



Land east of Stock Green
(adjacent to Roundhill Wood)
Wychavon, Worcestershire
EIA Review

Prepared for:
Farrer & Co

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CONTENTS

1. INTRODUCTION 1

2. REVIEW APPROACH TO THE EIA 2

3. REVIEW OF COMPLIANCE OF ES WITH SCOPING OPINION 2

4. REVIEW OF INTRODUCTORY AND CONCLUDING CHAPTERS OF ENVIRONMENTAL STATEMENT AND THE NTS 3

Review of the Site, Surrounding Area and Baseline 3

EIA Methodology 4

Cumulative Effects Assessment 4

Alternatives 5

Proposed Development 6

Non Technical Summary 7

Mitigation and Monitoring 8

Residual Effects 8

5. ENVIRONMENTAL TOPICS SCOPED INTO THE EIA 9

Landscape and Visual 9

Cultural Heritage 11

Biodiversity and Ecology 16

6. ENVIRONMENTAL TOPICS SCOPED OUT OF THE EIA 18

Glint and Glare 18

Noise & Vibration 20

Water Resources and Flood Risk 22

Air Quality 24

7. CONCLUSIONS 26

8. FURTHER INFORMATION 27

1. INTRODUCTION

- 1.1 Trium Environmental Consulting LLP was appointed in January 2023 by Farrer & Co, on behalf of local residents, to carry out an independent review of the Environmental Impact Assessment (EIA) and Environmental Statement (ES) which accompanies a full planning application (W/23/00270/FUL) for the development of Land East of Stock Green (adjacent to Roundhill Wood), Wychavon, Worcestershire (hereinafter referred to as the Application Site). The EIA was prepared by Pegasus Group on behalf of JBM Solar Projects 11 Ltd (hereafter referred to as 'the Applicant')
- 1.2 The Application Site is situated within the administrative area of Wychavon District Council (WDC) and Redditch Borough Council (RBC). The Proposed Development comprises the construction of a Solar Farm and battery energy storage system (BESS) facility together with all associated works, equipment and necessary infrastructure (hereinafter referred to as the 'Proposed Development'). The main solar farm and battery energy storage scheme sits within Wychavon District, however, the underground cable connection routes through the administrative areas of both WDC and RBC.
- 1.3 The purpose of this review is to provide an independent review of the EIA. We understand that WDC is the lead authority for the planning application and any direction provided to the Applicant. WDC should also take into account the responses received from statutory consultees and other consultees.
- 1.4 A Screening Opinion (pursuant to Part 2 of the EIA Regulations) was provided by WDC on 11 Sept 2022, determining that the development falls within Schedule 2 (3 (a)) of the Regulations: Urban development projects, and the site area exceeds the threshold of 0.5 hectares (or 1.25 acres). The Screening Opinion stated *"Having considered the components of the proposed development and the site location, it is the Council's opinion that the proposal is EIA development."*
- 1.5 Pursuant to the screening direction issued by WDC, the Applicant prepared an EIA Scoping Report to agree the scope and methodology of the ES accompanying the planning application. The Scoping Report was dated 26 October 2022.
- 1.6 A Scoping Opinion was prepared by WDC which, in summary, stated that *"the Council broadly agrees with the topics identified as being scoped in and scoped out of the ES. The exception to this, is Sustainability and climate change which can be a stand-alone document but must be interwoven into all aspects of the ES and concluded in the Cumulative Effects and Interrelationship Between the Above Factors section of the ES"*.
- 1.7 An ES was prepared and submitted on 23 February 2023 as part of the Planning Application. The topics that have been included within the ES comprise: Landscape and Visual, Cultural Heritage; and Biodiversity. The ES also comprises of a Non Technical Summary and a number of technical appendices as per the requirements of the EIA Regulations.

Structure of this Review

- 1.8 This report comprises the following sections:
 - Section 1 - provides an introduction and summary of the review and structure of the report;
 - Section 2 – provides a description of the approach to the review;
 - Section 3 - provides a review of the compliance of the ES with the Scoping Opinion produced by WDC;
 - Section 4 - provides a review of the introductory and concluding chapters of the Environmental Statement and the Non Technical Summary;
 - Section 5 - provides a review of the technical assessments/chapters scoped into the EIA;
 - Section 6 - provides a review of the technical topics scoped out of the EIA; and
 - Sections 7 and 8 - provides the conclusions of this review and summary tables setting out the further information Trium believe is required to fully understand the effects of the ES. This table should be read alongside the rest of the review and not in isolation to ensure the context of the further information required is understood.

2. REVIEW APPROACH TO THE EIA

Approach to ES Review

- 2.1 This report provides an independent review of the ES. It provides a review as to whether the ES is compliant with the EIA Regulations, is compliant with the Scoping Opinion provided by the WDC, provides sufficient information on the Proposed Development and Alternatives and whether the ES technical assessments provide sufficient detail to fully understand the potential significant environmental effects associated with the Proposed Development. Where relevant, the review summarises any further information that is required to fully understand the environmental effects and for the ES to be in full compliance with the EIA Regulations.
- 2.2 This report has taken into consideration relevant EIA review guidance such as the Institute of Environmental Management and Assessment (IEMA) Review Criteria and the IEMA Guidelines for Environmental Impact Assessment (EIA).
- 2.3 In addition, the report takes into account current best practice for preparing ES's and is based on the reviewer's technical specialist EIA knowledge and experience with good practice in EIA procedure. Trium's Partners and Employees have extensive experience in managing the environmental issues and impacts surrounding large scale development projects. The Partners and Employees of Trium have, over the course of their careers to date project directed, managed or contributed to over 500 EIAs across numerous sectors.

3. REVIEW OF COMPLIANCE OF ES WITH SCOPING OPINION

- 3.1 The EIA Scoping Opinion from WDC forms part of the ES and is located in ES Appendix 1.2 Scoping Opinion. The Scoping Opinion confirms that it is WDC's opinion that the proposal is EIA Development.
- 3.2 WDC state that *"the Council broadly agrees with the topics identified as being scoped in and scoped out of the ES. The exception to this, is sustainability and climate change which can be a stand-alone document but must be interwoven into all aspects of the ES and concluded in the Cumulative Effects and Interrelationship Between the Above Factors section of the ES."*
- 3.3 The Environmental aspects that were agreed to be scoped into the ES comprise Landscape and Visual, Cultural Heritage, Biodiversity, Sustainability and Climate Change and Cumulative Effects and Interrelationship Between the Above Factors. The Scoping Opinion also states that *"Glint and Glare visual impacts and landscape impacts should be appropriately cross referenced and explained in the Landscape and visual impact section...and should be appropriately cross referenced and explained in the Cultural Heritage impact section of the ES"*.
- 3.4 Sustainability and Climate Change is not appropriately assessed within the ES. Very limited information is provided in ES Chapter 1. Paragraphs 1.9.7 to 1.9.9 provide a high level summary on climate impacts on the Proposed Development. Each technical ES Chapter provides limited paragraphs on the implications of climate change, without providing detail on the possible climate change scenarios, detail regarding the implications of the assessments or the residual effects. Sustainability and climate change is not interwoven into all aspects of the ES and therefore is not in accordance with the Scoping Opinion. In addition, the ES refers to a stand alone climate change report which has been prepared however this is not cross referenced in the ES and cannot be located as part of the planning application documentation.
- 3.5 Glint and Glare is not appropriately considered within either ES Chapter 2: Landscape and Visual, or ES Chapter 3: Cultural Heritage. Simply cross referencing to the Glint and Glare report does not constitute being 'appropriately explained. There is not sufficient information or context provided on the effects of Glint and Glare, nor the impacts on the landscape and visual assessment. This is not in accordance with the Scoping Opinion.
- 3.6 The Scoping Opinion states that *"An appropriate level habitat survey should be carried out on the site, to identify any important habitats present.....and the area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, with impact assessments and appropriate accompanying mitigation strategies included as part of the ES."* No bat surveys have been undertaken as part of the ES or planning application, the extent of bat activity is therefore unknown. Limited information is provided for protected species.

- 3.7 Elevated views from above Morton Underhill are not included within the LVIA, not referenced at any point, and not shown as included on the Viewpoint Location Plan. The route of the Millennium Way, as well as numerous other Public Rights of Way follows an elevated ridgeline above Morton Underhill, to the north-east of the site. This is readily visible on OS mapping, falls within the Applicants own screened ZTV, yet has not been picked up within the LVIA despite attention being specifically drawn to it within the Scoping Opinion.
- 3.8 The Scoping Opinion states that “the ES should include a description of the baseline scenario with and without implementation of the development as far as natural changes from this baseline scenario can be assessed”. The ES agrees with this statement and mentions (in ES Chapter 1: Introduction) the requirement in the EIA Regulations for consideration of “the likely evolution thereof without the implementation of the development as far as natural changes from the baseline scenario can be assessed”. However, there does not seem to be any consideration or discussion on the evolution of the baseline in any of the technical chapters of the ES, which is a requirement if the EIA Regulations.

Further Information

- Sustainability and climate change does not form a sufficient part of the ES and should be covered in more detail. Minimal reference has been made to the stand alone climate change report, however this report cannot be located within the planning application documentation. The Applicant should confirm if one has been undertaken, and if so this needs to be submitted and properly summarised within the ES;
- The landscape and visual assessment should be updated with further information on the effects relating to glint and glare (See Landscape and Visual review in Section 5 for further details);
- Bat surveys should be undertaken and inform the ecology assessments within the ES (see Biodiversity review in Section 5 for further details);
- The scoping response of the Council has not been fully taken into account, in particular in relation to open views from elevated land to the east of Moreton Underhill; and
- Consideration and assessment of the evolution of the baseline should be provided in line with the EIA Regulations.

