One Earth Solar Farm

Volume 9.0: Other Post-Submission Documents [EN010159]

Applicants Response to Deadline 5 Submissions

Document Ref: EN010159/APP/9.42

December 2025

Revision 01

Contents

1. Introduction

1.1 Purpose of the Report

1.1.1 The purpose of this document is to provide additional comments on submissions by Interested Parties submitted at Deadline 5.

1.1.2 To avoid repetition the Applicant has only provided a full response to comments that make points that have not been addressed by the Applicant previously in the Examination. Where the Applicant has not commented further on the responses of Interested Parties at Deadline 5, that should not be taken as being acceptance of the Interested Parties' position by the Applicant – the Applicant has sought to focus its responses in order to avoid unnecessary written responses that only reiterate its position, as already set out. Therefore, where the submissions by Interested Parties do not raise new matters, or raise matters which the Applicant considers it has already appropriately responded to, no further response to those submissions has been included in this response document. This document only includes matters the Applicant has new or further comments on which arise from the submissions of Interested Parties.

1.1.3 To further minimise duplication, the Applicant has sought to cross-refer where appropriate to responses provided in other relevant submissions that have been entered into the Examination.

1.2 Summary Positions

Flood Risk

1.2.1 There have been several submissions in relation to flood risk at Deadline 5. Flood Risk has been a key topic throughout Examination, attracting interest from the Examining Authority and several Interested Parties. As a result, there has been a significant number of questions and clarifications at each deadline on this subject. The Applicant agrees that Flood Risk is a key topic given the location of the development in Flood Zones 2 and 3. The Applicant has responded to all questions relating to Flood Risk (including in further detail at Section 3 and 4 of this document) and has made its position clear:

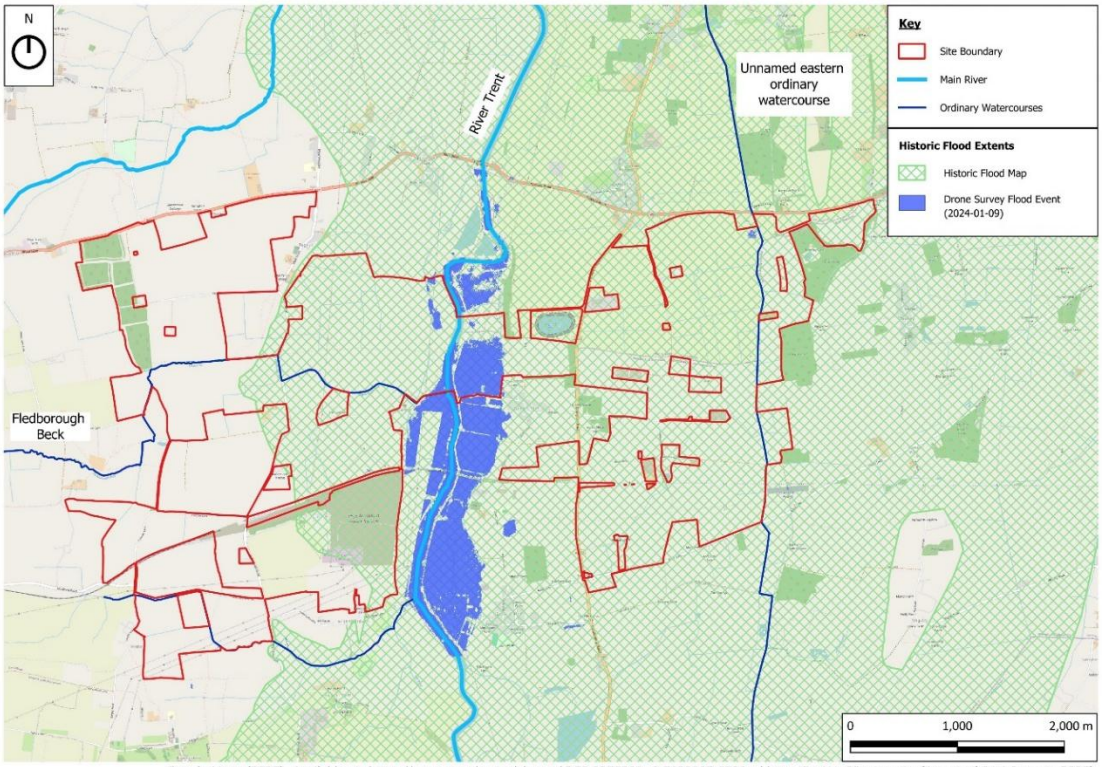
- That Applicant's position is that the Sequential and Exception tests have been met.
- The Applicant's position is that the development causes no increase to Flood Risk.
- The Applicant completed a WFD screening assessment and the Environment Agency has confirmed in its responses to ExAQ1 [REP2-095] that is has no outstanding concerns with the updated WFD screening assessment.

1.2.2 The Applicant, for the benefit of all Interested Parties, would like to set out the context of Flood Risk in this location. First, it is important to understand that Flood Risk and the Sequential and Exception tests are separate. As previously stated, the Applicant's position is the Sequential and Exception tests have been met, for the reasons given in the Sequential and Exception Test and Addendum, and orally at ISH2 and ISH3.

1.2.3 The Applicant understands, through its consultation, that Flood Risk is of significant concern to the local community. The Proposed Development is an area that is subject to flooding and did indeed partially flood during the pre-application stage. The Applicant captured aerial photography of the flood extent to inform the design.

1.2.4 The Applicant, through the assessment has taken a conservative approach to the Flood Risk Assessment. The Applicant applied the 1 in 100 years plus 39% allowance for climate change. That is to say the design flood extent (where will flood and by how much) used in informing the design was based on a 1 in 100 year flood event; this is the level of flooding that emergency planners use for serious, damaging events, not everyday rainfall or normal winter flooding. In addition, to account for the impact of climate change, an additional 39% is added to river flows which in turn impacts upon the flood level and extent.

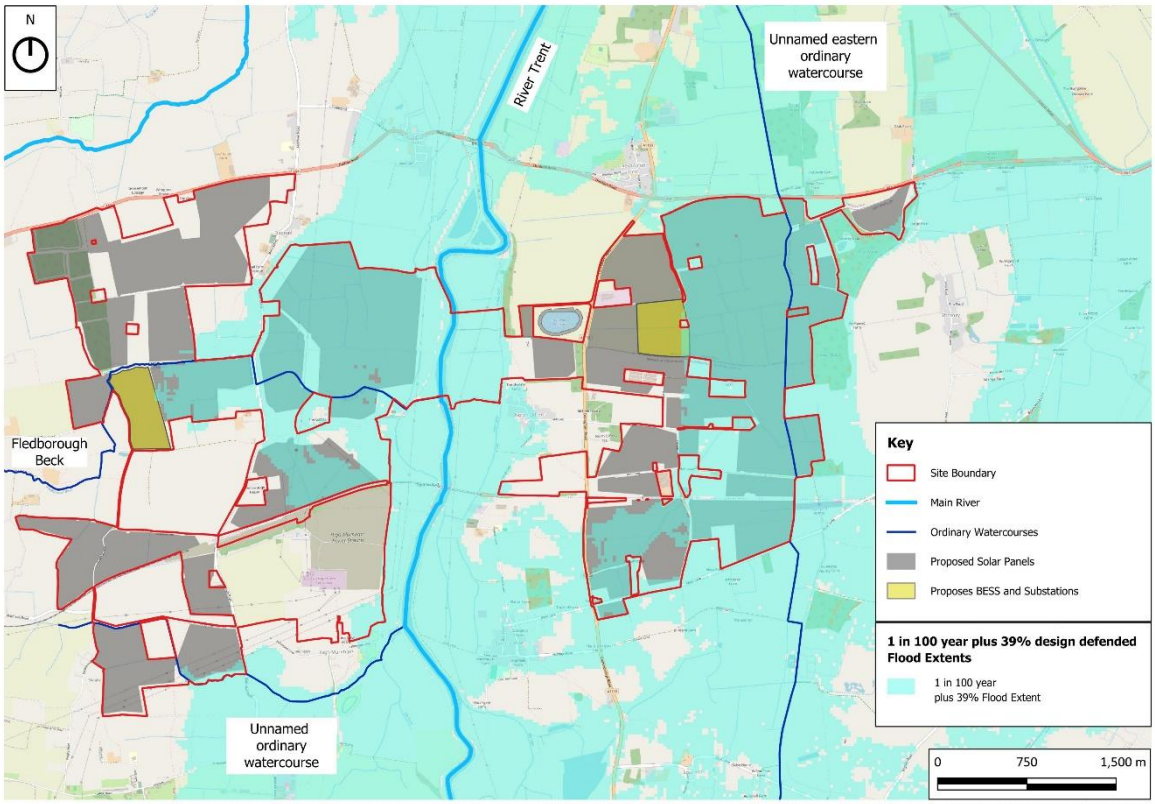
1.2.5 To help understand the potential level of flood in this type of event it is important to understand historic flood events. Figure 1 shows the Environment Agency's historic flood mapping with the results of the Drone Survey Flood Event overlaid, depicting the area of flooding during pre-application.



Google Maps (2025). Available at: https://www.google.co.uk/maps/@53.2272889,-0.7682997,6738m/data=!3m1!1e3?entry=ttu (Accessed 21st January 2025)

Figure 1 – Environment Agency Historic Flood Mapping

1.2.6 When the 1 in 100 years plus 39% flood extent is modelled it gives the flood extent shown in Figure 2. It is important to note that this is the food extent with no development. As can be seen, in this flood scenario compared to the historic mapping, the flooding is extensive and includes the settlements of North Clifton, South Clifton and Dunham.



Google Maps (2025). Available at: https://www.google.co.uk/maps/@53.2272889,-0.7682997,6738m/data=!3m1!1e3?entry=ttu (Accessed 21st January 2025)

Figure 2 – 1 in 100 Year + 39% Flood Extent

1.2.7 Figure 3 provides further information, with potential flood depths mapped onto the flood extents. It is important to note, that these depths are again what is projected without the development.

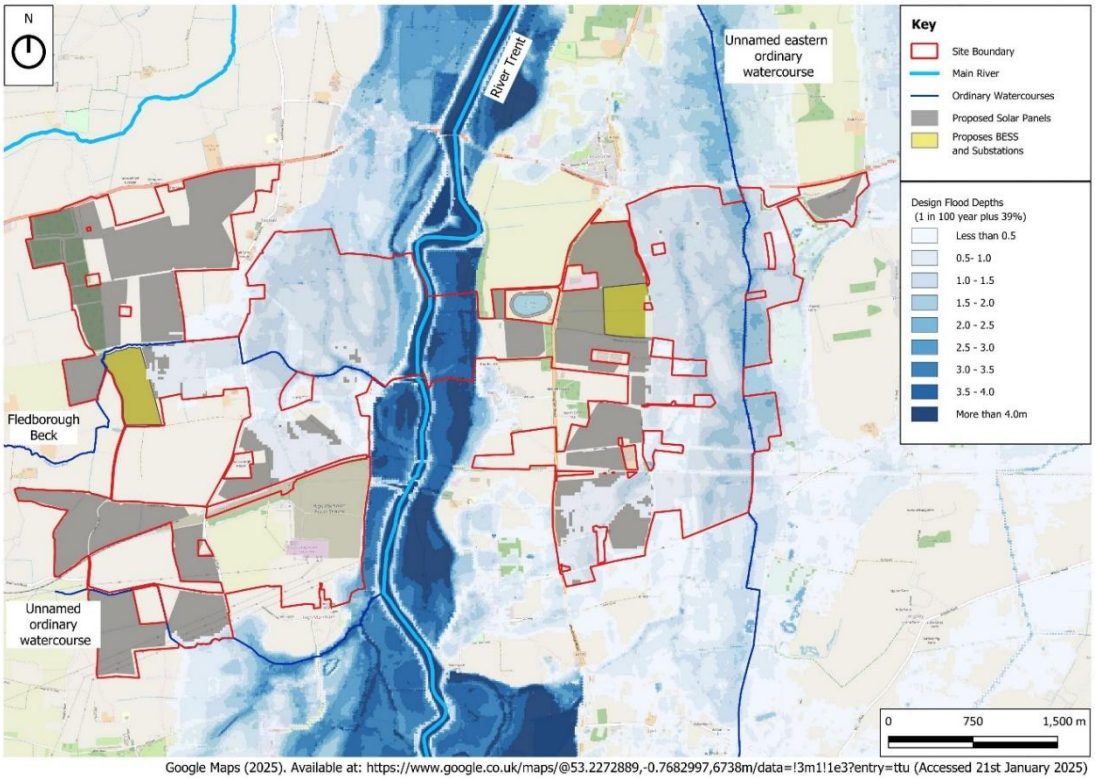


Figure 3 - 1 in 100 Year + 39% Flood Depths

1.2.8 It is important to properly consider and understand the concept of Flood Risk in order to make the assessment of whether the development has increased it or not. “Flood risk” is defined in the Planning Practice guidance as “a combination of the probability and the potential consequences of flooding.”

1.2.9 Furthermore, it is important to understand what is meant by tolerance, when this is referenced by the EA and the Applicant. To be clear, the EA requested that when discussing the flood volume assessment undertaken, this is simply referred to as a “tolerance” rather than “model tolerance”. This is on the basis that the assessment is based on calculations rather than modelling however, ultimately the EA have confirmed that they view increases of 5mm (i.e. the tolerance) to be negligible.

