



Lime Down

Solar Park

Applicant's Response to SLD Deadline 6 Submission - Hydrology [REP5-130]

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1. Introduction

1.1 Purpose of This Note and Summary of Conclusions

- 1.1.1 This note has been prepared by Arthian on behalf of Lime Down Solar Park Limited (the Applicant) in respect of Lime Down Solar Park (the Scheme). It responds to the use by Stop Lime Down (SLD) of the PV-SMaRT Solar Runoff Calculator in **Stop Lime Down Written Representation Appendix F2 [REP1-175]** and its subsequent Examination submissions, including **SLD Responses to the ExA's Second Written Questions [REP5-130]**.
- 1.1.2 SLD relies on PV-SMaRT calculations to support its position that the Solar PV Sites would increase surface water runoff and that this would increase downstream flood risk.
- 1.1.3 The Applicant has reviewed the calculator, reproduced SLD's calculations for the locations identified by SLD as having the greatest modelled effects, and undertaken additional sensitivity testing using reasonable alternative inputs.
- 1.1.4 The review confirms that the PV-SMaRT output changes materially according to the assumptions entered, particularly existing land cover, proposed vegetation, soil characteristics and solar PV array arrangement.
- 1.1.5 The principal difference between SLD's use of PV-SMaRT and the Applicant's sensitivity testing is the way in which the existing and proposed conditions are represented. SLD's principal comparison generally retains the same vegetation category with and without solar PV panels and applies selected soil conditions at representative locations. This isolates the effect of introducing the solar PV panels within the calculator, but does not represent the full change from the existing arable agricultural baseline to the managed operational Scheme or the secured controls governing soil condition and vegetation establishment.
- 1.1.6 The Applicant's sensitivity testing therefore represents the existing agricultural baseline confirmed by its agricultural adviser and considers both the temporary establishment condition and established operational vegetation. It also considers soil condition, remediation and solar PV array arrangement. SLD's rainfall and larger tracker-panel assumptions are retained for the selected tests so that the effect of changing those other assumptions can be compared on a consistent basis.
- 1.1.7 On this basis, 13 of the 16 selected Applicant sensitivity results show a reduction in expected runoff relative to the existing agricultural baseline, including all eight cases representing established operational vegetation. The three increases occur only in temporary establishment-stage cases under the mixed / 50:50 solar PV array assumption. Those temporary conditions are already recognised and managed through the Scheme's secured construction and establishment controls.
- 1.1.8 This is consistent with the Applicant's position throughout the Examination. Solar PV panels redistribute rainfall locally. The response of the ground depends on its condition, including vegetation cover, soil compaction and whether local runoff becomes concentrated. These matters have already informed the Scheme assessment and are controlled through the **Outline Construction Environmental Management Plan (CEMP) [REP6-029]**, **Outline Operational Environmental Management Plan (OEMP) [REP6-031]**, **Outline Soil Resources Management Plan (SRMP) [REP6-035]** and **Outline Landscape and Ecological Management Plan (LEMP) [REP6-037]**.



- 1.1.9 The Applicant has not identified anything through the PV-SMaRT review which changes the conclusions of **ES Chapter 11: Hydrology, Flood Risk and Drainage [REP4-012]** or the **Flood Risk Assessment and Drainage Strategy Covering Report [REP4-021]**. When the existing agricultural baseline, proposed vegetation conditions and secured Scheme controls are represented, the Applicant's PV-SMaRT sensitivity testing is consistent with and supports those conclusions.



2. Review of SLD's PV-SMaRT Assessment

2.1 Use of the Calculator

- 2.1.1 PV-SMaRT is a plot-based runoff calculator. It uses selected values for rainfall, vegetation, soil texture, soil depth, bulk density, slope and the arrangement of solar PV panels to calculate runoff from the representative plot entered by the user.
- 2.1.2 SLD also referred at ISH5 to the image reproduced at Figure 1 below when discussing the response of water beneath solar PV panels. For clarity, this image is not an output generated by the PV-SMaRT Solar Runoff Calculator for Lime Down. It is a static visualisation reproduced by SLD from the research underpinning the development of PV-SMaRT.
- 2.1.3 The figure shows simulated soil water content at 6, 12, 18 and 24 hours for two illustrative soil conditions. The colour scale represents soil water content. It does not show measured runoff at Lime Down, a Lime Down runoff rate, a modelled Lime Down hydrograph, runoff leaving a Solar PV Site or a downstream flood response.

