Lime Down
Solar Park

Hydrology, Flood Risk and Drainage Response to LLFA Comment WC-053 Raised in Deadline 2 Submissions

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1 Response to Lead Local Flood Authority Comment WC-053

Introduction

This document has been prepared in response to Wiltshire Council in their capacity as Lead Local Flood Authority (LLFA) comment WC-053 raised in their Deadline 2 Submission contained within the **Applicant's Response to Deadline 3 Submissions [EN010168/EXAM/9.46]** document submitted at Deadline 4. This response has been extracted due to the length of response to facilitate ease of review by the council.

The Applicant responds to each point raised by the LLFA below. Where a matter has already been addressed in response to WC-006 to WC-025 within the **Applicant's Response to Deadline 3 Submissions [EN010168/EXAM/9.46]**, the relevant response is cross-referenced to avoid unnecessary repetition.

1.1 Comment 1: The Applicant's reliance on outline management plans does not provide sufficient certainty on detailed drainage performance.

1.1.1 This matter is addressed in the Applicant's responses to WC-006, WC-010, WC-020 and WC-025.

1.1.2 The outline management plans are not relied upon as unsecured future mitigation. They establish the minimum measures, performance requirements and matters that must be addressed in the subsequent detailed plans. They are certified documents under the **Draft Development Consent Order [REP3-005],** and the relevant detailed plans must be approved before the associated works commence and subsequently implemented.

1.1.3 Permanent drainage is secured through Requirement 11, construction water management through Requirement 13, operational management through Requirement 14, soil management through Requirement 18 and decommissioning and restoration through Requirement 20. The remaining detail depends on the final layout, levels, contributing areas, construction sequence and drainage components and is appropriately resolved through those approval processes.

1.2 Comment 2: The Applicant's assumption that solar panel areas will remain permeable is not supported by site-specific quantitative evidence.

1.2.1 The Applicant has not assumed that all rainfall will infiltrate, that the soils are uniformly permeable or that runoff cannot occur. The assessment distinguishes between open, vegetated land beneath elevated panels and formal impermeable infrastructure that collects and positively drains runoff.

1.2.2 The Solar PV Panels will be mounted above the ground on discrete supports. They will not seal the soil surface and will not be connected to gutters, pipes or a positive drainage system. Rainfall falling on the panels will be redistributed to the ground beneath or adjacent to the panels, but will remain within the same field catchment. The panelled fields therefore do not become equivalent to roofs, roads, substations or hardstanding from which runoff is collected and discharged through a defined outfall.

1.2.3 The Applicant recognises that rainfall can be locally concentrated at panel edges. The assessment does not assume uniform redistribution over the panel footprint. Whether that local concentration results in a material change in runoff leaving a field depends on the condition of the receiving ground, including:

- vegetation cover;
- soil structure and antecedent condition;
- construction compaction;
- slope and surface roughness;
- the presence of bare ground or erosion; and
- connectivity to tracks, ditches, field drains, watercourses or existing overland flow routes.

1.2.4 These factors have been considered using site-specific information for each Solar PV Site, including the soil and agricultural land characteristics, existing land use, LiDAR and topographic information, mapped surface water pathways, field gradients, watercourses, ditches, culverts, land drainage information, flood records and site observations. This information is presented in **ES Volume 3, Appendices 11-1 to 11-9: Flood Risk Assessment (FRA) and Drainage Strategy suite [REP3-039 and REP3-048 to REP3-064].**

1.2.5 The existing baseline is predominantly agricultural land. It already includes seasonal bare ground, agricultural trafficking, tramlines and variable vegetation and soil condition. The operational Scheme will establish and maintain permanent vegetation beneath and between the arrays and will substantially reduce the routine agricultural cultivation and trafficking that currently influences runoff generation and connectivity.