4. REVIEW OF INTRODUCTORY AND CONCLUDING CHAPTERS OF ENVIRONMENTAL STATEMENT AND THE NTS

Review of the Site, Surrounding Area and Baseline

- 4.1 The ES sets out in Chapter 1: Introduction information on the site, surrounding area and associated baseline conditions. The information included is largely sufficient however a number of omissions were identified as follows:
- Wylde Moor Feckenham SSSI is located directly adjacent to the west of the cable route. This is not shown or detailed in ES Chapter 1: Introduction, however, it is noted this is mentioned in ES Chapter 4 – Biodiversity;
 - Multiple Tree Protection Orders (TPO) on site. It is however noted that no trees are due to be removed and an Arboricultural Impact Assessment has been submitted alongside the planning application;
 - Rookery Cottage Meadows SSSI appears to be located within 2.5km of the northern boundary of the site and Stockwood Meadows SSSI; and
 - Identification and consideration of future baseline and/or an evolved baseline has not been provided.

Further Information

- While noted the Wylde Moor Feckenham SSSI is assessed within ES Chapter 4 and the TPOs are addressed within the standalone Arboricultural Impact Assessment, further explanation is required for the exclusion of Rookery Cottage Meadows SSSI located 2.5km of the northern boundary of the site; and
- Further consideration of any future and/or evolving baseline conditions. If it's not relevant justification needs to be provided.

EIA Methodology

- 4.2 It is unclear whether the Proposed Development is considered to be either 'temporary' or 'permanent'.
- 4.3 It is stated in ES Chapter 1: Introduction that:
"Once renewable electricity generation has ceased the land will be returned to agricultural use as the Proposed Development is fully reversible."
- 4.4 However, it is also stated that the project will have a 40 year lifespan. Further temporal information is required to explain how effects have been determined as 'temporary' or 'permanent'.
- 4.5 A development with a 40 year lifespan does not constitute a 'temporary' development. The Applicant should justify how they have come to this conclusion. If the Proposed Development is considered to be temporary, further information is required regarding the decommissioning of the project. This would be an essential part of the Proposed Development which relies on its 'temporary' nature but very little detail on this is provided with the ES.
- 4.6 Trium disagree with the following statement, *negligible - a neutral effect on an environmental resource or receptor*. We would consider negligible a term used in relation to the scale of an effect i.e. very small/ imperceptible. Therefore, effects could be negligible in scale, and either adverse, beneficial or neutral in nature.

Further Information

- Clarity on whether the proposals are either 'temporary' or 'permanent'. If the proposals are considered to be temporary, further information is required on the deconstruction/ decommissioning of the project; and
- Definition of the use of 'negligible' should be clarified.

Cumulative Effects Assessment

Inter Project Cumulative Effects

- 4.7 The ES states that *"There are no other consented or planned solar farm developments, subject to a valid planning application, that have been identified that would be considered as having significant cumulative effects in combination with the Proposed Development in the administrative area of Wychavon District Council or Redditch Borough Council. Nor were there any other existing development and/or approved development in the area which were identified as potentially giving rise to cumulative effects with the Proposed Development."*
- 4.8 From a desktop review no additional cumulative schemes were identified and this statement seems valid.

Intra-Project Cumulative Effects

- 4.9 The ES states that *"For this ES, there are no significant intra-project effects identified with the Proposed Development in place and identified receptors."*
- 4.10 However, there is no defined methodology or explanation of the assessment of intra-project cumulative effects. Therefore, it is not clear how the effects have been assessed or conclusions

reached. Mitigation is applied inconsistently and is sometimes used to justify no intra-project cumulative effects despite residual effects being reported.

- 4.11 For example, in paragraph 2.5.16 of ES Chapter 2 Landscape and Visual the following is stated (with only one receptor being identified and it is not clear how all other receptors and potential effect interactions have been discounted):

“As part of the amendments to the scheme during the consultation process, the built form was removed from the field adjacent to ‘The Leasowes’ (Grade II, residential property) and additional mitigation was incorporated into the scheme to reduce any potential adverse visual effects on residents. The Cultural Heritage chapter assessed the change to historic landscape character for ‘The Leasowes’ as minor adverse residual effects, and the Detailed Landscape Assessment (Appendix 2.2) highlights Viewpoint 4 (recorded near the boundary of the property at a similar elevation to the ground floor windows of the house) as negligible residual effects by Year 15 of vegetation growth as part of the mitigation strategy. In combination, the residual effects are not significant in EIA terms.”

- 4.12 There is no intra-project cumulative effects assessment undertaken for ES Chapter 4: Biodiversity, the effects discussed are in relation to visual amenity, air quality and noise, traffic, and dust only. No further information is provided in ES Chapter 4: Biodiversity on whether there are anticipated to be intra-project effects with regards to biodiversity.

Further Information

- Provide an assessment of intra-project cumulative effects with clear methodology followed and justification where receptors and effects are discounted;
- While noted that no significant intra-project effects were identified, methodology for assigning whether an intra-project cumulative effect is deemed significant or not significant is not clearly established; and
- When mitigation has been applied during the main assessment to determine the residual effect it should not then be re-used to justify whether intra project cumulative effects would occur, this should be based on the residual effects themselves.

Alternatives

- 4.13 The ES in Chapter 1: Introduction sets out: the proposed approach to considering other relevant development options; the ‘No Development’ Alternative; Alternative Locations and Uses for the Proposed Development; and Alternative Designs.

‘No Development’ Alternative

- 4.14 The ES states that *“In the absence of the Proposed Development, the ‘no development’ alternative would result in the Application Site being maintained in its current state and the existing baseline conditions prevailing. It is considered that the no development alternative would result in the loss of an opportunity to provide a new renewable energy development and contribute to sustainable development in accordance with local and national policy”.*
- 4.15 The ES concludes that there are no significant adverse effects and this is the justification for no narrative being provided under the ‘No Development’ scenario.
- 4.16 However, a review of the ES shows there is insufficient information to fully understand whether there is potential for significant effects. With regards to the topics of Ecology and Biodiversity, Noise and Vibration and Glint and Glare the baseline should be reviewed as we have determined that it is insufficient (ecology bat and noise surveys required) to understand whether significant effects are likely. In relation to the review of the Landscape and Visual impacts, the review suggests that significant effects should have been identified. Therefore, further justification is required on the basis of potential significant effects.

Alternative Locations and Uses for the Proposed Development

- 4.17 The ES states that “A Site Selection Report accompanies the planning application for the Proposed Development documenting the process undertaken by the Applicant for the selection of the Site. The document sits outside the EIA process.” It is not understood why this document sits outside the EIA process. The site selection process is relevant in the context of development of greenfield land and any significant effects which may as a result as of the Proposed Development which could have been underreported in the case of Biodiversity, Noise and Vibration, Landscape and Visual impacts and Glint and Glare.

Alternative Designs

- 4.18 Alternative Designs are not properly understood. The indicative site layout in Figure 1.5 is not of a high enough resolution to read. Embedded mitigation measures incorporated during the design development phase are not presented clearly. The ES states that the process was “iterative” however the ES only indicates that one alternative layout process was considered. The Alternative Design assessment process is therefore extremely limited. This would appear to be proportionate in the context of no significant effects that the ES reports, however, as discussed above insufficient information is in the ES to understand if this is the case.
- 4.19 Whilst the “additional elements” introduced into the scheme are welcomed and beneficial from an ecological perspective, it should be recognised that these are not ‘Alternative Designs’ but ‘Enhancements’ to the scheme.

Proposed Development

- 4.20 At times the ES appears to be promoting the scheme, and whilst it is recognised that the ES reports no significant effects, Trium are not confident that this is the case given that some baseline studies such as noise and bat surveys have not been undertaken. This is addressed in the responses to the technical reviews.
- 4.21 The description of the Proposed Development is not objective and considered to be misleading in terms of the description of the scale and summary of the impacts. Trium disagree with the statement below. Whilst it is agreed the height may not be overbearing, the statement does not address the footprint of the site which extended to 119.7 Hectares. Therefore, it does not provide relevant information on the scale of development and underplays the footprint (and therefore scale) of the proposals, which are extensive given the significant amount of land being used in an isolated countryside location. Chapter 1: Introduction of the ES states *“The scale of development on Site has been determined by the equipment necessary to efficiently generate renewable energy. All of the plant buildings on Site will be at or below single storey level (i.e., approximately at or below a maximum of 2.5m in height) ensuring that they will not be readily visible from most viewpoints outside of the Site and be limited from wider views. Even when viewed from nearby public vantage points, the scale of development will not be overbearing due to its limited height and relatively benign appearance (i.e., lack of movement and external illumination etc.)”*
- 4.22 Deconstruction/decommissioning is not properly addressed.
- 4.23 The ES makes specific reference to the lifetime of the project stating:
“In addition, the limited level of physical intrusion that the development requires, will mean that the panels can be removed after their 40-year lifetime and the land will revert back to full agricultural use. In this respect, the Proposed Development will result in a less permanent impact than most other forms of development, including some alternative methods of renewable energy production.”
“construction and deconstruction work will take place inside the security fence”
“At the end of the 40-year operational lifespan of the solar farm and BESS, the Site would be restored back to full agricultural use with all equipment and below ground connections removed (with the exception of the substation). However, the landscape enhancement measures would remain, providing long-term benefits to the local landscape character of the area. It is envisaged that the decommissioning of the solar farm would take approximately six to nine months.”
- 4.24 Given that the ES is promoting the “less permanent” nature of the project, Trium would have expected a more detailed explanation of the decommissioning. It is not understood what *“all equipment and*

below ground connections removed” entails. The ES states that the substation will remain. The substation includes both the Distribution Network Operators (DNO) Control and Room and Customer Building. Clarification is required as to whether the site access junction, the security fence, the acoustic fencing, the 4.0m wide access tracks, piling frames, cable runs, inverters, transformers and battery containers, the visitor car park, the communications and motoring equipment will be removed and what remediation work will be undertaken.