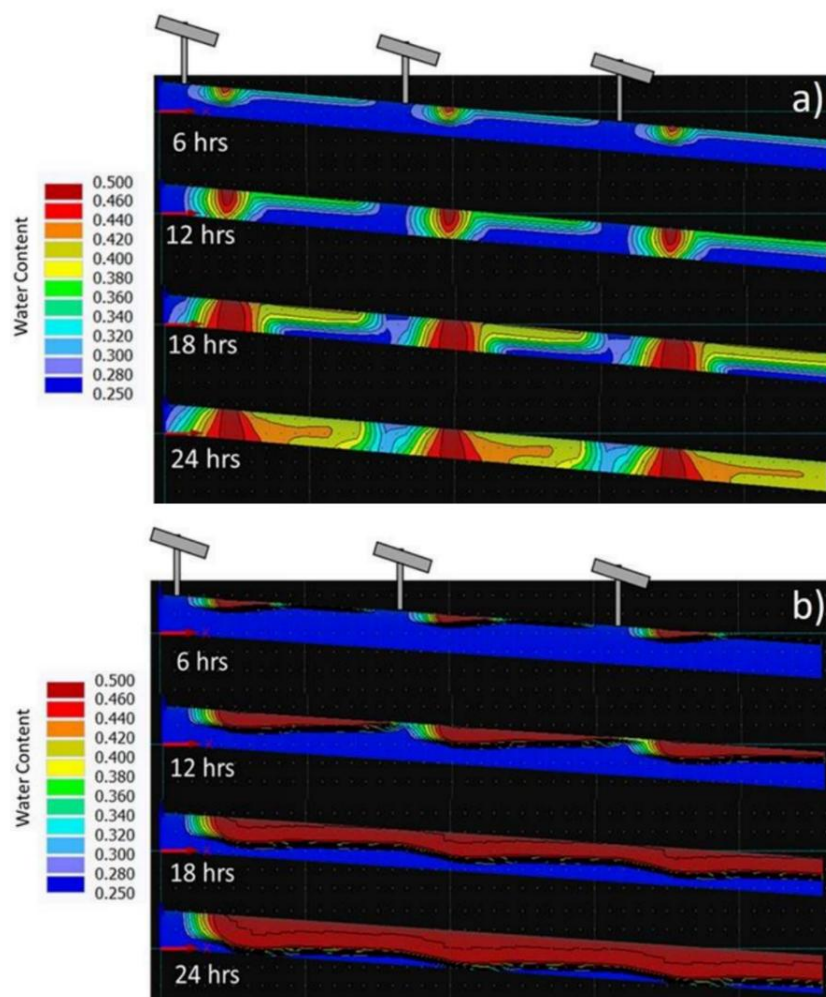


Figure 1: Illustrative simulated soil water content beneath solar PV panels reproduced by SLD

Source: **SLD Responses to the ExA's Second Written Questions [REP5-130]**, Appendix D, Figure 7. SLD identifies the image as adapted from Mulla et al. (2024), Supplementary Figure S5.



- 2.1.4 The distinction is important because the PV-SMaRT calculator used by SLD and the Applicant is a spreadsheet-based plot-scale calculator which produces numerical expected runoff outputs from the assumptions entered by the user. It does not recreate the spatial soil-water simulation shown in Figure 1. Figure 1 therefore provides context on the research underpinning PV-SMaRT, but it is not a site-specific PV-SMaRT output for Lime Down and does not show runoff rates or downstream flood effects at Lime Down.
- 2.1.5 The Applicant considers that the calculator can usefully show how local runoff response changes when those assumptions are varied. Its results need to be read at that scale. A PV-SMaRT runoff depth is not a measurement of runoff leaving a Solar PV Site or a prediction of downstream flood level. Those matters are addressed through the Scheme FRA and Drainage Strategy, using targeted hydraulic assessment and formal drainage design where required.
- 2.1.6 The Applicant has previously explained this proportionate assessment approach in the **Applicant's Response to Lead Local Flood Authority on Hydraulic Modelling Requirements [REP2-045]**. The submitted assessment includes site-specific hydraulic modelling at Gauze Brook, Manning's assessment of minor watercourses where appropriate, and quantitative drainage design for connected impermeable areas.