1.2.10 With regards to model tolerance associated with hydraulic modelling (i.e. dynamic assessments), the EA provide a good summary of Model Tolerance in REP5-082. Through discussions with the EA, they have confirmed agreement that a model tolerance of 5mm is acceptable as this is within the limitations of modelling software (i.e. models are not millimetre accurate). The flood depths shown in a “no scheme world” i.e. with no development (Figure 3) are based on modelling, the flood depths shown in a “with development” scenario, are also based on modelling.

1.2.11 As a result of these uncertainties, it is important to allow a “model tolerance” that recognises these and the models’ limitations.

1.2.12 For complete clarity, a tolerance of 5mm is not permission for the Applicant to increase flood levels by 5mm. It is recognition that both baseline (non-developed) model data and developed model data have a certain limitation in terms of accuracy.

1.2.13 We must then combine this with the definition of Floo Risk. Given the definition of Flood Risk requires there to be (a) a probability of occurrence; and (b) a consequence; simply increased flood depth (even if within the model tolerance) does not result in increased Flood Risk. There must be increased or new consequences as per the definition above. As has been show by the modelling the increase is within tolerance and so there is no increase in consequences.

1.2.14 Finally, the Applicant understands the devastation that can be caused by flooding. It should be noted that the significant reason for the large scale of the modelled flood extent is the additional 39% allowance for climate change. While the Applicant understands this development will not single handedly solve climate change, it is part of the solution, which will, in turn seek to mitigate increased flood risk.

Consultation

1.2.15 Several submissions have been made at D5 with regard to the consultation and the inclusion, or not, of information within the Applicant's DCO submission. The Applicant has laid out clearly how it has met all legal requirements of consultation and achieved acceptance.

1.2.16 The Applicant has referred to all communications and feedback received within the consultation report. The Applicant is not required to include submission verbatim.

1.2.17 Interested Parties are empowered to submit any material they feel appropriate into the examination for consideration by the Examining Authority. In any case the Examining Authority has directed the Applicant to include the Mental Health survey and Minutes from the meeting with the Parish Council, Parish Meeting and other members of the community, which the Applicant will do.

2. D5 Submissions

App Ref	Document Ref	Summary	Applicant Response
General			
D5R1A	**Heather Fox** Written submission	EXQR3. Q13.0.1. Please explain why it is necessary for the cables to go along the south side of Trent Lane in North Clifton and the area of the car park, when this could have been a straight line extending from the adjoining field. This is despite the applicant's assertions of consulting the community. The applicant must be aware that the village fishing pegs are within this area and that this lane is a big part of village life. The area around it has no solar arrays. It is the functional floodplain. It appears that the applicant has taken it unnecessarily. When feelings are running so high against the possible imposition of this very large, unwelcome scheme, which will adversely and irreversibly impact village life for all inhabitants, it seems a small sacrifice to leave the lane untouched and use the adjoining field for the cable access to the river.	As the Applicant explained during the Issue Specific Hearings [**REP3-065**] and [**REP5-071**], the Order Limits in this part of the project reflect the boundary of the adjoining field that is subject to a signed option lease agreement. This field will not accommodate solar development; it is required to facilitate the launch/receiving pit for the trenchless crossing during construction and to house the interconnecting cable during operation. Flexibility of the exact location of the cable crossing has been retained to allow this to be determined during detailed design, with the objective of minimising environmental impact. The Applicant recognises the importance of the Trent Lane to the local community and confirms that this will be a key consideration during the detailed design phase.
D5R1B	**Stephen Fox** Written submission	Who has verified the order limits? Or are we simply taking the developer's word? This is one example - I refer to sheet 12 of Streets, right of way and access plans ENO 10159 2.14. The Order Limit is shown as running immediately to the South of Trent Lane whereas it should be immediately to the North. How many more such instances have been notified and investigated?	The Order Limits are correct and form the boundary over which the Applicant is seeking development consent and associated powers. The Order limits do run to the south of Trent Lane as shown in Streets, right of way and access plans [APP-015] and sheet 12 of the Land Plans [REP5-004].

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Flood & Drainage			
D5R2	**Nottinghamshire County Council** Responses to ExAQ2 Q10.2.1	NCC requests that the fee for discharge of Requirement 15 (Drainage and Surface Water Management Plan) should be £2,535 for parity with other similarly significant requirements included in the dDCO, such as Requirement 11 (Construction Traffic Management Plan). The level of work involved in appraising this application is likely to be similar to Requirement 11. It should be noted that the DCO relating to the Cottam Solar Project included a fee of £2,535 for the first application for the discharge of Requirement 11 (Surface Water Drainage Scheme) which is very similar in nature to Requirement 15 of the dDCO. The precedent therefore exists that the higher fee should apply to this type of requirement.	The Applicant updated paragraph 5 of Schedule 15 of the draft DCO at Deadline 6. Paragraph 5(1)(a) now provides that the fee of £2,578 applies to the first application to discharge all requirements in Schedule 2.
D5R3	**Heather Fox** Written submission	D3R4. To be clear, I did not say there was no increase in the FRA from fluvial risk. I asked how an increase in flood depth of 2.4 and 4.1mms was not increasing flood risk on site and elsewhere? These are real increases even if the applicant views them as negligible and must go somewhere. Further to your response to the above ref, what difference does the wording of tolerance rather than model tolerance make, now the EA is asking for this distinction?	For clarity, the FRA submitted at Deadline 5 sets within the Flood Volume Assessment that flood levels could increase by 2.2mm and 3.5mm to the west and east of the River Trent respectively. Flood risk is defined as a combination of the probability and the potential consequences of flooding. Both the Flood Volume Assessment and latest Hydraulic Modelling (included within the latest FRA submission at deadline 6) confirm that flood levels increases are within the negligible 5mm tolerance agreed with the EA. Furthermore, both forms of assessment have taken conservative assumptions.

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			The applicant is of the view that an increase of less than or equal to 5mm will not materially increase the consequence of existing flooding within the Site or the surrounding area. The EA's clarification on the use of model tolerance was with regards to the Flood Volume Assessment. Since this assessment is not based on hydraulic modelling, it is understood that the EA preferred that this be referred to as a "tolerance" rather than "model tolerance".
D5R4	**Heather Fox** Written submission	In ISH3 I asked 3 consecutive times why it was acceptable to use hydraulic modelling now, when it had been dismissed by the EA in September 2024 as being too coarse and the volume quantifiable route was taken. I was not questioning the use of hydraulic modelling itself, but why, after all this prevarication on the applicants part and failure to address the issue of possible flood flow route alteration, (asked for by the EA since their comments on the PEIR) it was only now being considered acceptable/ necessary and as a result, a final FRA, a major consideration in this proposal, is not yet available. The volume was initially addressed over the whole site and not allocated independently. Why then, is the site now being considered to have independent sites not hydraulically connected? Does this now apparent independence of sites affect the legal status of the scheme? Please can the applicant explain to me how the 2 sides of the river are not hydrologically connected? Is there not an exchange	As set out by the EA in their submission at Deadline 5, it is difficult to represent solar panel development explicitly in hydraulic models due to the slender nature of their supports. This is why it was agreed during consultation with the EA that a volumetric assessment could be used. Although there were discussions regarding the use of hydraulic modelling between the applicant and EA, it was ultimately agreed (and documented) prior to submission that this was not required and that a volumetric assessment would be sufficient. During the examination, the EA requested that hydraulic modelling be prepared and the approach to this and the results are included in the latest FRA (submitted at deadline 6). As part of the hydraulic modelling assessment and given the stage of the design that the Proposed Development is at, there is a need to make assumptions. These assumptions have been conservative to account for the coarse nature of the existing model. It is not indicated that the east and west of the Site are not hydraulically connected in any way however, within the flood volume assessment, the resulting impacts on flood level have been calculated separately. The conditions on either side of the River

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		of water within the river channel and its adjoining land masses and groundwater?	Trent will differ in some ways as they are fed by separate flow routes and have differing standards of protection afforded by flood defences. Furthermore, since water is a flowing element, there will be differences in flood level across a large area such as this (even if they are small differences). The purpose of separating out the west and east was to take account of the changes in conditions and also to try and provide a greater level of detail on impacts for interested parties on either side of the River Trent.
D5R5	**Heather Fox** Written submission	At ISH2 the ExA said we all need to have confidence in the FRA. I have gone back to the flood risk assessment by Logika of April 2025 APP/6.21 because I could not reconcile the lost volume then, due to solar supports, table 3-2, page 26, of 618 cubic mtrs with the current assessment of 14149 cubic mtrs. It was described as the result for the design flood event, yet used 10 to the power of minus 4, usually associated with the 1:10000yr flood event, not 10 to the power of minus 2, associated with 1:100yr plus climate change. Why was this and does that mean it was significantly underestimated then? Will there be a fully detailed and explanatory flood risk for deadline 5, with all measurements of structures so that IPs can form an opinion?	The reference of x 10^{-4} in Table 3-2 of the FRA from April 2025 was with regards to displaced volumes and has no relation to the return period for a storm event. The numbers stated represented a volume lost due to supports that may be located in the floodplain. The flood volume assessment included within the latest FRA includes a detailed breakdown of the data used in the assessment. For clarity, this has not changed in the latest submission and has been consistent since revision 3 of the FRA submitted in August 2025. The flood volume assessment has been discussed and agreed with the EA and the Statement of Common Ground (SoCG) is now updated to reflect this.
D5R6	**Heather Fox** Written submission	Why are the inverters being given the 300mm freeboard not 600mm, generally assigned to sensitive electrical equipment, that would make them safe for their lifetime, part of EN policy and especially as they are substantially in flood zone 3? The EA were still questioning the freeboard allowance of 600mms in the April 2025 Consultation	EA guidance recommends that freeboards of between 300mm and 600mm should be aimed for, depending on the level of certainty about the estimated flood levels. However, decisions on freeboard allowances are at the discretion of the EA and often factor in in site specific constraints and the uses proposed.

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		Meeting, despite the applicant inferring at ISH3 that the 600mms, having been asked for “early on “had been dismissed. It evidently had not been. The EA surrendering the more robust 600mms freeboard before full knowledge of the large number of inverters, (sensitive electrical equipment, with considerable consequences should they flood) in flood zone 3 was surprising to say the least. A consequence of this premature lowering also meant many panels would be submerged. Why did the EA lower the freeboard allowance, thus removing the safety element and an undisputed non subjective amount, in favour of the subjective, disputable 5mm number?	The principle of using a 300mm freeboard for solar panels was discussed with the EA in the first meeting held with them (in September 2023, refer to item 2.1). There were subsequent discussions where 600mm was referred to however, this was due to changes in team members within the EA who subsequently confirmed that 300mm freeboard was acceptable. Ultimately, the provision of a 300mm freeboard for the inverters has been discussed and agreed with the EA and this is reflected in the SoCG.
D5R7	**Heather Fox** Written submission	There sems to be confusion after ISH3 as to whether any of the panels are being physically removed now. It appeared they would be, in the Response to the ExA Written Questions 2, 12.0.1 EA. “The applicant has now committed to removing solar panels that were previously inundated”, or did remove really mean adjust?	The Applicant confirms that, in response to ExA Written Questions 2, 12.0.1, the intended meaning was that panels previously subject to inundation will no longer be inundated. This outcome can be achieved through a range of measures, including. but not limited to, adjusting the angle of the solar panels or removing the bottom row of panels.
D5R8	**Heather Fox** Written submission	The applicant is now being asked to refer to the 5mm tolerance as a tolerance not a model tolerance as before. Guidance is averse to adding tolerances because the freeboard allowance, along with climate change allowance both act as safety margins to account for uncertainties.	Responses have largely been provided to this in Ref D5R3 above. A tolerance or model tolerance does not provide the Applicant permission to increase flood levels to match that tolerance. It is recognition that modelling has limitations in confirm flood levels to extreme accuracy.