- 4.25** As detailed in LHW Partnerships PV Farm Technical Review there are also limitations on the accuracy of details on energy production and storage from the Proposed Development. References in the Planning Application to the amount of energy generated, CO2 emissions saved, the number of houses (and their locality) to benefit from the energy produced and even the type of batteries proposed are inaccurate according to the LHW Partnership review. This gives rise to significant uncertainty over the accuracy of information provided in respect of the proposed scheme as detailed in the LHW Review.
- 4.26** The Layout Plans are difficult to interpret. All effort should be made to ensure the ES is accessible, however the description of the scheme is difficult to understand as the layout plans can only be read at a zoom of 150% which means that the full site cannot be understood in one frame and the plans cannot be printed. Furthermore, the legend is difficult to interpret as the colours and the differentiating factors are not distinct enough.
- 4.27** The ES makes reference to fencing around each development parcel, however there is no description of what the development parcel is.

Non Technical Summary

- 4.28** The NTS is generally easy to understand and covers information on the Proposed Development, the key findings of the EIA and the alternatives. However, the mitigation required is not sufficiently considered.
- 4.29** At times the NTS and the ES appear to be promoting the Application, and whilst it is recognised that the ES reports no significant effects, Trium are not confident that this is the case given that some baseline studies such as noise and bat surveys have not been undertaken. Examples of the ES promoting the application or where there are omissions in the NTS include:
- The NTS states that “The scale of development will not be overbearing due to its limited height and relatively benign appearance (i.e., lack of movement and external illumination etc.)” However, the Proposed Development comprises almost 120 Ha of PV panels and no mention of the scale of the footprint is provided;
 - The Applicant’s approach and definition of temporary effects is questioned (e.g. The Applicant’s Landscape and Visual Assessment states that an effect of 15 years is temporary. Given that the Proposed Development has a life space of 40 years, a temporary effect of 15 years seems inappropriate;
 - The description of the decommissioning of the Proposed Development has not been properly addressed; and
 - The NTS itself states that the loss of the Agricultural land is both a constraint and opportunity, however, this position is not explained or justified. The conclusions of the NTS do not mention the loss of greenfield land (even if not permanent) or agricultural land.
- 4.30** The NTS introduces information not discussed within the ES with regards to embedded mitigation such as the location of construction compound and visitor car park near to main Site entrance to reduce visual intrusion; provision of suitable stand off margins to The Leasowes Listed Property; internal roads designed to reflect existing agricultural access points to reduce requirement for vegetation removal and Battery units located on the periphery of fields to benefit from natural boundary screening. The Alternative Designs section within ES Chapter 1: Introduction is weak and would have benefitted from a full description of this narrative, particularly in terms of understanding how the impact to the Grade II listed Leasows Building was minimised through the design evolution.
- 4.31** Most of the images used are of poor resolution. Figure 3, the most important Figure in the document is unreadable defeating the purpose of an NTS.

Further Information

- **Alternatives:**
 - Following further consideration and update to the ES (as required), the ‘No Development’ scenario should be updated.
 - The site selection process is relevant in the context of the use of greenfield land and any significant effects which may as a result as of the Proposed Development, this should form part of the Alternatives analysis in the ES.
- **Proposed Development:**
 - Whilst it is agreed the height may not be overbearing, the statement does not address the footprint of the site which extends to 119.7 Hectares.
 - Given that the ES is promoting the “less permanent” nature of the project, Trium would have expected a more detailed explanation of the decommissioning.
 - The ES makes reference to fencing around each development parcel, however there is no description of what the development parcel is.
 - Figures should be updated to ensure layout plans are readable.
- **NTS:**
 - Mitigation requirements should be made clear, a summary table could be useful to include.
 - Any updates required to the main ES (Chapters 1 – 5) should be incorporated into the NTS.
 - Figures to be updated to be made clearer.

Mitigation and Monitoring

- 4.32** Mitigation is not clearly discussed and understood throughout the ES. An essential requirement under the EIA Regulations is to identify and clearly present the mitigation required and implemented to reduce adverse effects. Mitigation measures are referenced intermittently throughout the ES, but there is not a drawing together of key mitigation measures in ES Chapter 5 Summary. **A clear and comprehensive list or table of the mitigation measures required should be provided.**
- 4.33** As examples: the Glint and Glare Assessment makes specific reference to mitigation being required in the form of landscaping however this is not mentioned in the ES or the NTS; the Cultural Heritage Section makes reference to Archaeological features of Late Iron Age and Roman activity within the solar farm area, which may be completely or partially destroyed during the construction and decommissioning phases. Ecological enhancements and mitigation are provided in ES Chapter 4: Biodiversity, but not summarised anywhere else. How will the landscape enhancements be managed. Is a landscape management plan required?

Further Information

- A clear and comprehensive list or table of the mitigation measures required should be provided.

Residual Effects

- 4.34** ES Chapter 5: Summary provides a summary of the ES. However, the purpose of ES Chapter 5 is unclear. It largely repeats information included in ES Chapter 1 Introduction and provides a similar function as the NTS. Furthermore, the residual effects, mitigation and any cumulative effects (inter and intra) are not clear, the use of summary tables could aid in the understanding of how mitigation has been applied by topic. The following is stated under paragraph 5.8.5 of Chapter 5:

“It is therefore considered that there are no negative residual significant effects that are overriding which would preclude the Proposed Development. This development will offer a residual significant benefit to the soil structure of the agricultural land as it will not be intensively arable farmed over the lifetime of the Proposed Development.”

- 4.35 Trium disagree with the overarching view of the above statement, that the Proposed Development would have a significant beneficial effect on the soil structure by virtue of there not being another activity that could be undertaken on the site that would be ‘more intensive’. This is not an appropriate statement to make within the ES, the effect of the Proposed Development should be assessed against the identified baseline and as mentioned earlier in this report the ES should not be promoting the scheme. If a significant beneficial effect is considered likely, this should be assessed in appropriate detail and form an ES Chapter given the likelihood for a ‘significant effect’.

5. ENVIRONMENTAL TOPICS SCOPED INTO THE EIA

Landscape and Visual

- 5.1 A review of the Landscape and Visual Impact Assessment (LVIA) ES chapter was undertaken by Annabelle Langhorn Landscape Planning Limited (ALLP). The review by ALLP consists of an independent peer review of the LVIA (within the ES) and an independent review of the landscape and visual context of the site. The review concludes that, the Applicant’s LVIA cannot be relied upon. Best practice methodology and guidance has not been followed and views specifically requested by the WDC have not been considered.
- 5.2 The overview of the landscape and visual context of the site and surrounding landscape and views undertaken by Annabelle Langhorn CMLI has determined that the site would not be an appropriate location for the proposed solar PV development as there is a high level of uncertainty that suitable mitigation and enhancement measures could overcome the likely impacts and effects on sensitive landscape and visual receptors.
- 5.3 Given the importance of landscape and visual impacts in the ES and for the planning application as a whole, an independent review of the landscape and visual context of the site, including a site visit, has been undertaken. The full ‘Review of Landscape and Visual Matters’ is submitted as a stand alone report. A summary of the key points from the LVIA review, and the further information requested is presented below.
- 5.4 There is no evidence of any consultation contained within the LVIA, however it is noted at several paragraphs that parts of the design of the scheme have been altered in response to consultation undertaken with specific residents and members of the public. It alludes to consultation having been carried out to some degree, even though no detail is provided.
- 5.5 Elevated views from above Morton Underhill are not included within the LVIA, not referenced at any point, and not shown as included on the Viewpoint Location Plan. The route of the Millennium Way, as well as numerous other Public Rights of Way, follow an elevated ridgeline above Morton Underhill, to the north-east of the site. This is readily visible on OS mapping and falls within the Applicants own screened ZTV. However, it has not been picked up within the LVIA despite the Scoping Opinion specifically requesting this.
- 5.6 The assessment does not comprehensively identify receptors of all likely effects. The main omission is the failure to identify the elevated, and panoramic views experienced from the Millennium Way to the east of Morton Underhill. As such, the effect of the development on these views appears to have been left out. The assessment does identify that there are a number of Public Rights of Way crossing the site, but these have not been assessed anywhere within the LVIA. The only indication of any assessment of the effects on the users of these routes is the assessment narrative that is contained within Appendix 2.2 in relation to viewpoints 2, 3, 7, 14, 20 and 21.
- 5.7 The failure to include these highly sensitive receptors is a glaringly obvious oversight for the LVIA, especially as these users are the ones that would be likely to experience the most adverse effects of all of the users identified.
- 5.8 The mitigation identified within the scheme is focused on screening the development visually. This indicates that the assessor is aware that the proposals would not be visually consistent with the wider landscape and as such there is a need for the solar farm to be hidden. Such a degree of visual screening is not characteristic of the local landscape. Woodland is present, but this tends to be

located on ridges and elevated areas of land, and there is not much consideration of the fact that the proposed visual screening would negatively impact users of the public rights of way crossing the site through significant foreshortening of views as well as the creation of enclosed spaces within a landscape where such enclosure is not usual or typical.