2.2 Reproduction of SLD Calculations

- 2.2.1 The numerical Lime Down PV-SMaRT results relied upon by SLD are separate from the illustrative soil-water image discussed in Section 2.1. SLD identifies Lime Down A, C and E as producing the greatest effects within its PV-SMaRT assessment. The Applicant has recreated the corresponding calculations using the inputs reported by SLD.
- 2.2.2 The reported results can generally be reproduced. Some inconsistencies have been identified between the soil descriptions recorded by SLD and the soil selections required in the calculator to reproduce the reported outputs. These are relatively limited and do not prevent the Applicant considering SLD's results on their own terms.
- 2.2.3 They do, however, illustrate the sensitivity of the calculator to individual selections. This is relevant because several of the required inputs vary materially within and between the Solar PV Sites. SLD's selected soil cases provide useful sensitivity inputs, but individual soil, vegetation and ground-condition assumptions should not be treated as uniform measured conditions across whole fields. In addition, SLD's principal panel comparison does not represent the secured controls for soil condition, compaction and vegetation establishment which form part of the assessed Scheme.

2.3 Soil Inputs

- 2.3.1 The Applicant has sought specialist geoscience advice on the soil parameters used in PV-SMaRT.
- 2.3.2 Bulk density varies naturally across agricultural soils and is affected by soil type, depth, cultivation, moisture and local trafficking. The regional datasets used by SLD are useful for broad soil characterisation but do not provide the resolution required to establish a representative bulk density for individual fields. Bulk density also varies between cultivated topsoil and underlying strata, as well as spatially across the fields.



- 2.3.3 The same applies to the assumed depth of soil or depth to a restrictive layer. Soil depths vary across the Scheme and within individual fields, including localised shallow areas. More detailed investigation would identify further variation rather than establish one value applicable to the whole field.
- 2.3.4 The soil cases used within PV-SMaRT are therefore reasonable as sensitivity inputs. They should not be treated as measured conditions applying uniformly across Lime Down A, C or E.
- 2.3.5 The Applicant's own testing supports this point. Changing soil texture or the assumed soil depth can materially alter the output. The calculator can be used for sensitivity testing, but limited weight can reasonably be placed on one selected soil profile as a prediction of field performance.



3. Existing Baseline and Applicant Sensitivity Testing

3.1 Existing Agricultural Condition

- 3.1.1 A key difference between SLD's principal comparison and the Scheme assessment is the treatment of the existing land cover.
- 3.1.2 SLD's assessment generally compares the same vegetation category with and without solar PV panels. This isolates the panel input within the calculator, but it does not represent the full change from the existing agricultural land to the operational Scheme.
- 3.1.3 Following review by the Applicant's agricultural adviser, Row Crop - Straight Row, Poor Management is considered the closest PV-SMaRT category to the existing baseline.
- 3.1.4 "Poor Management" is PV-SMaRT terminology. It is not a criticism of the existing agricultural operation. The category is appropriate because the Solar PV Sites are predominantly arable and the agricultural rotation includes cultivated and bare-soil periods rather than continuous year-round vegetative cover. The existing baseline also includes normal agricultural trafficking and tramlines. This is consistent with the baseline previously described in the Applicant's hydrology assessment.
- 3.1.5 The operational Scheme will establish managed vegetation beneath and between the panels. The **Outline LEMP [REP6-037]** requires inspection during establishment and reseeded where bare ground exceeds 20%. Monitoring continues during operation, with areas of excessive bare ground reseeded as required.