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		If a site is being assessed when it has already been assessed using the same hydraulic modelling as that going forward, then to keep adding tolerances would be compounding the amount. All planning policies expect, if not demand, that the development will result in no increase in flood risk outside the site boundary. Accepting negligible risk increases would mean the cumulative effect over time becomes an undeniable increase in risk.	
D5R9	**Heather Fox** Written submission	In defence of their dismissal of cumulative effects on flood risk, APP/9.31 D3R19 South Clifton, the applicant states" it is important to note that each development will be subjected to its own site - specific Flood Risk Assessment and Surface Water Drainage Strategy, as required by the planning process. These assessments must demonstrate that there will be no increase in flood risk as a result of these proposals". What certainty is there that all those schemes were consented to and had no increase in flood risk, in the true sense of no meaning 0, and not `no` with a tolerance added? The cumulative effect would be quite different then.	The EA and the LLFA are responsible for determining what level of tolerance is acceptable within each site-specific Flood Risk Assessment and Surface Water Drainage Strategy. Through this regulatory process, they are required to ensure that the proposals do not result in unacceptable increases in flood risk, either individually or cumulatively. The Applicant has assessed that there is negligible increased flood risk from the project alone and cumulatively.
D5R10	**Heather Fox** Written submission	I would like to know if there are more accurate, precisely outlined flood area maps than the ones supplied by the applicant. Once these have been enlarged, they distort. Does the applicant have access to more accurate EA flood maps or Local Authority Maps to work from, or will they just be enlarging the ones submitted?	Larger scale mapping is included with the Appendices to Chapter 7: Hydrology and Hydrogeology of the ES. However, it is worth noting that the River Trent Model (2023) is based on a modelled grid cell of 25m x 25m and result in pixelated extents. This is the model that has been developed further to assess the impacts the proposed development could have however, no

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			changes have been made to the grid size, this was agreed with the EA in discussions prior to undertaking the modelling.
D5R11	**Heather Fox** Written submission	The question of these vexed flood flaps/ gates will not go away by disowning them. They belong to someone and are responsible for water discharging into North Clifton when it floods. The examiner has seen photographs of the results of this. Are none of the authorities concerned they might be theirs? Has the environment agency double checked? Is the natural spring in the field near the reservoir getting the same treatment of, ignore and hope it will go away?	The flood gates referred to been discussed in the FRA and the Applicant has tried to confirm their location, ownership and purpose. The EA have confirmed that this feature is not their asset. However, irrespective of the purpose and function of this feature, the applicant has confirmed their position that the Proposed Development will not increase flood risk from any source including as a result of surface water runoff. This means that there will be no resultant negative impact due to or to the existing feature in question. Furthermore, there is no built development in the vicinity of the location suggested for this feature, meaning there will be negative impact on access for maintenance. The natural spring queried was addressed in the Applicant's response to Relevant Representations [REP1-076], reference RR.100 which set out the following: "With regard to an existing spring within the field in question, ground levels are to be retained as existing within the field in question, meaning that there would be no change in overland flow conditions of the existing spring."
D5R13	**West Lindsey District Council** Post hearing Submissions	WLDC queried whether, if the revised flood risk assessment indicated that this would be required, removing panels at lower levels on the photo voltaic	Please see the Applicant's response to Rule 17 letter at Deadline 6.

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		arrays would compromise the efficiency and viability of the proposed Scheme	
Landscape and Visual			
D5R45	**West Lindsey District Council** Post Hearing Submission	As set out in the WLDC written summary or oral submissions to Issue Specific Hearing 1 [REP3-097], point 3(i), WLDC consider that the cumulative sequential view along the A1133 and the A156 should be considered in the assessment. People travelling on the road networks around Gainsborough and north and west of Lincoln are likely to encounter multiple solar NSIPs. Whilst the applicant has addressed such impacts for OESF [REP4-051, response D3R10], this wider cumulative impact has not been addressed by the applicant to date.	The Applicant has considered the cumulative landscape and visual impacts at ES Chapter 18 [REP5-024]. This focusses on the potential for significant cumulative impacts on the landscape and visual receptors within a 2km radius of the Order Limits (including users of the A1133) as this was considered to be the extent over which significant landscape and visual cumulative effects could arise based on the standalone effects of the OESF, available evidence from other nearby solar NSIPs and the professional judgement of the LVIA author. With reference to the Zone of Theoretical Visibility mapping [AS-023 and AS-024], the potential for intervisibility of the OSEF from the A156 is limited to 3-5 sections each of approximately 500m in length. However, in reality and as experienced during the LVIA author's fieldwork, views from the A156 are typically channelled along the road by intact tree belts. Where there are occasional gaps for example for field accesses, or where the roadside vegetation is less dense, views towards the Site are curtailed by the series of intervening field boundaries occupying the flat, low-lying farmland. Therefore, there is no potential for views of the OSEF from A156 and to further consider the potential for cumulative impacts with other solar NSIPs would be of limited merit and not proportionate to the likely extent of significant effects. At the request of the ExA, a Joint Interrelationships Report [REP2-074] has also been prepared which further explores the potential

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			for significant cumulative effects with other NSIPs in the region. This reaches similar conclusions to the same reports prepared for other DCO applications in question, in that, besides from major adverse cumulative effects on the visual amenity of PRoW users south of East Drayton during construction and operation as a result of the North Humber to High Marnham project, there will be no significant cumulative effects between the OESF and other NSIPs due to the separation distances and the relatively localised impacts of each. In light of the above, it is considered that the wider cumulative landscape and visual effects have been suitably addressed within the documentation before the Examination Library.
D5R14	**West Lindsey District Council** Post Hearing Submission	WLDC note that the Supplementary Glint and Glare Assessment [REP4-054] indicated a reduction in glint and glare mitigation fencing from 1511m to 240m, with the reduction mostly along the A1133. However, this still leaves a 240m, 4m high fence, albeit set back 10m from the road. This will be prominent, incongruous and discordant and WLDC question whether this is appropriate in such a location. However, WLDC will await the result of the further glint and glare assessment requested by the Examining Authority at the Issue Specific Hearing. Although not part of WLDC oral submission, it is not clear to WLDC whether the details of the glint and glare fencing would be included in the Requirement 5 Detailed design submission.	Regarding the suitability of the glint and glare mitigation, the fencing was considered as part of the Landscape and Visual Impact Assessment [REP3-015]. Accepting that introduction of the fence would result in a visual impact, it would be experienced by people travelling on the A1133 who would have a low sensitivity to change in comparison to people at home or walking on public rights of way, given the speed of travel and their attention on the road ahead. The reduction of the fence to 240m along the A1133 reduces the duration for which views of the fence is experienced. Combining the low sensitivity and limited duration for which the fence would be visible results in a very low visual impact. Nonetheless, in recognition of the visual impact, new planting is proposed in front of the fence. Whilst the fence will be required until the planting provides an effective screen, the planting will soften the appearance of the fence sooner, as the planting establishes.

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			The final alignment and design of the glint and glare fencing will be subject to Requirement 5 'Detailed Design' and therefore will be part of discussion with West Lindsey District Council. This discussion will follow preparation of an updated Glint and Glare Assessment, based on the detailed layout, as confirmed in paragraph 1.3.4 of the Outline Landscape and Ecology Management Plan [REP5-038].
D5R15	**West Lindsey District Council** Post Hearing Submission	WLDC welcomed the commitment to retention of the hedge at this location. WLDC requests that commitment should be included in the Outline Landscape and Ecology Management Plan. Post ISH note: The applicant has confirmed that there are no works proposed for the extent of the track other than at the bell mouth. If works are planned to the access, the 5m offset set out in the CEMP [REP4-022], table 3.4, will not be possible. WLDC requests that conformation that no works are planned is included in the Landscape and Environment Management Plan to be submitted as part of Requirement 8.	Commitment to retain the hedgerow referenced is provided in the Outline Landscape and Ecology Management Plan [REP5-038] at paragraph 4.1.14 and will be reflected in the Landscape and Ecology Management Plan to be prepared under Requirement 8.
Sequential Test			
D5R16	**Nottinghamshire County Council** Responses to ExAQ2 Q12.0.4	Our interpretation of EN-1 is that Critical National Priority (CNP) only applies where the decision maker is satisfied that the applicant's environmental assessment is adequate and there are residual impacts identified that could not have been mitigated following application of the mitigation hierarchy. EN-1 indicates that, in such cases, those residual impacts would not outweigh the CNP for low carbon infrastructure. Therefore, if the sequential test has	The Applicant disagrees with NCC's interpretation of policy. The mitigation hierarchy does apply, however the urgent need for CNP infrastructure means that the need case will outweigh any residual impacts in all but the most exceptional circumstances (paragraph 3.3.63 of NPS EN-1). There is a presumption of consent (as set out in paragraph 4.2.15) subject to some limited exceptions, one of which is an unacceptable risk to flooding. The Proposed Development does not result in an unacceptable risk to flooding therefore the presumption of consent remains intact. In any case,

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		not been adequately implemented, CNP could not apply as this would represent an inadequacy in the environmental assessment itself, rather than a residual impact which would be weighed against the CNP. We would therefore disagree with this statement in policy terms.	the Applicant's firm position is that the Sequential Test has been met.
D5R17	**Nottinghamshire County Council** Responses to ExAQ2 Q12.0.6	The revised PPG is a material consideration in the assessment of the application and whilst it is accepted that the applicant has considered two smaller sites (within 6km of each other) in their submission on the application of the sequential test (EN010159/APP/9.26), the applicant should be responsible for demonstrating specifically how this guidance has been satisfied and this should be considered by the ExA in conjunction with the EA. It is noted that the applicant does not believe that a project which would constitute more than two smaller sites would represent a realistic alternative, but the ExA may wish to examine this claim further considering the updated PPG which refers to splitting development across a number of alternative sites at lower risk of flooding.	As set out in the Sequential and Exception Test Assessment [REP2-080] and Sequential Test Addendum [REP-069], the Applicant has consistently expressed a preference for a single contiguous development site, for the reasons set out in those documents. However, notwithstanding this preference, the Applicant did undertake a site search for multiple smaller sites at different sizes to ascertain if there was a series of smaller sites that could accommodate a project of a similar scale with the same capacity. As set out in the above documents, for a number of reasons, no alternatives sites, either one larger contiguous or a series of smaller sites were identified. As such, the Applicant considers that the policy test is met and that the approach aligns with the updated PPG issued on 17 September 2025. In guiding "How should the area of search for the sequential test be identified", the guidance now states that: • Now specifically states that the sequential test should be applied proportionately, focusing on realistic alternatives that could meet the same development **need**. The

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			Applicant's position is that the work it has presented to date in its Sequential and Exception Test document and Addendum are proportionate to the negligible flood impacts associated with the scheme. • The alternatives considered must be realistic and must meet the same development need. The Applicant has considered all of these factors and concluded that there are no alternative sites. The Applicant is not aware of any interested party having identified a realistic alternative site or sites which could meet the same development need, within the timescales required. • The PPG recognises the area of search may extend beyond the LPA boundary, and the Applicant has not constrained itself to the relevant LPA boundaries and instead has been driven by proximity to its grid connection (as is standard practice to minimise electrical losses and technical/environmental constraints). • The splitting of the scheme across a number of alternative sites must be considered, and the Applicant has considered that and concluded there are none. The PPG now requires that the multiple alternative sites approach is only required where the sites could be capable of accommodating the development in a way which would still serve its intended market as effectively. The Applicant has identified only one (AP15) alternative site in its Addendum to the Sequential and Exceptions Test which would delivery approximately a quarter of the Scheme's capacity (25% of 740MW = c185MW). As such, it would not serve the market as effectively.

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			The Applicant has demonstrably complied with the PPG in its submissions.
D5R18	**Heather Fox** Written submission	No answer to either of the following 2 questions: 1, Could the applicant make the entire site safe and not take the sequential test? 2, Is the applicant alluding to the possibility that there are multiple sites available for their projects which they do not consider appropriate and `need` should override everything?	In response to the first point, as set out at paragraph 027 (Reference ID: 7-027-20220825) of the PPG, the sequential test should be applied to 'Major' and 'Non-major' development proposed in areas at risk of flooding, as set out in paragraphs 173 to 174 of the National Planning Policy Framework. Paragraphs 175, 176 and 180 set out limited exemptions from the sequential test. As such, the sequential test needs to be applied in addition to any mitigation measures designed to make the development safe for its lifetime. Therefore, the Applicant is required to apply the Sequential Test notwithstanding the level of flood risk. In response to the second question, the Applicant has undertaken a robust alternative site assessment and concluded that, while there are large areas of additional land within 15km of the Point of Connection, these are not 'reasonably available' for the purposes of the sequential test. This is because their location is not suitable for the type of development proposed based on a desk based assessment of key technical matters, and they do not meet the same development needs, nor have a reasonable prospect of being developed within the same timeframe as the Proposed Development. Whilst the urgent need for this type of low carbon development is strongly recognised within EN-1 in Section 4.2 (The critical national priority for low carbon infrastructure) and in the Statement of Need [REP2-047], in terms of the site selection process, the Applicant has not suggested that the need for the development should

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			override all other considerations, rather that there are no identified alternative sites that could be used instead.
D5R19	**Heather Fox** Written submission	D3R18. Which synergistic possibilities specifically have been investigated, as opposed to `none anticipated`, and where are the results please?	Appendix 18.2 [REP2-039] identifies the cumulative schemes located within the same hydrological catchment area as the Proposed Development and the potential cumulative effects. As noted in our previous response (see Ref D5R9 above), each development is required, through the planning process, to provide a site-specific Flood Risk Assessment and Surface Water Drainage Strategy. These must demonstrate that the proposal will not result in an increase in flood risk and as such no cumulative effects are anticipated. This approach and the conclusions to the cumulative effects has been agreed with the EA and the Host Authorities, as confirmed in the latest SoCG's and are consistent with the SoS Decision Letter for Tillbridge Solar Project (October 2025) [EN010142].
D5R20	**Heather Fox** Written submission	ExQR24. Q13.0.1 What happens to all the calculations ref flood risk, if this season, the water level exceeds all expectations? At what point for physical or financial reasons would the proposal have to be looked at again?	The Applicant's FRA has been carried out on conservative parameters, including a climate change allowance and is therefore robust and precautionary to inform decision making. The Applicant will be required to comply with all DCO requirements, including those securing detailed design and flood risk. Breach of the DCO or any of its requirements is a criminal offence and would be subject to enforcement action.
D5R21	**Christopher Jones** Post hearing submissions	Flood Risk Large parts of the proposed site sit on a flood plain. The Environment Agency has raised concerns. The developers answer is to raise the height of the Panels. That just makes them even more of an eyesore, and highlights how naturally unsuitable the area is in the first place.	The maximum height of the panels in areas subject to flooding is 3.8 meters, and this has not changed since the non-statutory consultation stage. In response to EA's concerns, the Applicant has adapted the design parameters to ensure that panels are not submerged during flood events. This can be achieved in a number of ways; including, but not limited to, adjusting the angle of the solar panels or removing the bottom row of panels. This will not be

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			achieved by increasing the overall height of the panels beyond the stated maximum.
D5R22	**West Lindsey District Council** Post Hearing Submission	WLDC directed the Examining Authority to the detail within the WLDC responses to Examining Authority second written questions [REP4-059], particularly the response to WQ12.0.5. As set out in the Planning Practice Guidance on flood risk and coastal change, the aim of the sequential test "is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk" (Paragraph: 023 Reference ID: 7-023-20220825). The applicant says 46% of site is FZ1, therefore "reasonably available" alternatives are only required for the remaining 54% of the site. In the Sequential Test Addendum [REP3-069] AP16 has been identified as "predominantly within Flood Zones 2 and 3" (paragraph 4.2.4) whereas the plans in Appendix B would appear to indicate only around half of the site area is in such zones. Likewise in Appendix A, site Alternative AP17 is identified as being "wholly within Flood Zones 1", when the accompanying mapping would appear to indicate the site is partially within flood zones 2 and 3. We note that the Examining Authority asked the Applicant to provide further information about AP16. However, WLDC still consider that for the sake of clarity the Applicant should provide a table setting out, for each of the AP sites considered, the area (in hectares) located within each of flood zones 1, 2 and 3. This would then allow the decision maker to see a fair comparison as to the extent of land at a	Please see the response to Third Written Questions Q12.0.9.

