SUNNICA ENERGY FARM DCO EXAMINATION

DEADLINE 6 SUBMISSIONS

SAY NO TO SUNNICA ACTION GROUP LTD

30 January 2023

Introduction

1. The Say No to Sunnica Action Group Limited (SNTS) is an interested party (ID No 20031080) in the DCO examination.

2. In this document SNTS provides comments on various documents submitted at deadline 5. In addition, in line with SNTS's letter dated 11 January 2023 [**REP5-097**], it includes responses to comments on document submitted at deadline 4.

3. As this examination has progressed the extent of repetition of the Applicant's case has increased significantly. This is often done without cross-referencing, and with new information not highlighted and obscured. There is also 'case creep', with the Applicant presenting new information and evidence at a late stage in proceedings when it should have been part of the original application (or provided much earlier in the examination process). The Examining Authority (ExA) will have seen that SNTS recently raised its concerns about the fairness of how the Applicant is presenting its case in correspondence[1].

4. As a result of this, SNTS does not reply to all parts of the Applicant's submissions, but instead confines itself to new information on which it is of the view that it must comment. This approach has also been adopted in the notes produced by our experts. However, SNTS maintains and repeats its case as presented in past submissions.

Appended Papers

5. The following papers are attached to this report[2]:

   a. Papers produced by John Jeffcock of Michelle Bolger Expert Landscape Consultancy on documents submitted at Deadline 4 [**Appendix A**] and Deadline 5 [**Appendix B**].

   b. A paper produced by Richard Hoggett of Richard Hoggett Heritage on documents submitted at Deadline 4 and Deadline 5 [**Appendix C**].

   c. Papers produced by Dominic Woodfield of Bioscan UK on documents submitted at Deadline 4 [**Appendix D**] and Deadline 5 [**Appendix E**].

[1] Correspondence from SNTS to the Applicant dated 26 January 2023, into which the ExA was copied.

[2] SNTS is aware of Mr Smith's paper on funding which raises important points, to be submitted for deadline 6; SNTS will make submissions as appropriate at the resumed CAH1.

d. A paper produced by Peter Danks of Reading Agricultural Consultants on documents submitted at Deadline 5 [**Appendix F**].

e. A paper produced by Cranfield University and Reading University on documents submitted at Deadline 3A and Deadline 4 [**Appendix G**].

f. A paper produced by SNTS on the consultation process [**Appendix H**].

g. A paper produced by SNTS on public rights of way [**Appendix I**].

h. A paper produced by SNTS, with the input of Paul Christensen on BESS safety [**Appendix J**]

Horse Racing Industry Submission

6. It had been SNTS's intention to produce a paper at this juncture responding to the Applicant's further report on the horse racing industry (HRI) **[REP4-039]**. The Applicant's paper includes responses to SNTS's original paper on the HRI **[REP2-240f]**, our further paper commenting on the Applicant's HRI report **[REP3A-070]**, comments further on the Hatchfield Farm case, and comments on the oral submissions at the issue specific hearing[3]. Unfortunately, Richard Sykes-Popham was suffered a serious injury in late January 2023 and was hospitalised as a result. We will submit his new paper as soon as we can, and we ask for the ExA's understanding as Mr Sykes-Popham recovers.

Points of Note

7. Aside from the more detailed submissions attached to this document, SNTS makes a small number of points of note here arising out of the documents submitted at Deadline 4 and 5.

Temporary or Permanent

8. At question 2.0.2 of its reply to the Examining Authority's second questions **[REP5-056]** the Applicant maintains that the scheme is a temporary one and that this is important for the purposes of carrying out the planning balance.

9. The ExA will appreciate that SNTS has already addressed this issue in its Written Representations at paragraphs 7.1.23 and 8.1.14 **[REP2-240]**. The ExA is invited to have regard to those submissions. However, two points are worth noting here.

[3] SNTS notes without further comment that this approach at least somewhat departs from the timetable, likely as a result of the Applicant's failure to submit any consideration of impact on the horseracing industry until deadline 2.

10. Firstly, SNTS agrees with Mr Munro and Suffolk County Council at para 7 of **[REP4-143]**. To properly assess whether the scheme is temporary or permanent, it is necessary to have regard to the sensitive receptors for the impact of the scheme. In this case this is the communities that will live as the hosts for the scheme. For many, 40 years will be the remainder of their lives. For a child born on the day that the scheme is completed, they will be in their early 40s before the scheme is fully decommissioned. For those receptors experiencing the scheme, it will be permanent.

11. SNTS notes that there may be a way of reconciling these two positions. It may be that the correct way of understanding the temporal aspects of the scheme is to recognise it as not being in perpetuity (and in this sense temporary) but to offer that little weight in the analysis due to its duration being 40 years. Thus, any weighting to the fact that the permission is temporary should be given minimal weight to reflect the fact that, in reality, the impacts experienced and the harms suffered will be difficult to distinguish from those of a permanent scheme. This realistic position would then mean that some, but limited, weight could be given to the distant proposition of the scheme's removal after 40 years.

12. Secondly, in its answer the Applicant focuses on impact. SNTS say this is not the complete picture; the focus must also be on harm. It may well be that the impact of a scheme is to be assumed to be temporary and reversible. However, it does not follow that the harm will be similarly temporary.

13. Harm to the relationships and enmeshed nature of the communities that form the villages will not be temporary. If people as a result of the scheme avoid or cease to travel between the villages and maintain relationships between them to the same extent as now, removal of the scheme will be unlikely to cause those connections to return for some time if at all. The communities currently close knit will be split. Their close ties will have been cut and will have diminished or ceased to exist for more than a generation. Friendships and social interactions formed on the basis on geographical proximity and connectivity will be fewer, diminish or cease to exist. The segregation of communities will undoubtedly cause social harm in planning terms.

14. Similarly, a decline in the horseracing industry will not be remedied by the removal of the scheme. Any decline will be complete such that a return to that position will be out of reach. In both cases (and in respect of many other harms that SNTS identify) the harm will remain as a scar caused by the scheme long after it is decommissioned.

Site Selection

15. The issue of site selection has been and continues to be commented on by John Jeffcock of Michelle Bolger Expert Landscape Consultancy (see for example para 12 of the note on documents submitted at Deadline 5 attached to this document). Detailed submissions on the alternative sites assessment

[APP-054] are made in our written representations at section 16 **[REP2-240]**. We do not repeat all of this detail here.

16. As a starting point SNTS notes the image in Figure **1**, which shows the unconstrained land and the scheme boundaries, taken from the alternative sites assessment at figure 7 (PDF page 44 **[APP-054]**) It is telling that the scheme land is broadly outside of the area of unconstrained land:

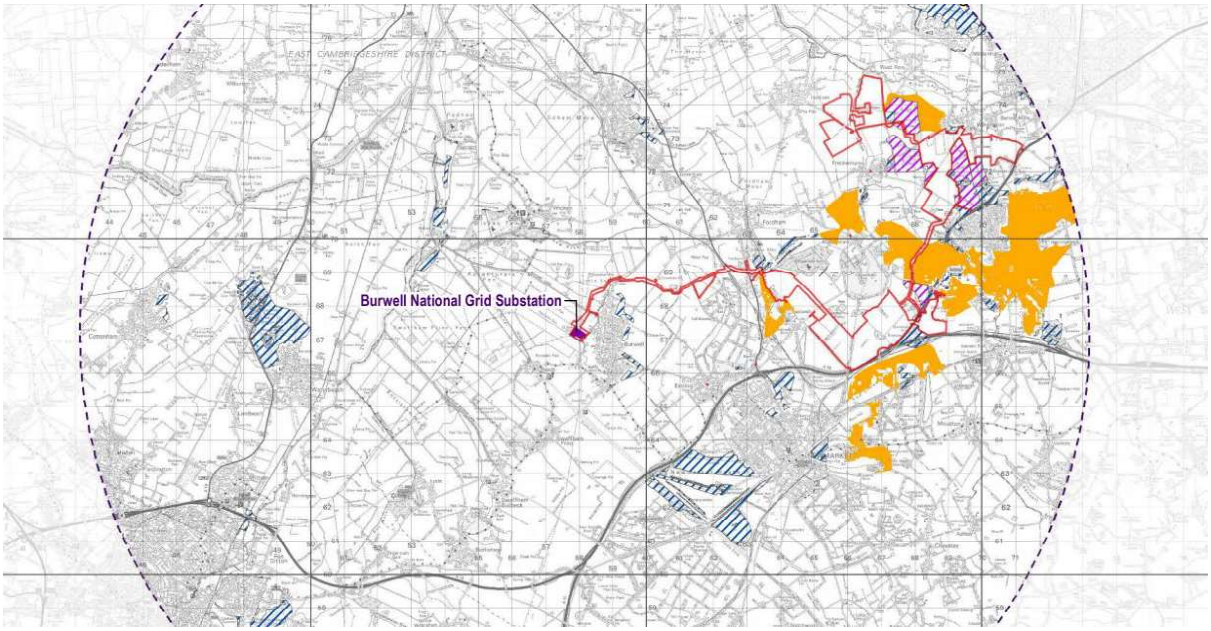

FIGURE 1

17. SNTS maintains its position that site selection process for Sunnica has led to many of the flaws that have made the scheme particularly harmful. It is noted that the Applicant regularly refers back to its alternative sites assessment **[APP-054]**, design access statement **[APP-264]** and settlement design iteration **[Appendix A to REP2-038]** in justifying its site selection. However, the ExA will note that none of these documents transparently explains how the *site itself* was actually chosen.

