0.000199
41:00:00	0.0000	0.0000	0.0000	0.0000	0.000195	0.000195
41:30:00	0.0000	0.0000	0.0000	0.0000	0.000192	0.000192
42:00:00	0.0000	0.0000	0.0000	0.0000	0.000188	0.000188
42:30:00	0.0000	0.0000	0.0000	0.0000	0.000185	0.000185
43:00:00	0.0000	0.0000	0.0000	0.0000	0.000182	0.000182
43:30:00	0.0000	0.0000	0.0000	0.0000	0.000178	0.000178
44:00:00	0.0000	0.0000	0.0000	0.0000	0.000175	0.000175
44:30:00	0.0000	0.0000	0.0000	0.0000	0.000172	0.000172
45:00:00	0.0000	0.0000	0.0000	0.0000	0.000169	0.000169
45:30:00	0.0000	0.0000	0.0000	0.0000	0.000166	0.000166
46:00:00	0.0000	0.0000	0.0000	0.0000	0.000163	0.000163
46:30:00	0.0000	0.0000	0.0000	0.0000	0.00016	0.00016
47:00:00	0.0000	0.0000	0.0000	0.0000	0.000157	0.000157
47:30:00	0.0000	0.0000	0.0000	0.0000	0.000154	0.000154
48:00:00	0.0000	0.0000	0.0000	0.0000	0.000152	0.000152
48:30:00	0.0000	0.0000	0.0000	0.0000	0.000149	0.000149
49:00:00	0.0000	0.0000	0.0000	0.0000	0.000146	0.000146
49:30:00	0.0000	0.0000	0.0000	0.0000	0.000144	0.000144
50:00:00	0.0000	0.0000	0.0000	0.0000	0.000141	0.000141
50:30:00	0.0000	0.0000	0.0000	0.0000	0.000139	0.000139
51:00:00	0.0000	0.0000	0.0000	0.0000	0.000136	0.000136
51:30:00	0.0000	0.0000	0.0000	0.0000	0.000134	0.000134

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
52:00:00	0.0000	0.0000	0.0000	0.0000	0.000131	0.000131
52:30:00	0.0000	0.0000	0.0000	0.0000	0.000129	0.000129
53:00:00	0.0000	0.0000	0.0000	0.0000	0.000127	0.000127
53:30:00	0.0000	0.0000	0.0000	0.0000	0.000124	0.000124
54:00:00	0.0000	0.0000	0.0000	0.0000	0.000122	0.000122
54:30:00	0.0000	0.0000	0.0000	0.0000	0.00012	0.00012
55:00:00	0.0000	0.0000	0.0000	0.0000	0.000118	0.000118
55:30:00	0.0000	0.0000	0.0000	0.0000	0.000116	0.000116
56:00:00	0.0000	0.0000	0.0000	0.0000	0.000114	0.000114
56:30:00	0.0000	0.0000	0.0000	0.0000	0.000112	0.000112
57:00:00	0.0000	0.0000	0.0000	0.0000	0.00011	0.00011
57:30:00	0.0000	0.0000	0.0000	0.0000	0.000108	0.000108
58:00:00	0.0000	0.0000	0.0000	0.0000	0.000106	0.000106
58:30:00	0.0000	0.0000	0.0000	0.0000	0.000104	0.000104
59:00:00	0.0000	0.0000	0.0000	0.0000	0.000102	0.000102
59:30:00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
60:00:00	0.0000	0.0000	0.0000	0.0000	9.85E-05	9.85E-05
60:30:00	0.0000	0.0000	0.0000	0.0000	9.68E-05	9.68E-05
61:00:00	0.0000	0.0000	0.0000	0.0000	9.51E-05	9.51E-05
61:30:00	0.0000	0.0000	0.0000	0.0000	9.34E-05	9.34E-05
62:00:00	0.0000	0.0000	0.0000	0.0000	9.17E-05	9.17E-05
62:30:00	0.0000	0.0000	0.0000	0.0000	9.01E-05	9.01E-05
63:00:00	0.0000	0.0000	0.0000	0.0000	8.85E-05	8.85E-05
63:30:00	0.0000	0.0000	0.0000	0.0000	8.69E-05	8.69E-05
64:00:00	0.0000	0.0000	0.0000	0.0000	8.53E-05	8.53E-05
64:30:00	0.0000	0.0000	0.0000	0.0000	8.38E-05	8.38E-05
65:00:00	0.0000	0.0000	0.0000	0.0000	8.23E-05	8.23E-05
65:30:00	0.0000	0.0000	0.0000	0.0000	8.09E-05	8.09E-05
66:00:00	0.0000	0.0000	0.0000	0.0000	7.94E-05	7.94E-05
66:30:00	0.0000	0.0000	0.0000	0.0000	7.8E-05	7.8E-05
67:00:00	0.0000	0.0000	0.0000	0.0000	7.66E-05	7.66E-05
67:30:00	0.0000	0.0000	0.0000	0.0000	7.53E-05	7.53E-05
68:00:00	0.0000	0.0000	0.0000	0.0000	7.39E-05	7.39E-05
68:30:00	0.0000	0.0000	0.0000	0.0000	7.26E-05	7.26E-05
69:00:00	0.0000	0.0000	0.0000	0.0000	7.13E-05	7.13E-05

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
69:30:00	0.0000	0.0000	0.0000	0.0000	7E-05	7E-05
70:00:00	0.0000	0.0000	0.0000	0.0000	6.88E-05	6.88E-05
70:30:00	0.0000	0.0000	0.0000	0.0000	6.76E-05	6.76E-05
71:00:00	0.0000	0.0000	0.0000	0.0000	6.64E-05	6.64E-05
71:30:00	0.0000	0.0000	0.0000	0.0000	6.52E-05	6.52E-05
72:00:00	0.0000	0.0000	0.0000	0.0000	6.4E-05	6.4E-05
72:30:00	0.0000	0.0000	0.0000	0.0000	6.29E-05	6.29E-05
73:00:00	0.0000	0.0000	0.0000	0.0000	6.18E-05	6.18E-05
73:30:00	0.0000	0.0000	0.0000	0.0000	6.07E-05	6.07E-05
74:00:00	0.0000	0.0000	0.0000	0.0000	5.96E-05	5.96E-05
74:30:00	0.0000	0.0000	0.0000	0.0000	5.85E-05	5.85E-05
75:00:00	0.0000	0.0000	0.0000	0.0000	5.75E-05	5.75E-05
75:30:00	0.0000	0.0000	0.0000	0.0000	5.64E-05	5.64E-05
76:00:00	0.0000	0.0000	0.0000	0.0000	5.54E-05	5.54E-05
76:30:00	0.0000	0.0000	0.0000	0.0000	5.45E-05	5.45E-05
77:00:00	0.0000	0.0000	0.0000	0.0000	5.35E-05	5.35E-05
77:30:00	0.0000	0.0000	0.0000	0.0000	5.25E-05	5.25E-05
78:00:00	0.0000	0.0000	0.0000	0.0000	5.16E-05	5.16E-05
78:30:00	0.0000	0.0000	0.0000	0.0000	5.07E-05	5.07E-05
79:00:00	0.0000	0.0000	0.0000	0.0000	4.98E-05	4.98E-05
79:30:00	0.0000	0.0000	0.0000	0.0000	4.89E-05	4.89E-05
80:00:00	0.0000	0.0000	0.0000	0.0000	4.8E-05	4.8E-05
80:30:00	0.0000	0.0000	0.0000	0.0000	4.72E-05	4.72E-05
81:00:00	0.0000	0.0000	0.0000	0.0000	4.63E-05	4.63E-05
81:30:00	0.0000	0.0000	0.0000	0.0000	4.55E-05	4.55E-05
82:00:00	0.0000	0.0000	0.0000	0.0000	4.47E-05	4.47E-05
82:30:00	0.0000	0.0000	0.0000	0.0000	4.39E-05	4.39E-05
83:00:00	0.0000	0.0000	0.0000	0.0000	4.31E-05	4.31E-05
83:30:00	0.0000	0.0000	0.0000	0.0000	4.23E-05	4.23E-05
84:00:00	0.0000	0.0000	0.0000	0.0000	4.16E-05	4.16E-05
84:30:00	0.0000	0.0000	0.0000	0.0000	4.08E-05	4.08E-05
85:00:00	0.0000	0.0000	0.0000	0.0000	4.01E-05	4.01E-05
85:30:00	0.0000	0.0000	0.0000	0.0000	3.94E-05	3.94E-05
86:00:00	0.0000	0.0000	0.0000	0.0000	3.87E-05	3.87E-05
86:30:00	0.0000	0.0000	0.0000	0.0000	3.8E-05	3.8E-05