3.2 Bulk Density

- 3.2.1 The Applicant has considered a lower post-development bulk density of 1.1 g/cm³ as a sensitivity, to understand the effect of soil remediation.
- 3.2.2 The Applicant does not propose to rely on 1.1 g/cm³ as a fixed Scheme-wide operational value. Achieving and maintaining one bulk density across several hundred hectares of differing soils would introduce an artificial level of precision and would not reflect how compaction occurs in practice. Construction effects will be localised and will vary with soil type, moisture and local trafficking.
- 3.2.3 The secured approach is condition-based. The **Outline SRMP [REP6-035]** recognises that unmanaged compaction can reduce infiltration and increase runoff, and secures monitoring, assessment and remediation where compaction is identified. Vehicle movements are controlled, soil handling is restricted to appropriate conditions and soil condition is monitored.
- 3.2.4 Following installation of the piles, areas affected by trafficking are inspected before panels are fixed. Where compaction is identified, the depth and severity are assessed and remedial action is undertaken while access remains available. The effectiveness of remediation can then be checked. During operation, indicators including surface water ponding and vegetation failure are investigated and further remedial action undertaken where necessary.



3.3 Applicant Sensitivity Testing

- 3.3.1 Taking account of the existing baseline condition and soil compaction mitigation, the Applicant has undertaken further calculations to understand the effect of reasonable changes to these PV-SMaRT inputs. The results show a range of outcomes, including betterment.
- 3.3.2 For clarity, the principal PV-SMaRT inputs have been treated as follows in the Applicant's sensitivity testing:
- Rainfall: the 50 mm, 24-hour rainfall input used by SLD has been retained for the selected comparative sensitivities.
 - Vegetation: the existing condition is represented by the agricultural baseline confirmed by the Applicant's agricultural adviser, with the proposed condition tested for both newly established and established operational vegetation.
 - Soil texture and soil depth: the corresponding SLD soil cases have been retained for the site-based comparisons, with separate sensitivities used to demonstrate the effect of varying these parameters.
 - Bulk density: the SLD baseline values are retained where applicable and a lower post-development value is considered as a remediation sensitivity; this is not a Scheme-wide target.
 - Slope: the same low generic slope used by SLD has been retained for comparability.
 - Solar PV panels and array arrangement: the larger tracker-panel assumption is retained and the reported tests consider both the "follows contours" and mixed / 50:50 solar PV array assumptions. These are calculator sensitivities and do not prescribe the final Scheme layout.
- 3.3.3 Table 3-1 to Table 3-3 provide selected results using the confirmed existing agricultural baseline and the PV-SMaRT "Newly Established Pollinator" and "Established operational vegetation (Mature Prairie)" proposed conditions. The selection is intentional. Its purpose is to show the effect of using a more representative baseline condition and changing the solar PV array assumption, rather than to reproduce every calculation undertaken.
- 3.3.4 As set out in Section 2.3, soil conditions vary across the Solar PV Sites and assigning single values is not representative of actual ground conditions. For the purpose of assessing sensitivity to the agricultural baseline, bulk density mitigation and solar PV array orientation, the remaining soil inputs have been taken from SLD's corresponding soil cases in Appendix D, Table 1 of **SLD Responses to the ExA's Second Written Questions [REP5-130]**.
- 3.3.5 Each selected sensitivity case uses the 50 mm rainfall depth over 24 hours and the larger tracking-panel assumption used in SLD's assessment. These inputs have been retained to provide a consistent and comparatively onerous basis for the PV-SMaRT sensitivity testing. The 50 mm, 24-hour input is not the Scheme's 1% AEP drainage design event and is not used to size drainage infrastructure. It is retained here solely to compare how the PV-SMaRT output changes when the baseline, vegetation, soil-condition and solar PV array assumptions are varied.
- 3.3.6 Formal drainage design is addressed separately through the FRA and Drainage Strategy. Positively drained infrastructure is designed using the applicable drainage design events, including the 1% AEP event plus the relevant climate change allowance. Those calculations serve a different purpose from the plot-scale PV-SMaRT sensitivity exercise.



Table 3-1: Selected Applicant PV-SMaRT Sensitivity Testing – Site 1 (Lime Down A)

Existing condition	Proposed condition	PV-SMaRT array assumption	Difference in Expected Runoff (mm)
Row Crop - Straight Row, Poor Management	Newly Established Pollinator	Follows contours	-4.3
		Mixed / 50:50	+9.9
	Established operational vegetation (Mature Prairie)	Follows contours	-13.7
		Mixed / 50:50	-4.8

Table 3-2: Selected Applicant PV-SMaRT Sensitivity Testing – Site 3 (Lime Down C)