18. The site was not designated in a plan, selected without Local Planning Authority involvement let alone endorsement, without community involvement, and had no regard to valued landscape and the important and exceptional equestrian, farming and other close knit social ties between the communities in the area, patently apparent throughout the DCO process. It instead based site selection on land ownership and the self-imposed requirement of site size in order to take advantage of the DCO planning process. The need to aggregate farms and land owners (some in place of others who had rejected approaches by Sunnica) led to the selection of a wholly unsuitable site in planning terms which is of such a size that it is fragmented and surrounds and segregates villages and communities (unlike the Cleve Hill and Little Crow sites, for example), and is located on high quality

agricultural land (at the initial site selection stage this is accepted by Sunnica as this was based on the ALC and BMV mapping).

19. The limited information that can be gleaned from the alternative sites assessment supports this conclusion, which we say indicates reverse-engineering of the outcome.. Selection of much of the land within the scheme was done '[t]hrough discussions with landowners' and their view that the agricultural land was 'unlikely to be of a high quality'. This is notwithstanding the point that, applying the Applicant's own exclusion criteria at stage 2 of the analysis (which would have excluded all grade 1-3 agricultural land using national level mapping), much of the land chosen would have been excluded (para 2.3.1 **[APP-054]**). Burwell substation was identified because '[i]t was also within sufficient proximity of lower grade agricultural and land and land which is available for to construct a large scale solar farm' (para 2.2.3 **[APP-054]**[4]). At page 61 of its response to our case **[REP4-036]** the Applicant again accepts that the selection of land was made on the basis of 'local knowledge' of land productivity.

20. In the context of gradient (page 62 of **[REP4-036]**) the Applicant asserts that 'the land within the Sites was not treated any differently to land within the other PDAs, and that the Alternative Sites Assessment does not depart from a consistent application of its methodology and criteria at stage 3'. This is disputed in itself. But in any event, it is telling a similar assertion was not made in respect of Stage 2. That is because it cannot be. The Applicant has departed from its assessment solely to select the land that benefits its pre-arranged position. It has not made the exception of testing the ALC value of any other land excluded by the national level data. This choice could only be made using a pre-determination of land which the Applicant regarded as desirable to be included in the scheme.

21. Operating properly, the DCO process should be a process to deliver a site determined as appropriate by planning policy and should at the identification stage include community involvement at least of identifying valued landscapes[5]; it should not be a determining process in itself based in particular on site size. The subsequent site design process can sometimes mitigate harm but cannot remedy the harm of a location which is fundamentally flawed with harm that cannot be mitigated.

22. Large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes, but here the visual impact is severe, the solar farm is not well-planned nor

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[4] That paragraph also noted the view that UKPN required the Applicant to have agreement in principle for land before a grid connection agreement could be agreed.

[5] NPPF para 194 and GLVIA 3 Guidelines for Landscape and Visual Impact Assessment (Third Edition) (GLVIA3). The document points out that 'landscapes or their component parts may be valued at the community, local, national or international levels …… the fact that an area of landscape is not designated …… does not mean that it does not have value'.

well screened and the visual impact is not able to be properly addressed within the landscape, even if planned sensitively. By Sunnica's own admission, impact to the landscape and visual impact on the world-famous Limekilns, for example, is unable to mitigated. Government policy is to focus large-scale solar farms on previously developed and non-agricultural land, provided it is not of high environmental value[6]. That guidance has not been followed in by Sunnica.

23. As recognised by government, solar is a highly flexible technology and as such can be deployed on a wide variety of land types[7]. There is no benefit let alone requirement for it to be located on agricultural land and in fact there is a clear government policy guide to direct site selection away from BMV, and that must include land which is predominantly BMV on ALC and BMV mapping where professionally in dispute as to whether it is BMV.

24. Here, even though disputed, that is by reason of expert evidence of 3 experts of alleged inadequacies of analysis by the applicant's expert (DBSC) against the DEFRA (MAFF) ALC guidance, especially where there is clear evidence of a failure by the landowners and applicant to permit cross checks and to permit joint analysis of auger borings in dispute, as well as where immediately adjacent land (25m away) was found by the 3 experts to be BMV, supported by laboratory analysis, not the claimed grade 3b by Sunnica (DBSC).

25. Attention is drawn to the decision of Inspector David Rose appointed by the Secretary of State on the Ripon MSA, referred to previously by SNTS[8], where the inspector was highly critical of DBSC's lack of transparency of the analysis for Moto (DBSC's clients) in accordance with MAFF ALC guidelines in relation to soil depth[9].

26. This has distinct similarities to the Sunnica case, seeking to downgrade the ALC on mapping from BMV to grade 3b on grounds of droughtiness and soil depth. Indeed, around Isleham some land has been seen an effective downgrade from grade 2 to 3b. See correspondence with Natural England by Peter Danks of RAC (correspondence at Sunnica Library **[REP2-240d]** PDF p238/298).SNTS maintain that the methodology leading to this downgrading is not transparent and does not follow the MAFF ALC guidelines (see generally our report at **[REP2-240d]**).

27. As to other factors relevant to the sites assessment, SNTS notes the failure to consider valued landscape as part of the assessment. In respect of the Limekilns the failure to consider setting,

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[6] MHCLG, NPPG Guidance: Renewable and low carbon energy, 18 June 2015, paragraph 013
[7] Revised draft NPS EN-3 p82
[8] REP2-240d Agricultural Impacts Appendix 2 paras 146 (pdf page 94) (noting DL149 that the land was classified on the ALC Map as 86% BMV with DBS)
[9] See in particular DL 146-179 (pdf page 94-99), esp 164-166 **[REP2-240d]**

including in landscape and heritage terms, and in respect of the view of Ely Cathedral. This particularly pertinent as the Limekilns are permitted public open space and thus have value in recreational terms (and should have been assessed in the same way as public rights of way in the analysis). Visibility of the scheme should have had a more significant role in the assessment of alternative sites. SNTS also draws attention to what it sees as a consistent underplaying of the harm to heritage assets (commented on by Richard Hoggett in his work) and a particular failure to assess as major harm to the barrows which appear within the scheme area. Such harm to these barrows were only given an amber in the RAG assessment of the possible development areas; SNTS is of the view that this was inappropriate.

28. Considered in the round, even if the Applicant is correct in its answer at page 61-62 of **[REP4-036]** in explaining why the alternative sites assessment did not identify the chosen site through its process (which is not accepted; see our position in section 16 of our Written Representations **[REP2-240]**), the alternative sites assessment did *not* lead to the identification of this site. As page 61 indicates it was 'local knowledge'. Indeed, SNTS maintains its position that it was land ownership considerations and a 'reverse engineering' of the outcome. Were a proper site assessment process undertaken, the flaws and harms of this scheme could have been avoided.

Hazardous Substances Consent

29. As was noted at para 14.1.14, SNTS supports the work of Dr Fordham in respect of hazardous substance consent **[REP2-240]**. SNTS also notes the submission of **[REP5-081]** where East Cambridgeshire DC concluded that BESS 'are more than likely to require a hazardous substances consent' (para 6) and that 'this is an issue that requires a resolution at the consenting stage rather than post consent' (para 12). SNTS agrees.

30. SNTS notes the suggestion of the Applicant, repeated in summary in answer to Q2.1.2 of the ExA's Second Written Questions **[REP5-056]** that '*[i]f, following detailed design, it is determined* that *consent is required then the Applicant will apply for it at the relevant time*'. In our view, the obligations on the Applicant are significantly more than this, even if it is not seeking hazardous substances consent or COMAH authorization at this stage.