- 5.9** There hasn't been any consideration of how the development would appear within the landscape at longer distances and, in particular, whether the orientation of the solar array will be at odds with the surrounding landscape elements.
- 5.10** The overall conclusions made with regard to landscape effects cannot be relied upon as the value of the landscape has not been adequately and robustly assessed, and there is insufficient justification relating to the resulting conclusions that have been reached by the applicant.
- 5.11** The overall conclusions made with regard to visual effects also cannot be relied upon as the LVIA has failed to include an assessment of the effects on users of the Public Rights of Way crossing the site, and on the users of the sections of the Millennium Way and other elevated Public Footpath routes to the north-east of the site where long-distance and expansive views over the landscape are available. This is a fundamental omission.
- 5.12** An independent review of the Landscape and Visual Context of the site has found in relation to the LVIA undertaken by Pegasus Group, that:
- A detailed, and comprehensive description of the character of the site and the surrounding landscape has not been provided, and therefore it is not clear whether the intrinsic character of the site has been appreciated;
 - The baseline value, susceptibility and sensitivity of the landscape has been underestimated potentially skewing the subsequent assessment of impacts and effects.
 - The visual receptors identified are not comprehensive with key viewpoints from sensitive locations missing;
 - The mitigation proposed is not appropriate for the receiving landscape;
 - The mitigation proposed is not appropriate for the receiving visual context;
 - The beneficial effects of the proposed development on the landscape elements within the site have been over-estimated;
 - The visual receptors have not been identified or assessed for the cable route;
 - The landscape character effects during construction have been underestimated and there is not enough detail in the assessment of the cable route;
 - The landscape character effects during operation have been underestimated; and
 - The visual effects during construction and during operation have not been fully assessed – there are key visual receptors missing.
- 5.13** In addition, the historic interest of Roundhill Wood is under-stated in the ES reporting. It is a significant survival of a large medieval wood which extended across the site until largely assarted in the Middle Ages. The wood is a distinctive landscape feature which is recognisable as historic. From the footpaths within the site itself it forms a notable boundary element to the south and east, visually associated with the survival of hedgerow trees and the presence of the veteran pollarded oak which lies close to its eastern tip within the site.
- 5.14** The wood likewise has a presence in longer views from the east, from the Millennium Way at Inkberrow and from the footpaths that follow the ridgeline between Pinhill's Farm and Morton Hall. These paths form part of a high quality and well-maintained network of footpaths that offer panoramic views over the landscape to the west, and in which Roundhill Wood is a noticeable and attractive feature.
- 5.15** There is no assessment anywhere in the documents of the views obtained from this high value public footpath, in which the proposals will be seen clearly (see also the LVIA review of ES Chapter 2 Landscape and Visual). In these views the proposed solar array will interpose between the woodland

edge and the surrounding fieldscape, changing the perception of the historic landscape grain and pattern of farmsteads, historic woodland and hedged fields.

- 5.16** In conclusion, the LVIA for a new solar PV development at Land east of Stock Green, Wychavon cannot be relied upon. Furthermore, the overview of the landscape and visual context of the site and surrounding landscape and views undertaken by Annabelle Langhorn CMLI has determined that the site would not be an appropriate location for the proposed solar PV development as there is a high level of uncertainty that suitable mitigation and enhancement measures could overcome the likely impacts and effects on sensitive landscape and visual receptors.

Further Information

- The methodology is not based on best-practice guidance or latest LI guidance, particularly in relation to the assessment of landscape value and landscape character effects;
- The methodology is over-reliant on matrices, with not enough narrative provided throughout to justify and explain to the reader how and why the judgements have been arrived at;
- The scoping response of the Council has not been fully taken into account, in particular with regards to the concern raised by Inkberrow Parish Council in relation to open views from elevated land to the east of Morton Underhill;
- Landscape value has not been adequately assessed;
- Visual impacts have not been comprehensively assessed;
- Mitigation is over-reliant on visual screening of the proposals with no explanation as to why and whether this would be in keeping with the wider landscape and visual context of the site;
- The consultation work has not been fully documented;
- The landscape recommendations that should be integral during the design development process have not been clearly set out; and
- The scale of the site and proposals in comparison to the receiving landscape has not been assessed.

Cultural Heritage

Built Heritage

- 5.17** A review of the built heritage component of ES Chapter 3 Cultural Heritage has been undertaken by Montagu Evans.

Scope and Methodology

- 5.18** The built heritage assessment (located in ES Chapter 3 Cultural Heritage) by Pegasus Group is informed by a Heritage Statement also prepared by Pegasus Group (ES Appendix 3.1). The assessment methodology scopes an assessment area of all designated heritage assets within an approximately 1km radius from the site and is formulated with regard to case law, relevant statutory and policy provisions and industry guidance.
- 5.19** The methodology differentiates between designated and non-designated heritage assets.
- 5.20** It is noted that that both the Cultural Heritage ES Chapter and the supporting Heritage Statement incorrectly cite Section 72(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 as relevant to the assessment.

Approach to Assessment

- 5.21 The ES Chapter states under ‘Limitations to Assessment’ that the conclusions presented are based on the baseline conditions, derived in large part from the data held and supplied by Worcester Historic Environment Record (‘HER’). It states that in establishing the baseline conditions the accuracy and currency of the HER data are assumed.
- 5.22 The baseline has been reviewed and it is concluded that that the reporting has relied on – mostly without developing - the HER data. There has been little additional research, including into secondary literature, and there has been no attempt to consider the interaction of the assets in relation to time-depth of the landscape. Accordingly, in Montagu Evans view, the analysis of setting’s contribution to significance is not sufficiently developed.
- 5.23 The assessment likewise does not consider the historic landscape features which provide a context for the heritage assets. These include Roundhill Wood, remnant ancient woodland and subject to other designations; the hedges that bound the site, notably to the east; some hedgerow trees, in hedges and in isolation; and a veteran pollarded oak.
- 5.24 There is no individual assessment of significance of the potentially affected assets but a general statement that in the case of each, their significance is “*predominantly derived from the architectural and historical interest of their built form and fabric*” (paragraph 5.4, Heritage Statement). This does not give sufficient weight to the potential interaction between designated heritage assets which were, and remain, components of the local and distinctive historical landscape: scattered timber-framed farmhouses, woods, and hedged fields.
- 5.25 These are interesting and noteworthy components of historic landscape, which have not been identified either in the Heritage Statement or the LVIA. Time-depth is a recognised landscape concept and used in historic landscape characterisation.

Further Information

- Additional research into the interaction between the assets in relation to the time-depth of the landscape is required;
- Consideration of the landscape features which provide a context for the heritage assets, including Roundhill Wood, hedgerows and trees;
- Individual assessments of significance for each of the affected assets taking into account their specific value and interest should be provided; and
- Assessment of the views from the public footpaths to the east of the Site, including the Millennium Way, and the impact of the proposals on historic landscape grain should be

Buried Heritage

Introduction

- 5.26 Impacts on buried heritage (along with built heritage) were assessed by Pegasus Group in 2022. The assessment was accompanied by the results of a geophysical survey in 2020 by TigerGeo and a trial trench evaluation between September and November 2022, by Cotswold Archaeology. The ES chapter concluded that without mitigation, likely significant effects would arise from the removal of the known buried archaeological remains of local to regional heritage significance (Late Iron Age and Roman remains within the solar farm area, and a possible Roman road in the northern section of the cable route). It was considered that with the implementation of mitigation through design and by condition, these effects to the known archaeological remains of Late Iron Age and Roman date within the solar farm area would be avoided, and that the level of harm to potential archaeological remains of the Roman road and associated remains crossed by the cable route would be reduced, leaving no significant residual effects.

Review

5.27 A buried heritage review of the application documents has been undertaken by MOLA.

Appendix 3.1 Heritage Statement (combining built heritage, historic landscape, and archaeology), July 2022

5.28 The range of sources consulted is broad and appears sufficient to support the assessment at the time it was written, taking into account the results of the 2020 geophysical survey. This recorded evidence in the north-western part of the site indicative of Iron Age and/or Romano-British settlement and associated field systems, and of possible Bronze Age round barrows or Bronze or Iron Age roundhouses. These features were partly overlain by 'ridge and furrow' from historic ploughing, which also extended into the north-eastern and southern parts of the site. However, it should be noted that the Heritage Statement pre-dates the archaeological trench evaluation in the site.

5.29 The Heritage Statement considers that:

- Buried remains of prehistoric and Romano-British activity as indicated by the geophysical survey would be of "some" heritage significance, as derived from their archaeological interest (para 4.24).
- Buried remains of medieval and later agricultural land use (plough furrows, ditches, pits, and tracks associated with historic woodland management) would be of limited heritage significance, with very little archaeological or historical interest (para 4.28).
- Known or likely sites, buildings or areas with heritage significance are assessed as falling within one of three levels:
 - Designated heritage assets of the highest significance;
 - Designated heritage assets of less than the highest significance; and
 - Non-designated heritage assets.

5.30 There are no designated assets in the site.

5.31 NPPF para 203 states that "*The Effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application*".

5.32 The Heritage Statement (para 2.29 to 2.31) notes that since "*there is no basis in policy for describing harm to non-designated heritage assets as substantial or less than substantial, rather, the NPPF requires that the scale of any harm or loss is articulated*", and that harm to such assets is articulated as a level of harm to their overall significance, with levels such as negligible, minor, moderate and major harm identified, but these have not been used in the assessment. The Heritage Statement also noted that it is also possible that Proposed Development may "*cause no harm or preserve the significance of heritage assets*".

5.33 The Summary of Archaeological Potential (para 4.23 to 4.28) is reasonable given the lack of evaluation results at the time it was written.

5.34 Section 6, Conclusions of the Heritage Statement only refers to the significance of the agricultural features, not of the prehistoric and Romano-British features.

Appendix 3.2- Archaeological Desk-Based Assessment (cable route), May 2022

5.35 This was reviewed but there are no comments. Only a small portion of the assets in the cable route study area lie within the solar farm study area and these are discussed in the solar farm Heritage Statement.

Appendix 3.4 – Archaeological Trial Trench Evaluation Report (solar farm), January 2023

5.36 A total of 240 trenches were excavated, distributed across the site in accordance with a scope and methodology of work approved by the Archaeology and Planning Advisor to WDC. The purpose of the evaluation was to provide evidence regarding the archaeological resource within the site, including its

presence/absence, character, extent, date and state of preservation, in order to “enable WDC to identify and assess the particular significance of any archaeological heritage assets within the site, consider the impact of the proposed development upon that significance and, if appropriate, develop strategies to avoid or minimise conflict between heritage asset conservation and the development proposals” (para 3.1).