1.2.6 The evidence reviewed in the **Applicant's Response to Lead Local Flood Authority on Hydraulic Modelling Requirements [REP2-045]** does not establish that raised solar panels intrinsically convert the land beneath them into an impermeable catchment. It shows that runoff response is principally governed by ground cover, soil condition, compaction, surface roughness and connectivity. Increased runoff identified in the available studies is associated principally with degraded vegetation, bare soil, reduced roughness or compaction. The Burch, Armstrong and Maslen material subsequently supplied

by SLD similarly identifies poor soil structure and compaction as the principal issue and recommends soil assessment, remedial cultivation and an enforceable soil management plan. These are the matters directly controlled by the Scheme.

1.2.7 Quantitative assessment has been undertaken where the relevant hydraulic mechanism and contributing catchment can be defined. Formal impermeable areas, including the BESS, substations and associated hardstanding, are assessed as discrete drainage catchments and are subject to runoff calculations, attenuation and restricted discharge. Detailed hydraulic modelling has been undertaken at Gauze Brook, further modelling is being progressed at Gabriel's Well and proportionate open-channel calculations have been undertaken for smaller watercourses.

1.2.8 A field-scale model of the panelled areas would require assumed future values for vegetation condition, soil compaction, infiltration response, surface roughness, drip-line behaviour and hydraulic connectivity. Those parameters are management-dependent and will vary spatially and over the operational life of the Scheme. There is no site-specific operational dataset against which such a model could be calibrated or validated.

1.2.9 A model based on compacted or bare ground would assess the consequence of failing to implement the secured mitigation rather than the Scheme as proposed. A model based on fully established vegetation would likewise add little unless that vegetation condition were secured. The proportionate approach is therefore to secure and verify the physical variables that control the runoff response.

1.2.10 The Applicant has set out this technical position in detail in **Applicant's Response to Lead Local Flood Authority on Hydraulic Modelling Requirements [REP2-045].** The LLFA's current comment does not substantively engage with that explanation. It restates the requirement for quantitative assessment but does not identify which part of the Applicant's reasoning is considered incorrect, provide contrary site-specific evidence or explain how the requested assessment would overcome the uncertainties identified by the Applicant.

1.2.11 The LLFA has not specified:

- a recognised field-scale modelling methodology for raised solar panels;
- how rainfall redistribution from individual panel edges should be represented;
- how vegetation, compaction and surface roughness should be parameterised spatially;
- how tracks, field drains and downstream connectivity should be represented;

- which baseline and operational scenarios should be tested;
- how the model would be calibrated or validated; or
- the quantitative acceptance criteria against which the outputs would be assessed.

1.2.12 In the absence of a defined methodology or technical rebuttal of **[REP2-045]**, repetition of the request does not demonstrate that the resulting model would provide more reliable evidence.

1.2.13 The consultation history is also relevant. The risk-led approach reported in the Application was discussed with the LLFA during the pre-application period and supported in principle by its technical adviser. At the meeting on 27 February 2025, the LLFA's adviser stated that it was not sensible to request modelling for the whole Scheme and supported the Applicant's approach to managing soil compaction. At the meeting on 27 May 2025, the passive infiltration approach for the panelled areas was supported and the LLFA confirmed that the approach was proportionate. The first request for field-scale quantitative hydrological assessment was raised after submission, at the February 2026 meeting, with the formal requirement for full field-scale modelling subsequently set out in the LLFA note dated 24 March 2026. No new site-specific evidence or policy change has been identified as the basis for that change in position.

1.2.14 The controlling variables are secured as follows:

- construction trafficking, soil handling, weather-dependent working and remediation of compaction are secured through the detailed CEMP and detailed SRMP under Requirements 13 and 18 of the **Draft Development Consent Order [REP3-005],** prepared substantially in accordance with the **Outline Construction Environmental Management Plan (CEMP) [REP3-092]** and **Outline Soil Resources Management Plan (SRMP) [REP3-098];**
- permanent ground cover beneath and between the panels is secured through the detailed LEMP, prepared substantially in accordance with the **Outline Landscape and Ecological Management Plan [REP3-100];**
- operational monitoring, inspection, maintenance and remedial action are secured through the detailed OEMP under Requirement 14, prepared substantially in accordance with the **Outline Operational Environmental Management Plan [REP3-094];**
- access tracks will be permeable and generally constructed at existing ground level, with cross-drainage where required to avoid creating preferential flow paths; and
- existing drainage features and overland flow routes will be retained and protected.