31. Para 4.12.1 of NPS EN-1 (repeated in substantially the same terms in draft NPS EN-1 at 4.13.1) provides:

> *All establishments wishing to hold stocks of certain hazardous substances above a threshold need Hazardous Substances consent. Applicant should consult the HSE at pre-application stage if the project is likely to need hazardous substances consent. Where hazardous substances consent is applied for, the*

> *IPC will consider whether to make an order directing that hazardous substances consent shall be deemed to be granted alongside making an order grating development consent. The IPC should consult HSE about this.*

32. Footnote 94 of that part of NPS EN-1 (repeated in substantially the same terms in draft NPS EN-1 at 4.13.1) provides:

> *Hazardous substances consent can also be applied for subsequent to a DCO application. However, the guidance in 4.12.1 still applies i.e. the application should consult with HSE at the pre-application stage and include details in their DCO.*

33. In SNTS's view sufficient is known about the scheme at this stage to determine positively the need for such consent. SNTS agrees with Dr Fordham in this regard. However, whether or not that is the case, the position adopted by the Applicant still requires compliance with footnote 94. The Applicant is required to comply with these provisions even if it takes the approach it currently is of hedging its bets and not seeking consent now.

The Draft Development Consent Order

34. SNTS notes shortly that its concerns regarding the draft development consent order, advanced at ISH1, remain. These can be found in our submissions at **[REP1-047]** and **[REP3A-041]**.

35. SNTS welcomes the introduction of a provision for a 500 MW limit at the point of connection to the grid in the description of Works No.2 of the draft DCO. However, as the Applicant has indicated that it is deciding between different discharge rates of battery (i.e. C/1, C/2, C/4 etc.), such inclusion does not remedy the associated development issue due to the scope for a capacity out of proportion with the scheme. SNTS invites the applicant once again to consider a capacity limit (in MWh), a use limit, or a land area limit.

Associated Development

36. SNTS makes one point concerning associated development arising out of recent submissions on the whole life cycle carbon assessment of the scheme. SNTS's position throughout has been that the ExA must be satisfied that the BESS is associated development with the scheme; if it is not associated development the Planning Act 2008 cannot be used to grant a development consent order with that BESS included. SNTS's position has been that, to assess whether the BESS is associated development, the nature of the BESS should be assessed on a reasonable worst-case basis. Even if the ExA does not accept this, it is still necessary for the Applicant to positively

demonstrate that the BESS as proposed is associated development. SNTS points to section 13 of its Written Representations where it deals with this issue in detail **[REF2-240]**.

37. Appendix A to the Applicant's response to our case submitted at Deadlines 2, 3 and 3A sets out a number of scenarios for the use of the BESS **[REP4-036]**. As part of its sensitivity testing para A.1.2.12.C considers BCS1 and BCS2. The former considers the BESS being charged as much as possible by the scheme, and latter charging from the grid. SNTS notes that the Applicant's position is that there will likely be a mix between these two options. SNTS also notes that the BESS is likely to be more efficient when charged from the grid (86.4%) than from the PV cells (83.7%): see para A.1.2.12.G

38. Assessed on a reasonable worst-case basis, BCS2 would be the approach adopted. In SNTS view, a scheme which uses grid power only to charge the BESS must mean it is not associated development. Even if not assessed on a reasonable worst-case basis, it is still for the Applicant to demonstrate positively that the use to which the BESS will be put will make it associated development. Considering that predictions of specific use cases have not been put forwards, SNTS say this has not been demonstrated. SNTS has advanced its case elsewhere that it is likely the majority use of the BESS will be charging from the grid (or discharging energy originally taken from the grid back to the grid). SNTS has also previously made submissions that a capacity limit or a use limit in the DCO could give the ExA comfort as to the BESS being associated development.

Appendix A

Landscape Briefing Note 12

Project: 1186 Sunnica PVD
Date: 26th January 2023
Purpose: Response to REP4-036
Reference: 1186 BN12 Sunnica PVD Response to REP4-036.docx
Author: John Jeffcock CMLI

1. This note has been prepared in response to **REP4-036** which is the applicant's response to Say No to Sunnica's (SNTS) Deadline 2, 3 and 3A Submissions. The applicant's response repeats information from their Environmental Statement and response to ExAQ1. As it is not new information, it does not address the significant concerns raised by SNTS in relation to landscape and visual matters – primarily those raised in our review of the landscape and visual impacts of the application **[REP2-240b]**. This note therefore focuses on errors within **REP4-036**, and the implications of those errors rather than reiterating significant concerns already identified.

Openness of landscape around Isleham - REP4-036 Page 43 first row

2. The applicant suggests the openness of the landscape around Isleham is partly the product of post war industrialisation and intensification of agriculture, which led to increases in field sizes through the removal of woodland and hedgerows.

3. The post war intensification of agriculture is **not** the primary cause for the openness found in the landscape around Isleham. The evolution of this landscape is unique to the fenlands and its open character predates the post war period. Openness is primarily due to the fenland geology and management responses to this geology. As a result, there has historically been an absence of large areas of vegetation and field boundaries were often formed around drainage channels, typically resulting in large open fields. These characteristics predate the post war period and are visible on the first edition OS mapping from 1886 covering Sunnica East A (closest to Isleham)[1].

4. This is one of several examples where the applicant has failed to understand aspects of the landscape which are valued or susceptible to change, including its historical evolution. This failure has led to an underestimation of their assessment of landscape sensitivity and effects, and has also undermined their approach to mitigation measures, particularly around Isleham where their planting proposals are inappropriate, as explained below.

[1] [redacted]

Mitigation around Isleham - REP4-036 Page 45 second row

5. In response to the issue of the adverse impact of mitigation planting around Isleham, the applicant claims that, from Isleham, mitigation planting will preserve views across the site to the wooded skyline and the church towers at Mildenhall and Freckenham.

6. This is not correct as shown on the applicant's visualisation from viewpoint 5 on Beck Road [**Ref APP-221**], which is the closest ES viewpoint to Isleham. From Vp 5 the mitigation planting would obscure all features currently visible on the horizon. This planting would not be effective in integrating the scheme into the landscape as stated by the applicant but would instead represent the type of planting which would '*introduce inappropriate and visually intrusive elements in this flat and open landscape*' a problem identified in the national character area profile[2].

7. The implications of the applicant's comments are:

   - The applicant has failed to accurately describe the changes that would occur as a result of their proposals for mitigation.
   - The applicant has failed to recognise the inappropriateness of their proposals for mitigation in the context of the prevailing landscape character.
   - The applicant has failed to assess the effect on landscape character and visual amenity of their proposals for mitigation.

National Policy Statement for Energy (NPS EN-1) - Page 46 second row

8. The applicant refers to NPS EN 1 where it states that infrastructure projects are often visible within many miles of the site. The applicant suggests that this is not the case for their scheme because of the relatively flat landscape which they consider is visually contained in most locations.

9. In fact, the reason why the PV development would not be visible in the same way as other taller infrastructure which is referred to in NPS EN 1 (e.g., wind turbines) is not because the sites are mostly 'visually contained', but because of the inherent low height of PV development.

[2] National Character Area Profile 46: The Fens Page 38.

10. Because of the height of PV development, in many cases it is possible for the landscape and visual harm of PV development to be minimised when located carefully. However, in the case of the Sunnica Energy Farm, the landscape and visual harm has been exacerbated by the applicant's decisions to locate the development in visually exposed locations such as East A and West A, where adverse effects cannot be mitigated due to the exposure of the site and/or the importance of views.

Limekilns Gallops - Page 50 second row

11. The applicant claims that none of the key characteristics of the Limekilns Gallops would be affected by the proposals.

12. This is not correct. Any proper baseline assessment of the local landscape would identify the elevated and long-distance views over the rural and parkland landscape north of the Limekilns as a key characteristic and valued factor of the local landscape, as celebrated in historical paintings. A landscape impact assessment should identify this characteristic as being directly harmed by the replacement of said landscape with industrial development.

13. As the applicant has failed to identify key characteristics, the impact on these characteristics has not been described and the level of effects on certain receptors e.g., the Limekilns, are underestimated by the applicant. This omission as it relates to the Limekilns is significant given that we consider the gallops are a NPPF Para 174 valued landscape (see **REP2-240b)**.

Lack of winter assessment at Year 15 - Page 56 first row

14. The applicant has not assessed the impacts of the development at year 15 in winter. The applicant states that this is common practice as it considers the worst case and demonstrates the effectiveness of planting in mitigating effects once established.

15. These assertions are wrong because:

- It is not best practice to omit a consideration of the impacts in winter[3].
- The worst case scenario at year 15 is in winter so the failure to assess the impacts in winter at year 15 means that the worst-case scenario has not been assessed.

[3] Guidelines for Landscape and Visual Assessment 2013 (GLVIA3) Paragraphs 6.28 and 8.15.

- Failure to assess the impacts in winter at year 15 means that the effectiveness of the planting in mitigating the effects all year round once established has not been assessed.

16. The applicant has failed to justify their departure from best practice. The failure to assess the proposals at year 15 in winter undermines the applicant's conclusions regarding long-term landscape and visual effects because all are based on a best-case scenario and are biased towards an unrealistic outcome.