- 5.37 Three distinct areas of settlement-related activity were identified, focused in the north-western and north-eastern parts of the site, dated primarily to the 1st and 3rd centuries AD, with reduced settlement continuing into the 4th century AD. Post-medieval and modern agricultural features were also recorded.

Environmental Statement Review (Archaeology)

EIA Methodology

- 5.38 The assessment of impacts on buried heritage is generally in accordance with relevant heritage industry guidance and best practice, although guidance from Standards for Highways (the Design Manual for Roads and Bridges (DMRB)) and the Institute of Environmental Management and Assessment (IEMA) are not referenced.
- 5.39 The list of sources consulted (including site walkover surveys) is acceptable. However, Legislative and Policy Framework (3.2.28–3.2.31) should reference the Ancient Monuments and Archaeological Areas Act 1979 and the National Planning Policy Framework (NPPF).
- 5.40 The use of three categories of ‘heritage significance’ (Table 3.1), two for designated heritage assets and one for non-designated heritage assets, reflects the wording of the NPPF, but in MOLA’s view limits how the assessment methodology can be applied to non-designated heritage assets to reflect their range of significance and support the conclusion that effects will be ‘significant’ or ‘not significant’. It is stated that a ‘matrix-based approach’ is not used as this would ‘over-simplify’ the assessment findings, and is advocated by Historic England. However, there is no such statement in either Planning Note 3 or Advice Note 12. Restricting the assessment of significance of non-designated assets to one level removes some of the nuance that a more ‘individualised’ approach gives. The reader is left entirely in the hands of the author without fully being able to follow the steps that lead them through the assessment stages. The conclusion regarding significance of environmental effect seems to rest instead on the scale of impact (partial or total removal of archaeological remains). There is also a greater chance of over-or-under reporting an effect; the resulting description of the residual effects (discussed below) is similarly unclear. The methodology does not clearly show how asset significance has been assessed, nor how it would be changed by the impacts of the Proposed Development. The methodology does not clearly show how significant adverse effects would be mitigated or offset (reduced) by preservation in situ or excavation or recording.

Limitations to the Assessment (3.2.48–3.2.50)

- 5.41 Although noting the limitations of HER data in drawing conclusions about baseline conditions, reference should be made to the trench evaluation which has confirmed the presence of archaeological remains in the site.

Baseline Information: Significance of Cultural Heritage Resource in the Site

- 5.42 This section appears to be a straight copy from the Heritage Assessment rather than a summary.
- 5.43 The list of known and potential buried heritage assets in the site (remains of Late Iron Age settlement and Roman activity, and medieval and later agricultural activity) are assessed only as not “*heritage assets of the highest significance*” (3.3.9), whereas a more specific level of significance would have been helpful in the assessment of effects.
- 5.44 MOLA would suggest that Iron Age roundhouses would be medium or possibly high significance, medium for the Roman enclosures, and low for the later agricultural features (these are collectively described in the Summary at para 3.7.3 in the ES as being of ‘local to regional significance’).

Significance of Cultural Heritage Resource of the Site

- 5.45 Para 3.3.15 lists archaeological remains within the site but includes reference to assets outside the site.

Assessment of Likely Significant Effects

- 5.46 The physical impacts on archaeology are correctly identified as truncation or removal during the construction and decommissioning phases, with no impact occurring during the operational phase.
- 5.47 The assets likely to be affected are described as:
- remains of Late Iron Age settlement and Roman activity in the north-eastern and north-western parts of the solar farm area... considered to be of local to regional significance; (para 3.7.3) and
 - known and potential earthwork and buried remains of historic agricultural activity.... considered to be of little to no heritage significance (para 3.7.4).
- 5.48 These levels of heritage significance are not explained or put in context (i.e. the whole range of possible levels of significance) anywhere in the ES chapter, and are not included in Table 3.1 described above.
- 5.49 Although no definition is stated of how the resulting environmental effect is assessed as 'significant' or 'not significant', this appears to be determined by the asset being either totally destroyed (significant) or partially destroyed (not significant).
- 5.50 No assessment is made of the impact of the Proposed Development on the setting of archaeological remains.

Summary of Significance of Effects (before Mitigation)

- 5.51 This implies that all predicted Effects are 'not significant' and does not include the 'significant' effect on Iron Age features stated in para 3.3.19,

Mitigation

- 5.52 The proposed mitigation follows good-practice, with 'mitigation by design' measures such as limiting groundworks and the use of above-ground foundations included for the most archaeologically sensitive areas of the Site (within the north-western quadrant of the solar farm). Such measures may extend to other areas, based on the results of pre-commencement investigations and in accordance with an Archaeological Mitigation and Management Plan prepared post-consent. Unavoidable archaeological impacts from groundworks will be offset by archaeological observation and recording ('strip map and record' and/or a 'watching brief').
- 5.53 It is proposed that intrusive impacts will be avoided in parts of the north-west of the site, which is considered appropriate to preserve Roman features in situ. However, no mention is made of the Iron Age features.

Residual Effects (3.4.8)

- 5.54 This states that the residual effect will be 'minor harm' (a category not previously mentioned) irrespective of whether the remains are preserved in situ (Late Iron Age and Roman archaeology) or are removed but subject to archaeological investigation and recording (potential Roman archaeology). Surely archaeology preserved in situ would suffer neutral or no harm, or does the minor harm include the impact to the setting of the archaeology by the construction of the solar panels. Further, it suggests that no Late Iron Age features will be removed and 'preserved by record'. Therefore, the residual effect needs to be clarified, and explanation of the residual effect being 'minor harm' provided.

Summary (3.7) and Table 3.4

- 5.55 Significant Effects are noted for archaeological remains, for both total and partial loss, in the Construction and Decommissioning stages which through the application of mitigation measures will be reduced to 'no significant residual effects'.
- 5.56 The Table (the description of the asterisks appears to be missing) is not consistent with the rest of the ES chapter as it introduces categories not previously mentioned and does not cover total loss of assets, only partial loss.
- 5.57 It is not clear why remains within the cable route are included here.
- 5.58 The section of the Table on Decommissioning is confusing, since the Magnitude of Effect and Significance of Effects is the same as for Construction (Harm and Moderate Adverse) yet the Residual Effect is reduced to none.

Conclusion

- 5.59 While MOLA would broadly agree with the proposed mitigation and resulting Residual Environmental Effect, it is not clear how the conclusions regarding Environmental Effects were reached. A greater level of consistency across the chapter would help this clarity.
- 5.60 It is also suggested that some broad consideration of the archaeological setting should have been made (even if this was to point out that the existing modern landscape does not reflect the archaeological landscapes, thus there would be no impact to that archaeological setting).

Further information

- A clear description of the levels of less than substantial harm to avoid phrases such as 'at the lower end of the less than substantial harm spectrum'; and
- A description of the significance of the individual assets, rather than grouped together as 'non-designated heritage assets'.

Biodiversity and Ecology

Introduction

- 5.61 Tyler Grange undertook a Biodiversity and Ecology assessment of the proposed solar photovoltaic panels. A review of the ecological reports (ES Chapter 4, Figure 4.1-4.5), ES Appendix 4.3-4.6) and the Landscape Strategy was undertaken by Assystem.

Review

- 5.62 The overall methodologies used to inform the assessment are sound and the Zone of Influences used are of standard best practice.
- 5.63 The EclA states that "*the site is within the Impact Risk Zone for Stock Wood Meadows, but the type of development does not fall into the categories considered likely to present a risk to these sites*".
- 5.64 However, from a review of MAGIC Map application (<https://magic.defra.gov.uk/magicmap.aspx>) the SSSI Impact Risk Zone for Stock Wood Meadows includes "*Any development that could cause AIR POLLUTION or DUST either in its construction or operation*" which has not been considered further. Without appropriate mitigation the Proposed Development could result in a negative/adverse impact on a Nationally designated site.

Figure 1 : Image Taken from MAGIC Detailing the Further Assessment Potentially Required

Air Pollution	Any development that could cause AIR POLLUTION or DUST either in its construction or operation (incl: industrial/commercial processes, livestock & poultry units, slurry lagoons & digestate stores, manure stores).
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5.65 Assystem agree with the survey methodologies and conclusions made regarding:

- Amphibians;
- Badgers;
- Breeding and wintering birds;
- Dormouse;
- Hedgehog;
- Reptiles; and
- Water vole.

5.66 However, although impacts on bats were identified but no surveys have been undertaken to gather robust baseline evidence to understand potential impacts and to prescribe mitigations tailored to the species utilising the site.

Bats - Construction

5.67 Although there is no loss of trees, there could be indirect impacts, given the proximity of woodland habitat to the site if roosts were present, from disturbance during construction from noise (not just lighting). No surveys have been undertaken to understand the species and potentially sensitivities involved with those species during construction. Works could disturb roosting bats and contravene legislation and could also temporarily impact commuting and foraging activities.

Bats – Operational

5.68 There is limited assessment or understanding of how bats are utilising the site as no surveys have been undertaken. The site is adjacent to woodlands, and the site could potentially displace bats. Potential impacts on bats could arise from collision with solar panels or infrastructure, loss of foraging habitat within the solar farm location. The impact in lag time from habitat loss to creation might drive bats away. This is factored into the report, however survey data should be used to inform this.

Further Information

- Clarify whether the air pollution and dust has been considered in adversely affecting Stock Wood Meadows SSSI;
- Undertake bat roost assessments (presence/ absence surveys) and appropriate roost characterisation surveys if roosts are found, on trees with moderate or high features that are near the construction areas; and
- Undertake bat activity surveys to understand how bats are utilising the site and any potential impacts the Proposed Development could have on those behaviours.