Existing condition	Proposed condition	PV-SMaRT array assumption	Difference in Expected Runoff (mm)
Row Crop - Straight Row, Poor Management	Newly Established Pollinator	Follows contours	-0.8
		Mixed / 50:50	+0.3
	Established operational vegetation (Mature Prairie)	Follows contours	-2.5
		Mixed / 50:50	-2.0

Table 3-3: Selected Applicant PV-SMaRT Sensitivity Testing – Sites 6 and 7 (Lime Down E)

Existing condition	Proposed condition	PV-SMaRT array assumption	Site 6 - Difference in Expected Runoff (mm)	Site 7 - Difference in Expected Runoff (mm)
Row Crop - Straight Row, Poor Management	Newly Established Pollinator	Follows contours	-3.8	-7.4
		Mixed / 50:50	+5.6	-5.3
	Established operational vegetation (Mature Prairie)	Follows contours	-10.7	-8.6
		Mixed / 50:50	-4.3	-8.4

Note: “Mature Prairie” is the PV-SMaRT vegetation category used as a proxy for the established long-term grassland condition beneath and between the panels. It does not prescribe the final habitat type or management regime.

Note: All remaining soil inputs are based on the corresponding SLD soil case unless otherwise stated.

- 3.3.7 The selected 50 mm rainfall sensitivity results show a clear overall pattern. Of the 16 results presented in Tables 3-1 to 3-3, 13 show a reduction in expected runoff relative to the existing agricultural baseline. All eight cases representing established operational vegetation show a reduction. The three increases occur in the newly established vegetation condition under the mixed / 50:50 solar PV array assumption.
- 3.3.8 Once the existing arable baseline and the change to managed vegetation beneath and between the panels are represented, the majority of the selected PV-SMaRT sensitivities show a reduction in expected runoff. All of the established operational vegetation cases presented show betterment.



- 3.3.9 The newly established vegetation cases represent a recognised and temporary establishment-stage condition. This period is already addressed through the Scheme’s construction and establishment management framework. The **Outline Construction Environmental Management Plan [REP6-029]** provides the construction-phase controls for runoff, sediment and working practices, while the **Outline Soil Resources Management Plan [REP6-035]** controls trafficking, soil condition and compaction, including inspection and remediation where required. Vegetation establishment is secured through the **Outline Landscape and Ecological Management Plan [REP6-037]**, including inspection and reseeded where establishment is inadequate. These measures maintain the soil and vegetation conditions on which diffuse drainage across the panelled areas depends.
- 3.3.10 The increases shown in three of the newly established vegetation sensitivities therefore represent conditions which are already anticipated and managed through the Scheme controls. Where poor establishment, compaction, erosion or localised runoff is identified during construction or establishment, the secured management plans provide for inspection and remedial action. Once established operational vegetation is represented, all eight cases presented in Tables 3-1 to 3-3 show a reduction in expected runoff.
- 3.3.11 Separate sensitivity testing has also been undertaken, using a bare soil condition, to understand the influence of soil texture and soil depth on expected runoff. The calculated range of values for each soil texture and associated typical bulk density is shown in Figure 2. The calculated range of values for varying soil depth for clay soils, which are the predominant ground condition across the Solar PV Sites, and the associated typical bulk density is shown in Figure 3.