Lack of winter visualisations at Year 15 - Page 57 first row

17. None of the applicant's visualisations for Year 15 show mitigation planting in winter. This is not because some of the winter baseline photography was missing as implied in the applicant's comments. It is because the applicant has chosen not to show what the development would look like during winter in year 15 after the mitigation planting has matured.

18. The applicant has failed to follow best practice guidance in relation to the presentation of visualisations[4], and despite this failure being highlighted in our review [**REP2-240b**] and during ISH2, they have chosen to ignore the guidance and continue to rely on visualisations which only depict the mitigation planting at year 15 in summer conditions.

19. As a result, the ExA, LPAs, public and other interested parties do not have visualisations which show the level of impact during winter. Without this information they cannot reach an informed decision with regards to the overall landscape and visual impacts of the application. This is significant given the application is for a DCO consent and the level of public interest in the effects of the proposals.

Landscape value assessment - Page 68 first row

20. The applicant claims to have followed best practice guidance for assessing the value of the landscape, but they have not. As per our review [**REP2-240b**], the applicant has omitted best practice criteria[5], and this has led to an underestimation of effects. For example, there is no consideration of the cultural importance of the Limekilns Gallops, and this has led to an underestimation of their assessment of impacts on the Gallops. See our Landscape Briefing Note 14, which includes further detail on this matter and a copy of TGN 02/21.

[4] TGN 06/19 Visual Representation of Development Proposals Page 5
[5] TGN 02/21 Assessing landscape value outside national designations

Conclusion

21. REP4-036 is the applicant's response to SNTS Deadline 2, 3 and 3A Submissions. It repeats information from the applicant's Environmental Statement and response to ExAQ1. As it is not new information, it does not address the significant concerns raised by SNTS in relation to landscape and visual matters – primarily those raised in our review of the landscape and visual impacts of the application [**REP2-240b**].

22. REP4-036 contain errors, which are highlighted in this note because of the implications for the applicant's conclusions regarding landscape and visual effects. The fundamental implications of the errors highlighted in this note are:

- The applicant has underestimated the landscape and visual effects of the proposals, particularly on the landscapes around Isleham and the Limekilns.
- The applicant has proposed mitigation that would be inappropriate and would itself generate adverse effects, which have not been assessed.
- The ExA, LPAs, public and other interested parties do not have visualisations which show the level of impact at year 15 during winter. Without this information they cannot reach an informed decision with regards to the overall landscape and visual impacts of the application.

End of Note.

Appendix B

Landscape Briefing Note 14

Project: 1186 Sunnica PVD
Date: 26th January 2023
Purpose: Response to applicant's deadline 5 submission
Reference: 1186 BN14 Sunnica PVD Response to Applicants Deadline 5 submission.docx
Author: John Jeffcock CMLI

1. This note provides our comments on the following documents submitted by the applicant at Deadline 5:

   - ES Volume 6 Appendix 10I: Outline Landscape and Ecology Management Plan **[REP5-014]**
   - Environmental Masterplan **[REP5-054]** & **[REP5-061** to **REP5-064]**
   - Applicant's Response to the Second Written Questions **[REP5-056]**
   - Applicant's Response to LPAs' Deadline 4 Submissions **[REP5-057]**
   - Applicant's Response to Other Parties' Deadline 4 Submissions **[REP5-058]**

ES Volume 6 Appendix 10I: Outline Landscape and Ecology Management Plan [REP5-014]

2. We note the addition of the following text:

   - Para 4.2.22 estimates '*up to 1,068m of existing hedgerow will need to be removed in the worst case*'.
   - Para 4.2.23 estimates a worse case of '*up to 1.565ha of tree canopy cover will be removed to facilitate the scheme*'.

3. Tree removals will include the removal of part of three tree groups south of Worlington and two trees at Chippenham Road which are subject to Tree Preservation Orders. The quality of **all** vegetation to be removed is not known as over half the trees to be removed have not been subject to detailed survey. Of the remaining 7,400m2 of tree cover that has been surveyed 2,450m2 was assessed as Category A (high quality) and 3,300m2 was assessed as Category B (moderate quality) (Table 21). We have not undertaken an arboricultural survey and therefore have no comments on these judgements.

4. We note the following matters which the applicant should address:

- Paragraph 1.7.35(a) in the OLEMP submitted with the application states there would be 51 hectares of tree planting. However, Table 32 in the latest OLEMP states that 52 hectares would be planted. The reason for this increase is not clear.
- Paragraph 1.7.35(b) in the OLEMP submitted with the application states there would be 7.4km of hedgerow infill planting and creation, and this figure is unchanged in Table 32 of the latest OLEMP. It is surprising that this figure is unchanged given the proposed hedgerow at Sunnica West Site B has been removed from the proposals, as per the latest Environmental Masterplan [**REP5-054**].
- In para 4.2.23 of the OLEMP, it is assumed that the number should be 7,400m2 not 7,4000m2.
- In Table 21 of the OLEMP it is assumed that the number should be 2,450m2 not 24,450m2.

5. Illustrative sections have been included as Appendix B to the OLEMP. The measurements of distance between features on Section 2-2 do not correspond with the applicant's latest Environmental Masterplan for E05 [**REP5-061**]. Measuring the same section line on the Environmental Masterplan for E05:

- The distance between Beck Road and the boundary fence is 78.5m not 86m as stated on Section 2-2.
- The distance between the boundary fence and the solar PV arrays is 19.5m not 32m as stated on Section 2-2.
- This means that the distance between Beck Rd and the solar PV arrays in E05 would be 98m not 118m as suggested on Section 2-2.

6. Although Section 2-2 shows a new hedgerow alongside the 'proposed woodland', there are no hedgerows proposed in this location on the Environmental Masterplan for parcel E05 [**REP5-061**].

7. The measurement of 10m for the 'proposed woodland' on the Inset for Section 2 is correct. In relation to this, we note that a 10m wide line of trees is not a 'proposed woodland'. At this narrow width, it is expected that views of the solar arrays would be possible during summer months through gaps in the foliage.

Environmental Masterplan [REP5-054] & [REP5-061 to REP5-064]

8. Changes are not significant in terms of landscape mitigation and do not alter our conclusions with regard to the overall level of landscape and visual harm.

Applicant's Response to Q2.0.11 in the Second Written Questions [REP5-056]

9. The applicant's answer to Q2.0.11 includes a large amount of repetition from previously submitted documents.

10. For the reasons set out in our review of the application **[REP2-240b]**, we strongly disagree with the applicant's assertion that '*a reduction in the scale of the Scheme is not required in order to make it acceptable in landscape terms*'. Instead, we agree with the Councils' conclusion that the landscape and visual amenity impacts generated by the proposals relate fundamentally to the nature and location of the proposals, and therefore these impacts '*are unlikely to be capable of being dealt with without significant revision of the proposal to remove parts of the scheme in the most sensitive areas*'[1].

11. We agree with the '*significant concerns*' raised by the Councils in relation to the '*vast majority of Sunnica West*', and other specific concerns regarding Sunnica East. In relation to this, and the significant adverse landscape and visual effects that would be generated and not adequately minimised, we support the recommendations of the Councils LIR that:

- Parcels W03-W12 and W17 should be removed from the developable area in Sunnica West.
- Parcel E05 should be removed from the developable area in Sunnica East.
- Parcel E12 should be removed from the developable area in Sunnica East.

12. In their answer to Q2.0.11, the applicant refers to the design process undertaken for Sunnica. The applicant fails to acknowledge that good design fundamentally relies on initially making sound decisions on location. This is because it is very difficult and, in some cases, impossible to adequately mitigate landscape harm that arises out of location. The applicant states that their LVIA informed the design process, but crucially a LVIA did not inform the site selection process, which we and the Councils both conclude was flawed.

13. For the reasons set out in our review of the application **[REP2-240b]**, the applicant has underestimated the level of landscape effects. Therefore, the applicant's conclusions on the balance between the loss of function versus the reduction in landscape harm are flawed. For example, the landscape harm generated by W03-W12 will not be 'medium' as

[1] Joint Local Impact Report October 2022 Paragraph 1.1 (third bullet) [**REP1-024**]

stated by the applicant on page 41, it would be major adverse, both in the short and long term. The applicant's own LVIA identifies that the local landscape around W03-W12 (LLCA24) would experience a major adverse effect at year 1[2] not a 'medium' effect.