6. ENVIRONMENTAL TOPICS SCOPED OUT OF THE EIA

Glint and Glare

Introduction

- 6.1 Pager Power undertook an assessment of glint and glare of the proposed solar photovoltaic panels in order to determine the impact upon road safety and residential amenity. Pager Power's report concluded that *"No significant impacts upon road safety and residential amenity are predicted, and no further mitigation is recommended"*.

Review

- 6.2 A review of the Glint and Glare assessment was undertaken by RWDI.
- 6.3 The overall methodology of the analysis is sound in that it screens out receptors that cannot experience reflections geometrically then uses the industry standard GlareGauge software from Forge Solar (however, the name of the software and company who provides it seems to be incorrect in the report) for an analysis of the remaining receptor points. The 1 km extent of the analysis is standard industry practice.
- 6.4 The Scoping Opinion produced by WDC stated *"We note that a Glint and Glare Assessment will be undertaken separately from the ES as a stand-alone document. However, Glint and Glare visual impacts and landscape impacts should be appropriately cross referenced and explained in the Landscape and Visual Impact section of the ES"*.
- 6.5 There is however little detail on how the geometric analysis was undertaken. In a case with tracking panels it is important to understand the assumptions for the direction the panels are facing.
- 6.6 The outline of the solar farm created in GlareGauge is quite detailed, featuring numerous concavities both large and small. However, in accordance with the GlareGauge user guide, a limitation of the software is that concave shapes may be "filled in" by the software to create a convex polygon for the analysis. This means that the results predicted by PagerPower are conservative (in that a larger area of PV panels may have been simulated) and this should be made more clear in the report.
- 6.7 In RWDI's opinion, the potential for glare on local roads should not be discounted without simulation results. Other jurisdictions where RWDI has conducted PV glare analyses, require adjacent public roads to be investigated and in the absence of a fixed standard analysis, RWDI considers it good practice. Low traffic volumes can of course be an argument for why mitigation is not required, but that decision should be made within the context of how often glare is possible. RWDI would also recommend that two heights be studied, 1.5 m above the ground to represent typical cars and 2.3m for larger vehicles.
- 6.8 RWDI would also disagree that glare impacts on homes are always less severe if glare only impacts floors above ground. With the increased number of people who work from home, an upper floor workspace cannot be ruled out. Furthermore, a house may be shared by multiple parties and an upper floor provide a main living space.
- 6.9 A number of low impacts are reported for 24 residential dwellings (Section 7: Geometric Assessment Results and Discussion and Table 3 of the Applicant's Solar Photovoltaic Glint and Glare Study). The report states that no further mitigation is recommended *"Due to existing and/or proposed screening any views are likely to be possible for observers above the ground floor only, i.e. the first floor or above"*. Further information is required to understand whether these impacts would increase in the absence of the proposed mitigation. Furthermore, any mitigation relating to glint and glare (which is not clear in the report) is not reported within the Environmental Statement.
- 6.10 Within the assessment, given that many impacts were predicted in winter, it is not clear from the report if landscaping will act as sufficient barrier from reflected light. Additional commentary on the density and types of trees/hedges in the vicinity is required.
- 6.11 RWDI understands that the resting angle of the tracking arrays was simulated as 0 degrees. In RWDI's experience, GlareGauge results can be sensitive to this parameter and slightly steeper rest angles (3-5 degrees) have helped reduce or even eliminate glare on nearby receptors with limited

impact on energy yields. It is not clear if a sensitivity check was conducted or why a value of 0 was chosen (i.e. was it an assumption by Pager Power?).

- 6.12 PagerPower defines significance as per the table below. Their argument is that a number of the receptors have low impact due to the screening provided by landscaping. Without this landscaping by their classification, those locations would be classified as Moderate. In ES terms, the assessment should have identified a moderate risk and then set out how this risk is mitigated to reduce the risk to low rather than simply stating a low risk.
- 6.13 It is possible that the landscaping does provide sufficient screening, however it is RWDI's view that the Applicant has not robustly demonstrated this.

Figure 2 PagerPower Impact Significance Table

Impact Significance	Definition	Mitigation Requirement
No Impact	A solar reflection is not geometrically possible or will not be visible from the assessed receptor.	No mitigation required.
Low	A solar reflection is geometrically possible however any impact is considered to be small such that mitigation is not required e.g. intervening screening will limit the view of the reflecting solar panels.	No mitigation required.
Moderate	A solar reflection is geometrically possible and visible however it occurs under conditions that do not represent a worst-case.	Whilst the impact may be acceptable, consultation and/or further analysis should be undertaken to determine the requirement for mitigation.
Major	A solar reflection is geometrically possible and visible under conditions that will produce a significant impact. Mitigation and consultation is recommended.	Mitigation will be required if the proposed solar development is to proceed.

- 6.14 RWDI do not agree with some of the rational used and believe additional information should be provided in order to provide better context to properly understand the effects for decision making purposes.

Further Information

- Clarify whether the results predicted by PagerPower are conservative and whether or not this would affect the conclusions of the assessment;
- Glint and Glare visual impacts and landscape impacts should be appropriately cross referenced and explained in the Landscape and Visual Impact section of the ES. The ES is required to be in accordance with the Scoping Opinion;
- Undertake an assessment of above ground residential floors;
- Clarify whether the landscaping is required as mitigation including the density and types of trees/hedges in the vicinity is required;
- Clarify whether a sensitivity check was conducted or why a value of 0 was chosen; and
- Given that mitigation is provided within the report it unclear whether, in the absence of mitigation, a significant effect would be reported. If this mitigation is required to reduce the impact to low the ES should have reported this. The ES should be updated to address the effect prior to mitigation and the mitigation required to ensure no significant effects.

Noise & Vibration

Introduction

- 6.15 Sandy Brown has reviewed the noise assessment report titled Noise Assessment (revision 1.3) produced by LFAcoustics, dated 25 January 2023.
- 6.16 The assessment completed by LPAcoustics concluded that noise produced during the construction and operation of the proposed solar farm will be generally low and not result in adverse impacts.

Review

Construction Noise

Construction Traffic

- 6.17 The construction traffic assessment considers noise increases along the A422 and Earls Common Road. The evaluation of 'no impact' on A422 presented in the report is justified given the expected low levels of construction traffic and the high existing traffic flows on this road.
- 6.18 The impacts along Earls Common Road have not been evaluated in adequate detail. The assessment does not consider the existing low flows which fall below the thresholds used for usual calculation procedures, ie, Calculation of Road Traffic Noise (CRTN).
- 6.19 A comparison to the existing baseline ambient noise levels would also be expected along Earls Common Road, which has not been completed. The assessment of construction traffic noise increases is inadequate for evaluating the potential impacts on receptors along Earls Common Road.

Construction Activity

- 6.20 The typical distance to properties is stated as 100m, though it is noted there are properties that are closer (60-80 m, such as Stockwood Farm Lodge) to the solar panels, which should also have been taken into consideration.
- 6.21 The report states construction activity could result in a free-field sound pressure level of up to L_{Aeq} 65 dB at the nearest residential properties. The report states that this level of noise would have a low impact, with no justification provided for this evaluation.
- 6.22 In accordance with the 'ABC' method in BS 5228-1:2009+A1:2014 *Code of practice for noise and vibration control on construction and open sites – Part 1: Noise* (BS 5225-1) a sound level of L_{Aeq} 65 dB or higher would be expected to result in a significant impact in a low ambient noise environment. The report does not reference the 'ABC' or other examples provided in BS 5228-1 of how to establish significant noise impacts.
- 6.23 The assessment completed for the public right of way indicates noise levels in the region of L_{Aeq} 75 dB due to piling. Information in BS 5228-1 indicates that significant effects would be expected in this type of location (public open space) due to the ambient noise level increasing by 5 dB or more. The baseline noise levels in these areas would need to be provided to determine whether a significant adverse impact would occur.
- 6.24 It is likely that mitigation measures are needed to reduce construction noise levels sufficiently so that significant impacts are minimised as much as practically possible.

Operational

- 6.25 The operational noise sources appraised have been limited to fans, transformers and inverters, i.e., mechanical equipment.
- 6.26 Brief details are also provided for evaluating the potential for road traffic increases. The information presented indicates very low levels of traffic associated with the proposal and the conclusions reached are consistent with this description, i.e., minimum perceptible noise change.

Method of Assessment at Residential Receptors

- 6.27** BS 4142:2014+A1:2019 *Methods for Rating and Assessing Industrial and Commercial Sound* (BS 4142) has been referenced in the report for the assessment of noise emissions from the mechanical equipment, which is the correct standard for these assessments.

Background Sound Level

- 6.28** The assessment presented within the report is based on an assumed absolute sound pressure level during the day and night. This approach does not follow the methodology in BS 4142 and severely compromises the assessment and the conclusions reached.

Receptors

- 6.29** It is likely that the number and location of receptors identified in the report for the assessment of operational impacts is adequate. However, a full review of the receptor list can only be completed once information on the background sound levels has been provided.

Evaluation of Specific Sound Level at Receptors

- 6.30** An initial review of the expected specific sound levels has been completed on the calculation basis described in the report. The underlying calculation assumptions will need to be further clarified, e.g., ground absorption assumptions, facade reflections, screening etc.
- 6.31** There is potential for the sound levels to be underreported, which would result in higher impacts being present than those reported.

Evaluation of Rating Penalty

- 6.32** No rating penalty has been applied to the specific sound level at each of the receptors.
- 6.33** The justification provided for this appraisal is not considered robust given the usual tonality of compressors (within the condensers), transformers and fans (blade pass frequency).
- 6.34** The evaluation of a rating penalty does not consider the potential for impulsivity, intermittency or other sound characteristics that may be audible in a low background environment from the proposed mechanical equipment.
- 6.35** Ultimately, the rating panel only applies at receptors where they can be observed to be present. As there is no information on the existing background sound levels at the receptors a robust initial appraisal cannot be completed.