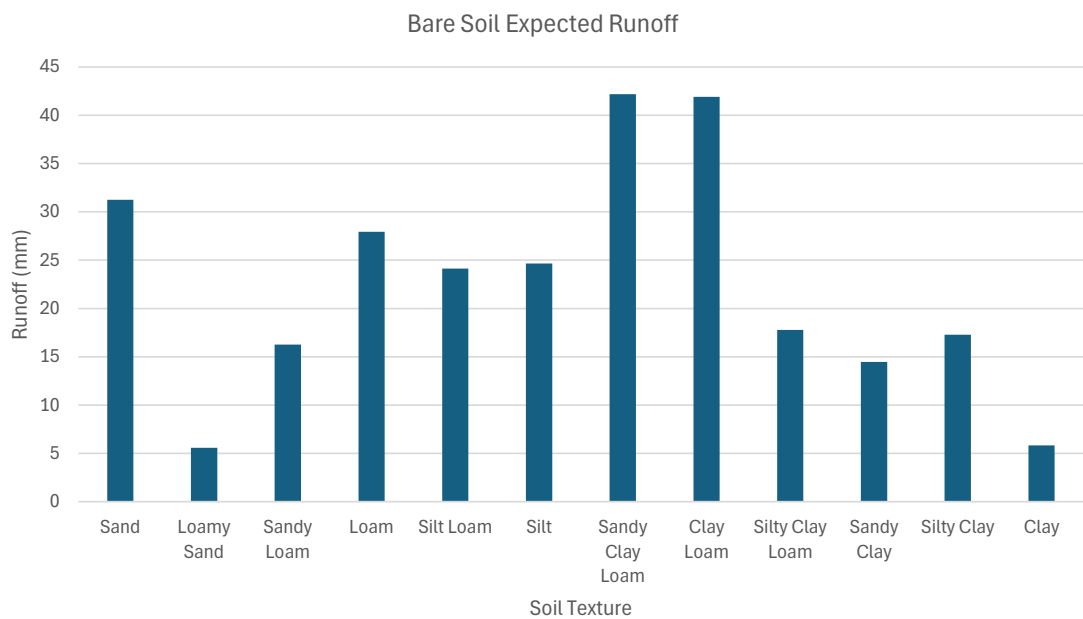


Figure 2: Bare Soil - Soil Texture and Expected Runoff Comparison



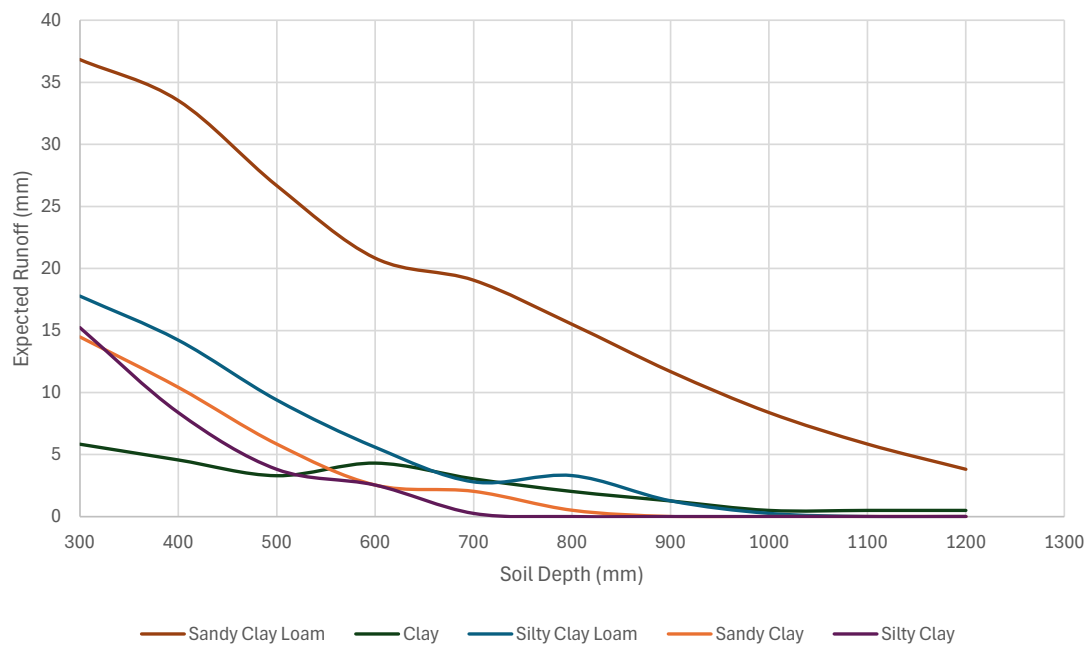


Figure 3: Bare Soil - Soil Depth and Expected Runoff Comparison



4. Interpretation of the PV-SMaRT Results

- 4.1.1 The Applicant's review produces both increases and reductions in calculated runoff. The outcome changes with the existing land-cover assumption, the vegetation condition used for the proposed Scheme, soil inputs, and the selected solar PV array arrangement.
- 4.1.2 Given the range of runoff values produced by the site-based tests and the soil texture and depth sensitivity tests, the results do not support applying one PV-SMaRT expected runoff depth across an individual field or Solar PV Site. The underlying inputs and resulting expected depths are too variable for that level of extrapolation.
- 4.1.3 The additional soil sensitivity testing also shows a wide range of calculated runoff responses between the available soil inputs. Soil texture, bulk density and soil depth interact within the calculator and the results are therefore sensitive to the combination selected. This supports the Applicant's position that a single assumed soil profile should not be extrapolated across a field or Solar PV Site where those characteristics are known to vary.
- 4.1.4 Solar PV array orientation has been retained within the Applicant's sensitivity testing because it is an input to PV-SMaRT and is influential in the calculator. The Applicant is not relying on cross-slope orientation as flood risk mitigation and no new cross-slope design requirement arises from this exercise.
- 4.1.5 The Scheme retains both fixed and tracker solar PV panel options. Detailed panel positioning, spacing and density will also vary in response to physical and environmental constraints, buffers, topography, access, infrastructure and other detailed-design considerations. The PV-SMaRT orientation cases are sensitivities rather than Scheme-wide design configurations.
- 4.1.6 The same approach has been taken to slope. For comparability, the Applicant has retained the low generic slope used by SLD. Attempting to assign a single detailed slope across every part of every field would imply unnecessary precision for this sensitivity exercise.
- 4.1.7 The Applicant's FRA and Drainage Strategy already describes how the panel areas operate hydrologically. The panel areas remain permeable and rainfall drains diffusely to existing ground and the surrounding field drainage network. They are not connected impermeable drainage catchments and no formal drainage outfalls are proposed for them. Vegetated ground cover, soil condition and diffuse drainage are maintained through the secured management plans.