1.2.15 The Applicant therefore considers that its treatment of the panelled areas is supported by the physical form of the Scheme, the site-specific baseline, the available evidence and enforceable controls over the factors that determine runoff response. An uncalibrated field-scale model based on assumed future management conditions would not provide a more reliable assessment.

1.3 Comment 3: The limited hydraulic modelling restricts understanding of surface water flow paths and localised flood risks.

1.3.1 The Applicant does not agree that the modelling is limited in a manner that restricts the assessment.

1.3.2 Detailed hydraulic modelling has been undertaken at Gauze Brook within Lime Down D, where there is a defined Main River and floodplain interaction. Further modelling is being progressed at Lime Down E2 in relation to Gabriel's Well. Manning's open-channel calculations have been used for smaller watercourses and drainage features where this provides a proportionate assessment.

1.3.3 Elsewhere, surface water pathways and localised flood risk have been assessed using Environment Agency mapping, NaFRA data, LiDAR, topographic information, catchment boundaries, watercourses, ditches, culverts, field drainage information and site observations. The level of assessment has therefore been selected according to the identified flood mechanism and available evidence.

1.4 Comment 4: A proportionate but broader modelling approach is required to demonstrate no increase in flood risk.

1.4.1 The Applicant agrees that flood risk assessment and modelling should be proportionate. It does not agree that this requires blanket hydraulic or hydrological modelling of all panelled fields.

1.4.2 The approach distinguishes between defined watercourse interactions, formal impermeable drainage catchments and panelled land because the mechanisms and appropriate assessment tools differ. Targeted modelling is being undertaken where it provides meaningful additional evidence, including at Gauze Brook and Gabriel's Well. Quantitative drainage design is provided for formal impermeable infrastructure.

1.4.3 The reasons why broader field-scale modelling would not provide a reliable assessment of the panelled areas are set out above and in **Applicant's Response to Lead Local Flood Authority on Hydraulic Modelling Requirements [REP2-045].**

1.5 Comment 5: Exceedance flow routing is not consistently demonstrated across the Scheme.

1.5.1 This matter was previously addressed at WCD1-057 in **The Applicant's Response to Submissions Received at Deadline 2 [REP3-129]** and at FHW1.3 in the **Applicant's Response to the Examining Authority's First Written Questions [REP3-128].**

1.5.2 Baseline exceedance pathways have been assessed using surface water mapping, LiDAR, existing topography, drainage features and ordinary watercourses. This has informed retention of existing flow routes, the use of permeable tracks, avoidance of unnecessary obstruction and the requirement for cross-drainage where needed.

1.5.3 The relevant **ES Volume 2, Figures 11-1 to 11-7: Fluvial and Surface Water Flood Risk Maps [REP3-027 to REP3-033]** and site-specific drainage sections will be updated to show existing drainage features, mapped surface water pathways and exceedance principles more clearly.

1.5.4 For formal drainage areas, the final exceedance routes will be defined through the detailed drainage design approved under Requirement 11 of the **Draft Development Consent Order [REP3-005].** This will include safe routing of flows where the capacity of the formal system is exceeded.

1.6 Comment 6: The evidence base does not clearly show how runoff will be managed across all parcels.

1.6.1 Each Solar PV Site and the Cable Route Corridor has a separate assessment within **ES Volume 3, Appendices 11-1 to 11-9: Flood Risk Assessment (FRA) and Drainage Strategy suite [REP3-039 and REP3-048 to REP3-064].**

1.6.2 The runoff approach is based on the type of development present:

- panelled fields drain to the ground and are controlled through soil, vegetation and connectivity measures;
- access tracks are permeable and will maintain existing flow pathways;
- small dispersed infrastructure will be managed locally where required; and
- substations, BESS compounds and other formal impermeable areas will be positively drained, attenuated and discharged at restricted rates.
- The updated Outline Drainage Strategy sections and figures committed in response to FHW1.3 will provide clearer parcel-specific signposting.