Assessment of Uncertainty

- 6.36** The assessment of uncertainty is limited and covers only the assumed operation of the equipment, i.e., does not account for wind direction, temperature inversions at the beginning/end of the day, variation in background sound level or tolerances in manufacturer's reported sound level data.

Assessment of Impact at Residential Receptors

- 6.37** As noted, the initial assessment of impact needs to be based on the existing measured background sound level to follow the methodology in BS 4142. Not measuring the existing background sound level is a significant shortcoming of the submitted assessment. The reported estimate of likely impacts (not considering context) is potentially optimistic and may not identify impacts at all affected receptors.

The guidance in BS 8233 relates specifically to anonymous noise, i.e. noise that does not contain tones, impulses etc. BS 8233 notes that non-anonymous noise sources may need to achieve lower noise limits than have been quoted in the noise assessment. An assessment of internal noise level is a valid approach when consideration is made to account for the type of noise source, i.e. non-anonymous sources would need to be lower than the recommendations in BS 8233. Assessment of Impact on the Public Rights of Way

- 6.38 BS 4142 methodology would not strictly apply to the Public Rights of Way. The approach described in the assessment considers the noise as a person walks past the equipment and makes comparison to passing road traffic. This approach does not consider the conditions that are currently experienced in these locations, or the character of noise generated by the mechanical equipment.
- 6.39 A guiding principle of WHO Environmental Noise Guidelines 2018 is to protect and preserve existing large quiet outdoor areas. The predictions indicate that the noise levels on parts of the Public Rights of Way will be as high as adjacent to a road.
- 6.40 The Applicant's assessment does not consider preserving the existing quiet conditions as much as possible. It is likely that the Proposed Development will compromise the environmental conditions, which may lead to loss of amenity.

Further information

- No baseline noise surveys have been undertaken, this is significant shortcoming of the submitted assessment and environmental noise and vibration impacts cannot be understood. Baseline noise levels at existing receptors, including in the Public Right of Way need to be undertaken;
- An analysis of construction traffic along Earls Common Road considering the existing low traffic flows needs to be undertaken;
- A justification of the construction noise assessment criteria adopted should be provided;
- Detailed modelling assumptions that have been adopted for evaluating the mechanical equipment noise at the receptors should be provided;
- An evaluation of uncertainty that accounts for metrological effects and equipment tolerances should be undertaken;
- Initial estimates of impacts that comply with BS 4142; and
- A summary of the mitigation measures to be adopted to reduce the noise impacts during the construction and operation of the Proposed Development needs to be provided.

Water Resources and Flood Risk

Introduction

- 6.41 RMA have undertaken a review of the Flood Risk Assessment as well as the Hydrology, Flood Risk and Drainage section of the EIA Scoping Opinion which has been undertaken by Calibro for the planning application. The purpose of the review is to determine if the reports are in line with the NPPF, associated Planning Practice Guidance (PPG) and local policy as well as best practice guidance.

Review

- 6.42 The Scoping Opinion confirms that hydrology, flood risk and drainage can be scoped out of the ES on the basis that all of the site will be located within Flood Zone 1. It should be noted that part of the cable route that is included as the red line boundary of the application site is located within Flood Zone 2 and 3 and therefore the stating that 'all of the site will be located within Flood Zone 1' is not

correct. This is however referred to in the FRA which confirms that the cable route alignment has been selected based on various constraints such as land availability. It is concluded in the Applicant's Scoping Report that despite this, there will be no significant effects likely to arise as a result of this and that this topic can be scoped out of the EIA.

- 6.43 A review of the FRA which included a surface water drainage strategy has been undertaken and the key findings have been summarised. The overall methodology of the FRA is sound and it assesses the impact from all flood risk sources as well as the future effects associated with climate change.
- 6.44 The FRA draws upon the design of the scheme which proposes to better surface water flood risk within the site by deculverting a section of the watercourse and inclusion of natural flood management works to 'slow the flow'.
- 6.45 The FRA does not provide detail on the safe access/egress route that maintenance personnel will take and whether this is affected by surface water flooding. The report does state however that the solar farm will be controlled remotely and only visited occasionally and consequently there will be no requirement for site access/egress during times of flood.
- 6.46 To mitigate runoff from the inverters, battery stations and cabins distributed across the site it is proposed to either construct them on granular beds or surround them with 1 m wide gravel strips. The assessment fails to provide details of the material, depth and porosity of these features and calculations should be provided to show that these features can store water for the 1 in 100 year event with the added effects of climate change.
- 6.47 The proposed access tracks will be formed of compacted granular material and will therefore be permeable. Although this is considered an acceptable approach for the access tracks, more detail should be provided on the porosity and material that the access tracks will be made of, this would provide comfort that they will not have a significant impact on runoff rates.
- 6.48 The layout plan shows that there are large areas within the site (21.85 ha) that are classified as archaeological sensitive areas. In these areas above ground ballasted supports are intended to be used. Given the extent of these areas this could have a significant impact in the impermeable area within the site and therefore increase runoff rates. This has not been referred to or assessed within the FRA and should be considered as these areas reduce the grass cover under the panels and therefore introduce runoff, where necessary features such as swales along the downslopes should be introduced to control runoff.
- 6.49 The FRA does not consider what would happen should an exceedance event occur and where runoff would flow.
- 6.50 There is no assessment on water quality treatment and whether runoff from the hardstanding areas such as battery storage area, inverter station and cabins would be appropriately treated via SuDS features prior to discharging. Reference to the treatment and mitigation indices in the SuDS manuals should be made to confirm that the drainage features included within the design treat the runoff to an appropriate standard prior to discharge.

Further Information

- Provide further information on safe access egress routes and their impact from flooding from all sources;
- Provide further detail on the material, depth and porosity of the granular bed and gravel strips including calculations to provide evidence that they can store water for the 1 in 100 year plus climate change event;
- Provide information on the porosity and material of the access tracks;
- Provide an assessment on the ballasted supports provided for the archaeological sensitive areas and their impact on increasing impermeable areas and runoff within the site;
- Provide a plan showing the exceedance flow routes; and
- Confirm water quality treatment indices are met.

Air Quality

Introduction

- 6.51** Pegasus Group prepared an EIA Scoping Report to accompany their request for a Scoping Opinion. The Scoping Report scopes out air quality impacts from the ES. The Council's Scoping Opinion accepts this, but recommended that a Construction Transport and Environmental Management Plan (CTEMP) be included with the application submission. The submitted ES repeats that air quality has been scoped out.
- 6.52** The application submission was accompanied by a Construction Traffic Management Plan and a Construction Traffic Method Statement. Neither of these documents specifically address air quality impacts.
- 6.53** Dust and odour impacts are conventionally included within the air quality aspect, but for the most part these are not separately identified in the documents referred to above.

Review

- 6.54** An Air Quality review was undertaken by Air Quality Consultants (AQC).
- 6.55** A development such as this may have air quality and dust impacts through a number of elements, namely:
- Emissions from plant and equipment during the construction phase;
 - Emissions from road traffic during the construction phase;
 - Dust emissions during the construction phase;
 - Emissions from plant and equipment during the operational phase; and
 - Emissions from road traffic during the operational phase.
- 6.56** It is usual to consider each of these aspects in turn, as well as cumulatively, when scoping potential significant effects in or out. The Scoping Report and ES do not go into detail to justify the decision to scope out air quality, for example by presenting the existing background or addressing individual sources of air pollution. Nonetheless, from experience the conclusion to scope out air quality from the ES is an appropriate one for a solar energy development.
- 6.57** The baseline air quality at the site, including the cable works, is very good. It would require a substantial source of emissions to have a significant effect on air quality, and this is unlikely from the proposed development.
- 6.58** Emissions from plant and equipment during the construction phase are unlikely to be significant. Guidance from the Institute of Air Quality Management (IAQM)¹ states that *“Experience of assessing the exhaust emissions from on-site plant (also known as non-road mobile machinery or NRMM) and site traffic suggests that they are unlikely to make a significant impact on local air quality, and in the vast majority of cases they will not need to be quantitatively assessed.”* It is judged that the Proposed Development is not likely to be exceptional in this regard.
- 6.59** Emissions from road traffic during the construction phase may be scoped out under criteria recommended by the IAQM and Environmental Protection UK (EPUK)². According to this guidance, a change in heavy duty vehicles of less than 100 as an annual average daily traffic (AADT) will not normally require a detailed assessment. The Construction Traffic Management Plan states that there will be an estimated 1,874 two-way trips in total during the construction phase, or about 10 a day for less than a year. This is well below the criterion and so can be scoped out although the Applicant does not provide any such analysis in the planning submission.
- 6.60** Emissions of dust during the construction phase can normally be made 'not significant' through suitable best-practice mitigation measures. IAQM guidance¹ provides a risk-based approach to

¹ IAQM (2016) *Guidance on the assessment of dust from demolition and construction.*

² IAQM and EPUK (2017) *Land-Use Planning & Development Control: Planning For Air Quality.*

determining appropriate mitigation measures. As such, it is not normally necessary to assess construction dust as part of an EIA. Usual practice is to carry out a dust risk assessment using the IAQM guidance and adopt the recommended mitigation measures using a dust management plan (which may be included within a construction environmental mitigation plan (CEMP)); this is commonly secured through a planning condition. This approach is accepted in ES, which states that a CEMP will be prepared and will “likely” contain information on dust mitigation measures, and offers that a Dust Monitoring and Management Plan can be secured by planning condition. The dust risk assessment should consider impacts on both human and ecological receptors (including the Wylde Moor Site of Special Scientific Interest).

- 6.61** Emissions from plant and equipment during the operational phase are expected to be insignificant, as only occasional maintenance and servicing will be required. This is demonstrated by the amount of road traffic generated during this phase (see following paragraph).
- 6.62** Emissions from road traffic during the operational phase can be scoped out under IAQM/EPUK guidance similarly to construction traffic. The Construction Traffic Management Plan states that there will be an estimated 20 visits per year during the operational phase. This is well below the criterion and so can be scoped out.
- 6.63** All emissions sources individually are well below the levels at which they might create significant impacts, so cumulatively they are also very unlikely to result in significant impacts.
- 6.64** The Proposed Development has no appreciable sources of odour, so odour can be scoped out.