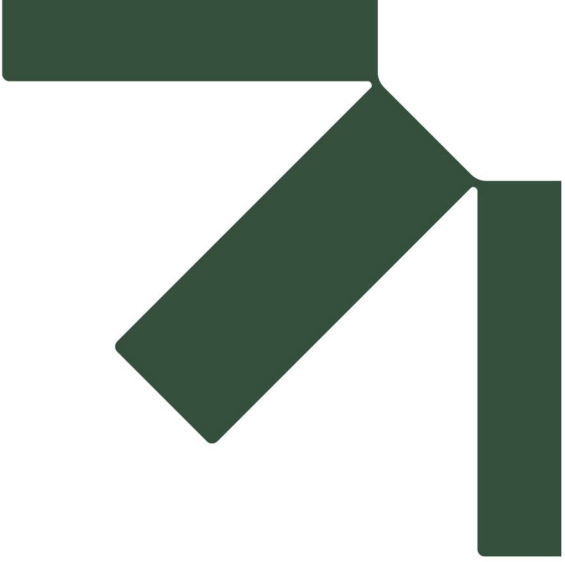
Time (hh:mm:ss)	Rain (mm)	Sewer Loss (m <sup>3</sup> /s)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
87:00:00	0.0000	0.0000	0.0000	0.0000	3.73E-05	3.73E-05
87:30:00	0.0000	0.0000	0.0000	0.0000	3.67E-05	3.67E-05
88:00:00	0.0000	0.0000	0.0000	0.0000	3.6E-05	3.6E-05
88:30:00	0.0000	0.0000	0.0000	0.0000	3.54E-05	3.54E-05
89:00:00	0.0000	0.0000	0.0000	0.0000	3.48E-05	3.48E-05
89:30:00	0.0000	0.0000	0.0000	0.0000	3.41E-05	3.41E-05
90:00:00	0.0000	0.0000	0.0000	0.0000	3.35E-05	3.35E-05
90:30:00	0.0000	0.0000	0.0000	0.0000	3.29E-05	3.29E-05
91:00:00	0.0000	0.0000	0.0000	0.0000	3.23E-05	3.23E-05
91:30:00	0.0000	0.0000	0.0000	0.0000	3.18E-05	3.18E-05
92:00:00	0.0000	0.0000	0.0000	0.0000	3.12E-05	3.12E-05
92:30:00	0.0000	0.0000	0.0000	0.0000	3.06E-05	3.06E-05
93:00:00	0.0000	0.0000	0.0000	0.0000	3.01E-05	3.01E-05
93:30:00	0.0000	0.0000	0.0000	0.0000	2.96E-05	2.96E-05
94:00:00	0.0000	0.0000	0.0000	0.0000	2.9E-05	2.9E-05
94:30:00	0.0000	0.0000	0.0000	0.0000	2.85E-05	2.85E-05
95:00:00	0.0000	0.0000	0.0000	0.0000	2.8E-05	2.8E-05
95:30:00	0.0000	0.0000	0.0000	0.0000	2.75E-05	2.75E-05
96:00:00	0.0000	0.0000	0.0000	0.0000	2.7E-05	2.7E-05
96:30:00	0.0000	0.0000	0.0000	0.0000	2.65E-05	2.65E-05
97:00:00	0.0000	0.0000	0.0000	0.0000	2.61E-05	2.61E-05
97:30:00	0.0000	0.0000	0.0000	0.0000	2.56E-05	2.56E-05
98:00:00	0.0000	0.0000	0.0000	0.0000	2.51E-05	2.51E-05

## Appendix

### Catchment descriptors \*

Name	Value	User-defined value used?
BFIHOST	0.65	No
BFIHOST19	0.63	No
PROPWET	0.46	No
SAAR (mm)	853	No

*Values in square brackets are the original values loaded from the FEH Web Service or FEH CD-ROM*



# **Appendix C Causeway Flow Results – Detention Basin**

**Technical Appendix: Flood Risk Assessment and Drainage  
Impact Assessment**

**Dupplin Solar EIA Report**

**TRIO Dupplin Solar LLP**

**SLR Project No.: 405.065787.00001**

**20 January 2026**

### Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	3.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

### Nodes

Name	Area (ha)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
Detention Basin	0.310	134.000	40.804	44.643	1.000

### Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	0.750	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	0.840	Additional Storage (m <sup>3</sup> /ha)	20.0		

### Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
2	0	0	0
10	0	0	0
30	0	0	0
30	39	0	0
200	0	0	0
200	39	0	0
1000	0	0	0
1000	39	0	0

### Node Detention Basin Offline Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Loop to Node		Sump Available	✓
Invert Level (m)	133.000	Product Number	CTL-SHE-0051-1000-0660-1000
Design Depth (m)	0.660	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	1.0	Min Node Diameter (mm)	1200

### Node Detention Basin Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	133.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m <sup>2</sup> )	Inf Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf Area (m <sup>2</sup> )
0.000	400.0	0.0	1.000	641.0	0.0

**Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
1440 minute winter	Detention Basin	1020	133.113	0.113	2.5	47.5131	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m <sup>3</sup> )
1440 minute winter	Detention Basin	Hydro-Brake®	0.9	62.0

**Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
1440 minute winter	Detention Basin	1050	133.140	0.140	3.0	59.1660	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m <sup>3</sup> )
1440 minute winter	Detention Basin	Hydro-Brake®	1.0	67.0

**Results for 10 year Critical Storm Duration. Lowest mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
1440 minute winter	Detention Basin	1110	133.225	0.225	4.4	97.3766	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m <sup>3</sup> )
1440 minute winter	Detention Basin	Hydro-Brake®	1.0	74.5

**Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
1440 minute winter	Detention Basin	1320	133.297	0.297	5.6	131.3953	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m <sup>3</sup> )
1440 minute winter	Detention Basin	Hydro-Brake®	1.0	76.9

**Results for 30 year +39% CC Critical Storm Duration. Lowest mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
2160 minute winter	Detention Basin	2040	133.451	0.451	5.8	207.9330	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m <sup>3</sup> )
2160 minute winter	Detention Basin	Hydro-Brake®	1.0	104.7

**Results for 200 year Critical Storm Duration. Lowest mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
2160 minute winter	Detention Basin	2040	133.460	0.460	5.9	212.5649	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m <sup>3</sup> )
2160 minute winter	Detention Basin	Hydro-Brake®	1.0	105.3

**Results for 200 year +39% CC Critical Storm Duration. Lowest mass balance: 99.99%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
2160 minute winter	Detention Basin	2100	133.662	0.662	8.2	321.9197	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m <sup>3</sup> )
2160 minute winter	Detention Basin	Hydro-Brake®	1.0	118.4

**Results for 1000 year Critical Storm Duration. Lowest mass balance: 99.99%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
2160 minute winter	Detention Basin	2100	133.596	0.596	7.4	285.1111	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m <sup>3</sup> )
2160 minute winter	Detention Basin	Hydro-Brake®	1.0	114.0

**Results for 1000 year +39% CC Critical Storm Duration. Lowest mass balance: 99.99%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
2880 minute winter	Detention Basin	2760	133.832	0.832	8.3	421.3983	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)	Discharge Vol (m <sup>3</sup> )
2880 minute winter	Detention Basin	Hydro-Brake®	1.1	167.5



# Appendix D SEPA Checklist

## Technical Appendix: Flood Risk Assessment and Drainage Impact Assessment

Dupplin Solar EIA Report

TRIO Dupplin Solar LLP

SLR Project No.: 405.065787.00001

20 January 2026



# Flood Risk Assessment (FRA) Checklist

Scotland's 4<sup>th</sup> National Planning Framework has recently been published. This document is therefore being reviewed and updated to reflect the new policies. You can still find useful and relevant information here but be aware that some parts may be out of date and our responses to planning applications may not match the information set out here.

(SS-NFR-F-001 - Version 16 - Last updated 27/08/2019)

**This document must be attached within the front cover of any Flood Risk Assessments issued to Local Planning Authorities (LPA) in support of a development proposal which may be at risk of flooding. The document will take only a few minutes to complete and will assist SEPA in reviewing FRAs, when consulted by LPAs. This document should not be a substitute for a FRA.**

Development Proposal Summary	
Site Name:	Dupplin Solar Farm
Grid Reference:	Eastings: 304840 Northing: 721730
Local Authority:	Perth and Kinross Council
Planning Reference number (if known):	
Nature of the development:	Infrastructure If residential, state type:
Size of the development site:	160 Ha
Identified Flood Risk:	Source: Pluvial Source name: Surface water runoff
Land Use Planning	
Is any of the site within the functional floodplain? (refer to SPP para 255)	No
Is the site identified within the local development plan?	No
If yes, what is the proposed use for the site as identified in the local plan?	Select from List
Does the local development plan and/or any pre-application advice, identify any flood risk issues with or requirements for the site.	No
What is the proposed land use vulnerability?	Essential Infrastructure
Supporting Information	
Have clear maps / plans been provided within the FRA (including topographic and flood inundation plans)?	Yes
Has sufficient supporting information, in line with our Technical Guidance, been provided? For example: site plans, photos, topographic information, structure information and other site specific information.	Yes
Has a historic flood search been undertaken?	Yes
Is a formal flood prevention scheme present?	No
Current / historical site use:	Agricultural land for planting
Is the site considered vacant or derelict?	No
Development Requirements	
Freeboard on design water level:	600 mm
Is safe / dry access and egress available?	Min access/egress level: / m AOD
Design levels:	Ground level: / m AOD Min FFL: / m AOD
Mitigation	
Can development be designed to avoid all areas at risk of flooding?	No
Is mitigation proposed?	Yes
If yes, is compensatory storage necessary?	No
Demonstration of compensatory storage on a "like for like" basis?	No
Should water resistant materials and forms of construction be used?	No



# Flood Risk Assessment (FRA) Checklist

(SS-NFR-F-001 - Version 16 - Last updated 27/08/2019)

Hydrology	
Is there a requirement to consider fluvial flooding?	No
Area of catchment:	km <sup>2</sup>
Estimation method(s) used (please select all that apply):	<input type="checkbox"/> Pooled Analysis <input type="checkbox"/> Single Site Analysis <input type="checkbox"/> Enhanced Single Site <input type="checkbox"/> ReFH2 <input type="checkbox"/> FEH RRM <input type="checkbox"/> Other
Estimate of 200 year design flood flow:	m <sup>3</sup> /s
Qmed estimate:	m <sup>3</sup> /s
Statistical Distribution Selected:	Select from List
Is a map of catchment area included in FRA?	Select from List
If Pooled analysis have group details been included?	Select from List
If other (please specify methodology used):	
Method:	Select from List
Reasons for selection:	