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		lower risk of flooding within the other sites considered.	
D5R23	**West Lindsey District Council** Post Hearing Submission	The exception test has two limbs. The first, in relation to whether the development will provide wider sustainability benefits to the community that outweigh flood risk is one for the Examining Authority and the Secretary of State to weigh in the balance. The second is that "the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall". In the view of WLDC the applicant has yet to demonstrate that the development will be safe for its lifetime and that it won't increase flood risk elsewhere.	The Proposed Development has been designed to ensure that remain safe and operational for its lifetime by ensuring that both sensitive infrastructure (such as BESS, substations and inverters) and solar panels are either located outside of the design flood extent or raised above the design flood level. Flood risk is defined as a combination of the probability and the potential consequences of flooding. Both the Flood Volume Assessment and latest Hydraulic Modelling (included within the latest FRA submission at deadline 6) confirm that potential increases in flood levels are within the negligible 5mm tolerance agreed with the EA and both forms of assessment have taken conservative assumptions. The Applicant's position is that an increase of less than or equal to 5mm will not materially increase the consequence of existing flooding within the Site or the surrounding area and this therefore would not constitute an increase in flood risk.
D5R24	**Lincolnshire County Council** Post Hearing Submission	LCC maintains its objections in relation to the scope of the sequential test as set out within its written response to the ExA's Second Written Questions. LCC would highlight that neither EN-1 nor EN-3 treat flood risk or the sequential test element of flood risk policy as irrelevant or in any way optional even for infrastructure which falls within the definition of CNP. Paragraph 4.1.7 of EN-1 does not very clearly differentiate between the two elements of the Government's policy on flood risk (i.e. sequential and exceptions tests) but instead discusses broadly	In relation to the policy test for Critical National Priority (CNP) Infrastructure and flood risk, the Applicant clarifies that the sequential test and flood risk assessment are distinct considerations. The Proposed Development does not result in an unacceptable level of flood risk, and therefore the presumptions relating to CNP Infrastructure in paragraph 4.2.15 of NPS EN-1 are unaffected. See response to D5R16 above. The Applicant is not suggesting that the application of the sequential test or the need to consider flood risk are optional.

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		a reference to 'flood risk' without further definition. Even if 'flood risk' is interpreted as relating to only part of the Government's policy on flood risk, EN-1 and EN-3 treat the sequential test as a key policy test to be considered and weighed properly in the balance overall. Paragraph 5.8.36 requires the Secretary of State to consider, in relation to all applications for development consent (CNP or otherwise) whether the sequential test has been applied to site selection. In terms of flood risk overall, LCC would note that paragraph 5.8.41 would apply given the application boundary includes functional flood plain, even if no panels are proposed to be constructed in this area. Moreover, the ExA and Secretary of State will need to scrutinise whether there is any residual reduction in storage contrary to 5.8.41, LCC would defer to the EA's review of additional modelling on this matter	Extensive information has been submitted on both the sequential test and assessment of flood risk impacts, and the Applicant is not relying on the policy test for CNP infrastructure to bypass these requirements. The Applicant would also like to seek clarification from LCC on its position regarding the sequential test and the evidence submitted to date. At Deadline 4, LCC confirmed in D4 Responses ExQ2 [REP4-055] Q12.0.5 that: "*As such, LCC cannot identify any policy basis for why the sequential test has not been met"* which the Applicant agrees with.
Transport			
D5R25	**Nottinghamshire County Council** Responses to ExAQ2 Q18.0.1	NCC no longer believe this to be an acceptable position. Paragraph 1.2.3 of the Nottinghamshire Highway Design Guide (NHDG), states that new accesses or the increased use of existing accesses on classified or unclassified roads will normally be supported where there is not a road safety problem or where a road safety problem can be removed and it is considered that the appropriate way to determine	The Applicant confirms that Road Safety Audits will be undertaken for all proposed accesses as part of the technical approval process. These audits will be provided from follow the standard process from Stage 1 through to Stage 4 (as required), based on the refined junction designs prepared at the detailed design stage. The commitment to carry out a Road Safety Audit in advance of construction works is secured in paragraph 3.2.7 of the Outline CTMP [REP5-040].

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		the safety of an access is through the Road Safety Audit process. Whilst the NHDG does not discriminate between classified and unclassified roads, NCC initially only requested this information for accesses onto classified roads, as a reasonable approach. On subsequently checking the classified road network, this includes the A57 (RSA supplied) and it is noted that an RSA is also submitted for Roadwood Lane which is a C classified road. Other accesses are on the A1133 (but accesses are not proposed within Notts here), Main Street/Ragnall Road (C2), Moor Lane (C81), Polly Taylors Road (C77). The only accesses that would not come under this strategy would be Gate E. However, in considering the information for the LIR it was noted that the visibility splays for these junctions cross where solar panels are proposed, which would obstruct visibility and represent a highway safety issue. NCC therefore believe that Road Safety Audits should be carried out at all accesses so that such issues can be identified at the appropriate time as this has implications for either the accesses proposed or the extent of solar arrays.	
D5R26	**Nottinghamshire County Council**	(1) A ghost island would only be appropriate during construction and potentially decommissioning, if	Matters relating to the A57 junction have been addressed in the A57 Access Note (November 2025). One final drawing update is being prepared to clarify the stopping sight distance and revised

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	Responses to ExQ2	decommissioning is the reverse of construction. It would not be necessary in the operational phase. (2) There are risks to road safety during the operational phase as, without vehicles using a ghost island on a regular basis, there is a risk that drivers would see as suitable for overtaking. A temporary amendment to accommodate a suitable layout would be acceptable, if required. (3) The applicant has not provided any further assessment of the operation of the junction during construction nor demonstrated that forward visibility to the junction is available over a distance of 1.5 times the required stopping sight distance. This means that the length of any potential queuing is unknown, and it is unclear if the back of any queue could be seen in sufficient time. (4) A report has been supplied to NCC - A57 Access Strategy Review dated September 2025. However, the report indicates that the peak construction traffic flow is 328 vehicles per day, occurring for one month only. However, the information provided in Table 4 of the Transport Assessment identifies that there are 92 light vehicles and 289 HGVs using the link to serve this access, a total of 381 which is an increase of 53 vehicles against that now suggested. If these vehicles were added to the construction traffic profile in Figure 2 of the A57 Access Strategy	visibility splay, which the Applicant and Council agree can be delivered. Upon issue of the revised drawing, the Statement of Common Ground for this item will be fully agreed, closing the A57 access junction matter out in its entirety.

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		Review report, this would mean that there would be over 300 vehicles using the access over 8 months, 4 of which being concurrent. Notwithstanding the possible safety issues, which NCC consider have not yet been fully addressed, if it were just 1 month then this may be able to be managed with heavy Traffic Management, but it appears that the issue could be over a much longer period. (5) There is sufficient space within the land currently proposed within the DCO to provide amendments to the junction if required. However, the boundary may not include the forward visibility splay over 1.5 x stopping sight distance which is required to a simple priority junction more so than a ghost island junction as the former can result in queuing/stationary traffic. Whilst not in answer to the questions raised, NCC would wish to add that we accept that HGV access through Ragnall is not ideal and that there are already several solar farms being considered at a local level that have no option other than to take access through Ragnall and we would support demonstrably suitable solutions that achieve reductions of HGV traffic through here. We would query why an access from Main Street to the north of Ragnall which would achieve this aim has not been considered by the applicant, as an alternative to the A57 access as currently proposed.	

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D5R27	**Rebecca Walker** Comments on responses to ExQ2	Outline Construction Management Plan [REP4-026] updated October 2025 still contains unclear information in relation to the barred routes, which I raised in a previous submission [REP3-088]. It is noted and appreciated there is a more detailed map for North and South Clifton, however there are still several discrepancies between the roads listed and those shown in Figure 4.2. I also believe some roads have been omitted from the barred routes list which The Applicant has previously discussed with local residents and confirmed would not be used for construction and site traffic. Within [REP4-026] point 4.2.8, the roads listed are as follows: • Mill Lane (to the west and east of the A1133) • Moor Lane (to the west of the A1133) • High Street (South Clifton), to the west of the A1133 The roads shown in Figure 4.2 are as follows, as stated by their official road signs: • Mill Lane, North Clifton (to the west and east of the A1133) • Mill Lane, South Clifton (to the west of the A1133) • Vicarage Road, South Clifton (to the west of the A1133)	The Applicant confirms that the changes requested by Nottinghamshire County Council, as the relevant highway authority, have been made in the oCTMP [REP5-040]. The Applicant understands that NCC is content with the routes as noted. Should any further updates to the list of barred routes be required, these can be accommodated in the final Construction Traffic Management Plan, which will be secured under the DCO and agreed with NCC prior to commencement of construction.

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D5R28	**Rebecca Walker** Comments on responses to ExQ2	During consultation, myself and others specifically raised the issue of the narrow single-track lanes to the East of the A1133 in North Clifton (Mill Lane, Moor Lane, and Cottage Lane). The Applicant advised these would not be used for construction or site traffic on the basis that they are unsuitable. I note Mill Lane (East) North Clifton is listed and shown as a barred route but Moor Lane, North Clifton is not. The Applicant has previously stated when asked, this single track road would not be used and the access point that was shown previously has been removed as shown within [REP4-026] Figure 2.1 Site Access Location Plan. I specifically raised concerns early on in the consultation and subsequently in [REP3- 088] about Moor Lane, North Clifton as this runs in front of our home about construction traffic using this road to cut through to areas of the site, rather than using the internal site access routes within the scheme, especially as there is currently a plan for a Site Compound to be located in a field just off Moor Lane, North Clifton beyond our property. I would request Moor Lane, North Clifton is listed as a barred route as the Lane is a single track and not suitable for construction and site traffic. The junction where Moor Lane joins the A1133 is very dangerous, it is on the crest and brow of a hill, depending on the direction you are approaching	The Applicant confirms that no construction traffic is proposed to travel along Moor Lane, North Clifton, from the A1133. A construction crossing is proposed, with the priority given to Moor Lane (North Clifton) users, as illustrated in the Transport Assessment. The road link mentioned has not been requested by NCC, as the relevant highway authority, for inclusion in the barred routes list. The Applicant however acknowledges the concerns raised and confirms that any further updates to the list of barred routes can be accommodated in the final Construction Traffic Management Plan, which is secured under the DCO and agreed with NCC prior to commencement of construction.