Summary and Conclusions

- 6.65** It is concluded on the basis of the information available that the Proposed Development is unlikely to present any risk of significant adverse effects on air quality, dust or odour, and it was appropriate to scope this aspect out from assessment in the ES. There is still though a need for a suitable construction dust risk assessment to be carried out and the recommended mitigation being incorporated into the scheme; it is recommended that this be secured by a planning condition.

7. CONCLUSIONS

- 7.1 Trium, on behalf of local residents through Farrer and Co have undertaken an independent review of the Environmental Impact Assessment and Environmental Statement which accompanies a full planning application (W/23/00270/FUL) for the development of Land East of Stock Green (adjacent to Roundhill Wood), Wychavon, Worcestershire. The EIA was prepared by Pegasus Group on behalf of the Applicant.
- 7.2 Trium have identified a number of further information requests that we consider require additional information prior to the decision of planning permission, these are summarised in Table 8, with key conclusions drawn out below.
- 7.3 The ES does not provide sufficient information on climate change and sustainability and the stand-alone climate change report agreed upon during EIA Scoping cannot be located as part of the planning application documentation.
- 7.4 The ES refers to the proposals as 'temporary', with a lifespan of approximately 40 years. Further justification of how such a lifespan can be deemed temporary when relating to environmental effects should be provided. Given the justification of certain efforts being 'temporary' insufficient detail on the decommissioning and deconstruction of the Proposed Development should be provided.
- 7.5 The site selection process is not covered in any detail in the design evolution and alternatives section on the ES. Given this is an important part of the selection of the site and essential in understanding the alternatives considered and any potential justification for selection of this site and greenfield development, this should be provided.
- 7.6 In relation to the Landscape and Visual Impact Assessment, it is considered the methodology is not based on best practice or latest guidance. The EIA Scoping response has not been fully taken into account, with specifically highlighted views by the Council missing from the assessment, and mitigation is over reliant on visual screening of the proposals.
- 7.7 No bat surveys or roost assessments have been undertaken as part of the biodiversity assessments. Therefore, the baseline for biodiversity and bat presence is not known and the effects cannot be understood.
- 7.8 No noise and vibration surveys have been undertaken, and so baseline noise levels at the site are not known. This is a significant shortcoming of the submitted assessment and the environmental noise and vibration impacts cannot be understood. Baseline noise levels at existing receptors, including in the Public Right of Way need to be undertaken. Following baseline surveys, and given results of the current noise report, this topic may need to be scoped into the Applicant's Environmental Statement.

8. FURTHER INFORMATION

Table 1 Further Information

Further Information
<p>Regulatory Requirements</p> <ul style="list-style-type: none"> • Climate change and sustainability does not form a sufficient part of the ES and it should be covered in more detail. Minimal reference has been made to the stand alone climate change report, which cannot be located as part of the planning application documentation. The Applicant should confirm is one has been undertaken, and if so this needs to be submitted and drawn out within the ES; • The landscape and visual assessment should be updated with further information on the effects relating to glint and glare (See Landscape and Visual review in Section 5 for further details); • Bat surveys should be undertaken and inform the ecology assessments within the ES (see Ecology review in Section 5 for further details); and • Consideration and assessment of the evolution of the baseline should be provided in line with the EIA Regulations.
<p>Review Of Introductory and Concluding Chapters of Environmental Statement And The NTS</p> <ul style="list-style-type: none"> • Baseline: <ul style="list-style-type: none"> - While noted the Wylde Moor Feckenham SSSI is assessed within Chapter 4 and the TPOs are addressed within the standalone Arboricultural Impact Assessment, further explanation is required for the exclusion of Rookery Cottage Meadows SSSI located 2.5km of the northern boundary of the site; and - Further consideration of any future and/or evolving baseline conditions. If it's not relevant justification needs to be provided. • Methodology: <ul style="list-style-type: none"> - Clarity on whether the proposals are either 'temporary' or 'permanent'. If the proposals are considered to be temporary, further information is required on the decommissioning of the project; - Definition of the use of 'negligible' should be clarified. • Intra-project cumulative effects: <ul style="list-style-type: none"> - Provide an assessment of intra-project cumulative effects with clear methodology followed and justification where receptors and effects are discounted; - While noted that no significant intra-project effects were identified, methodology for assigning whether an intra-project cumulative effect is deemed significant or not significant is not clearly established; and - When mitigation has been applied during the main assessment to determine the residual effect it should not then be re-used to justify whether intra project cumulative effects would occur, this should be based on the residual effects themselves. • Alternatives: <ul style="list-style-type: none"> - Following further consideration and update to the ES (as required), the 'No Development' scenario should be updated. - The site selection process is relevant in the context of the use of greenfield land and any significant effects which may as a result as of the Proposed Development, this should form part of the Alternatives analysis in the ES. • Proposed Development: <ul style="list-style-type: none"> - Whilst it is agreed the height may not be overbearing, the statement does not address the footprint of the site which extends to 119.7 Hectares. - Given that the ES is promoting the "less permanent" nature of the project, Trium would have expected a more detailed explanation of the decommissioning.

Further Information

- The ES makes reference to fencing around each development parcel, however there is no description of what the development parcel is.
- Figures should be updated to ensure layout plans are readable.
- NTS:
 - Mitigation requirements should be made clear, a summary table could be useful to include.
 - Any updates required to the main ES (Chapters 1 – 5) should be incorporated into the NTS.
 - Figures to be updated to be made clearer.
- Mitigation: A clear and comprehensive list or table of the mitigation measures required should be provided.

Topics Scoped into this ES

- Landscape
 - The methodology is not based on best-practice guidance or latest LI guidance, particularly in relation to the assessment of landscape value and landscape character effects;
 - The methodology is over-reliant on matrices, with not enough narrative provided throughout to justify and explain to the reader how and why the judgements have been arrived at;
 - The scoping response of the Council has not been fully taken into account, in particular with regards to the concern raised by Inkberrow Parish Council in relation to open views from elevated land to the east of Morton Underhill;
 - Landscape value has not been adequately assessed;
 - Visual impacts have not been comprehensively assessed;
 - Mitigation is over-reliant on visual screening of the proposals with no explanation as to why and whether this would be in keeping with the wider landscape and visual context of the site;
 - The consultation work has not been fully documented;
 - The landscape recommendations that should be integral during the design development process have not been clearly set out; and
 - The scale of the site and proposals in comparison to the receiving landscape has not been assessed.
- Cultural Heritage (Built Heritage):
 - Additional research into the interaction between the assets in relation to the time-depth of the landscape is required.
 - Consideration of the landscape features which provide a context for the heritage assets, including Roundhill Wood, hedgerows and trees.
 - Individual assessments of significance for each of the affected assets taking into account their specific value and interest should be provided.
 - Assessment of the views from the public footpaths to the east of the Site, including the Millennium Way, and the impact of the proposals on historic landscape grain should be provided.
- Cultural Heritage (Archaeology):
 - A clear description of the levels of less than substantial harm to avoid phrases such as ‘at the lower end of the less than substantial harm spectrum’.
 - A description of the significance of the individual assets, rather than grouped together as ‘non-designated heritage assets’.
- Biodiversity and Ecology:
 - Clarify whether the air pollution and dust has been considered in adversely affecting Stock Wood Meadows SSSI.

Further Information

- Undertake bat roost assessments (presence/ absence surveys) and appropriate roost characterisation surveys if roosts are found, on trees with moderate or high features that are near the construction areas.
- Undertake bat activity surveys to understand how bats are utilising the site and any potential impacts the Proposed Development could have on those behaviours.

Topics Scoped out of the ES

- **Glint and Glare:**
 - Clarify whether the results predicted by PagerPower are conservative and whether or not this would affect the conclusions of the assessment;
 - Glint and Glare visual impacts and landscape impacts should be appropriately cross referenced and explained in the Landscape and Visual Impact section of the ES. The ES is required to be in accordance with the Scoping Opinion;
 - Undertake an assessment of above ground residential floors;
 - Clarify whether the landscaping is required as mitigation including the density and types of trees/hedges in the vicinity is required;
 - Clarify whether a sensitivity check was conducted or why a value of 0 was chosen;
 - Given that mitigation is provided within the report it unclear whether, in the absence of mitigation, a significant effect would be reported. If this mitigation is required to reduce the impact to low the ES should have reported this. The ES should be updated to address the effect prior to mitigation and the mitigation required to ensure no significant effects.
- **Noise and Vibration:**
 - No baseline noise surveys have been undertaken, this is significant shortcoming of the submitted assessment and environmental noise and vibration impacts cannot be understood. Baseline noise levels at existing receptors, including in the Public Right of Way need to be undertaken;
 - An analysis of construction traffic along Earls Common Road considering the existing low traffic flows needs to be undertaken;
 - A justification of the construction noise assessment criteria adopted should be provided;
 - Detailed modelling assumptions that have been adopted for evaluating the mechanical equipment noise at the receptors should be provided;
 - An evaluation of uncertainty that accounts for metrological effects and equipment tolerances should be undertaken;
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- **Water Resources and Flood Risk:**
 - Provide further information on safe access egress routes and their impact from flooding from all sources;
 - Provide further detail on the material, depth and porosity of the granular bed and gravel strips including calculations to provide evidence that they can store water for the 1 in 100 year plus climate change event;
 - Provide information on the porosity and material of the access tracks;
 - Provide an assessment on the ballasted supports provided for the archaeological sensitive areas and their impact on increasing impermeable areas and runoff within the site;
 - Provide a plan showing the exceedance flow routes; and
 - Confirm water quality treatment indices are met.

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