Hydraulics	
Hydraulic modelling method:	Select from List
Number of cross sections:	
Source of data (i.e. topographic survey, LiDAR etc):	
Modelled reach length:	m
Any changes to default simulation parameters?	
Model timestep:	
Model grid size:	
Any structures within the modelled length?	Select from List
Maximum observed velocity:	m/s
Brief summary of sensitivity tests, and range:	
variation on flow (%)	%
variation on channel roughness (%)	%
blockage of structure (range of % blocked)	%
boundary conditions:	
(1) type	Upstream
(2) does it influence water levels at the site?	Downstream
Has model been calibrated (gauge data / flood records)?	Select from List
Is the hydraulic model available to SEPA?	Select from List
Design flood levels:	
Cross section results provided?	200 year m AOD
Long section results provided?	200 year plus climate change m AOD
Cross section ratings provided?	
Tabular output provided (i.e. levels, velocities)?	
Mass balance error:	%
Software used:	Select from List
If other please specify:	
Date obtained / surveyed:	
If yes please provide details:	
Specify, if combination:	
Specify if other:	
Specify if other:	

Coastal	
Is there a requirement to consider coastal / tidal flooding?	No
Estimate of 200 year design flood level:	m AOD
Estimation method(s) used:	Select from List
Allowance for climate change (m):	m
Allowance for wave action etc (m):	m
Overall design flood level:	m AOD
If other please specify methodology used:	

Comments	
Any additional comments:	Minor areas of surface water flood depths of over 300mm for 0.5% AEP event + CC indicated on SEPA mapping for solar panels. Flood risk areas have been reviewed for potential culvert blockage and max flood depth is approximately 400mm. Solar panels will be raised a minimum of 1m from ground levels to allow 600mm freeboard from flood depths. There is no flood risk to the proposed DNO substation area.

Approved by: **Kenny Samson**  
 Organisation: **SLR Consulting Ltd**

Date: 20/01/2026

Note: Further details and guidance is provided in 'Technical Flood Risk Guidance for Stakeholders' which can be accessed here:-

[CLICK HERE](#)



# **Appendix E    Compliance Certificate**

## **Technical Appendix: Flood Risk Assessment and Drainage Impact Assessment**

**Dupplin Solar EIA Report**

**TRIO Dupplin Solar LLP**

SLR Project No.: 405.065787.00001

20 January 2026

# Appendix B - Assessment Compliance Certification and Insurance

## Assessment Compliance Certification

I certify that all reasonable skill, care and attention has been exercised in undertaking the attached Flood Risk Assessment/ Drainage Impact Assessment/Surface Water Drainage Design\* (*delete as appropriate*). The documentation has been prepared for the below noted development in accordance with the PKC Developers' Guidance Note on Flooding and Drainage.

Name of Development

Dupplin Solar Farm

Address of Development

Land at Crossgates, Perth and Kinross, PH2 0PP

Name of Developer

Trio Power Limited

Planning Application Number

Name and Address of Organisation Preparing this Assessment

SLR Consulting Ltd

The Tun, 4 Jackson's Entry, Edinburgh, United Kingdom EH8 8PJ

Signed



Name

Kenny Samson

Position Held

Associate / Principal Hydrologist

Engineering Qualification<sup>(1)</sup>

*<sup>(1)</sup> Chartered Engineer or equivalent from an appropriate Engineering Institution.*

Date

22/01/26

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**Insurance**

**Please attach a copy of your professional indemnity insurance policy to this document.**



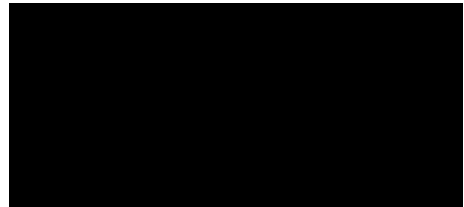
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This is to certify that in accordance with the authorisation granted under Contract to the undersigned by the Insurer(s) named under the details of insurers clause, whose proportions are set out in the Schedule, and in consideration of the payment of premium specified in the Schedule, the Insurer(s) are hereby bound, severally and not jointly, to insure in accordance with the terms and conditions herein or endorsed hereon.

Insurers hereby agree, to the extent and in the manner hereinafter provided, to indemnify or otherwise pay the insured in respect of the contingencies or events specified in the sections of the Certificate. However this Certificate only applies to those Sections as indicated in the Schedule attached to this Certificate.

The Certificate, Schedule, Exclusions and General Conditions shall be read together as one contract and any word or expression to which a specific meaning has been attached in any part of the Certificate, Schedule, Exclusions and General Conditions shall bear the same meaning wherever it may appear.

Please read **this Certificate** and, if it is incorrect, return it immediately for alteration.



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Signed by DUAL Corporate Risks Limited  
On behalf of  
Insurers as noted in the Insurer Details

# DUAL EVOLUTION

## (Specialist)

### Schedule

This is a claims made Certificate. Except as otherwise provided herein, this Certificate covers only *Claims* first made against the *Insured* during the *Certificate Period*. All words in italics within the Certificate or this schedule shall have the meaning given to them in Section 5 of the Certificate entitled "Definitions".

<b>Certificate Number:</b>	PC-4914842552
<b>Date:</b>	26/08/2025
<b>Insured:</b>	BLC Energy Ltd
<b>Address:</b>	Kintocher Farm House Abercairney Crieff Perthshire PH7 3NQ United Kingdom
<b>Professional Business:</b>	As defined in the Proposal Form dated 30/07/2025
<b>Period of Insurance:</b>	From: 02/08/2025 To: 01/08/2026
<b>Limit of Indemnity:</b>	GBP 1,000,000 Aggregate, Costs included All <i>Claims</i> arising from one and the same act, error or omission or any series of acts, errors or omissions arising out of the same cause, or the acts, errors or omissions of one person or persons acting together, or in which such person or persons is/are concerned or implicated shall be deemed to be one <i>Claim</i> .
<b>Aggregate:</b>	Total aggregate liability for all <i>Claims</i> , <i>Costs</i> and other costs and expenses shall not exceed the <i>Indemnity Limit</i> during the <i>Certificate Period</i>
<b>Excess:</b>	GBP 10,000 Each and every <i>Claim</i> applicable to <i>Costs</i>
<b>Retroactive Date:</b>	2nd August 2023
<b>Premium (100%):</b>	GBP 5,500.00 For the <i>Certificate Period</i>
<b>Hereon:</b>	
<b>Premium:</b>	GBP 5,500.00 For the <i>Certificate Period</i>
<b>Plus Tax/Stamp Duty:</b>	GBP 660.00
The Premium shall be payable within 60 days as described in the attached Premium Payment Clause.	
<b>Jurisdictional Limits:</b>	United Kingdom & Republic of Ireland
<b>Geographical Limits:</b>	United Kingdom & Republic of Ireland
<b>Law &amp; Jurisdiction:</b>	England & Wales
<b>Date of Proposal:</b>	30/07/2025
<b>Date of Declaration:</b>	30/07/2025
<b>Certificate Wording:</b>	EV SPP 2010 The contents of this Schedule together with the Statements made in the <i>Proposal</i> for this insurance form an integral part of the attached Certificate.
<b>Endorsements attached at inception:</b>	As per Wording, plus Premium Payment Clause Sanctions Clause Cyber & Data Protection Law IUA4017 DUAL Carrier Legal Entity Endorsement

### **Premium Payment Clause**

Notwithstanding any provision to the contrary within this Certificate or any endorsement hereto, in respect of non payment of premium only the following clause will apply.

The insured entity stated in the Schedule undertakes that premium will be paid in full to the insurer within 60 days of inception of this contract (or, in respect of instalment premiums, when due).

If the premium due under this contract has not been so paid to the insurer within 60 days of inception of this contract (and, in respect of instalment premiums, by the date they are due) the insurer shall have the right to cancel this contract by notifying the insured entity stated in the Schedule via the broker in writing. In the event of cancellation, premium is due to the insurer on a pro rata basis for the period that the insurer are on risk but the full contract premium shall be payable to the insurer in the event of a loss or occurrence prior to the date of termination which gives rise to a valid claim under this contract.

It is agreed that the insurer shall give not less than 15 days prior notice of cancellation to the insured entity stated in the Schedule via the broker. If premium due is paid in full to the insurer before the notice period expires, notice of cancellation shall automatically be revoked. If not, the contract shall automatically terminate at the end of the notice period.

If any provision of this clause is found by any court or administrative body of competent jurisdiction to be invalid or unenforceable, such invalidity or unenforceability will not affect the other provisions of this clause which will remain in full force and effect.

**Sanctions Clause**

It is agreed that this Certificate does not provide any coverage and excludes any *Claim*, costs or expenses which would expose *Us* to any sanction, prohibition or restriction under United Nations resolutions or the trade or economic sanctions, laws or regulations of the European Union, United Kingdom or United States of America

**Professional Indemnity Cyber and Data Protection Law Endorsement**

- 1) This endorsement takes priority over any other provision in this contract.
- 2) Save as expressly provided in this endorsement, or by other restrictions in this contract specifically relating to the use of, or inability to use, a **Computer System**, no cover otherwise provided under this contract shall be restricted solely due to the use of, or inability to use, a **Computer System**.
- 3) This contract excludes any loss, damage, liability, claim, costs, expense, fines, penalties, mitigation costs or any other amount directly caused by, directly resulting from or directly arising out of:
  - a) a **Cyber Act**; or
  - b) any partial or total unavailability or failure of any **Computer System**;  
provided the **Computer System** is owned or controlled by the insured or any other party acting on behalf of the insured in either case; or
  - c) the receipt or transmission of malware, malicious code or similar by the insured or any other party acting on behalf of the insured.
- 4) This contract excludes any loss, damage, liability, claim, costs, expense, fines, penalties, mitigation costs or any other amount directly or indirectly caused by, directly or indirectly resulting from or directly or indirectly arising out of any failure or interruption of service provided:
  - a) to the insured or any other party acting on behalf of the insured by an internet service provider, telecommunications provider or cloud provider but not including the hosting of hardware and software owned by the insured;
  - b) by any utility provider, but only where such failure or interruption of service impacts a **Computer System** owned or controlled by the insured or any other party acting on behalf of the insured.
- 5) This contract excludes any loss, damage, liability, claim, costs, expense, fines, penalties, mitigation costs or any other amount for actual or alleged breach of **Data Protection Law** by the insured or any other party acting on behalf of the insured.
- 6) Any cover for costs of reconstituting or recovering lost, inaccessible or damaged documents owned or controlled by the insured or any other party acting on behalf of the insured in this contract shall not apply to **Data**.