Applicant's Response to Q2.7.4 in the Second Written Questions [REP5-056]

14. The applicant's calculation of the total length of road frontage between or alongside solar arrays is 15.15km. This is greater than the distance (9.4km) that we calculated for SNTS's response to the same question [**REP5-098**]. The name of roads included in the applicant's calculation are noted but there is no mapping to show the exact location of their measurements. We understand the applicant may have reached a higher number because:

    - The applicant has included sections of road which we do not consider to be conventional road frontage e.g., U6006.
    - The applicant has included sections of road that do not have frontage with solar arrays e.g., Dane Hill Road.

Applicant's Response to Local Planning Authorities Deadline 4 Submissions [REP5-057]

15. **Pages.25-32**. This is mostly repetition of points made in the applicant's previous submissions. Our response to these points has been covered comprehensively in SNTS's previous submissions and is therefore not repeated here. New information relates to the changes made to the OLEMP, but these are not significant in terms of landscape mitigation and do not alter our conclusions with regard to the overall level of landscape and visual harm.

16. **Page 46**. The applicant states that the Limekilns cannot be highly valued when assessed against the criteria in TGN 02/21. This TGN was co-authored by Michelle Bolger and is attached to this Note as **Appendix 1**. The high value of the Limekilns is evidenced in SNTS's previous submissions, including in our assessment against the TGN 02/21 criteria [**REP2-240b]**. In order that the ExA understand the differences in approach between our assessment of landscape value and that undertaken by the applicant, we request that they review TGN 02/21 and then compare our assessment[3] with the applicant's assessment[4]. The applicant's assessment fails to identify or describe aspects of the landscape that are highly valued because:

[2] ES Chapter 10 Landscape and Visual Amenity Table 10-18 [**APP-042**]
[3] Paragraph 7.24 onwards in our review of the application [**REP2-240b]**
[4] LLCA26 Limekilns, Page 10E-31 Environmental Statement - Appendix 10E - Local Landscape Character Areas [**APP-104**]

- It fails to consider all TGN 02/21 criteria. For example, it doesn't consider
    - Cultural heritage factors.
    - Functional factors.
- If fails to consider factual evidence on the value of the Limekilns, e.g.:
    - The 300-year association with the horse racing industry in Newmarket.
    - The association with the Chippenham Park Estate.
    - The range of historic paintings that depict equestrian activities on the Limekilns and the rural landscape setting to the Limekilns, which includes the order limits.
    - The permissive access to the Limekilns and Waterhall Gallops throughout the winter and after midday in the summer.
    - The views from the Limekilns and Waterhall Gallops, which have considerable scenic qualities due to the elevation, with views in good light conditions of Ely Cathedral on the horizon.
    - The historic and contemporary function as gallops for the horse racing industry at Newmarket. They include the Golden Mile and the Round, both of which are peat moss, and are considered to be among the best grass gallops in the world.
- For those criteria that it does cover, the applicant's assessment is generalised and fails to describe specific aspects of the Limekilns or it's setting that are valued. Many of the statements could relate to a variety of different rural landscapes. For example:
    - Para 3.27.3. '*There is a constant scale to the land use, with colour tones from the hedgerows and woodlands.*'
    - Para 3.27.4. '*There is inter-visibility with transport routes with reduces any sense of remoteness with the land use also reducing tranquillity*'.

Applicant's Response to Other Parties' Deadline 4 Submissions [REP5-058]

17. **Applicant's response to SNTS 'Front End of Report'**. This is mostly repetition of points made in the applicant's previous submissions. There is however a key issue in the applicant's response, which is the applicant's proposition that '*fundamentally a view of a solar farm is not going to diminish enjoyment of the Limekilns as a landscape*'. In combination with the applicant's failure to accurately assess the value of the Limekilns, this statement explains why the applicant considers that the impacts of West Site A on the Limekilns are acceptable, whilst we and the Councils do not. Evidently a view of a solar farm can impact on the enjoyment of a landscape, particularly, when enjoyment of that landscape is at least partly derived from its rural setting and views. This is the case with the Limekilns, where elevated views over countryside to the north are particularly valued. Furthermore, it is not just one view of a solar farm. The proposals would be visible throughout the Limekilns, and at elevated viewpoints the substantial scale of West A would be visible across a wide field of view, such that one would have to turn one's head in order to take it all in. See Figures 13-19 in our review of the application [**REP2-240b**].

18. **Applicant's response to SNTS Appendix E.** This is mostly repetition. See comments at para 16 above in relation to the value of the Limekilns.

19. **Applicant's response to Isleham PC.** This is mostly repetition but in response to the applicant's comments regarding mitigation around E05, we highlight:

    - Woodland planting will **not** reinforce existing vegetation patterns around E05 because existing vegetation consists of occasional roadside trees and clumps of hedgerow. The woodland planting would instead create new patterns within the landscape.

    - The openness of existing views along Beck Road and Sheldrick's Road will **not** be preserved by setting the panels back in E05. See the applicant's visualisations from viewpoints 5 & 11 on Beck Road [**Ref APP-221**]. Notwithstanding our comments above regarding the narrow width of the tree planting along Beck Road, we note that the applicant's visualisations illustrate their intention for planting to establish a belt of screening in the summer months blocking views to the landscape beyond. The applicant's judgement that the sense of openness would be preserved has contributed to their underestimation of the landscape impacts around Isleham.

End of Note.

Appendix 1: TGN 02-21: Assessing landscape value outside national designations

Technical Guidance Note | 02/21

Assessing landscape value outside national designations

Landscape Institute
Inspiring great places

Contents

Acknowledgements

This technical guidance note (TGN) has been authored, on behalf of the Landscape Institute, by:

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Photo acknowledgements:

- Font cover: Pensford Viaduct viewed across the rural landscape of Bath and North East Somerset, credit LUC.
- Appendices cover: River Findhorn, Strathdearn, credit LUC.

1 Introduction

1.1 Purpose, aims and objectives

1.1.1 This technical guidance note (TGN) provides information and guidance[1] to landscape professionals and others who need to make judgments about the value of a landscape (outside national landscape designations[2]) in the context of the UK Town and Country Planning system. It is also intended to be of assistance to those who review these judgements, so that there is a common understanding of the approach.

1.1.2 Although the discussion that led to the drafting of this document was prompted by a need to interpret the (England) National Planning Policy Framework February 2019 (NPPF) term 'valued landscape', the main body of this TGN is intended to be independent of national policy, which differs across the four nations of the UK.

1.2 Structure

1.2.1 In Part 2, this TGN:

- *identifies the stages in the planning process at which landscape value might be assessed;*
- *reviews the tools available to enable practitioners to assess landscape value; and*
- *presents a list of factors that could be considered when identifying landscape value.*

1.2.2 Appendices provide:

- *a summary of historical background and context;*
- *a summary of the evolution of factors used to describe landscape value;*
- *a summary of policies and guidance relating to designated landscapes in the four nations of the UK;*
- *the Landscape Institute's understanding of the term 'valued landscape' as it is used in the context of the (England) NPPF; and*
- *an analysis of planning decisions and judgements concerned with the [England] NPPF term 'valued landscape'.*

1.3 Context and relationship to existing UK guidance

1.3.1 The TGN does not seek to provide an evaluative methodology that would replace those provided by other established advisory documents. It is intended to supplement existing advice to practitioners, such as guidance on Landscape Character Assessment and Landscape Sensitivity Assessment (Natural England, NatureScot, Natural Resources Wales, Marine Management Organisation), Local Landscape Designation (NatureScot, Natural Resources Wales) and Landscape and Visual Impact Assessment (the Landscape Institute and Institute of Environmental Management and Assessment). The TGN acknowledges and reflects all these important sources of guidance.

1.3.2 Although the history of how we value landscape is closely related to the concept of 'natural beauty' (summarised in **Appendix A2**), it is not the purpose of this document to define the expression 'natural beauty' and this TGN does not apply to national landscape designations.

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[1] Some parts of the note are for information, some parts supplement existing guidance and other parts (e.g. **Appendix A4**) provide new guidance.

[2] Designation of nationally important landscapes is a matter for government and its agencies, some of whom have prepared technical guidance.

1.3.3 There is a difference between landscape value and the wider topic of environment value. For example, the assessment of Ecosystem Services (which combines quantitative and qualitative information) and Natural Capital Accounting (a quantitative approach) are two approaches to valuing the environment, of which landscape forms an important part. More information about these approaches can be found in the following LI Technical Information Notes (TIN):

- *TIN 02/2016 - Ecosystem Services;*
- *TIN 02/2018 - Natural Capital Accounting.*

1.4 Potential future revisions

1.4.1 Landscape offers multiple values, benefits and services and the way in which landscapes are valued by people is a dynamic process that can change over time. The landscape profession's understanding of landscape value is still evolving, particularly in light of the nature and climate emergency. This TGN is the Landscape Institute's current reflection on the subject of landscape value.