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		from, and visibility is very restricted in both directions.	
Fire Safety			
D5R29	**Jane and Sheila Pumfrey** Written Response EN010159-001034	As we know, our action group recently submitted Freedom of Information requests to both Notts and Lincs Fire and Rescue Services and have additional written directly to both Fire Chiefs. Yet, although being submitted on the 10th of October, we have only just received replies to the FOIs, stating that both services need a further 20 days to respond, and I understand we are awaiting reply from the fire chiefs themselves (the fire chief letters were sent out on the 31st of October). The Environment Agency has been telling us what the Fire Services will do, but we have not heard directly from the Fire Services themselves. This lack of clarity is concerning. We have also been unable to locate any formal submissions from either Fire Service on the NSIP website. If they exist, we would appreciate clear direction to where they can be found. We are told there is a “two-hour fire-fighting run-off capacity.” However, this figure is vague and potentially misleading — described as two hours at 1,900 litres per minute, yet a single modern fire tender can discharge roughly double that rate. This raises serious questions about whether the stated containment capacity is sufficient in the event of a major fire, and there are many instances of fire	The Applicant confirms that it has engaged directly with both LFRS and NFRS throughout the development of the project. Their positions are documented in the SoCG [REP1-066] and [REP1-072], which confirms agreement on key matters including emergency access, fire safety measures, and containment capacity. These positions are based on their review of the Applicant’s submitted documentation. The Applicant can confirm that the fire safety strategy, including the provision for two-hour firewater containment capacity, has been developed in consultation with both services and is consistent with industry standards and guidance. This capacity is designed to accommodate intermittent firefighting tactics, as typically employed in battery energy storage system (BESS) incidents, rather than continuous discharge at maximum pump rates. The Applicant also notes that the fire safety measures proposed—including containment, emergency access, and operational protocols—are secured through the oBSMP [APP/7.11.4] and Streets rights of way and access plans [APP/2.4]

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		services and health and safety groups issuing guidance that clearly states otherwise. Furthermore, it appears that Fire Services – despite us thinking this was a requirement - are not recording — or at least not publishing — data on the amount of water or foam used in large-scale incidents. We have examined reports from other significant BESS fires, such as the Essex case, and this lack of transparency is deeply concerning. Reference: Essex Fire Service, EIR 1769 / March 2025 / Incident 265149 BESS. Quote: “During the incident, the firefighting tactics employed would have been intermittent (the application of water only being used when required to protect the risk) therefore it would not be possible to provide an exact volume of water used”	
D5R30	**Heather Fox** Written submission	In response to the news of another Lincolnshire reservoir taking water from this area, with the potential for water pollution from a BESS fire and pollution from micro/nano plastics in the underground cables, I express my concern about the possible consequences for water quality and public health. Much has been made of the mitigation measures surrounding the containment of firewater but there is no remedy for the containment of smoke and particles. A BESS fire, aside from the firefighting run-off, releases airborne contaminants that can settle on a reservoir surface e.g. heavy metals, and harmful organic compounds. A fire involving a BESS enclosure can accelerate the release of	Any fire will release particulates, potentially including heavy metals, into the atmosphere, and a BESS fire would be no different. However, a recent independent review of BESS fires in the United States concludes that airborne emission are not considered a pathway for pollutants to enter water bodies (see Assessment of Potential Impacts of Fires at BESS Facilities, 2025). Regarding microplastics, there are currently no standardised methods for measuring microplastic particles in water, wastewater or solid residues such as sludge, which makes reliable assessment difficult. Available data on concentrations throughout the water cycle also remain limited. Nonetheless, drinking water treatment processes in the UK are effective at removing microplastics. A recent study by the University of Birmingham in 2024 (Synthetic

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		nanoparticles into the air as well as nano plastics being released through the degrading cables. Putting 2 reservoirs at risk is surely unconscionable?	microplastics in UK tap and bottled water: implications for human exposure, Muneera Al-Mansoori, Mia Stephenson, Stuart Harrad, and Mohamed Abou-Elwafa Abdallah, 2024), found no significant difference in microplastic concentrations between Uk tap water and bottled water, indicating that treatment processes are functioning effectively. Therefore, even in the unlikely event that a fire resulted in microplastic contamination of water, UK drinking water treatment would make the supply safe before it enters the drinking water system.
D5R31	**Tania Russell** Post Hearing Submissions	No adequate explanation has been provided as to how discharge contaminants — including PFAS compounds, electronic residues, and burnt plastic waste from inverter fires— would be prevented from entering the Drinking Water Protected Area, which contains watercourses that ultimately flow into the River Trent. Recent research shows that fires in large-scale energy storage systems can release toxic and corrosive gases such as hydrogen fluoride (HF), hydrogen chloride (HCl), hydrogen cyanide (HCN), and carbon monoxide during thermal runaway events in lithium-ion batteries (Ecology WA 2024 One study measured PFAS levels up to 6 µg/L in firefighting water from lithium-ion battery incidents, with over 3,600 litres used in just 30 minutes to control a single fire — all potentially capable of leaching into groundwater (UK Gov Report on Energy Storage 2024 Runoff from firefighting water — often contaminated by foams, burnt plastics, and heavy metals — poses a major threat to soil and water quality. Guidance from environmental authorities warns that spraying water onto a burning or post-fire battery can intensify the	Please see response to D5R30.

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		release of toxic gases and generate large volumes of contaminated runoff (Ecology WA 2024, Part 9	
D5R32	**Tania Russell** Post Hearing Submissions	We are deeply concerned by the complete lack of direct acknowledgment or input from the local fire and rescue services — specifically, Lincolnshire Fire and Rescue Service and Nottinghamshire Fire and Rescue Service — in respect of emergency response planning for this development. We have written to both Lincs and Notts Fire Chiefs and submitted Freedom of Information (FOI) requests seeking clarity. However, responses have been delayed; we are told the requests may take a further 20 days beyond the statutory period. If the fire services are central to ensuring safe planning and preventing contamination, it is unclear why they have not provided written representation for this proposal. We also respectfully request that allowance be made for us to present any findings or official responses once they are received. The referenced “two-hour firefighting capacity” is also misleading. This figure assumes a discharge rate of 1,900 litres per minute, yet modern fire appliances are capable of delivering approximately double that rate. Under realistic conditions, this means that the available water supply could be exhausted in less than one hour, calling into question the adequacy of the fire-response plan and its ability to protect sensitive environmental areas. We have also been informed — though not by the fire services directly — that in the event of a BESS fire, the current operational approach may be to allow the affected	The Lincolnshire and Nottinghamshire Fire Service has reviewed the Outline Battery Safety Management Plan and did not raise any objections. The stated containment capacity has been designed in accordance with National Fire Chiefs Council (NFCC) guidance.

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		unit to burn out while neighbouring units are cooled with water spray. Such an approach would result in uncontrolled burning, with the release of toxic gases and PFAS particles, posing a serious risk of contamination within the Drinking Water Protected Area. Our communities believe this response surely cannot be considered adequate or safe	
TBC	**Jane Pumfrey** Written Response	We are told there is a “two-hour fire-fighting run-off capacity.” However, this figure is vague and potentially misleading — described as two hours at 1,900 litres per minute, yet a single modern fire tender can discharge roughly double that rate. This raises serious questions about whether the stated containment capacity is sufficient in the event of a major fire, and there are many instances of fire services and health and safety groups issuing guidance that clearly states otherwise.	The Lincolnshire and Nottinghamshire Fire Service has reviewed the Outline Battery Safety Management Plan and did not raise any objections. The stated containment capacity has been designed in accordance with National Fire Chiefs Council (NFCC) guidance.
D5R33	**Rebecca Walker** Post hearing submissions	There is also the fire risk. PCS units are known to overheat and ignite, particularly in hot conditions or with inadequate maintenance. Once burning, they can release hazardous chemicals and continue drawing power from the wider system, effectively feeding the fire. In a flood zone that creates a dangerous scenario of toxic firewater spreading across the floodplain and contaminating the water supply. We have not been able to find any clear assessment of this within the Applicants documentation. PCS units are mentioned briefly in the Outline Battery Safety Management Plan [APP-183], but only in connection with the BESS	The Applicant has referenced the PCS as part of the oBSMP plan, as mentioned, but these are lower risk components with comprehensive protection systems, and lower risk components within. The primary concern of the consultees and designs to date has been the Battery Unit, made up of battery cells in a module and the primary failure point. The Applicant has also proactively pre-selected PCS’s to further minimise risks, which are considered to have high reliability. This is outlined in Chapter 5 [APP/6.5.2] and the Outline Design parameters [APP/5.9.3].

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		compounds and not the numerous PCS units which will be located within the solar-array areas. If the Applicant can point to the document where this risk is properly addressed, that would help us understand how they intend to manage it?	
D5R34	**Andrew Coverdale** Written Submission	It is not clear to our communities from the application or associated documentation whether the proximity of nearby poultry operations has been fully considered in the risk and impact assessments. There are approximately 500,000 birds housed across three commercial poultry farms to the northeast of North Clifton, close to the proposed Battery Energy Storage System (BESS) site. Of particular concern, one of these poultry farms lies approximately 150 metres from the BESS compound, placing it within the potential hazard zone for toxic smoke, particulate fallout, and heat radiation in the event of a fire or thermal runaway. Large-scale lithium-ion battery fires are known to release highly toxic gases — including hydrogen fluoride (HF), hydrogen chloride (HCl), carbon monoxide (CO) — as well as particulate PFAS compounds, all of which can pose acute health risks to poultry due to their high respiratory sensitivity. Heat radiation from large battery fires can also cause severe distress or fatalities in livestock housed nearby. Given these known hazards, it is concerning that the application does not make clear whether the closest poultry farm has been adequately considered in fire, smoke, or contamination modelling, or whether the operators	In accordance with the Department for Environment, Food & Rural Affairs' Local Air Quality Management Technical Guidance (TG22, May 2025) and the requirements of National Policy Statements EN-01 and EN-03, the assessment of emissions from unplanned fires associated with the Battery Energy Storage System (BESS) focuses on potential risks to human health, safety, and designated ecological sites, including protected species and habitats. On this basis, the three commercial poultry farm operations in the vicinity are not considered sensitive receptors under the relevant guidance. Risks arising from unplanned emission events, such as those resulting from an unplanned fire within the BESS, are addressed through an Outline Battery Safety Management Plan (oBSMP) [REP5-044]. This plan has been developed in consultation with Lincolnshire and Nottinghamshire Fire and Rescue Services and is informed by guidance from the National Fire Chiefs Council (NFCC), the Health and Safety Executive (HSE), and relevant UK government guidance on grid-scale electrical energy storage system safety. The measures set out in the oBSMP include fire prevention, containment, and emergency response protocols designed to minimise the likelihood of an incident and mitigate potential effects in the unlikely event of a fire or thermal runaway. These measures ensure that there are no likely significant effects on human health or the environment, in accordance with the policy framework.

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		have been fully consulted regarding potential impacts. Without this information, it is impossible to assess the adequacy of mitigation measures or the suitability of the proposed development in this location. We respectfully request that the planning authority ensures that: 1. The proximity of the closest poultry farm is formally considered in any risk and impact assessments, and who would compensate the poultry farm for any losses. 2. Consultation occurs with the affected poultry operators regarding potential fire, smoke, and contamination risks. 3. Independent modelling of worst-case fire scenarios, including toxic gas dispersion, heat flux, and particulate fallout, is undertaken to determine the potential impacts on poultry and surrounding agricultural activities. Until such information and mitigation measures are clearly provided, the risk to animal welfare and livestock operations remains uncertain and potentially unacceptable	
BESS			
D5R35	**Jane and Sheila Pumfrey** Written Response EN010159-001034	In response the applicants response of D3 submissions ExQR28, Q1.0.19. "The UK Health Security Agency has also undertaken a review of the Outline Battery Safety Management Plan and concluded that as it is; a rural site, there are a limited number of residential receptors nearby and within the modelled hydrogen fluoride (HF) plume	The UK HSA has had all publicly available consultation material available to them, in reviewing the potential plume from the BESS. This has informed their response.

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		area, it is anticipated that the public health impacts from a controlled burn approach would probably be low" Q. Can the applicant confirm that the UKHSA were made aware that the BESS is in a drinking water protected area and 92 PCS units are located in flood zones (16 flood zone 2, 76 flood zone 3) Finally, when the suitability of the Eastern BESS site is questioned, in response to our last questions, the developers reassure us that prevailing winds blow from the West – so not towards the nearby reservoir. Apart from this very obvious overly simplistic view, after reviewing detailed weather data, we can confirm that winds blow from the East approximately 9% of the time. Are we truly prepared to rely on the wind blowing from the "right" direction for such an important issue of public safety? We believe this to be an inadequate and dangerous assumption.	
D5R36	**Jonathan Burnett** Written Submission	Despite numerous requests, even being asked at the on site visits we are still to be shown any clear plans that highlight where the battery storage containers are going to be sited, they were originally shown at one of the consultation events but after highlighting how big they were and there were up to five along our boundary to our land the have not appeared since on any plans. Likewise no clear plans on where CCTV and lighting will be located, when this will be in operation and the impact that has on the privacy and lighting up of the scheme. No clear view of the fencing that will be used along the	The Applicant understands the concerns raised regarding the visibility and clarity of infrastructure details. To clarify: • BESS locations are clearly identified on the Works Plan [REP2-007] and Illustrative Mater Plan [REP2-008], which are available in the Examination Library. These plans show the defined areas for BESS compounds within the Order Limits. • The Applicant believes the items referred to as "battery storage containers" in this submission are likely Power Conversion Stations (PCS). PCS locations were shown illustratively during early consultation but are not fixed at this time , to maintain flexibility and to minimise

App Ref	Document Ref	Summary	Applicant Response
		boundary and the impact on our views out of the property. How will there be visualised and addressed?	environmental and visual impacts. Their siting will be constrained within Works Area 1 and controlled by the Outline Design Parameters [REP4-012], which set maximum dimensions and design limits. CCTV, lighting and fencing are all described and controlled in the Outline Design Parameters [REP4-012]. These parameters include operational requirements and mitigation measures to minimise visual and privacy impacts.
D5R37	**Craig Walker** Comments on responses to ExQ2	In response to [REP2-084] Q1.0.18 HSE The applicant does not consider this site to come under COMAH regulations. Given the applicant doesn't currently know what battery composition will be used in the BESS how does the applicant have a calculation to back this up? Using a general Li Battery make up a 300 MW (4-hour duration) BESS would have a total energy capacity of 1,200 MWh. Such a system would likely contain approximately 360 tonnes of electrolyte. This quantity significantly exceeds the UK's Control of Major Accident Hazards (COMAH) lower-tier and upper-tier thresholds for most relevant hazard classifications. The site would almost certainly be classified as an Upper Tier COMAH establishment, requiring the applicant to implement stringent safety measures and submit a safety report to the Health and Safety Executive (UKHSE). Calculation and Threshold Context Energy Capacity: 300 MW \(\times \) 4 hours = 1,200 MWh = 1,200,000 kWhEstimated Electrolyte Mass: ~0.3 kg per kWh \(\times \) 1,200,000 kWh = 360,000 kg = 360 tonne The classification as an	The government has confirmed, through a written question [Health and Safety: Lithium-ion Batteries, Question for Department for Work and Pensions, UIN 29036, tabled on 7 July 2021], that BESS do not fall under COMAH. The response stated: *"The Control of Major Accident Hazards Regulations 2015 (COMAH) apply to dangerous substances as classified by the Classification, Labelling and Packaging Regulations 2008. Lithium-ion batteries are considered to be articles, rather than substances, and are therefore outside of the scope of the COMAH."* The position has been reiterated in the House of Commons Library Research Briefing: Battery Energy Storage Systems (CBP-7621, 23 June 2025), which confirms that BESS installations are not classified as COMAH establishments under current UK legislation. However, The Applicant's safety strategy, including the Outline Battery Safety Management Plan (oBSMP) [REP5-044], has been developed in accordance with guidance from the Health and Safety Executive (HSE), the National Fire Chiefs Council (NFCC), and relevant UK government standards for grid-scale energy storage systems. These measures ensure that risks associated with battery