1.7 Comment 7: Cable route impacts on land drainage systems are not fully resolved.

1.7.1 The Cable Route Corridor is assessed in **ES Volume 3, Appendix 11-9: Flood Risk Assessment and Drainage Strategy - Cable Route Corridor [REP3-096],** and watercourse crossings are identified in the **Watercourse Crossing Schedule [REP3-122].**

1.7.2 Existing field drains will be identified through pre-construction surveys. Where encountered, drains will be protected, temporarily diverted, repaired or reinstated so that their hydraulic function is maintained.

1.7.3 The final interfaces cannot be resolved until the detailed cable alignment, drain locations and construction methods are confirmed. These matters will be addressed through the Water Management Plan forming part of the detailed CEMP secured under Requirement 13 of the **Draft Development Consent Order [REP3-005].**

1.8 Comment 8: There is insufficient evidence that trenching / reinstatement will not alter drainage pathways.

1.8.1 Cable trenches are temporary and the land will be reinstated to its existing profile. Topsoil and subsoil will be stripped, stored and replaced separately in accordance with the **Outline Soil Resources Management Plan [REP3-098].**

1.8.2 Field drains and other drainage features encountered during the works will be recorded and reinstated or replaced to preserve their function. Trench backfill, surface reinstatement and local drainage continuity will be checked before completion of the relevant works.

1.8.3 These requirements are secured through Requirements 13 and 18 of the **Draft Development Consent Order [REP3-005].**

1.9 Comment 9: The cumulative runoff effects across fields are not adequately assessed.

1.9.1 The cumulative effect of the Scheme has been considered in **ES Volume 1, Chapter 11: Hydrology, Flood Risk and Drainage [REP3-015].**

1.9.2 Panelled fields will not be connected into a new positive drainage network and will not operate as linked impermeable catchments. Formal impermeable areas will be managed as discrete drainage catchments with attenuation and restricted discharge.

1.9.3 The Scheme therefore does not create a new mechanism by which runoff from separate fields would be collected, accelerated and discharged cumulatively to the same downstream receptor. The relevant soil, vegetation and connectivity controls apply across all panelled areas.

1.10 Comment 10: Soil compaction risks require further quantitative assessment.

1.10.1 Soil compaction is recognised as the principal construction mechanism that could increase runoff from panelled fields. It is not an unassessed risk.

1.10.2 The baseline soil characteristics are described in the site-specific assessments. Construction controls include defined plant routes, low ground-pressure equipment where appropriate, weather-dependent working, restrictions on trafficking and remedial loosening or cultivation where required.

1.10.3 These controls are secured through the **Outline CEMP [REP3-092], Outline Soil Resources Management Plan [REP3-098]** and Requirements 13 and 18 of the **Draft Development Consent Order [REP3-005].**

1.10.4 A quantitative runoff model would require an assumed extent, severity and spatial distribution of future compaction. Direct inspection, testing where appropriate and remediation of the actual soil condition provide a more reliable control than modelling a hypothetical degraded condition that the secured mitigation prevents from remaining.

1.11 Comment 11: The absence of a defined SuDS strategy limits clarity on long-term management.

1.11.1 The Scheme includes an Outline Drainage Strategy in Section 6 of **ES Volume 3, Appendix 11-1: Flood Risk Assessment and Drainage Strategy Covering Report [REP3-039],** supported by the site-specific appendices.

1.11.2 Formal impermeable areas will use an appropriate SuDS treatment train, potentially including permeable construction, filter drains, swales, attenuation, flow control, lined drainage and isolation where required. The appropriate components depend on the final layout, levels, impermeable areas, containment requirements and outfall arrangements.