1.4.2 The wide range of comments on the consultation draft document suggested that further guidance would be welcome, including:

- *how the landscape design process can respond to value assessments;*
- *how value can be expressed in local plan policy;*
- *how the increased emphasis on 'beauty' in Government papers (in England) relates to landscape value; and*
- *how to interpret value in relation to other aspects of England's NPPF such as Local Green Spaces.*

1.4.3 It has not been possible to address all these as part of this TGN, although they could form topics for future TGNs.

1.4.4 This TGN is written in the context of current policy guidance and evaluation factors that have evolved since 1945 (see **Appendices A1** and **A2)**. The LI is committed to equity, diversity and inclusion within the landscape profession and emerging sources of 'evidence' of value, for example from social data, will feed into future revisions to this TGN.

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2 Tools to enable practitioners to assess landscape value

This TGN uses the following definitions:

Landscape qualities = characteristics/ features of a landscape that are valued

This term is being used to distinguish landscape qualities from landscape characteristics which are elements, or combinations of elements, which make a particular contribution to landscape character. Landscape qualities (in the sense meant in this TGN) are usually referred to as 'special qualities' or 'special landscape qualities' in relation to nationally designated landscapes. For example, 'special qualities' is a statutory expression used in relation to National Parks, in policy for Scotland's local landscape designations, and is a term used informally to describe components of natural beauty set out in AONB Management Plans[3].

Landscape value = the relative value or importance attached to different landscapes by society on account of their landscape qualities (see Table 1).

The definition of landscape value used in this TGN draws on, and is compatible with, the GLVIA3 definition of landscape value as well as Natural England's definition (Landscape Institute and Institute of Environmental Management & Assessment, 2013; Tudor, 2014). The definition makes it clear that it is 'society' that assigns value to landscapes. However, landscape value means more than popularity and the Landscape Institute suggests that value assessments should be undertaken by a landscape professional, drawing on evidence from stakeholders where available.

2.1 Introduction

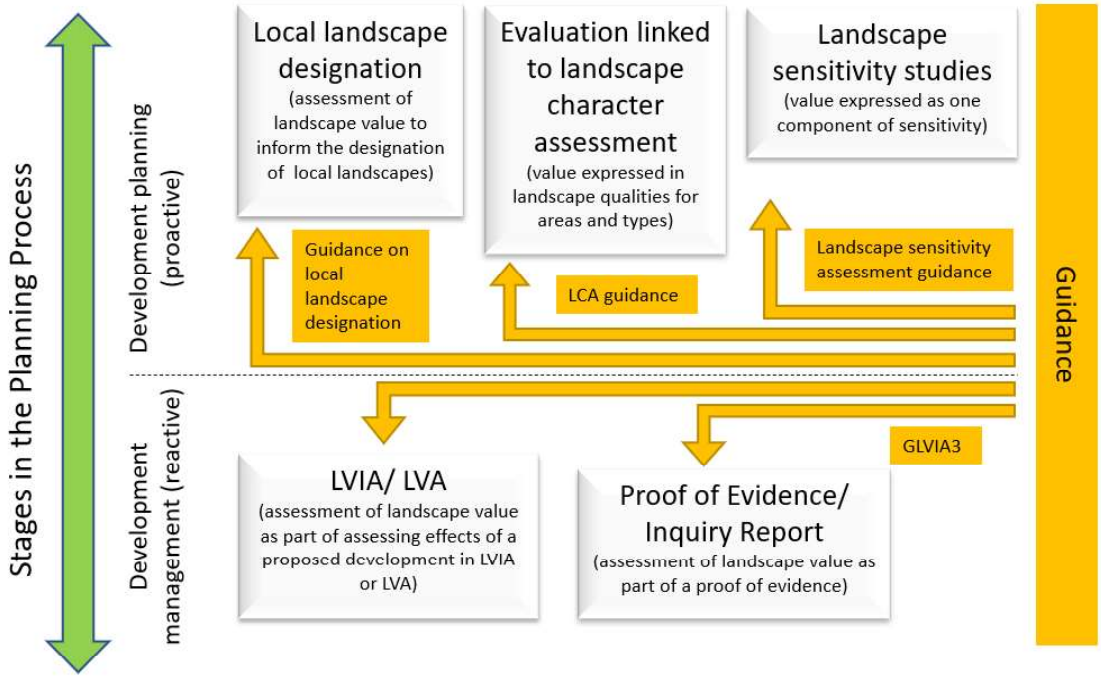
2.1.1 Assessments of landscape value (for landscapes which are outside, and not candidates for, national designation) may be required at different stages of the planning process, for example:

- *Local planning authorities (LPAs), neighbourhood planning groups and other parties at the evidence-gathering and plan-making stages;*
- *LPAs, applicants/appellants and others considering a site on which future development or other form of change is proposed, usually at the planning application or appeal stage.*

2.1.2 These scenarios are shown by **Figure 1**, along with the type of guidance that might feed in.

[3] National Parks are UK-wide. AONBs are found in England, Wales and Northern Ireland, and NSAs are unique to Scotland.

Figure 1: Assessing landscape value at different stages of the planning process



2.2 Assessing landscape value as part of plan making (development planning)

2.2.1 Landscape value at the local authority or neighbourhood level can be assessed and mapped spatially, i.e. through identifying areas for local landscape designation. Studies to support spatial designations should identify the landscape qualities of each area of landscape proposed for designation.

2.2.2 Landscape value can be assessed as an evaluation stage of a landscape character assessment or as a follow-on study. In this case landscape qualities will be identified in relation to individual character areas or types. Currently these are commonly described as 'valued landscape characteristics' or 'landscape qualities'.

2.2.3 Landscape value can also be assessed as part of a landscape sensitivity study, as landscape value is one of the two components of landscape sensitivity (the other being susceptibility). The areas to be assessed will depend on the purpose of the study.

2.2.4 The LI supports all approaches as they are all capable of highlighting the particular aspects of a landscape that are valued. Where value has been placed on a landscape by the local planning authority, this should ideally be defined in the development plan documents. Where value is not defined in the development plan, evaluations undertaken by local planning authorities and neighbourhood planning groups still form part of the evidence base.

Local landscape designations: the spatial approach

2.2.5 Although the guidance in this note is independent of policy, it is worth noting that different parts of the UK currently have different policy approaches to local landscape designations, as described in **Appendix A3**. Local landscape designation is supported by national policy in Scotland, Wales and Northern Ireland, but across England local landscape designations have been inconsistently applied due to past changes of emphasis in national planning guidance. Therefore, the absence of local landscape designations in England does not necessarily indicate there are no landscapes worthy of local designation. Additionally, in all nations, the lack of designation does not mean that a landscape has no value.

2.2.6 Guidance on how to identify local landscape designations has been produced in Scotland and Wales. This TGN is intended to support the approach set out in these guidance documents:

- *NatureScot and Historic Environment Scotland (2020) have jointly produced guidance on designating Local Landscape Areas (LLAs) in Scotland which is intended primarily for local authorities to use in taking forward their own designation process. The guidance acknowledges that local landscape designations are a valuable tool in the development plan toolbox and outlines the process for designating new LLAs and refreshing existing designations, noting that 'designations do not mean other places are unimportant or not valued' (paragraph **1.16**).*

- *NRW has published LANDMAP Guidance Note 1: LANDMAP and Special Landscape Areas (2017)[4] which sets out an approach for defining Special Landscape Areas in Wales using LANDMAP[5] information. These areas may be designated for 'their intrinsic physical, environmental, visual, cultural and historical importance, which may be considered unique, exceptional or distinctive to the local area' and they should be 'important for their distinctive character, qualities and sense of place'.*

2.2.7 The guidance produced by NatureScot and NRW may be helpful for other nations that do not have their own guidance.

2.2.8 Where local designations are used, the identification of their spatial boundaries and their landscape qualities should be supported by evidence.

2.2.9 **Table 1** of this TGN sets out a range of factors that could be considered to define the value of a landscape[6] and to inform the designation process. These factors are intended to be consistent with the factors set out in existing guidance in relation to local landscape designations in Scotland and Wales, as well as guidance in relation to national landscape designations (e.g. guidance for assessing landscapes for designation as National Park or Area of Outstanding Natural Beauty in England). However, they are not intended to be an exhaustive list.

2.2.10 Stakeholder engagement and early collaboration with local communities will add depth to the assessment by helping the landscape professional to understand what people value about the local landscape. Community engagement should be encouraged whenever practicable in line with existing planning guidance.