App Ref	Document Ref	Summary	Applicant Response
		Upper Tier site is based on Schedule 1 of the COMAH Regulations 2015, specifically using the aggregated total mass of dangerous substances that fall into generic hazard categories, such as: "Flammable liquids" (the solvents used in the electrolyte mixture).Substances generating toxic gases (like hydrogen fluoride if the electrolyte reacts during a fire). The quantity of 360 tonnes is well above the thresholds for these categories (which are often in the range of 10 to 50 tonnes for Lower Tier and 50 to 200 tonnes for Upper Tier).	composition and fire safety are appropriately managed, regardless of the specific chemistry selected at detailed design stage.
Agriculture			
D5R38	**Heather Fox** Written submission	Draft Statement of Common Ground with Lincolnshire County Council EN010159/APP/8.2.2 06-02 Loss of BMV. The applicant responds, “if all the reasonably foreseeable schemes within Lincolnshire proceed, the change in land use would be 0.26%”. Please could the applicant be more precise in the wording to explain the phrase `change in land use`. Is that representative of the percentage loss of all land in Lincs county or of the agricultural land? What will happen in 60yrs time when the sites should be returned to agriculture? When the Selby coalfield development went through planning 40 yrs	These calculations have since been updated and the total land use change within Lincolnshire is 2.11% which is still considered to be within a normal range. This figure reflects all possible developments listed in Appendix 18.3 Summary of Other Developments included within the Cumulative BMV Assessment [REP4-020]. If all possible development both temporary and permanent where to proceed than the total land required for all possible developments would be 2.11%. Following decommissioning all land excluding the 123.48ha used for ecological enhancement will be returned to the landowner. By following the Soil Management Plan (SMP) [REP5-042] the soil will be able to be used for agricultural production and produce comparable yields.

App Ref	Document Ref	Summary	Applicant Response
		ago, they were approved with conditions attached, that required the development to be returned to agricultural use when they were no longer needed. All mining in Selby ceased in 2004 but the sites are now redeveloped for other industrial purposes. None have been returned to agricultural use. What credence can be given to the suggestion that this land will ever see another harvest?	
D5R39	**Newark and Sherwood District Council** Post hearing submissions 1	The first point to note from the above data provided by the Applicant is that the breakdown only captures NSIP projects and does not provide further information in respect of TCPA applications within the NSDC area. As such, it is incomplete in informing a clear picture of BMV loss within the district and as such, cannot be relied upon, in providing an understanding of the total cumulative loss of BMV land at a district level.	A cumulative BMV table was submitted at Deadline 3 [REP3-065, Table 5.1]. The approach taken to assess the NSIPs is one taken by several other DCO Applications such as Tillbridge [EN010142]. Natural England have agreed on the approach taken by the Applicant to only include the assessment of NSIP projects as the Scheme is deemed temporary.
Air Quality			
D5R40	**Rebecca Walker** Post hearing submissions	Whilst reviewing documents for information relating to the UKHSA. We note in [APP-183] it discusses the potential for Unplanned Emissions. On Page 60 under C.4.4.1 Results and Conclusions it states and I quote “as illustrated in Figure C.2, at the eastern BESS site, in all emission rate scenarios there are no sensitive receptors located within the area where the assessment level may be exceeded in 90% of meteorological conditions. Thus, it can be concluded that a fire at the eastern BESS site would not result in any significant adverse health effects.”	The Applicant notes the submission regarding the interpretation of [APP0183] and provides the following clarification: 2. **Sensitive receptors:** Under the assessment methodology, “sensitive receptors” are locations relevant for human heath – predominantly residential properties. Farm buildings and water treatment facilities are not classified as sensitive receptors for the purposes of air quality and health risk assessment. The only exposure guidelines available for HF are the Acute Exposure Guideline Levels

App Ref	Document Ref	Summary	Applicant Response
		We would respectfully question if this statement is accurate. Looking on Page 61, Figure C.2: which shows a plan with the Impacts from Unplanned Emissions at Eastern BESS Compound, it is clear from the picture there are sensitive receptors within the marked areas, these being Northfield Farm Poultry Houses, Northfield Farm Bungalow and Anglian Water, Water Treatment Plant. We also note the modelling was done on 3 and 6 hours of fire, which we assume has been undertaken following the required guidance, but when we know there are many cases of BESS fires where they burn for a lot longer, the modelling appears to be rather limited and likely best-case scenario. Surely something as critical as the spread of unplanned emissions is something that should be based on worst case scenarios. We would also point out for accuracy there is an error in [APP-183] with the labelling of Figure C.3 on Page 62 as it states it is the Eastern BESS compound, but we believe it is actually showing the Western BESS compound.	(AEGLs) published by the US Environmental Protection Agency, which are derived for human exposure in air. There is no established data for animal exposure. • **Worst case assumptions in modelling:** The modelling undertaken incorporates conservative assumptions, including low fire temperatures that reduce upward dispersion and omission of atmospheric chemistry reactions. In reality, the HF would quickly react with water in the atmosphere to form hydrofluoric acid, which means that the concentration contours of HF as presented are worst-case. While hydrofluoric acid can cause skin irritation and burns when concentrated, it would be very localised to the source and unlikely to be at concentrations high enough to cause these effects. Hydrofluoric acid at dilute concentrations is unlikely to cause an issue for the water treatment plant, as fluorine is already present in the natural environment. • **Burn duration:** The 3 hour and 6 hour burn times are considered to be worst-case. Many of the previous BESS fires involved older systems without fire suppression or separation between units. The proposed system incorporated advanced fire safety measures, including suppression systems and physical separation, making extended multi-unit fires highly unlikely. 3. **Figure labelling:** The Applicant confirms that Figure C3 in [APP-183] is incorrectly labelled and depicts the Western BESS compound, not the Eastern compound. These clarifications, together with the measures set out in the OBSMP [REP5-044] demonstrate that the assessment is robust and based on conservative assumptions to ensure public safety.

App Ref	Document Ref	Summary	Applicant Response
Community Fund			
D5R41	**Rebecca Walker** Comments on responses to ExQ2	If the Community Benefit Fund is not offering any mitigation, then what is the purpose for mentioning the fund in [APP-045] 6.16 Chapter 16: Human Health? Point 16.6.55 states "Additionally, the beneficial effects of the aforementioned Community Fund will continue throughout this phase to support community resilience within the Local Study Area and the Wider Study Area over the long-term." Is the Applicant able to expand on what "community resilience" is and how the Community Fund will benefit this?	The Human Health chapter refers to the Community Fund for completeness but places no reliance on it for the purposes of the EIA. Please see response below.
D5R42	**Rebecca Walker** Comments on responses to ExQ2	I would like to respectfully challenge the statement made by the Applicant about the Community Benefit Fund. Whilst it may not be a requirement of the DCO to include this, I would question why the Applicant would opt to not include details of this Community Benefit Fund so it is secured for the local communities should the scheme be approved. Based on the knowledge many developers sell on schemes once approval has been given, I would suggest the Applicant is not wanting to commit to the Community Benefit Fund within the DCO so the fund cannot be enforced, because if it was in the DCO the scheme may not look as financially attractive to potential purchasers of the scheme if it were to be sold.	It is an established legal principle that a community benefit fund must not be a material consideration in the planning balance. The case law spans decades and was most recently confirmed by the UK Supreme Court in R (Wright) v Resilient Energy Severndale Ltd & Forest of Dean DC [2019] UKSC 53. The Applicant is therefore not permitted to rely on community benefit fund provision within its planning application, and the Examining Authority and Secretary of State are not permitted to place any reliance on the provision of a fund in their recommendation or decision. Voluntary funds do operate, and the Government has recently consulted on consolidating and making consistent the operation of these funds across renewable energy schemes. The Government is not proposing to change the law regarding the interaction of community benefit funds and the planning system, meaning the legal prohibition on considering these funds within the planning process will remain.

App Ref	Document Ref	Summary	Applicant Response
		For example, In the House of Commons Debate Pack, 11 October 2024, Number CDP 2024/0127 In Debate on community benefits from renewable energy projects, it states, “In England, the previous government consulted on plans to take ownership of and update the Community Benefits Protocol for England, which was developed by the trade body RenewableUK, and covered onshore wind farms. The existing protocol recommended developers should offer packages or in-kind benefits of £5,000 per megawatt of installed capacity, per year, for the operational lifetime of the project.” If this was applied to large scale solar and this scheme specifically then the Applicant would be looking at £3.4 million per year. Whilst I appreciate this is not the case for NSIP solar schemes at the moment, I think this is a good example of what level of benefits should be offered when communities are impacted and have to live with the effects of large scale energy projects for 60 years.	The Applicant has already established the One Earth Community Fund but does not seek to rely upon it in its DCO application.
D5R43	**Rebecca Walker** Comments on responses to ExQ2	The Applicant states in their response to the ExA “The purpose is to ensure that there are local benefits from the Proposed Development, in addition to the benefits provided to meet national energy targets. The purpose is not to offer mitigation due to no significant effects being identified that this fund would mitigate, but to serve as an act of goodwill to the local community.”	Please see response to D5R42.

App Ref	Document Ref	Summary	Applicant Response
		If The Applicant is doing the Community Benefit Fund as “an act of goodwill to the local community” then surely that goodwill should be secured in the DCO if the Applicant is actually committed to providing this Community Benefit Fund.	

3. Detailed Response to AS-061

3.1 Overview

3.1.1 In response to ExA Q12.0.1 the Applicant has prepared a detailed response to AS-061: Clinical Assessment and Regulatory Critique of the One Earth Solar Farm Environmental Statement: Chapter 7 Hydrology and Hydrogeology.

3.1.2 In order to provide a clear and detailed response to the submission the Applicant has mirrored the structure and section titles used by the Interested Party in their submission. The language, assertions and tone of the section headings are not that of the Applicant.

3.2 Executive Summary

Overall Compliance Verdict and Recommendation Status

3.2.1 The applicant does not dispute that the Baiamonte et al research concludes that there could be increases in runoff as a result of solar development. However, the research compares runoff conditions for bare soil against bare soil. This is not representative of the proposals at the Site, where it is proposed that current bare soil be replaced with species rich grassland along with additional SuDS features (such as filter drains, swales and basins/scrapes). A change in ground cover will inherently alter the runoff conditions and this is alluded to in the Baiamonte research within their discussion and conclusions where they state the following:

"These results, although predictable and based on simplified assumptions, quantify the effect of solar panels on runoff generation and suggest that erosion control methods should be used to mitigate soil detachment and transportation. Thus, a grass cover beneath the panels and in the interspace between panels (for aligned slope panels) is highly recommended, because the soil appears much more prone to erosion generated by the higher discharges produced when solar panel systems are adopted."

And:

"The evidence provided by this research suggests that agricultural soils should preferentially not be left bare under solar panel structures, because of an increased risk of runoff and of the relative soil erosion process."[1].

[1] Baiamonte, G., Gristina, L., & Palermo, S. (2023). Impact of solar panels on runoff generation process. Hydrological Processes, 37(12), e15053.

3.2.2 The Applicant is conforming to the recommendations made above and is in fact going beyond the recommendations by including SuDS features to further mitigate against potential changes in surface water runoff conditions.

3.2.3 The methodology adopted by the Applicant has been agreed with the Lead Local Flood Authorities (NCC and LCC) who are the statutory consultee for surface water drainage proposals.

3.2.4 It is unclear where the reference to a flood storage loss of 39,900 (units not stated in the submission) has been taken from as this is not a value stated by the Applicant.

3.2.5 The Applicant recognises that there has been significant discussion around the 5mm tolerance. With regards to flood volume assessments undertaken, this was a tolerance agreed with the EA as resulting in a negligible impact on flood risk. With regards to model tolerance, the EA provide further clarification and explanation in the “Modelling Tolerances” section of the Environment Agency’s (EA) response to documents submitted at Deadline 4, starting on page 16 of REP5-082

3.2.6 With regard to the negligible impacts on water quality and hydrogeology during the construction and decommissioning phases are currently being unsupported by enforceable detail, leading to a severe regulatory deficiency. The Applicant’s position on this is that Chapter 7: Hydrology and Hydrogeology provides sufficient detail and reference to mitigation measures / management procedures that will be implemented by the oCEMP and oDEMP during construction and decommissioning.