1.11.3 The final drainage design, calculations, maintenance requirements and responsible party will be submitted for approval under Requirement 11 of the **Draft Development Consent Order [REP3-005].**

1.12 Comment 12: The approach to SuDS at decommissioning stage lacks sufficient detail.

1.12.1 The decommissioning principles are set out in the **Outline Decommissioning Strategy [REP3-096]** and secured through Requirement 20 of the **Draft Development Consent Order [REP3-005].**

1.12.2 Drainage must remain functional during decommissioning. SuDS serving infrastructure that is removed will be removed, retired or retained where justified by the final restoration proposals. Soil profiles and natural drainage pathways will be reinstated.

1.12.3 It would not be proportionate to prescribe the detailed retirement sequence before the final drainage system has been designed and several decades before decommissioning.

1.13 Comment 13: There is limited assurance that downstream receptors will not be affected.

1.13.1 Downstream receptors have been assessed through the review of catchments, topography, ordinary watercourses, Main Rivers, ditches, land drains and mapped surface water pathways.

1.13.2 Panelled areas do not form positively drained impermeable catchments. Existing flow routes will be maintained, and formal impermeable drainage areas will be attenuated and discharged at restricted rates.

1.13.3 The Applicant's position on receiving watercourses and downstream effects was also addressed at WCD1-052. No mechanism has been identified by which the Scheme would materially increase flood risk at a downstream receptor.

1.14 Comment 14: Sediment and pollution control relies heavily on management measures.

1.14.1 This matter is addressed in the Applicant's responses to WC-009, WC-011, WC-013, WC-019, WC-021 and WC-024.

1.14.2 The controls include physical measures such as cut-off drains, bunds, silt fencing, check dams, settlement facilities, temporary storage, drain protection, controlled refuelling and washdown areas and proprietary treatment where required.

1.14.3 Monitoring and management procedures ensure that those physical measures are correctly located, inspected, maintained and adapted as construction progresses. Their implementation is secured through Requirement 13 of the **Draft Development Consent Order [REP3-005].**

1.15 Comment 15: There is no integrated assessment across construction, operation, and decommissioning.

1.15.1 Construction, operational and decommissioning effects are assessed within **ES Volume 1, Chapter 11: Hydrology, Flood Risk and Drainage [REP3-015], ES Volume 3, Appendices 11-1 to 11-9: FRA and Drainage Strategy suite [REP3-039 and REP3-048 to REP3-064]** and the **Water Framework Directive Assessment [REP1-094].**

1.15.2 The phase-specific implementation measures are then secured through the CEMP, SRMP, LEMP, OEMP and Decommissioning Strategy. The assessment and controls therefore cover the full lifecycle of the Scheme.

1.16 Comment 16: Hydrological variability is not fully incorporated.

1.16.1 The assessment considers variation in soil, land use, topography, slope, catchment area, drainage connectivity, watercourse form, flood source and downstream receptor across the Scheme.

1.16.2 It considers a range of rainfall and flood probabilities, relevant climate change allowances, existing surface water mapping and site-specific hydraulic information where available.

1.16.3 Management-dependent variability in soil and vegetation condition is addressed through secured construction and operational controls rather than being represented through a single assumed model condition.

1.17 Comment 17: The absence of mapped exceedance pathways reduces confidence.

1.17.1 The Applicant's response to FHW1.3 in the **Applicant's Response to the Examining Authority's First Written Questions [REP3-128]** confirms that the relevant flood risk figures and site-specific drainage sections will be updated to show mapped surface water flow routes, drainage features, indicative drainage zones and exceedance principles where relevant.