- 4.1.8 Substations, BESS compounds and other connected impermeable or positively drained infrastructure are treated separately and are subject to formal drainage design. Where controlled discharge applies, the 1-year and 2-year events are restricted to 70% of the equivalent greenfield runoff rate where applicable, with attenuation for the 1 in 100 year event plus the relevant climate change allowance. These formal drainage design requirements are separate from the PV-SMaRT sensitivity testing.



5. Scheme Controls and Policy Context

5.1 Measures Already Secured

- 5.1.1 The conditions associated with the less favourable establishment-stage PV-SMaRT outputs have been recognised throughout the Scheme assessment. They are specifically managed through the construction and establishment controls, including soil compaction, inadequate vegetation establishment, erosion, scour, rutting, sediment movement and channelised runoff.
- 5.1.2 The principal controls relevant to the panel areas are:
- protection of soil structure during construction;
 - control of vehicle movements and trafficking;
 - monitoring for soil compaction and remediation where required;
 - establishment and maintenance of vegetation beneath and between solar PV arrays;
 - reseeded where ground cover does not establish adequately;
 - inspection for erosion, scour, rutting, sediment movement and channelised runoff;
 - corrective measures to restore diffuse drainage where localised issues arise;
 - permeable access tracks; and
 - temporary drainage and sediment controls during construction.
- 5.1.3 The **Outline OEMP [REP6-031]** is particularly clear on the operational position. Inspections are required for concentrated or channelised runoff, including erosion, scour, rutting and sediment movement, with remedial measures where issues are identified. Ground cover beneath and between panels is also monitored for persistent bare ground, poor establishment and erosion.
- 5.1.4 The **Outline LEMP [REP6-037]** contains the establishment response. An inspection is required in the first year and where bare ground exceeds 20%, appropriate grassland seeding is repeated. Ecological monitoring is more frequent during the first five years so that establishment issues can be identified and management changed where required.
- 5.1.5 Construction risks are controlled through the **Outline CEMP [REP6-029]** and **Outline SRMP [REP6-035]**. Temporary runoff and silt controls are provided where needed, while the Outline SRMP directly addresses trafficking, wet working, soil condition, compaction and remediation.
- 5.1.6 These documents are secured through the **Draft DCO [REP6-005]**, including the Requirements relating to construction environmental management, operational environmental management, landscape and ecological management and soil management.