For the purposes of this endorsement the following definitions apply:

**Computer System** means any computer, hardware, software, communications system, electronic device (including, but not limited to, smart phone, laptop, tablet, wearable device), server, cloud or microcontroller including any similar system or any configuration of the aforementioned and including any associated input, output, data storage device, networking equipment or back up facility.

**Cyber Act** means an unauthorised, malicious or criminal act or series of related unauthorised, malicious or criminal acts, regardless of time and place, or the threat or hoax thereof, involving access to, processing of, use of or operation of any **Computer System**.

**Data** means information, facts, concepts, code or any other information of any kind that is recorded or transmitted in a form to be used, accessed, processed, transmitted or stored by a **Computer System**.

**Data Protection Law** means any applicable data protection and privacy legislation or regulations in any country, province, state, territory or jurisdiction which govern the use, confidentiality, integrity, security and protection of personal data or any guidance or codes of practice relating to personal data issued by any data protection regulator or authority from time to time (all as amended, updated or re-enacted from time to time).

## DUAL Carrier Legal Entity Endorsement

### **Liberty Specialty Markets**

Where this policy / certificate insures risks which are located in the European Economic Area it is underwritten by Liberty Mutual Insurance Europe SE through its head office in Luxembourg. Registered Office: 5-7 rue Léon Laval, L-3372 Leudelange, Grand Duchy of Luxembourg. Registered Number: B232280 (Registre de Commerce et des Sociétés).

Liberty Mutual Insurance Europe SE (LMIE) trading as Liberty Specialty Markets, a member of the Liberty Mutual Insurance Group. Registered office: 5-7 rue Léon Laval, L-3372 Leudelange, Grand Duchy of Luxembourg. Registered Number B232280 (Registre de Commerce et des Sociétés). LMIE is a European public limited liability company and is supervised by the Commissariat aux Assurances and licensed by the Luxembourg Minister of Finance as an insurance and reinsurance company.

Where this policy / certificate insures risks which are located outside the European Economic Area it is underwritten by Liberty Mutual Insurance Europe SE through its United Kingdom branch. The UK branch address is 20 Fenchurch Street, London EC3M 3AW, United Kingdom.

Liberty Mutual Insurance Europe SE UK Branch (LMIE UK) trading as Liberty Specialty Markets, a member of the Liberty Mutual Insurance Group. LMIE UK is a branch of Liberty Mutual Insurance Europe SE (LMIE). LMIE is supervised by the Commissariat aux Assurances and licensed by the Luxembourg Minister of Finance as an insurance and reinsurance company. LMIE UK is deemed authorised by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. LMIE UK's address is 20 Fenchurch Street, London EC3M 3AW. [www.libertyspecialtymarkets.com](http://www.libertyspecialtymarkets.com)

As Liberty Mutual Insurance Europe SE is a Luxembourg based insurance company, in addition to the complaints procedure set out in the Policy, the Policyholder may send any complaint to Liberty Mutual Insurance Europe SE, which can be contacted in writing Liberty Mutual Insurance Europe SE, 35D 5-7 rue Léon Laval, L-3372 Leudelange, Grand Duchy of Luxembourg, by telephone: +44 (0)20 3758 0840 or e-mail: [complaints@libertyglobalgroup.com](mailto:complaints@libertyglobalgroup.com). Liberty Mutual Insurance Europe SE will acknowledge the complaint within 10 business days of receiving it and provide an answer within one month (unless specific circumstances prevent Liberty Mutual Insurance Europe SE from doing so, in which case the complainant will be informed). If the complainant is not satisfied with the Liberty Mutual Insurance Europe SE response, they may contact the Luxembourg Commissariat Aux Assurances (CAA) by writing to CAA, 7 boulevard Joseph II, L-1840 Luxembourg, Grand-Duchy of Luxembourg, by email at [reclamation@caa.lu](mailto:reclamation@caa.lu) or online through the CAA website: [www.caa.lu](http://www.caa.lu). Following this complaints procedure or making use of one of the options above does not affect the complainant's right to take legal action.

### AIG Legal Entity Endorsement

1. This endorsement amends the Policy to the extent set out herein. For subscription business, this endorsement applies only in respect of the line(s) insured by American International Group UK Limited and/or AIG Europe S.A.
2. To the extent there are any risks insured under this Policy located in:
  - a) any member state or territory in the European Economic Area (other than the United Kingdom) these are insured by AIG Europe S.A. and
  - b) any other territory (as applicable) including the United Kingdom these are insured by American International Group UK Limited,and the definition of Insurer (or other term denoting the insurer) under this Policy shall be construed accordingly (to the extent of AIG's participation).
3. Notwithstanding any other provision of this Policy, this Policy, this endorsement and all terms and conditions set out therein constitute a single contract of insurance and, for the avoidance of doubt:
  - a) The governing law and chose of jurisdiction clauses shall be as set out in the Policy;
  - b) the amount, operation and erosion of any limit of indemnity / sums insured or other similar term (as applicable), sub-limit (if any) and any retention / deductible / excess (as applicable) shall be as stated in the Policy and will apply jointly and simultaneously to the liability of both American International Group UK Limited and AIG Europe S.A. as if there was only one insurer. This endorsement does not increase or affect in any way any limit of indemnity / sums insured or other similar term (as applicable), or sub-limit which shall each be reduced by any payments made by either of American International Group UK Limited or AIG Europe S.A. in accordance with the terms of the Policy; and
  - c) the rights, obligations and liability for performance of such obligations, of American International Group UK Limited and AIG Europe S.A. are separate and not joint. Each of American International Group UK Limited and AIG Europe S.A. is liable only for the risk it has insured in accordance with paragraph 2 above and its obligations under this Policy in connection with that risk.
4. Premium shall be paid to each of American International Group UK Limited and AIG Europe S.A. via American International Group UK Limited via DUAL Corporate Risks Limited and/or DUAL Europe GmbH (as applicable). Where the policyholder/insured (as applicable) ("Policyholder") has paid the full amount of the premium or any additional premium due to AIG Europe S.A. then such premium shall be deemed to have been paid to AIG Europe S.A.. American International Group UK Limited is authorised to accept the payment of any additional premium (for example, for or in respect of any extension, variation, amendment or assignment of this Policy, or any part of it) on its own behalf and/or on behalf of AIG Europe S.A..
5. Wherever the Policyholder is required by the terms of the Policy to (i) provide notification (including the notification of any claim, circumstance or loss) or (ii) provide to the Insurer any information, then the Policyholder shall be entitled to provide such notification or information to AIG International Group UK Limited and, unless any such notification or information is required to be provided only to AIG International Group UK Limited, it shall be deemed to have been provided either (a) to both of AIG International Group UK Limited and AIG Europe S.A. or (b) solely to AIG Europe S.A., in each case as required by the terms of the Policy. Notices or information provided by one Insurer shall be deemed to be provided by both unless the content relates specifically to the risks insured by one or other Insurer.
6. In circumstances where AIG Europe S.A is the Insurer (to the extent of AIG's participation) the following provisions shall apply:

As AIG Europe S.A. is a Luxembourg based insurance company, in addition to the complaints procedure set out in the Policy, the Policyholder may send any complaint to AIG Europe S.A , which can be contacted in writing at AIG Europe S.A., 35D Avenue JF Kennedy L- 1855 Luxembourg, Grand-Duchy of Luxembourg, by telephone: +352 2700 72 01 or e-mail: luxembourg.complaints@aig.com. AIG Europe S.A will acknowledge the complaint within 10 business days of receiving it and provide an answer within one month (unless specific circumstances prevent AIG Europe S.A from doing so, in which case the complainant will be informed). If the complainant is not satisfied with the AIG Europe S.A's response, they may contact the Luxembourg Commissariat Aux Assurances (CAA) by writing to CAA, 7 boulevard Joseph II, L-1840 Luxembourg, Grand-Duchy of Luxembourg, by email at [reclamation@caa.lu](mailto:reclamation@caa.lu) or online through the CAA website: [www.caa.lu](http://www.caa.lu). Following this complaints procedure or making use of one of the options above does not affect the complainant's right to take legal action.

7. Outsourcing

The Policyholder acknowledges and expressly accepts that AIG Europe S.A. may outsource certain services, activities or tasks to external providers (which may or may not be (a) regulated; or (b) located in the Grand-Duchy of Luxembourg) (the "Service Providers").

In this context, the Policyholder expressly accepts that any data which it has provided to AIG Europe S.A., including data which may directly or indirectly identify the Insured, or a beneficial owner or an authorized representative of the Insured, may be communicated to Service Providers. The transfer and/or disclosure of information to Service Providers may continue as long as the Policyholder maintains its insurance relationship with AIG Europe S.A.