3.2.7 The conclusions reached take in to account these measures in determining the overall significance and the Applicant is comfortable with the assessment.

Critical Deficiencies Identified

3.2.8 The EA has confirmed in its responses to ExAQ1 [REP2-095] that it has no outstanding concerns with the updated Water Framework Directive (WFD) screening assessment. This is now reflected in the Statement of Common Ground (SoCG) with the EA, as submitted at deadline 6.

3.2.9 The purpose of the WFD Screening Assessment is to identify the extent to which the Proposed Development is likely to affect water bodies, taking into account mitigation measures that have been embedded into the Proposed Development.

3.2.10 Taking into account the embedded measures and construction/decommissioning mitigation, it is concluded that the operational, construction or decommissioning stages of the development will not cause or contribute to deterioration of the existing watercourses or groundwater bodies or jeopardise their potential to achieve good status under the WFD. This is agreed with the EA.

3.2.11 The embedded mitigation measures have been built into the design of the development, and therefore any failure to implement the mitigation if consent is achieved would constitute a breach of the DCO. As such, the implementation of the mitigation will, if consent is granted, be required by law.

Recommendations

3.2.12 The DCO will secure documents as shown in the securing flow chart included in the Applicant Response to ExA Q1 [REP2-084]. The Applicant has been working with the EA and Lead Local Flood Authority (LLFA) to gain their approval of all relevant matters. This will be captured in the relevant Statement of Common Ground (SoCG).

3.3 Contextual and Regulatory Framework Audit

Scope of Review: Document Identification and Examination History

3.3.1 As the Interested Party notes, the Hydrology and Hydrogeology Chapter [REP5-020] has undergone several revisions throughout the examination process. This has been done in response to various representations and discussions with the EA and LLFAs. This is typical of any Nationally Significant Infrastructure Project (NSIP) examination process and, as the Interested Party suggests reflects the high level of scrutiny that has been applied to this application. As the Applicant continues discussions with the EA and LLFA it continues to make updates.

Compliance Benchmark: Environment Agency (EA) and UK Regulatory Standards

3.3.2 The Applicant agrees that the application must be judged against stringent UK regulatory requirements specific to NSIPs, including policy on flood risk management, water resources protection, and the Water Framework Directive (WFD). The Applicant has met all of these requirements.

Water Framework Directive (WFD) 2017 Requirements

3.3.3 The Environment Agency has confirmed in its responses to ExAQ1 [REP2-095] that it has no outstanding concerns with the updated WFD screening assessment. This is now also reflected in the Statement of Common Ground (SoCG) with the EA, as submitted at deadline 6.

Hydrogeological Impact Assessment (HIA) Mandate

3.3.4 The EA's Guidance on Preparing a Hydrogeological Impact Assessment sets out the following (Applicants highlighting):

"You must prepare a hydrogeological impact assessment (HIA) ***before you apply for a groundwater abstraction licence to:***

- *work out the risks*
- *design mitigation measures which manage the impact to other abstractions and the environment"*

3.3.5 On the basis that the Applicant is not applying for a groundwater abstraction at this stage, adherence with this is not considered to be a requirement.

Flood Risk Policy

3.3.6 The Applicant notes agreement that the appropriate flood events have been used.

Non-Linear Hydrological Risk Assessment Mandate

3.3.7 The applicability of the Baiamonte report and how the Applicant is following the conclusions of that report have been covered in 3.2.

3.3.8 It is important to clearly separate responsibilities when discussing flood risk and the management of surface water runoff. Although the two are interlinked to a degree, the bodies that have a statutory responsibility are separate. The EA are statutory consultees for flood risk with regards to fluvial, tidal, pluvial, groundwater etc. However, the LLFA are consultees when it comes to surface water drainage and managing potential increases in flood risk as a result of this. The discussions surrounding the Baiamonte research fall in to the surface water drainage category and are therefore with the LLFAs to agree. As set out within 3.2, the approach to the management of surface water runoff has been agreed with the LLFAs.

3.4 Critique of Assessment Methodology and Baseline Integrity

Audit of Study Area and Baseline Data Integrity

Study Area Limitation

3.4.1 The study area was defined in accordance with relevant guidance and confirmed through consultation during the EIA process, including key deliverables such as scoping, the PEIR, and the ES. The methodology and approach were also open to discussion at the Hearings. Throughout these consultations, potential pathways beyond the 1 km buffer were considered, and no concerns were raised by stakeholders, supporting the appropriateness of the defined study area.

3.4.2 Chapter 7: Hydrology and Hydrogeology states the following with regards to groundwater safeguard zones:

"Drinking Water Groundwater Safeguard Zones are established around public water supplies where additional pollution control measures are needed. The

Order Limits are not located within or nearby to any Drinking Water Safeguard Zone (Groundwater)"

3.4.3 The above confirms that the Site does not lie withing a Drinking Water Safeguard Zone for Groundwater and the Study Area therefore does not need to take this in to account. Furthermore, as set out in 3.3.6, a HIA is not considered to be a requirement given that the Applicant is not applying for a groundwater abstraction.

Data Scrutiny

3.4.4 The Applicant notes the recognition of the strength of the baseline data used.

Receptor Identification Transparency

3.4.5 Chapter 2 [APP-031] confirms that receptor sensitivity classification is topic-specific, and Chapter 7 sets out the technical basis for hydrology using hydrological function, connectivity to the River Trent, vulnerability to change, and applicable policy or regulatory status. Ordinary watercourses and field drains are identified as sensitive receptors due to their direct hydrological pathway to the Trent, though they are assessed as low sensitivity given their scale and downstream position. The absence of an explicit table in the methodology does not reduce transparency, as the reasoning is clearly presented within the hydrology assessment. The baseline section (7.4) describes receptors in detail, including their connectivity, scale, function, and regulatory context. These factors collectively provide a transparent and defensible basis for sensitivity ratings, ensuring the assessment is robust and verifiable.

Critical Analysis of Significance Criteria and Bias

3.4.6 The definition of the overall significance is not accurate and in line with that set out within Chapter 7 which states the following:

"The overall significance of the effects is determined using professional judgement, giving consideration to various factors including the sensitivity of the receptors and magnitude of the predicted impacts."

Temporal Reliance in Magnitude Assessment

3.4.7 The magnitude of impact is not considered to be heavily dependent on the duration, this is simply one of the attributes included. An example of the criteria guide for the High Magnitude of Impact is set out below (taken from Table 7.1 of Chapter 7, our highlighting).

*"Large scale change in quality and integrity of resource; severe change to key characteristics, features **or** elements of long term duration (i.e. approximately 50 years)"*

3.4.8 Crucially this statement includes “or” before discussing the duration and this was considered in determining the magnitude of impact.

Judgement and Consistency

3.4.9 Under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended), the ES must include “*a description of the likely significant effects of the proposed development on the environment*” and “*the data required to identify and assess the main effects*” (Regulation 18(3)(b) and (d)). The Regulations do not prescribe a fixed quantitative methodology for all topics; instead, they require that assessments are prepared by “*competent experts*” (Regulation 18(5)). In accordance with this requirement (Regulation 18(5)(b), the Applicant’s EIA Team and relevant credentials are set out in Table 1.4 of Chapter 1: Introduction of the ES [APP-030].

3.4.10 The ES considers likely significant effects based on technical evidence, experience, and best practice guidance. These judgments are transparently documented within the ES, including the reasoning behind receptor sensitivity, the significance criteria and magnitude of impact.

3.4.11 Ultimately, the ES provides an informed opinion on the likely significant effects based on the Applicants specialist environmental consultants, but it is for stakeholders and decision-makers, principally the Examining Authority and the Secretary of State, to determine whether they agree with the conclusions when weighing all evidence during the Examination and decision stages.

3.5 Clinical Review of Flood Risk Management and Mitigation Adequacy

Sequential Test and Vulnerability Assessment

3.5.1 The Applicant notes the recognition that it’s compliant and robust approach to mitigating high flood risk associated with critical infrastructure.

Technical Adequacy of Structural Compensation Measures

3.5.2 The Applicant can confirm that recent amendments to the application now secure that no panels will be submerged in flood water.

3.5.3 A response to the Baiamonte effect is provided at Section 3.4.

Residual Flood Risk and Enforceability of Commitments

3.5.4 For clarity, the discussion regarding potential land raising within the floodplain is specific to the inverter locations and any future assessment of this will be with regards to the design flood event that is mitigated against, not the residual flood event. Given the outline nature of the submission, the location of inverters is not

known and it is therefore not possible to assess the potential land raising required and how/where this could be mitigated for.

3.5.5 With this in mind, the Applicant has agreed with the EA that at this stage, inverters will be fixed on voided structures to ensure a negligible impact on floodplain storage (which has been assessed as part of the flood volume assessment). This is agreement is reflected in the latest SoCG with the EA, submitted at deadline 6.

3.5.6 Reference is made within the FRA to the fact that land raising for inverters will be reviewed as part of Requirement 22 and fundamentally, the requirement secures the need to demonstrate that the flood risk mitigation proposed at detailed design will not give rise to additional flood risk in comparison with those reported in the FRA.

3.5.7 The Applicant recognises that there has been significant discussion around the 5mm tolerance. It is important to note that this is a model tolerance, which recognises the inherent uncertainties within hydraulic modelling. The Environment Agency provide further clarification and explanation in the "Modelling Tolerances" section of the EAs response to documents submitted at deadline 4, starting on page 16 [REP5-082]

3.6 Hydrogeological, Water Quality, and WFD Deficiencies

Review of Groundwater Resource Impact and Contamination Risk

3.6.1 As set out in items 3.4.2 and 3.4.3, the Site is not located in a Drinking Water Safeguard Zone for groundwater and additional pollution control measures are therefore not technically required to address pollution risk to this zone.

3.6.2 It is acknowledged however, that BGS groundwater vulnerability mapping indicates that the underlying geology has a medium to high groundwater vulnerability classification. This results in a high overall pollution risk to groundwater from surface activities and this is why environmental mitigation measures have been set out within the oCEMP and oDEMP to address potential risks of pollution to groundwater and prevent deterioration of groundwater body status.

3.6.3 During operation, mitigation measures have been put in place to address the potential risks to groundwater. On the basis that panels cleaning will utilise clean deionised water (i.e. no cleaning products), these areas are not considered to constitute a pollution risk. For the BESS and Substation compound areas, the surface water drainage strategy has been designed such that pollutants will either be treated through natural methods before discharging to surrounding watercourses or contained should there be a fire event. Furthermore, it is not proposed that surface water runoff from these areas will be discharged to ground and features serving these areas will therefore have an impermeable lining, preventing infiltration and therefore potential deterioration of groundwater.

3.6.4 Furthermore, a Water Framework Directive Screening Assessment has been prepared which assesses the potential for deterioration to groundwater bodies and concludes that with mitigation measures in places (secured through the management plans and certified documents), the proposed development will not cause or contribute to deterioration. This document has been reviewed and agreed with the EA, refer to the latest SoCG with the EA submitted at deadline 6 which reflects this.

3.6.5 Refer to the Applicants response at items 3.3.5 and 3.3.6 relating the need for a Hydrogeological Impact Assessment.

3.6.6 With regards to the water supply and Drinking Water Protected Areas, these have been assessed as individual and separate receptors within Chapter 7 of the ES. Water supply is assessed specifically with regards to the impact on water companies capacity and supply whereas Drinking Water Protected Areas (for surface water) are considered when assessing impacts to existing watercourses (in terms of water quality or runoff).

3.6.7 Although the Order Limits are partially located within a Drinking Water Protected Area for surface water, there are no Drinking Water Safeguard Zones for surface water within the Order Limits or surrounding area. Drinking Water Safeguard Zones are defined as catchment areas that influence the water quality for their respective Drinking Water Protected Area (Surface Water), and are identified where the Protected Area is classified as "at risk" of failing the WFD drinking water protection objectives. On the basis that there are no Drinking Water Safeguard Zones that influence water quality, the sensitivity of existing watercourses in this respect is considered to be low. Irrespective of this point, mitigation measures have been put in place through the inclusion of the surface water drainage strategy that provide treatment and manage the quality of runoff prior to discharge to surface water bodies.

Clinical Audit of Water Quality Mitigation and Enforcement Gaps

3.6.8 The management plans now make reference to the need for water quality monitoring being required during construction and operation. WFD and water quality aspects have been discussed with the EA and agreed, refer to the latest SoCG with the EA submitted at deadline 6 which reflects this.

WFD Compliance and Screening Gaps

3.6.9 The Environment Agency has confirmed in its responses to ExAQ1 [REP2-095] that is has no outstanding concerns with the updated WFD screening assessment. This is now reflected in the SoCG with the EA, as submitted at deadline 6.

3.7 Conclusion and Definitive Recommendations

Summary of Critical Findings

3.7.1 With regards to floodplain storage, locating any built development within the design flood extent will result in a loss of storage capacity, unless floodplain compensation is provided. However, floodplain storage and flood risk are inherently linked and the purpose for indicating there should be no net loss in floodplain storage is to aid in ensuring no increase in flood risk.

3.7.2 There are typically two ways to assess impacts on floodplain storage. Firstly, through a flood volume assessment and secondly via hydraulic modelling and assessing the depth difference impacts, both of which have been undertaken as part of the application. On the basis that both assessments indicate that the change in flood level would be within the negligible tolerance, it is considered that there is a negligible impact on floodplain storage

Definitive Recommendations for DCO Requirement Wording

Recommendation 1: Water Quality Monitoring Protocol (Revising CEMP/DEMP Requirements)

3.7.3 The Outline CEMP (Table 3.5), OEMP (Table 3.4) and DEMP (Table 3.5) secure water quality monitoring throughout the lifetime of the Proposed Development. Each document must be approved by the relevant local planning authority in consultation with the Environment agency prior to commencement of construction, prior to final commissioning and prior to decommissioning (respectively).