Evaluative studies linked to landscape character assessment

2.2.11 The guidance on Landscape Character Assessment (The Countryside Agency and Scottish National Heritage, 2002), which is still in use in Scotland, acknowledges that 'most assessments will usually move beyond the characterisation stage to the stage of making judgements to inform particular decisions'[7]. Natural England's 2014 document, which replaced the 2002 guidance in England, also notes that landscape character assessment can be used to identify special qualities and inform judgements (Tudor, 2014). These evaluative studies can be undertaken as an extension to a landscape character assessment, or as a separate follow-on study. Such studies can include the identification of landscape qualities that contribute to the value of landscape areas or types[8]. **Table 1** of this TGN sets out a range of factors that could be considered as part of the process.

2.2.12 In these types of assessments, information from stakeholders (where available) about what is valued should inform the landscape professional's consideration of landscape value.

Landscape sensitivity studies

2.2.13 Landscape value is assessed as one of the two components of landscape sensitivity in strategic landscape sensitivity assessments. As explained in Natural England's *An Approach to Landscape Sensitivity Assessment – to Inform Spatial Planning and Land Management* (Tudor, 2019), landscape

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[4] https://naturalresources.wales/media/680613/landmap-guidance-note-1-landmap-slas-2017.pdf
https://gov.wales/sites/default/files/publications/2018-12/planning-policy-wales-edition-10.pdf

[5] LANDMAP is an all-Wales landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated.

[6] It should be noted that designation is a process that may include factors other than landscape value.

[7] This is a two-stage process with the landscape character assessment being separate from subsequent assessments of value or sensitivity.

[8] It should be noted that, in Wales, LANDMAP already includes a range of criteria-based evaluations relating to the landscape.

sensitivity combines judgements about the susceptibility to the specific development type/development scenario or other change being considered together with the value(s) related to that landscape and visual resource.

2.2.14 Existing guidance on landscape sensitivity assessment should be followed where available. In addition to the guidance from Natural England above, Natural Resources Wales and NatureScot are also preparing guidance documents for Wales and Scotland which should be available soon. The Marine Management Organisation (MMO) has also published guidance on seascape sensitivity assessment (see further reading). The factors in **Table 1** of this TGN may be helpful to consider as part of the process of landscape sensitivity assessment.

2.3 Assessing landscape value of a site in its context (as part of development management)

2.3.1 The landscape value of a site in its context needs to be assessed as part of carrying out a Landscape and Visual Impact Assessment (LVIA) or Landscape and Visual Appraisal (LVA)[9]. Most commonly this will be as part of the assessment of a development proposal (for a planning application or appeal). The current guidance for LVIA/LVA is the third edition of *Guidelines for Landscape and Visual Impact Assessment* (GLVIA3; LI and IEMA, 2013) which states that the value of a landscape should be assessed as one of two components of landscape sensitivity[10]. Landscape value is the 'inherent' component, which is independent of the development proposal, while the other component, susceptibility, is development specific.

2.3.2 GLVIA3 recognises that landscape value is not always signified by designation: 'the fact that an area of landscape is not designated either nationally or locally does not mean that it does not have any value' (paragraph **5.26**). GLVIA3 recommends that when undertaking a LVIA/LVA in an undesignated area, landscape value should be determined through a review of existing assessments, policies, strategies and guidelines and, where appropriate, by new survey and analysis (paragraphs **5.27** and **5.28**). It is recommended that the process for identifying landscape value outside nationally designated areas is based upon a structured and transparent assessment process including community-based evidence where practical to do so.

2.3.3 The list of factors set out in Box 5.1 on page **84** of GLVIA3, which is a slightly modified form of the list of criteria from the 2002 landscape character assessment guidance, is described as an example of 'the range of factors that can help in the identification of valued landscapes'. It should be noted that they are not comprehensive nor intended to be prescriptive. Nevertheless, 'Box 5.1' has been widely used to inform judgements about landscape value as part of LVIA/LVA in the planning process.

2.3.4 Since GLVIA3 was published in 2013, appeal decisions, high court judgements and practitioners' experience have provided further information about the factors which can be considered in assessing landscape value outside nationally designated landscapes. These have been incorporated into **Table 1** of this TGN.

2.4 Range of factors that can be considered when identifying landscape value

2.4.1 **Table 1** sets out a range of factors that can be considered when identifying landscape value in any of the contexts described above. It also includes examples of potential indicators of value.

2.4.2 This broadly presents the same factors as Box 5.1 from GLVIA3 (and the 2002 Landscape Character Assessment Guidance), with the following changes:

- *'Conservation interests' is separated into natural heritage and cultural heritage factors (reflecting the approach in NatureScot's guidance on local landscape designations and Natural England's*

[9] Landscape and Visual Impact Assessments (LVIA) form part of an Environmental Impact Assessment (EIA). Landscape and Visual Appraisals (LVA) are standalone assessments.
[10] This is consistent with the approach set out in Tudor (2019).

Guidance for assessing landscapes for designation as National Park or Area of Outstanding Natural Beauty in England);

- *The term 'landscape condition' is used in place of 'landscape quality (condition)';*
- *'Rarity' and 'representativeness' are combined into a newly-named factor 'distinctiveness'; and*
- *A new factor, 'function' is included which addresses the value attached to landscapes which perform a clearly identifiable and valuable function.*

2.4.3 It should be noted that the factors are not presented in order of importance.

2.4.4 As with Box 5.1 in GLVIA3, **Table 1** is not intended to be an exhaustive list of factors to be considered when determining the value of landscapes, but to provide a range of factors and indicators that could be considered. This TGN is intended to be complementary to GLIVA3.

Table 1: Range of factors that can be considered when identifying landscape value

Factor	Definition	Examples[11] of indicators of landscape value	Examples of evidence[12]
Natural heritage	Landscape with clear evidence of ecological, geological, geomorphological or physiographic interest which contribute positively to the landscape	Presence of wildlife and habitats of ecological interest that contribute to sense of place Extent and survival of semi-natural habitat that is characteristic of the landscape type Presence of distinctive geological, geomorphological or pedological features Landscape which contains valued natural capital assets that contribute to ecosystem services, for example distinctive ecological communities and habitats that form the basis of ecological networks Landscape which makes an identified contribution to a nature recovery/ green infrastructure network	Landscape character assessment LANDMAP Geological Landscape and Landscape Habitats Aspects (in Wales) Ecological and geological designations SSSI citations and condition assessments Geological Conservation Review Habitat surveys Priority habitats Nature recovery networks/ nature pathways Habitat network opportunity mapping/ green infrastructure mapping Catchment management plans Ecosystem services assessment/ schemes Specialist ecological studies
Cultural heritage	Landscape with clear evidence of archaeological, historical or	Presence of historic landmark structures or designed landscape elements (e.g. follies,	Landscape character assessment

[11] These examples are not exhaustive.
[12] Evidence may be set out in development plans (or evidence that sits alongside development plans). Online mapping may also provide useful information (see 'useful data links' at the end of this TGN).

Factor	Definition	Examples[11] of indicators of landscape value	Examples of evidence[12]
	cultural interest which contribute positively to the landscape	monuments, avenues, tree roundels) Presence of historic parks and gardens, and designed landscapes Landscape which contributes to the significance of heritage assets, for example forming the setting of heritage assets (especially if identified in specialist studies) Landscape which offers a dimension of time depth. This includes natural time depth, e.g. presence of features such as glaciers and peat bogs and cultural time depth e.g. presence of relic farmsteads, ruins, historic field patterns, historic rights of way (e.g. drove roads, salt ways, tracks associated with past industrial activity)	LANDMAP Historic Landscape and Cultural Landscape Services Aspect (in Wales) Historic environment and archaeological designations Conservation Area appraisals, Village Design Statements Historic maps Historic landscape character assessments[13] Historic Land Use Assessment[14] and Historic Area Assessments[15] Place names Specialist heritage studies
Landscape condition	Landscape which is in a good physical state both with regard to individual elements and overall landscape structure	Good physical condition/ intactness of individual landscape elements (e.g. walls, parkland, trees) Good health of elements such as good water quality, good soil health Strong landscape structure (e.g. intact historic field patterns) Absence of detracting/ incongruous features (or features are present but have little influence)	Landscape character assessment LANDMAP condition and trend questions (in Wales) Hedgerow/ tree surveys Observations about intactness/ condition made in the field by the assessor SSSI condition assessments Historic landscape character assessments/ map regression analysis
Associations	Landscape which is connected with notable people, events and the arts	Associations with well-known literature, poetry, art, TV/film and music that contribute to perceptions of the landscape	Information about arts and science relating to a place Historical accounts, cultural traditions and folklore

[13] Historic Landscape Characterisation has developed as a GIS mapping tool to capture how land use has changed and the 'time-depth' of the present-day landscape.