The list of outsourced services as well as the country of establishment of the Service Providers is available on AIG Europe S.A.'s website at the following address: [www.aig.lu/en/professional-secrecy](http://www.aig.lu/en/professional-secrecy) which will be updated from time to time. The Policyholder acknowledges (a) having read and accepted this list (b) that it will visit the website from time to time should it wish to access the most up to date list.

8. AIG Europe S.A.'s Privacy Policy is available at <https://www.aig.lu/en/privacy> or by requesting a copy from: Data Protection Officer, AIG Europe S.A. 35D Avenue John F Kennedy, L-1855 Luxembourg, Grand-Duchy of Luxembourg or by email to: [dataprotectionofficer.lu@aig.com](mailto:dataprotectionofficer.lu@aig.com). Before providing us with personal information about another individual you must (unless we agree otherwise): (a) inform the individual about the content of this notice and our Privacy Policy; and (b) obtain their permission (where possible) to share their personal Information with us in accordance with the Privacy Policy.
9. AIG Europe S.A. is an insurance undertaking with R.C.S. Luxembourg number B 218806. AIG Europe S.A. has its head office at 35 D Avenue J.F. Kennedy, L-1855, Luxembourg, Grand-Duchy of Luxembourg. AIG Europe S.A. is authorised by the Luxembourg Ministère des Finances and supervised by the Commissariat aux Assurances 7, boulevard Joseph II, L-1840 Luxembourg, Grand-Duchy of Luxembourg, Tel.: (+352) 22 69 11 - 1, [caa@caa.lu](mailto:caa@caa.lu), <http://www.caa.lu/>. AIG Europe S.A. is authorised by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority (FRN number 818443). This information can be checked by visiting the FS Register ([www.fca.org.uk/register](http://www.fca.org.uk/register)). Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request.
10. AIG Europe S.A. is a public limited company (société anonyme) incorporated in the Grand-Duchy of Luxembourg. AIG Europe S.A., UK Branch is registered in England and Wales respectively with branch establishment number BR020570. Registered branch office address: The AIG Building, 58 Fenchurch Street, London, EC3M 4AB, United Kingdom.
11. Notwithstanding any other provision of this Policy, contracts of insurance which relate to risks which are situated in the EEA (as determined in accordance with the Policyholder Protection part of the Prudential Regulation Authority Rulebook) are not protected contracts of insurance for the purposes of the Financial Services Compensation Scheme (FSCS) and therefore do not give rise to an entitlement to compensation from the FSCS.

### **Allianz Global Corporate & Specialty SE Legal and Regulatory Information (AGCS SE)**

Where this policy / certificate (re)insures risks which are located outside the European Economic Area it is underwritten by Allianz Global Corporate & Specialty SE through its United Kingdom branch.

Allianz Global Corporate & Specialty SE, a part of the Allianz Group, is a German authorised insurance company providing insurance products and services on a cross-border basis. Allianz Global Corporate & Specialty is the UK branch of Allianz Global Corporate & Specialty SE, Königinstrasse 28, 80802 München, Germany. Munich Commercial Register HRB 208312. UK Branch Registered Office: Allianz House, 60 Gracechurch Street, London EC3V 0HR. Registered in England at UK Companies House FC039211 and BR024312. UK Financial Conduct Authority Register 214374. Authorised by Bundesanstalt für Finanzdienstleistungsaufsicht.

Where this policy / certificate insures risks which are located in the European Economic Area it is underwritten by Allianz Global Corporate & Specialty SE.

Allianz Global Corporate & Specialty SE, a part of the Allianz Group, is a German authorised insurance company providing insurance products and services on a cross-border basis. Allianz Global Corporate & Specialty SE, Königinstrasse 28, 80802 München, Germany. Munich Commercial Register HRB 208312. Authorised by Bundesanstalt für Finanzdienstleistungsaufsicht.

Allianz Global Corporate & Specialty SE's Privacy Notice is available at Privacy Notice ([allianz.com](http://allianz.com)) or by requesting a copy from: [AGCS-DATA-PROTECTION@ALLIANZ.COM](mailto:AGCS-DATA-PROTECTION@ALLIANZ.COM) or by post at ALLIANZ GLOBAL CORPORATE & SPECIALTY SE, Global Data Protection Officer, Dieselstrasse 8, 85774 Unterfoehring, Germany.

Before providing Allianz with personal information about another individual you must (unless Allianz agree otherwise): (a) inform the individual about the content of this notice and our Privacy Notice; and (b) obtain their permission (where possible) to share their personal Information with us in accordance with the Privacy Notice.

### **Chubb Global Markets Legal and Regulatory Information**

Where this policy / certificate insures risks which are located outside the European Economic Area it is underwritten by Chubb European Group SE (CEG) through its United Kingdom branch.

CEG is a Societas Europaea, a public company registered in accordance with the corporate law of the European Union. Members' liability is limited. CEG is headquartered in France and governed by the provisions of the French insurance code, authorised and regulated by the French Prudential Supervision and Resolution Authority. Registered company number: 450 327 374 RCS Nanterre. Registered office: La Tour Carpe Diem, 31 Place des Corolles, Esplanade Nord, 92400 Courbevoie, France. Fully paid share capital of €896,176,662.

CEG's UK branch is registered in England & Wales under UK Establishment number: BR023093. UK Establishment address: 100 Leadenhall Street, London EC3A 3BP. Authorised by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request (FS Register number 820988).

Where this policy / certificate insures risks which are located in the European Economic Area it is underwritten by Chubb European Group SE (CEG).

Chubb European Group SE is a Societas Europaea, a public company registered in accordance with the corporate law of the European Union. Members' liability is limited. CEG is headquartered in France and governed by the provisions of the French insurance code. It is authorised and regulated by the French Prudential Supervision and Resolution Authority. Registered company number: 450 327 374 RCS Nanterre. Registered office: La Tour Carpe Diem, 31 Place des Corolles, Esplanade Nord, 92400 Courbevoie, France. Fully paid share capital of €896,176,662.

**Lloyd's Insurance Company**

Lloyd's Insurance Company S.A. is a Belgian limited liability company (société anonyme / naamloze vennootschap) with its registered office at Bastion Tower, Marsveldplein 5/Place du Champs de Mars 5, 1050 Brussels, Belgium and registered with Banque-Carrefour des Entreprises / Kruispuntbank van Ondernemingen under number 682.594.839 RPR/RPM (Brussels). It is an insurance company authorised (under number 3094) and supervised by the National Bank of Belgium. Its company Reference Number(s) and other details can be found on [www.nbb.be](http://www.nbb.be). Website address: [www.lloydseurope.com](http://www.lloydseurope.com). E-mail: [lloydseurope.info@lloyds.com](mailto:lloydseurope.info@lloyds.com). Bank details: Citibank Europe plc Belgium Branch, Boulevard General Jacques 263G, Brussels 1050, Belgium - BE46570135225536.

All other terms, exclusions and conditions of this Policy remain unaltered.

## DUAL EVOLUTION (Specialist)

### THIS IS A CLAIMS MADE CERTIFICATE

#### Section 1: Nature of insurance

In consideration of the payment of the *Premium* specified in the schedule, *We* shall provide cover on the terms set out below.

#### Section 2: Insuring Clauses

*We* agree to indemnify the *Insured* against their liability for any *Claim* first made against the *Insured* and notified to *Us* during the *Certificate Period* in accordance with the terms of this Certificate in respect of any legal liability arising out of:

2.1 a breach of professional duty by the *Insured* or by any *Employee* of the *Insured* in the course of the *Insured's Professional Business*.

2.2 any dishonest or fraudulent act or omission on the part of any *Employee* provided that:

2.2.1 no person committing or condoning such dishonest or fraudulent act or omission shall be entitled to an indemnity;

2.2.2 no indemnity shall be provided for dishonest or fraudulent acts committed by any person or after discovery by the *Insured* of any reasonable cause for suspicion of fraud or dishonesty on the part of that person;

2.2.3 in relation to this clause 2.2 and 7.4, *Employee* shall not include sub-consultants.

2.3 the *Insured's* involvement in a joint venture provided the extent of the indemnity is restricted to *Claims* arising out of work performed by the *Insured* or an *Employee* in the course of the *Insured's Professional Business*.

2.4 libel and slander committed without intention or malice by the *Insured* or any *Employee* during the course of the *Insured's Professional Business*.

*We* also agree to pay *Costs* either incurred by *Us* or incurred by the *Insured* provided *Our* prior written consent has been given.

#### Section 3: Extensions to Cover

##### 3.1 Compensation for Court Attendance

*We* agree to indemnify the costs of attendance at a court formal hearing or mediation by an *Employee* in connection with a *Claim* or a *Circumstance* notified to *Us* where such attendance is approved by *Us*. This cover is subject to *Our* having given prior written agreement to the attendance and to the upper limit recoverable being restricted to GBP 250 per day and to a total limit of indemnity under this clause being limited to GBP 10,000. The Certificate *Excess* does not apply to this clause.

##### 3.2 Loss of Documents

*We* agree to indemnify the *Insured* for expenses reasonably incurred in replacing or restoring *Documents* which are discovered lost or damaged beyond reasonable use and for which the *Insured* is legally responsible in the course of its *Professional Business*, provided that the loss of *Documents* is first discovered during the *Certificate Period*. For the purpose of this clause only, the excess payable by the *Insured* is GBP 1,000 and the limit of indemnity shall be limited to GBP 100,000 in the aggregate during the *Certificate Period*.