1.17.2 The final exceedance routes for formal drainage systems will be confirmed through detailed design under Requirement 11 of the **Draft Development Consent Order [REP3-005].**

1.18 Comment 18: Drainage mitigation appears procedural rather than design-led.

1.18.1 The Applicant does not agree. Permanent drainage for the BESS, substations and other formal impermeable infrastructure is design-led and subject to quantitative hydraulic assessment and approval under Requirement 11 of the **Draft Development Consent Order [REP3-005].**

1.18.2 Construction drainage includes physical interception, attenuation, settlement and treatment measures. The management plans establish where and how those physical systems must be designed, installed, inspected and maintained as the working areas change.

1.19 Comment 19: The impacts on ordinary watercourses are not consistently addressed.

1.19.1 Ordinary watercourses have been assessed using Environment Agency mapping, LiDAR, topographic information, catchment review, field drainage information, Manning's open-channel calculations and the watercourse crossing assessment.

1.19.2 The level of assessment reflects the size and nature of each feature and the extent of interaction with the Scheme. Main Rivers and sensitive crossings will use trenchless methods where appropriate. Minor drainage features may be crossed using open-cut methods with flow continuity, pollution control and reinstatement measures.

1.19.3 The relevant crossings are identified in the **Watercourse Crossing Schedule [REP3-122].**

1.20 Comment 20: There is limited verification of natural drainage behaviour during operation.

1.20.1 The operational runoff controls are based on maintaining vegetation cover, soil condition, permeable access tracks, drainage features and existing surface water connectivity.

1.20.2 The detailed OEMP will include the monitoring, inspection and remedial arrangements necessary to verify that the secured mitigation remains effective during operation. This will include the condition of vegetation and drainage features and the identification and remediation of local erosion, bare ground or preferential runoff where relevant.

1.20.3 The detailed OEMP is secured through Requirement 14 of the **Draft Development Consent Order [REP3-005]** and must be prepared substantially in accordance with the **Outline Operational Environmental Management Plan [REP3-094].**

1.21 Comment 21: The monitoring and maintenance arrangements are not clearly defined.

1.21.1 Construction monitoring, inspections, audits and corrective action are addressed in the Applicant's responses to WC-014, WC-023 and WC-024.

1.21.2 The detailed drainage design approved under Requirement 11 will define the inspection and maintenance requirements, access arrangements and responsible party for each permanent drainage system. Operational monitoring and maintenance will also be secured through the detailed OEMP under Requirement 14.

1.22 Comment 22: The evidence of achieving greenfield runoff / betterment targets is limited.

1.22.1 Greenfield runoff calculations and indicative attenuation requirements are provided for formal impermeable drainage catchments within the relevant site-specific appendices.

1.22.2 The Applicant has committed to restricting the relevant 1 year and 2 year post-development discharge rates to 70% of the equivalent existing greenfield rates. Attenuation will be provided for the 1 in 100 year event plus climate change.

1.22.3 Further high-level calculations for fixed and committed infrastructure are provided in response to FHW1.3. The final impermeable areas, design storms, storage volumes and flow controls will be submitted for approval under Requirement 11 of the **Draft Development Consent Order [REP3-005].**

1.23 Comment 23: Flood Zone 3b considerations are not fully integrated.

1.23.1 Flood Zone 3b considerations principally relate to Lime Down D and Lime Down E2.

1.23.2 At Lime Down D, the Gauze Brook modelling assesses the relevant floodplain interaction. At Lime Down E2, further modelling is being progressed in relation to Gabriel's Well and the delineation of Flood Zone 3b where relevant.

1.23.3 More vulnerable infrastructure has been sequentially located in areas of lower flood risk. Solar panels are flood-compatible infrastructure and are restricted to areas with less than 1 m flood depth where interaction with Flood Zones 2 or 3 cannot be avoided. Construction compounds, stockpiles and material storage will not be located within Flood Zone 3b, and flow routes and floodplain capacity will be maintained.