Recommendation 2: Hydraulic Performance Security and Compensation

3.7.4 Following the Environment Agency's submission at Deadline 5 provided its preferred drafting of Requirement 22, the Applicant has revised its DCO requirement on flood risk in a form which is now agreed with the Environment Agency. The drafting requires that the detailed design of flood risk mitigation is approved prior to commencement of development. The requirement will be discharged by the local planning authority in consultation with the Environment Agency.

Recommendation 3: Specialist Accreditation Assurance

3.7.5 Flood risk mitigation design will be submitted to the local planning authority for approval, in consultation with the Environment Agency (Requirement 22). It is the local planning authority's responsibility to discharge the relevant DCO requirements as part of their proper planning function, and they will seek the input of statutory advisors where mandated (as here is the case of the Environment Agency).

3.8 The Applicant's Conclusion

3.8.1 The Applicant recognises the criticality and importance of flood risk and the impact that flood can have on individuals and businesses. As such, throughout the Applicant's assessment it has taken a conservative and worst case approach, as has been recognised by the Environment Agency.

3.8.2 The AS-062 Submission recognises both the strength of the baseline data that the applicant used and it's compliant and robust approach to mitigating high flood risk associated with critical infrastructure

3.8.3 The Applicant has complied with the relevant policy; undertaking the sequential test and provided the evidence to the Examining Authority. The Applicant's assessment demonstrates compliance with both the Sequential and Exceptions tests. In addition, the Applicant has conducted a Water Framework Directive Assessment that demonstrates that the proposed development will not cause deterioration of waterbody status and is consistent with the objectives of the Water Framework Directive, which has been accepted by the EA.

3.8.4 As is typical for NSIP projects the applicant has worked with the EA to demonstrate a robust and compliant Flood Risk Assessment. In the most recent SoCG submitted at Deadline 6 the EA have confirmed that they are in agreement with the Applicant with only one outstanding item subject to ongoing discussion.

3.8.5 A key concern of the Interested party is the level of tolerance, which has been discussed at a number of Issue Specific Hearings and raised in this and other submissions. As has been highlighted previously in this response the EA have provided a clear explanation of model tolerance in their submission EAs response to documents submitted at deadline 4, starting on page 16 [REP5-082]

3.8.6 The Environment Agency, in its statutory role as Risk Management Authority under the Flood and Water Management Act 2010, has determined that a 5 mm tolerance is appropriate and proportionate for the modelling assessments undertaken.

3.8.7 As such it the Applicant's position that the Interested Party's assertion in this respect carries no weight.

Baiamonte et al

3.8.8 The Interested Party's key concern centres around a single academic study (Baiamonte et al[2]), which has been heavily referenced through this and multiple other submission from this interested party.

3.8.9 The UKs flood Risk Regime is governed by the following (but not limited to) acts, policy and guidance:

- The Flood and Water Management Act 2010
- NPPF + PPG (Flood Risk and Coastal Change)
- Environment Agency national standing advice
- CIRIA SuDS Manual (C753)
- EA Climate Change Allowances (2022)
- Lead Local Flood Authority (LLFA) policy
- EA role as Risk Management Authority

~~3.8.10~~ Baiamonte et al nor the results are mentioned in any of the above documentation.

3.8.11 Notwithstanding the paper's absence from the UK Flood Risk regime and its non-applicability to this scheme, the Applicant's proposal does address the mitigation measures raised in their discussion and conclusions, namely:

"These results, although predictable and based on simplified assumptions, quantify the effect of solar panels on runoff generation and suggest that erosion control methods should be used to mitigate soil detachment and transportation. Thus, a grass cover beneath the panels and in the interspace between panels (for aligned slope panels) is highly recommended, because the soil appears much more prone to erosion generated by the higher discharges produced when solar panel systems are adopted."

And:

"The evidence provided by this research suggests that agricultural soils should preferentially not be left bare under solar panel structures, because of an increased risk of runoff and of the relative soil erosion process."[3].

[2] Baiamonte, G., Gristina, L., & Palermo, S. (2023). Impact of solar panels on runoff generation process. Hydrological Processes, 37(12), e15053.

[3] Baiamonte, G., Gristina, L., & Palermo, S. (2023). Impact of solar panels on runoff generation process. Hydrological Processes, 37(12), e15053.

3.8.12 The Applicant's position, therefore, is that the Baiamonte et al report carries no weight.

Recommendations

3.8.13 Finally, with regard to the recommendations made by the Interested Party; all of them are secured through the DCO as it currently stands. The Applicant is therefore of the opinion that we have broadly addressed the concerns of the Interested Party.

4. Detailed Response and AS-062

4.1 Introduction

4.1.1 In response to ExA Q12.0.1 the Applicant has prepared a detailed response to AS-062: Formal Request for Rule 17 Action – Failure to Provide Critical Flood Risk Mitigation Calculation Data.

4.1.2 To provide a clear and detailed response to the submission the Applicant has mirrored the structure and section titles used by the Interested Party in their submission. The language, assertions and tone of the section headings are not that of the Applicant.

4.2 Context and Defiance of ExA Instuction / Evasion of the Direct Request: Procedural, Not Substantive

4.2.1 The Applicant referred the Examining Authority and Interested Parties to the relevant section of the Flood Risk Assessment and Drainage Strategy [REP5-028] which is also updated at Deadline 6. This document and its contents are on the examination record and the relevant has been since the submission of the application as can be determined from the Examination Library APP-095.

4.2.2 Under the Planning Act 2008 and associated regulations the Applicant is required to carry out a full Environmental Statement and supporting technical assessments. The submission also includes a non-technical summary to support non-experts understand the potential effects of the proposed development. There is no requirement for interpretive or simplified summaries beyond what has been submitted. All hydrological information has been submitted as required by the EA and LLFA and is available to all Interested Parties. Referring out to relevant technical chapters and supporting annexes is standard practice for transparency and allow the EA, LLFA and Interested Parties to see full technical details.

4.2.3 However, to enhance ease of reference please find a response below:

4.2.4 As set out within the FRA, the assessment of surface water drainage at the Site has been separated to consider runoff from the solar panel areas and BESS/Substation areas. It is understood that the interested party is specifically querying the approach to how runoff from the solar panel areas is managed rather than runoff from the BESS/Substation areas.

4.2.5 Within the FRA, the Applicant has made reference to research undertaken by Cook L.M. and McCuen R.H (2013, Hydrologic response of Solar Farms. Journal of Hydrologic Engineering 18: pp 536-541), which concludes that *“With well maintained grass underneath the panels, the solar panels themselves do not have much effect on total volumes of the runoff or peak discharge rates”.*

4.2.6 The Applicant has committed to providing species rich grassland beneath the PV panels, field margins and buffer zones/habitat management areas as well as including additional SuDS features (filter drains, swales and basins/scrapes). With these measures included, it is considered that sufficient mitigation has been provided and that a quantification of runoff or surface water drainage requirements is not needed. This is in line with the approach ordinarily taken for solar farm development (even of a similar scale) and has been agreed with the LLFAs.

4.2.7 As set out in previous responses, the research paper referred to by the interested party (i.e. Baiamonte) does not consider the impact that changes in ground cover (i.e. bare soil to grassland) could have. On the basis that the Proposed Development will change the ground cover by replacing bare soil (present for significant durations of the year) with species rich grassland, the resulted increases in runoff rate and volume set out within the research are not applicable to the proposals. Central Failure to Satisfy the Exception Test / Undermining the Exception Test: The Core Regulatory Failure

4.2.8 The calculations associated with runoff from the BESS/Sub-station areas have been provided in both the Flood Risk Assessment and Drainage Strategy [REP5-028] (which has been available for scrutiny since the submission of the application) and now this document. As set out in the response above, no quantification has been prepared for runoff from the solar panel areas on the basis that industry agreed mitigation is included which is in line with the conclusions/recommendations set out within numerous research papers.

4.2.9 The Flood Risk Assessment and Drainage Strategy (including calculations for the drainage strategy for the BESS/Sub-station areas and discussion piece for the solar areas) has been subject to interrogation by the LLFAs who are the authority for surface water drainage. As laid out in the latest Statement of Common Ground (SoCG) the LLFAs are content with the approach, and outputs that have been provided.

4.3 Technical and Scientific Inadequacy / Technical Deficiency in Mitigating Concentrated Runoff

4.3.1 The Applicant is unable to locate two of the cited papers on which some of the Interested Party's position relies:

- Baiamonte, G., De Santis, V., Ferro, V. et al. "Hydrological response of a sloping terrain under photovoltaic panels: Runoff and erosion processes." Hydrological Processes, 2022. 5.
- Experimental findings attributing increased runoff and erosion solely to the presence of solar panels, not hillside or ground cover, as reported by Baiamonte et al., 2022.

4.3.2 It is assumed that the Interested Party is intending to refer Baiamonte, G., Gristina, L., & Palermo, S. (2023). Impact of solar panels on runoff generation process. Hydrological Processes. As set out previously, within the discussion and conclusion of this research the following is stated:

"These results, although predictable and based on simplified assumptions, quantify the effect of solar panels on runoff generation and suggest that erosion control methods should be used to mitigate soil detachment and transportation. Thus, a grass cover beneath the panels and in the interspace between panels (for aligned slope panels) is highly recommended, because the soil appears much more prone to erosion generated by the higher discharges produced when solar panel systems are adopted."

And:

"The evidence provided by this research suggests that agricultural soils should preferentially not be left bare under solar panel structures, because of an increased risk of runoff and of the relative soil erosion process."[4].

4.3.3 The Applicant is conforming to the recommendations made above and is in fact going beyond the recommendations by including SuDS features to further mitigate against potential changes in surface water runoff conditions.

4.3.4 The statements above from the Baiamonte (2023) research specifically refer to providing a change in ground cover (i.e. incorporate grass cover and do no leave bare soil). The Applicant and research therefore, does not agree with the Interested Parties suggestion that ground cover has no impact on runoff conditions.

4.4 Demand for Rule 17 Action

4.4.1 The Interested Party has requested specific data points which are provided in Table 1. The location of the data of reason why the data is not relevant has been provided.

[4] Baiamonte, G., Gristina, L., & Palermo, S. (2023). Impact of solar panels on runoff generation process. Hydrological Processes, 37(12), e15053.

Table 1 – Date Requested by the Interested Party

Required Information	Information	Applicant Response
Post-Development Run-Off Coefficient	The precise coefficient values applied to the PV array areas, justified by how they explicitly model the accelerated, concentrated flow from solar panels (i.e., accounting for the "disconnected impervious surface" effect).	No quantification has been prepared for runoff from the solar panel areas on the basis that industry agreed mitigation is included which is in line with the conclusions/ recommendations set out within numerous research papers. This has been discussed and agreed with the LLFAs who are the authority for surface water drainage. As laid out in the latest Statement of Common Ground (SoCG) the LLFAs are content with the approach, and outputs that have been provided.
Attenuation Volume Calculation	The specific calculations demonstrating how the required storage volume for all attenuation features was derived from the calculated post-development peak flow (Q_{post}) for 1-in 100 year events plus climate change allowance.3	As above, quantification has not been provided for the solar panel areas. For the BESS/Sub-station areas a quantified surface water drainage strategy has been provided. The approach to this strategy is discussed in Section 4.2.2 of the FRA and the calculations are included within Appendix A9 of the FRA, submitted at Deadline 6 (for clarity, the calculations remain unchanged when compared to the previous D5 submission).
Compensatory Storage	A verified methodology for calculating and securing level-for level compensatory flood storage volume for any area of the functional floodplain lost to infrastructure (e.g., inverters), directly addressing the Environment Agency's previous concerns.1	With regards to floodplain storage, locating any built development within the design flood extent will result in a loss of storage capacity, unless floodplain compensation is provided (i.e. by lowering ground elsewhere). However, floodplain storage and flood risk are inherently linked and the purpose for indicating there should be no net loss in

Required Information	Information	Applicant Response
		floodplain storage is to aid in ensuring no increase in flood risk. There are typically two ways to assess impacts on floodplain storage. Firstly, through a flood volume assessment (as undertaken) and secondly via hydraulic modelling and assessing the depth difference impacts, both of which have been undertaken as part of the application. On the basis that both assessments indicate that the change in flood level would be within the negligible tolerance, it is considered that there is a negligible impact on floodplain storage

4.5 Conclusion

4.5.1 In summary, the Applicant is of the opinion that the matters raised in AS-062 do not identify any omission or deficiency in the Applicant's submission. All of the information requested has been provided within the Applicants submission or is not deemed required and have been scrutinised by the Environment Agency and LLFA in their statutory roles. The Interested Party's assertion that the Applicant has "refused" or "failed" to provide critical calculation data is therefore not substantiated.

4.5.2 As such, the Applicant is satisfied that the statutory, technical and procedural requirements have been met in full, that the Environment Agency and LLFAs have agreed the hydrological methodology and outputs, and that no further steps are required in order for the ExA to rely on the Flood Risk Assessment and Drainage Strategy as a complete and proportionate evidence base.

one earth

solar farm