##### 3.3 Acquisitions

If the *Insured* acquires another entity, *We* agree that this Certificate will provide cover for any *Claim* arising from the *Professional Business* of the *Insured* carried out within the acquired entity after the date of completion of the acquisition and once the *Insured* has taken full control of the entity subject to:

3.3.1 the turnover or fees of the acquired entity being no greater than 10% of the *Insured's* turnover or fees stated in the *Proposal*.

3.3.2 the acquired entity not being listed on any stock exchange or alternative investment market and not having outside shareholders and also not being domiciled in a different territory from that of the *Insured*.

**3.3.3** the acquired entity being previously and continuously insured for professional indemnity cover on similar terms to this Certificate

**3.3.4** the acquired entity undertaking a very similar *Professional Business* to that of the *Insured*.

### **3.4 Take Overs and Mergers**

In the event of a Take Over or Merger whereby there is a sale of the *Insured* or a merger with or acquisition by another entity such that the *Insured* is not the surviving entity and no longer:

**3.4.1** controls the composition of the board of directors, or

**3.4.2** controls more than half the voting power, or

**3.4.3** holds more than half of the issued share capital

then this Certificate shall apply only to any *Claim* arising from the *Professional Business* of the *Insured* carried out prior to the date of such Take Over or Merger, unless otherwise agreed in writing by *Us*.

### **Section 4: Interpretation**

In the Certificate:

**4.1** **4.1.1** person includes individuals, partnerships, bodies corporate and associations

**4.1.2** the headings are for descriptive purposes only

**4.2** unless otherwise agreed, the construction and interpretation of this Certificate shall be determined in accordance with the law of England and Wales.

**4.3** in the event that any portion of the Certificate is found to be invalid or unenforceable, the remainder shall remain in full force and effect.

**4.4** the *Proposal*, the schedule and the Certificate shall be read together as one and any word or expression to which a specific meaning has been attached shall bear the same meaning wherever it may appear.

**4.5** in this Certificate references to any statute shall be to that statute as amended or re-enacted from time to time.

**4.6** GBP shall mean British Pounds or its currency equivalent.

**4.7** Any reference to the singular shall include the plural and vice versa.

### **Section 5: Definitions**

In the Certificate

**5.1** *Certificate Period* means the period specified in the schedule.

**5.2** *Claim* means

**5.2.1** any written or oral demand for monetary damages or other relief including non pecuniary relief.

**5.2.2** any civil, arbitration or adjudication proceedings including any counterclaim or appeal.

**5.3** *Circumstance* is understood to include the following:

**5.3.1** an intimation of an intention to claim against the *Insured*

**5.3.2** any known direct or indirect criticism or dispute whether expressed or implied relating to performance of the *Insured* (whether justified or not)

**5.3.3** any known direct or indirect criticism or dispute whether expressed or implied relating to performance (whether justified or not) of a party for whom and for which the *Insured* is responsible

**5.3.4** any awareness of the *Insured* of a failing or real doubt of the efficacy of their own performance or of the performance of a part for whom and for which the *Insured* is responsible

**5.3.5** any awareness of the *Insured*, that materials, goods, services or actions or actions specified, designed or recommended by the *Insured* or by a party for whom and for which the *Insured* is responsible have failed to meet the standard required

which is likely to give rise to a *Claim* under this Certificate.

- 5.4** *Costs* means any reasonable fees, expenses, costs and disbursements incurred in investigating, adjusting or defending a *Claim* covered by this Certificate including any appeal issued in connection with a *Claim* and to which *We* have given *Our* prior written consent. Any internal or overhead expenses of the *Insured* (except where covered under clause 3.1) or the costs of any *Insured's* time is not included.
- 5.5** *Documents* means deeds, wills, agreements, maps, plans, books, letters, policies, certificates, forms and documents of any nature, whether printed, written or produced by any method including computer records and electronically stored data used in the course of the *Insured's Professional Business* but does not mean bonds or coupons, stamps, bank or currency notes, money or any negotiable instrument.
- 5.6** *Employee* means any person employed by the *Insured* under a contract of service or apprenticeship during or prior to the commencement of the *Certificate Period*, as well as any sub-consultant acting on behalf of the *Insured* under a written agreement and for whom the *Insured* is responsible, but subject always to *Our* right to subrogation. No-one who is or becomes during the *Certificate Period* a principal, partner, member or director of the *Insured* shall be an *Employee*.
- 5.7** *Excess* means the amount specified in the schedule.
- 5.8** *Indemnity Limit* means the amount specified in the schedule.
- 5.9** *Insured* means
- 5.9.1** the person, firm, partnership or company or other entity, specified as the *Insured* in the schedule; and
  - 5.9.2** any person who is or becomes, during the *Certificate Period*, a principal, partner, member or director of the *Insured*; and
  - 5.9.3** any former principals, partners, members or directors of the *Insured*; and
  - 5.9.4** in the event of the death or incompetence or bankruptcy of any principal, partner, member or director of the *Insured*, such person's estate, heirs, legal representatives or assigns, for legal liabilities incurred due to any act, error or omission of such deceased, incompetent or bankrupt person.
- 5.10** *Premium* means the amount set out in the schedule.
- 5.11** *Professional Business* means the *Professional Business* specified in the schedule and as advised to *Us* in the *Proposal*.
- 5.12** *Proposal* means the written *Proposal* made by the *Insured* to *Us* together with any other related particulars and statements that have been supplied or made to *Us* in writing.
- 5.13** *Retroactive Date* means the date specified in the schedule.
- 5.14** *We/Us/Our* means the Insurers specified in the Insurer Details.

**Section 6: Exclusions**

*We* will not cover the *Insured* for:

- 6.1** Asbestos and Toxic Mould
- a *Claim* directly or indirectly arising from, relating to or involving:
- 6.1.1** asbestos, or any materials containing asbestos, in any form or quantity; or
  - 6.1.2** any *Claim* of whatsoever nature directly or indirectly arising out of or in any way involving the presence of or any form of release of aspergillus fumigatus.
- 6.2** Associates
- 6.2.1** a *Claim* by or on behalf of the *Insured*;
  - 6.2.2** a *Claim* by or on behalf of any parent, subsidiary or associated company of the *Insured*;
  - 6.2.3** a *Claim* from any other company in which the *Insured* has a majority shareholding in excess of 50%;
  - 6.2.4** a *Claim* from any other company in common control with the *Insured*;
- unless such *Claim* emanates from an independent third party

**6.3** Bodily Injury

liability in respect of any *Claim* directly or indirectly based upon attributable to or in consequence of bodily injury, mental injury, sickness, disease or death of any person provided that this Exclusion shall not apply to *Claims* incurred as a result of breach of professional duty in the conduct of the *Professional Business*.

**6.4** Computer Network and Data Corruption

a *Claim* arising directly or indirectly from:

**6.4.1** the corruption, erasure, theft, alteration of, or

**6.4.2** the access or lack of access to, or

**6.4.3** the interference with

electronically held data of or by the *Insured* wholly or partly caused by any computer virus by any person who is not a partner, director, member or *Employee* of the *Insured*.

**6.5** Computer Records

a *Claim* out of the loss, distortion or erasure of computer records:

**6.5.1** whilst mounted in or on any machine for use or processing unless caused by negligent act or omission on the part of the *Insured* or

**6.5.2** resulting from wear, tear, vermin or gradual deterioration or

**6.5.3** caused by climatic or atmospheric conditions or extremes of temperature or

**6.5.4** due to the presence of magnetic flux or due to loss of magnetism.

**6.6** Contractual Terms

any *Claim* arising out of any express agreement, warranty, indemnity, waiver or guarantee unless liability would have attached to the *Insured* in the absence of such express agreement, warranty, indemnity, waiver or guarantee.

**6.7** Financial

any *Claim* arising from, attributable to, relating to or in any way involving:

**6.7.1** depreciation or loss of investments when the depreciation or loss is as a result of any fluctuation in any financial, stock or commodity markets when such fluctuation is outside the influence or control of the *Insured*;

**6.7.2** any failure to obtain or maintain adequate insurance

**6.7.3** the insolvency, bankruptcy or liquidation of the *Insured*

**6.8** Fines and penalties

fines, penalties, punitive or exemplary damages.

**6.9** Land, Buildings, Transport

liability incurred or alleged to have been incurred, arising directly or indirectly from the ownership, possession or use by or on behalf of the *Insured* of any land, buildings, aircraft, vessel, or motor powered or mechanically propelled vehicle.

**6.10** Liability to Employees

liability to *Employees* in respect of any *Claim* arising from any contract of service or obligation owed by the *Insured* as employer and/or arising from any bodily injury, sickness, disease or death sustained in the course of their employment by the *Insured*.