1.24 Comment 24: The construction impacts on drainage systems are not fully quantified.

1.24.1 This matter is addressed in the Applicant's responses to WC-007, WC-013, WC-017, WC-018 and WC-025.

1.24.2 Temporary drainage cannot be finally quantified until the active contributing areas, programme, compounds, excavation extents and contractor methodology are known. The **Outline CEMP [REP3-092]** fixes the required outcomes and requires temporary drainage, storage and treatment to be designed for the actual working area.

1.24.3 The Water Management Plan will provide the location-specific design and will be approved as part of the detailed CEMP under Requirement 13.

1.25 Comment 25: Responsibilities for drainage maintenance are unclear.

1.25.1 The permanent drainage systems will remain private and will be maintained by the Applicant or undertaker.

1.25.2 The detailed drainage design approved under Requirement 11 will identify the responsible party, inspection requirements, maintenance activities, access arrangements and maintenance frequency.

1.25.3 During construction, responsibility rests with the Construction Project Manager and Environmental Manager under the detailed CEMP. Operational

responsibilities will be set out in the detailed OEMP secured through Requirement 14.

1.26 Comment 26: The approach to uncertainty is not clearly articulated.

1.26.1 The assessment addresses uncertainty through conservative flood mapping, applicable climate change allowances, sensitivity testing where it provides meaningful information, targeted hydraulic modelling and secured detailed design where final layouts are not fixed.

1.26.2 Management-dependent variables such as soil condition, vegetation cover and compaction are directly controlled and monitored rather than assigned speculative fixed values within a model.

1.26.3 Where a defined local uncertainty remains, further assessment is being undertaken, including the additional modelling at Lime Down E2.

1.27 Comment 27: There is limited integration with landscape / ecology.

1.27.1 Drainage, soil and vegetation management are integrated through the **Outline Landscape and Ecological Management Plan [REP3-100], Outline Soil Resources Management Plan [REP3-098], Outline Operational Environmental Management Plan [REP3-094]** and the **Landscape and Ecology Mitigation Plans [REP1-029 to REP1-032 and REP3-037].**

1.27.2 Permanent SuDS will provide water quality, landscape and biodiversity benefits where compatible with their primary drainage and containment functions. Detailed design will coordinate drainage features with planting, habitats, watercourse buffers and maintenance access.

1.28 Comment 28: Further sensitivity testing is required.

1.28.1 Sensitivity testing has been undertaken where it provides meaningful information, including within the Gauze Brook modelling and drainage calculations for formal impermeable infrastructure.

1.28.2 Further hydraulic modelling is being progressed at Lime Down E2 to address the identified interaction with Gabriel's Well.

1.28.3 The Applicant does not agree that generic sensitivity testing of all panelled fields is required where the outputs would be governed principally by assumed future soil, vegetation and connectivity inputs and could not be calibrated or validated.

1.29 Comment 29: There is insufficient evidence of no cumulative flood risk impact.

1.29.1 The cumulative effect of the Scheme is assessed in **ES Volume 1, Chapter 11: Hydrology, Flood Risk and Drainage [REP3-015].**

1.29.2 Panelled fields will not operate as connected impermeable drainage catchments. Formal impermeable areas will be separately attenuated and controlled. Existing overland flow pathways will be maintained, and soil and vegetation controls prevent the development of new connected runoff pathways.

1.29.3 No mechanism has been identified by which the Scheme would generate a material cumulative increase in downstream flood risk.

1.30 Comment 30: The overall evidence does not fully demonstrate compliance with no increase in flood risk.

1.30.1 The Applicant does not agree.

1.30.2 The evidence comprises site-specific flood risk and drainage assessments for each part of the Scheme, targeted hydraulic modelling, proportionate open-channel calculations, quantitative drainage assessment of formal impermeable infrastructure, assessment of surface water pathways and secured controls over soil, vegetation, construction drainage, operational maintenance and decommissioning.

1.30.3 Detailed drainage and management plans are secured through enforceable DCO Requirements and must be approved before the relevant works commence.

1.30.4 The Applicant therefore considers that the submitted assessment and secured mitigation demonstrate that the Scheme will not increase flood risk elsewhere.