5.2 Policy

- 5.2.1 The Applicant's policy case is already set out in detail in the **Applicant's Response to Lead Local Flood Authority on Hydraulic Modelling Requirements [REP2-045]** and is not repeated here.
- 5.2.2 NPS EN-1 requires the FRA to be proportionate to the risk and appropriate to the scale, nature and location of the project. The current NPS EN-1 retains that requirement at paragraph 5.8.15.
- 5.2.3 The solar-specific policy position has also been retained in the revised NPS EN-3, which came into force in January 2026. Paragraph 2.10.76 states that solar PV panels drain to existing ground and that



the impact will not, in general, be significant. Paragraph 2.10.77 supports permeable tracks and localised SuDS where recommended.

- 5.2.4 The Scheme approach follows that framework. Panel areas remain predominantly permeable and are managed through soil, vegetation and drainage controls. Quantitative drainage design is applied to connected infrastructure and hydraulic modelling has been undertaken where a specific watercourse interaction requires it.

5.3 Consultation Context

- 5.3.1 PV-SMaRT was introduced to the Examination by SLD. The Applicant has undertaken this review so that the ExA has a clear assessment of the assumptions and outputs relied upon by SLD.
- 5.3.2 At the post-hearing meeting on 23 September 2026, the Environment Agency confirmed that it would not independently review the surface water calculations produced using PV-SMaRT and did not propose to obtain the calculator for that purpose. The Environment Agency also indicated that the LLFA was unlikely to have access to the calculator.
- 5.3.3 The Applicant has nevertheless obtained the calculator, reproduced SLD's principal calculations and undertaken its own sensitivity testing. This provides the ExA with a direct comparison using the same tool, without changing the established basis of the Scheme FRA and Drainage Strategy.



6. Conclusions

- 6.1.1 The Applicant has reviewed SLD's PV-SMaRT assessment, reproduced the principal calculations and undertaken additional sensitivity testing.
- 6.1.2 The review confirms that local runoff response is sensitive to the condition of the ground and the assumptions entered into PV-SMaRT. This is consistent with the Applicant's assessment throughout the DCO process.
- 6.1.3 Using the confirmed existing agricultural baseline, the Applicant's sensitivity testing produces betterment in 13 of the 16 results presented in Tables 3-1 to 3-3, including all eight cases representing established operational vegetation.
- 6.1.4 The only increases in the Applicant's sensitivity testing occur in three newly established vegetation cases under the mixed / 50:50 solar PV array assumption. The same 50 mm, 24-hour rainfall event and larger tracking panels are used across all of the sensitivity cases, including those which show betterment. The difference therefore arises from the combination of temporary establishment-stage vegetation and solar PV array assumption rather than from the rainfall or panel inputs alone. The calculated increases are local plot-scale responses and should not be applied as a uniform change in runoff across a field or Solar PV Site.
- 6.1.5 The sensitivity testing shows that the PV-SMaRT result changes materially with reasonable changes to vegetation condition, soil characteristics and solar PV array arrangement. Bulk density and soil depth also vary within individual fields, while panel position, spacing and density will vary through detailed design. The results do not support applying a single PV-SMaRT runoff value or percentage change across Lime Down A, C or E.
- 6.1.6 The establishment-stage conditions giving rise to the less favourable sensitivities are already addressed through the secured construction and establishment controls. Soil condition and compaction are monitored and remediated, vegetation establishment is inspected and reseeded where necessary, and erosion, scour, rutting, sediment movement and channelised runoff are subject to inspection and corrective action.
- 6.1.7 The panelled areas remain permeable and continue to drain diffusely to ground. The PV-SMaRT results therefore provide sensitivity information on local runoff response around the panel areas; they do not provide a basis for adding an additional runoff rate or volume to the Solar PV Sites. Formal drainage and attenuation are provided separately for infrastructure which creates connected impermeable or positively drained areas.
- 6.1.8 On this basis, the Applicant does not consider that SLD's PV-SMaRT assessment demonstrates a material increase in runoff from the Scheme or an increase in flood risk elsewhere. The illustrative soil-water image referred to by SLD at ISH5 is not a site-specific PV-SMaRT output for Lime Down and does not alter that conclusion.
- 6.1.9 Nothing identified through the Applicant's review requires a change to the conclusions of **ES Chapter 11: Hydrology, Flood Risk and Drainage [REP4-012]**, the **Flood Risk Assessment and Drainage Strategy Covering Report [REP4-021]**, or the site-specific **FRA and Drainage Strategy suite [REP5-047, REP5-049, REP6-010, and REP5-053 to REP3-063]**.