**6.11** Nuclear

a *Claim* arising from or attributable to:

**6.11.1** ionising radiations or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel; or

**6.11.2** the radioactive, toxic, explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof.

- 6.12** Other insurance  
a situation where the *Insured* is entitled to indemnity under any other insurance except in respect of any sum beyond the amount which would have been payable under such other insurance had this Certificate not been effected.
- 6.13** Pollution  
any *Claim* of whatsoever nature directly or indirectly arising out of or in any way involving actual or alleged seepage, pollution or contamination of any kind.
- 6.14** Prior knowledge  
**6.14.1** a *Claim* or *Circumstance* known to the *Insured* or which in the reasonable opinion of the *Insurer* ought to have been known prior to the *Certificate Period*;  
**6.14.2** a *Claim* or *Circumstance* notified to any insurance policy preceding the *Certificate Period*.
- 6.15** Products  
a *Claim* arising out of the manufacture, construction, installation, alteration, repair, workmanship, servicing or treating of any goods or products sold, supplied or distributed by or on behalf of the *Insured* even though the same might be carried on by the *Insured* in conjunction with their *Professional Business*.
- 6.16** Property Damage  
liability arising out of the loss or destruction of, or damage to, any property unless arising from lost *Documents* or design or specification, technical information calculation or survey performed by or on behalf of the *Insured* in the conduct of *Professional Business*.
- 6.17** Retroactive Date  
any *Claim* arising out of the exercise and conduct of the *Professional Business* carried out prior to any *Retroactive Date* specified in the schedule.
- 6.18** Trading Debts  
a *Claim* arising from or directly or indirectly attributable to any trading debt or trading loss of the *Insured* or any guarantee or undertaking given by the *Insured* for a debt or performance of any other obligation by a third party.
- 6.19** War/Terrorism  
any *Claim* of whatsoever nature directly or indirectly caused by, resulting from or in connection with any of the following, regardless of any cause or event contributing concurrently or in any other sequence to any *Claim* or *Costs*.  
**6.19.1** war, invasion, acts of foreign enemies, hostilities or warlike operations (whether war be declared or not), civil war, rebellion, revolution, insurrection, civil commotion assuming the proportions of or amounting to an uprising, military or usurped power; or  
**6.19.2** any act of terrorism, including but not limited to the use of force or violence and/or the threat thereof, of any person or group of persons, whether acting alone or on behalf of or in connection with any organisation or government, committed for political, religious, ideological or similar purposes including the intention to influence any government and/or to put the public, or any section of the public, in fear.

**Section 7: Conditions Precedent to Liability**

Observance and compliance with the terms of the conditions in this Section of the Certificate are a **condition precedent** to *Our* liability to provide an indemnity for, or make any payment in respect of, any *Claim* under this Certificate.

Clauses 7.1, 7.2, 7.3 and 7.4 are **conditions precedent**. No *Claim* will be paid unless full and complete adherence to these conditions is maintained by the *Insured*.

**7.1** Notification

The *Insured* shall notify *Us* in writing within the *Certificate Period* and **within 28 days** of any

**7.1.1** *Claim* made against any *Insured*

**7.1.2** *Circumstance* against the *Insured* regardless of whether the *Insured* believes the *Claim* to have any merit;

**7.1.3** discovery or reasonable cause for suspicion of dishonesty or fraud on the part of any *Employee*.

Any subsequent *Claim* arising out of matters notified under Clause 7.1.2 or 7.1.3 shall in each case be deemed to have been a *Claim* made during the *Certificate Period*.

Notification is deemed to have been made only when received in writing by the nominee shown in the Details for Notification of Claims.

The notification must include full particulars, including the identity of the claimant or potential claimant, details of the allegations and potential allegations against the *Insured*, identification of the project and services giving rise to the *Claim* or potential *Claim*, the potential quantum if known involved in the *Claim* and in the case of a *Circumstance*, the notification should include the reasons for the belief that a *Claim* is likely to be made.

As a **condition precedent** to *Our* liability to provide an indemnity, where **court proceedings are served** against the *Insured* the *Insured* shall notify *Us* **within 7 days**.

## 7.2

### Co-operation

- 7.2.1 As soon as practicable following receipt thereof by the *Insured*, they must deliver to us any Letter of Claim, Pre-Action Protocol Letter, Claim Form, other legal procedural documents, Summons, Arbitration Notice or other such similar correspondence and documents to those described.
- 7.2.2 The *Insured* shall provide *Us* with all information and assistance that *We* and/or *Our* representatives and other appointed by *Us* may reasonably require.
- 7.2.3 The *Insured* shall use due diligence and shall ensure that all reasonable and practicable steps are taken to avoid or diminish any liability which may give rise to a *Claim* or loss.

Compliance with this condition will be at the *Insured's* own cost.

## 7.3

### Legal Defence and Settlement

- 7.3.1 *We* are entitled but not obliged to assume the legal defence of any *Claim* covered under this Certificate in the name of the *Insured* and *We* shall have full discretion in managing any negotiation or proceedings as to the resolution of such *Claim*.
- 7.3.2 *We* shall be entitled to select and appoint the lawyers that will defend and represent the *Insured* in respect of any *Claim*.
- 7.3.3 The *Insured* agrees not to admit liability for or settle any *Claim*, make any admission, offer payment or assume any obligation in connection with any *Claim*, or incur any *Costs* in connection with any *Claim*, without *Our* written consent.
- 7.3.4 If *We* are of the opinion that a *Claim* will not exceed the Excess, *We* may require the *Insured* to conduct the defence of the *Claim* at their own expense.
- 7.3.5 *We* may at any time pay to the *Insured* the *Indemnity Limit* (having deducted any sums already paid) or any lesser amount for which such *Claim* may be settled and having paid such sum *We* shall relinquish the control of such *Claim* and be under no further liability in connection with such *Claim* except for costs and expenses for which *We* may be responsible under this Certificate for matters arising prior to the date of such payment.

## 7.4

### Dishonest or Fraudulent persons

Should the *Insured* suffer any loss or *Claim* or incur any liability of the type insured under the Certificate by reason of the dishonest or fraudulent act or omission of any *Employee* (excluding sub-consultants):

- 7.4.1 the *Insured* shall at *Our* request take all reasonable steps to obtain reimbursement from such person;
- 7.4.2 any monies which but for the dishonest or fraudulent act or omission would be due to such persons from the *Insured* or any monies of such persons held by the *Insured* shall be deducted from any amount payable hereunder;
- 7.4.3 no indemnity in respect of such loss or *Claim* shall be afforded hereunder to any person committing or condoning such dishonest or fraudulent act or omission;
- 7.4.4 nothing herein shall preclude *Us* from exercising any right of subrogation against any person committing or condoning such dishonest or fraudulent act or omission;

**7.4.5** the sums payable hereunder shall be only for the balance of liability in excess of the amounts recoverable from the dishonest or fraudulent person or persons or their estates or legal representatives;

**7.4.6** the *Insured* shall bear the burden of providing satisfactory proof to substantiate a loss hereunder (including any costs incurred in such process and *We* will be under no obligation to provide indemnity to the *Insured* until such time as *We* are satisfied that such loss has in fact been sustained);

**Section 8: General Conditions**

**8.1** *Insured's* Right to Contest

In the event that *We* recommend settlement of a *Claim* and the *Insured* does not agree to the settlement of the *Claim*, and the *Insured* decides to contest the *Claim*, *Our* liability shall not exceed the amount for which the *Claim* could have been settled, or *Costs* incurred up to the date upon which the *Claim* could have been settled.

**8.2** Senior Counsel

**8.2.1** *We* shall not require the *Insured* to contest a *Claim* unless a Senior Counsel (agreed upon by the *Insured* and *Us* or failing such agreement to be nominated by the Chairman for the time being of the Bar Council of England and Wales or where appropriate by a similar official of any similar body in any other applicable jurisdiction) advises that the *Claim* should be contested taking into account all likely *Costs*, prospects of success and the damages and the costs likely to be recovered by the third party claimant.

**8.2.2** The cost of Senior Counsel's advice shall be regarded as part of the *Costs*.

**8.3** Subrogation

**8.3.1** Where *We* have paid a *Claim* under this Certificate *We* become entitled to any rights the *Insured* has against any party in relation to the *Claim* to the extent of *Our* payment.

**8.3.2** The *Insured* must assist *Us* and provide information as *We* may reasonably require to exercise our rights of subrogation, including bringing any action or suit in the *Insured's* name. This may include providing and signing statements and other documents and the giving of evidence.

**8.3.3** Any recovery received shall be applied first against any *Claim* or *Costs* insofar as it exceeds the *Indemnity Limit*, then against any payment made by *Us*, and finally against the *Excess*.

**8.3.4** *We* will not subrogate against any *Employee* unless that person is found to have committed a criminal, fraudulent, malicious or dishonest act or omission.

**8.4** Alteration to Risk

The *Insured* must notify *Us* in writing as soon as practicable of any material alteration to the risk during the *Certificate Period* including but not limited to any material change in the nature of or cessation of the *Professional Business*.

*We* may not cover the *Insured* for any *Claim* if the *Insured* does not notify *Us* in writing as soon as practicable of any material alteration to the risk. In all cases, the remedies available to *Us* shall be governed by the Insurance Act, 2015.

**8.5** Jurisdictional and Geographical Limitation

*We* shall indemnify *Claims* arising from the conduct of the *Professional Business* by the *Insured* provided only they are brought within the Jurisdictional Limits or arise out of work undertaken within the Geographical Limits allowed for in the schedule to this Certificate.

**8.6** Authorisation

The *Insured* named in the schedule shall act on behalf of all those entitled to an indemnity under this Certificate with respect to the giving and receiving of notice under this Certificate, including the giving of notice of any *Claim*, the payment of the premium, the receipt and acceptance of any endorsements attaching to and forming part of this Certificate.

**8.7** Fraudulent Claims

If the *Insured* shall knowingly make any fraudulent request for an indemnity in respect of any *Claim* or circumstance notified to *Us*, as regards amount or otherwise, *We* shall be entitled to exercise the rights and remedies set out within Section 12, the Insurance Act, 2015.

## 8.8 Our Rights

**8.8.1** If in making a proposal of insurance to *Us* the *Insured* misrepresents the risk and/or fails to disclose all material facts and information that it knows or ought reasonably to know of to *Us*, but for which *We* would not have entered into this Certificate, or would have done so on different terms and/or conditions, then *We* shall be entitled as follows:

a) If the misrepresentation or non-disclosure was deliberate or reckless, *We* shall be entitled to avoid the Certificate ab initio and retain the premium

b) if the misrepresentation or non-disclosure was not deliberate or reckless and:

i) *We* would not have entered into the Certificate, then *We* shall be entitled to avoid the Certificate and return the premium; or

ii) *We* would have offered different terms (other than premium), then *We* shall be entitled to treat the Certificate as being subject to those amended terms and/or where *We* would have charged an increased premium, then *We* shall be entitled to reduce the payment of any indemnity proportionate to any increase in the premium *We* would have charged.

**8.8.2** If during the Certificate Period, the *Insured* misrepresents the risk and/or fails to disclose all material facts and information that it knows or ought reasonably to know of to *Us* in the context of *Our* considering a variation of the Certificate and but for that misrepresentation or non-disclosure *We* would not have agreed to vary the Certificate or would have done so on different terms and/or conditions, then *We* shall be entitled as follow:

a) If the non-disclosure or misrepresentation was fraudulent, *We* shall be entitled to treat the Certificate as having been terminated with effect from the time when the variation was made and *We* need not return any of the premiums paid.

b) If the non-disclosure or misrepresentation was not fraudulent and;

i) *We* would not have agreed to the variation any terms, then *We* may treat the Certificate as if the variation was never made but shall return any extra premium paid upon the variation; or

ii) *We* would have agreed to the variation on different terms (other than specifically relating to premium) then *We* shall be entitled to treat the variation as being subject to those different terms and/or where *We* would have charged an increased premium, then *We* shall be entitled to reduce the payment of any indemnity proportionate to any increase in the premium that *We* would have charged on the variation.

## 8.9 Third Party Rights

No party who is not an *Insured* shall be entitled to enforce any term of this Certificate for its own benefit under the Contracts (Rights Against Third Parties) Act 1999 or otherwise.

## Section 9: Dispute Clause

Disputes arising from or in connection with this Certificate may be referred by the *Insured* to a recognised mediation service.

Any disputes arising from or in connection with this Certificate shall be governed by the laws of the country stated alongside the heading "*Law and Jurisdiction*" in the schedule.

**Personal information**

Your insurance cover includes cover for individuals who are either insureds or beneficiaries under the policy (*individual insureds*). We the insurers identified in the contract of insurance and other insurance market participants collect and use relevant information about individual insureds to provide you with your insurance cover and to meet our legal obligations.

This information includes individual insured's details such as their name, address and contact details and any other information that we collect about them in connection with your insurance cover. This information may include more sensitive details such as information about their health and criminal convictions.

We will process individual insureds' details, as well as any other personal information you provide to us in respect of your insurance cover, in accordance with our privacy notice on our website and applicable data protection laws.

**Minimisation and notification**

We are committed to using only the personal information we need to provide you with your insurance cover. To help us achieve this, you should only provide to us information about individual insureds that we ask for from time to time.

You must promptly notify us if an individual insured on this policy contacts you about how we use their personal details in relation to your insurance cover so that we can deal with their queries.

#### **SEVERAL LIABILITY CLAUSE**

**PLEASE NOTE – This notice contains important information. PLEASE READ CAREFULLY**

The liability of an insurer under this contract is several and not joint with other insurers party to this contract. An insurer is liable only for the proportion of liability it has underwritten. An insurer is not jointly liable for the proportion of liability underwritten by any other insurer. Nor is an insurer otherwise responsible for any liability of any other insurer that may underwrite this contract.

The proportion of liability under this contract underwritten by an insurer (or, in the case of a Lloyd's syndicate, the total of the proportions underwritten by all the members of the syndicate taken together) is shown in this contract.

In the case of a Lloyd's syndicate, each member of the syndicate (rather than the syndicate itself) is an insurer. Each member has underwritten a proportion of the total shown for the syndicate (that total itself being the total of the proportions underwritten by all the members of the syndicate taken together). The liability of each member of the syndicate is several and not joint with other members. A member is liable only for that member's proportion. A member is not jointly liable for any other member's proportion. Nor is any member otherwise responsible for any liability of any other insurer that may underwrite this contract. The business address of each member is Lloyd's, One Lime Street, London EC3M 7HA. The identity of each member of a Lloyd's syndicate and their respective proportion may be obtained by writing to Market Services, Lloyd's, at the above address.

Although reference is made at various points in this clause to "this contract" in the singular, where the circumstances so require this should be read as a reference to contracts in the plural.

07/03/08

LMA5096 (Combined Certificate)

### **OUR REGULATORY STATUS**

This insurance is underwritten by DUAL Corporate Risks Limited on behalf of one or more Insurers as identified on your Certificate of Insurance. DUAL Corporate Risks Limited is part of the DUAL International Limited, it is authorised and regulated by the Financial Conduct Authority No. 312593. Registered in England and Wales No. 4160680, registered office: One Creechurch Place EC3A 5AF.

DUAL Corporate Risks Limited is currently exempt from the Financial Services Compensation Scheme (FSCS) as it has notified the FSCS in writing that it does not conduct business that could give rise to a protected claim by an eligible claimant and has no reasonable likelihood of doing so. Definitions of protected claim and eligible claimant can be found at [www.fca.gov.uk](http://www.fca.gov.uk). Should these conditions no longer apply, DUAL Corporate Risks Limited will notify the FSCS and the exemption will cease.

Your insurer may be a member of the Financial Services Compensation Scheme (FSCS). You may be entitled to compensation from the scheme if it is unable to meet its liabilities under this insurance certificate. This depends upon the type of business and the circumstances of the claim. Further Information about the compensation scheme arrangements is available from the FSCS or by visiting the FSCS website at [www.fscs.org.uk](http://www.fscs.org.uk).

## How to Complain

If there is any occasion where service does not meet your expectations in the first instance please contact your Insurance Broker.

Our aim is to ensure that all aspects of your insurance are dealt with promptly, efficiently and fairly and we are committed to providing you with the highest standard of service at all times.

### UK & Non-EEA Complaints

For all UK policies, if *you* wish to make a complaint *you* can do so at any time by referring the matter to:

Dual Corporate Risks Ltd  
One Creechurch Place  
London  
EC3A 5AF

By email: [complaints@dualgroup.com](mailto:complaints@dualgroup.com)

By phone: +44 (0)20 7337 9888

Should *you* remain dissatisfied and *your* policy is underwritten through Lloyd's *you* may pursue the matter further with Lloyd's. Full details of Lloyd's complaints procedures are available at [www.lloyds.com/complaints](http://www.lloyds.com/complaints) and the Complaints team's contact details are as follows:

Complaints  
Lloyd's  
Fidentia House  
Walter Burke Way  
Chatham Maritime  
Kent  
ME4 4RN

Tel: 0207 327 5693

Fax: 0207 327 5225

Email: [complaints@lloyds.com](mailto:complaints@lloyds.com)

You may have the right to refer your complaint to the Financial Ombudsman Service (FOS), free of charge. Details regarding the FOS can be obtained from their website at [www.financial-ombudsman.org.uk](http://www.financial-ombudsman.org.uk).

Alternatively the FOS may be contacted at:

The Financial Ombudsman Service  
Exchange Tower  
London  
E14 9SR

Tel: 0800 023 4 567 or 0300 123 9 123

## EEA complaints

For all EEA complaints where there is a Lloyd's Brussels (LBS) capacity, *you* should first direct *your* complaint to DUAL Europe GmbH.

*You* may contact DUAL Europe GmbH at:

DUAL Europe GmbH  
Schanzenstraße 36,  
Building 197,  
51063 Cologne,  
Germany

By email: [complaints@dualeurope.com](mailto:complaints@dualeurope.com)

By phone: +44 (0)20 7337 9888

## Referral to Lloyd's Brussels, Regulator or Ombudsman Service

Subject to applicable eligibility criteria, complainants may refer their complaint to their local EDR service (ombudsman or regulator), OR the UK Financial Ombudsman Service if no local EDR is available.

For details of local ombudsman services internationally please see the following link [International ombudsman services](#)

Alternatively, *you* may be entitled to refer your complaint to Lloyd's Brussels. Details of their complaints procedures are available at [www.lloydsbrussels.com/complaints](http://www.lloydsbrussels.com/complaints) and its Complaints team can be contacted at:

Service Manager  
Complaints team  
Lloyd's Insurance Company S.A.  
Bastion Tower  
Marsveldplein 5  
1050 Brussels  
Tel: +32 (0)2 227 39 40  
Email: [lloydsbrussels.complaints@lloyds.com](mailto:lloydsbrussels.complaints@lloyds.com)

Making a complaint will not affect your legal rights.

**The existence of this complaints procedure does not affect any right of legal action you may have against DUAL Corporate Risks Limited or DUAL Europe GmbH.**

### INSURER DETAILS

<b>Policy No.</b>	PC-4914842552
Participation	100.00%
Insurer	Signed Line
For Non-European Economic Area Portion:	
<b>UMR: B1969DS2500010</b>	
Liberty Mutual Insurance SE UK Branch	52.65306%
American International Group UK Limited	7.02041%
Munich Re Syndicate 457 at Lloyd's	7.02041%
Allianz Global Corporate and Specialty SE UK Branch	7.02041%
Carbon Syndicate 4747 at Lloyd's	1.75509%
Travelers Syndicate 5000 at Lloyd's	5.26531%
AXIS Syndicate 1686 at Lloyd's	5.26531%
<b>UMR: B1969DS2500020</b>	
Chubb European Group SE UK Branch	10.00%
Canopus Syndicate 4444 at Lloyd's	4.00%
Per DUAL Corporate Risks Limited	

### DETAILS FOR NOTIFICATION OF CLAIMS

[finlinesclaims@dualgroup.com](mailto:finlinesclaims@dualgroup.com)

DUAL Group  
Broomhay House  
Blackbrook Business Park  
Taunton  
Somerset  
TA1 2PX



Making Sustainability Happen