[redacted]

[14] Mapping of Scotland's Historic Landscape: [redacted]

[15] [redacted]

Factor	Definition	Examples[11] of indicators of landscape value	Examples of evidence[12]
		Associations with science or other technical achievements Links to a notable historical event Associations with a famous person or people	Guidebooks/ published cultural trails LANDMAP Cultural Landscape Services aspect (in Wales)
Distinctiveness	Landscape that has a strong sense of identity	Landscape character that has a strong sense of place (showing strength of expression of landscape characteristics) Presence of distinctive features which are identified as being characteristic of a particular place Presence of rare or unusual features, especially those that help to confer a strong sense of place or identity Landscape which makes an important contribution to the character or identity of a settlement Settlement gateways/approaches which provides a clear sense of arrival and contribute to the character of the settlement (may be ancient/historic)	Landscape character assessment LANDMAP Visual & Sensory question 3 and 25, – Historic Landscape question 4 (in Wales) Guidebooks Observations about identity/ distinctiveness made in the field by the assessor
Recreational	Landscape offering recreational opportunities where experience of landscape is important	Presence of open access land, common land and public rights of way (particularly National Trails, long distance trails, Coastal Paths and Core Paths) where appreciation of landscape is a feature Areas with good accessibility that provide opportunities for outdoor recreation and spiritual experience/ inspiration Presence of town and village greens Other physical evidence of recreational use where experience of landscape is important Landscape that forms part of a view that is important to the	Definitive public rights of way mapping/ OS map data National Trails, long distance trails, Coastal Paths, Core Paths Open access land (including registered common land) Database of registered town or village greens Visitor surveys/ studies Observations about recreational use/ enjoyment made in the field by the assessor

Factor	Definition	Examples[11] of indicators of landscape value	Examples of evidence[12]
		enjoyment of a recreational activity	
Perceptual (Scenic)	Landscape that appeals to the senses, primarily the visual sense	Distinctive features, or distinctive combinations of features, such as dramatic or striking landform or harmonious combinations of land cover Strong aesthetic qualities such as scale, form, colour and texture Presence of natural lines in the landscape (e.g. natural ridgelines, woodland edges, river corridors, coastal edges) Visual diversity or contrasts which contributes to the appreciation of the landscape Memorable/ distinctive views and landmarks, or landscape which contributes to distinctive views and landmarks	Landscape character assessment LANDMAP Visual and Sensory scenic quality question 46 (in Wales) Protected views, views studies Areas frequently photographed or used in images used for tourism/ visitor/ promotional purposes, or views described or praised in literature Observations about scenic qualities made in the field by the assessor Conservation Area Appraisals Village Design Statements, or similar
Perceptual (Wildness and tranquillity)	Landscape with a strong perceptual value notably wildness, tranquillity and/or dark skies	High levels of tranquillity or perceptions of tranquillity, including perceived links to nature, dark skies, presence of wildlife/ birdsong and relative peace and quiet[16] Presence of wild land and perceptions of relative wildness (resulting from a high degree of perceived naturalness[17], rugged or otherwise challenging terrain, remoteness from public mechanised access and lack of modern artefacts) Sense of particular remoteness, seclusion or openness Dark night skies	Tranquillity mapping and factors which contribute to and detract from tranquillity Dark Skies mapping Wildness mapping, and Wild Land Areas in Scotland Land cover mapping Field survey LANDMAP Visual and Sensory Aspect

[16] More about tranquillity can be found in Landscape Institute Technical Information Note 01/2017 (Revised; Landscape Institute, 2017).

[17] Relating to extensive semi-natural vegetation, presence of wildlife and presence of natural processes/ lack of human intervention.

Factor	Definition	Examples[11] of indicators of landscape value	Examples of evidence[12]
		A general absence of intrusive or inharmonious development, land uses, transport and lighting	
Functional	Landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape	Landscapes and landscape elements that contribute to the healthy functioning of the landscape, e.g. natural hydrological systems/ floodplains, areas of undisturbed and healthy soils, areas that form carbon sinks such as peat bogs, woodlands and oceans, areas of diverse landcover (benefits pest regulation), pollinator-rich habitats such as wildflower meadows Areas that form an important part of a multifunctional Green Infrastructure network Landscapes and landscape elements that have strong physical or functional links with an adjacent national landscape designation, or are important to the appreciation of the designated landscape and its special qualities	Land cover and habitat maps Ecosystem services assessments and mapping (particularly supporting and regulating services) Green infrastructure studies/strategies Development and management plans for nationally-designated landscapes, Local Plans and SPDs Landscape character assessments

The practical application of factors in coming to a judgement on landscape value

2.4.5 The following bullet points provide some advice on the practical application of the factors in **Table 1**:

- *The factors to be considered are not fixed as they need to be appropriate to the particular project and location. It is recommended that the factors used to assess landscape value in a particular assessment are, where appropriate, discussed with the relevant planning authority or statutory consultees.*
- *The indicators of value should be reviewed on a case-by-case basis, taking into account what they contribute (positively or negatively) to a specific landscape. The relative importance to be attached to each indicator is likely to vary across different landscapes. Once evidence for each factor has been collated and assessed, it is important to step back and judge the overall 'weight of evidence' in coming to an overall judgement on landscape value.*
- *There are likely to be overlaps between the factors, as well as overlaps with other specialist studies for example in relation to natural and cultural factors. These overlaps should be acknowledged and considered when presenting conclusions on the overall value of the landscape.*
- *While condition/intactness of a landscape is one factor that can influence value, poor landscape management should not be a reason to deny a landscape a valued status if other factors indicate*

value. Deliberately neglecting an area of landscape and allowing its condition to deteriorate should not be allowed to diminish its value in a planning context.

- *When assessing landscape value of a site as part of a planning application or appeal it is important to consider not only the site itself and its features/elements/characteristics/qualities, but also their relationship with, and the role they play within, the site's context. Value is best appreciated at the scale at which a landscape is perceived – rarely is this on a field-by-field basis.*
- *Landscape function can influence value, but the presence of a spatial designation (e.g. Green Belt or Green Gap) is not in itself an indicator of high landscape value.*
- *The presentation of information about landscape value should be proportionate to the task at hand.*
- *Landscape value, and the way in which landscapes are valued by people, is a dynamic process, and can change over time. Any value assessment will be a snapshot in time.*

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Useful data links

England

[redacted]

https://www.gov.uk/right-of-way-open-access-land/access-private-land

https://magic.defra.gov.uk/

Wales

[redacted]

http://lle.gov.wales

Scotland

Landscape Character Assessment [redacted] [*the general LCA page; links from these pages include Coastal Characterisation guidance]*

Local Landscape Areas guidance [redacted]

Wild Land [redacted]

Historic Land Use Assessment h[redacted]

Northern Ireland

https://www.daera-ni.gov.uk/services/natural-environment-map-viewer

https://www.daera-ni.gov.uk/topics/land-and-landscapes/landscape-character-areas

https://www.daera-ni.gov.uk/articles/seascape-character-areas

4 Glossary

Term	Definition
Aesthetics	Philosophical study of beauty and taste
Characteristics (landscape)	Elements, or combinations of elements, which make a particular contribution to distinctive character (An Approach to Landscape Character Assessment Natural England 2014)
Green infrastructure	The network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect villages, towns and cities. Individually, these elements are GI assets, and the roles that these assets play are GI functions (Green Infrastructure Landscape Institute Position Statement 2013)
Elements	Individual parts which make up the landscape, such as, for example, trees, hedges and buildings (GLVIA3)
Features	Particularly prominent or eye-catching elements, like tree clumps, church towers, or wooded skylines (from GLVIA3 and An Approach to Landscape Character Assessment 2014)
Landscape	An area as perceived by people whose character is the result of the action and interaction of natural and/or human factors (European Landscape Convention)
Landscape condition	A measure of the physical state of the landscape (including the intactness of the landscape structure and the condition of individual elements)
Landscape management	Action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, so as to guide and harmonise changes which are brought about by social, economic and environmental processes (European Landscape Convention)
Landscape planning	Strong forward-looking action to enhance, restore or create landscapes (European Landscape Convention) The development and application of strategies, policies and plans to create successful environments, in both urban and rural settings, for the benefit of current and future generations (Landscape Institute)
Landscape policy	An expression by the competent public authorities of general principles, strategies and guidelines that permit the taking of specific measures aimed at the protection, management and planning of landscapes (European Landscape Convention)
Landscape protection	Actions to conserve and maintain the significant or characteristic features of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity (European Landscape Convention)
Landscape qualities	Characteristics/features of a landscape that have been identified as being valued

Term	Definition
	Landscape qualities are usually referred to as 'special qualities' or 'special landscape qualities' in relation to nationally designated landscapes or 'wildness qualities' in relation to Wild Land Areas.
Landscape value	The relative value or importance attached to different landscapes by society on account of their landscape qualities (see **Table 1**).
LVA	Landscape and visual appraisal
LVIA	Landscape and visual impact assessment
Natural beauty	The term 'natural beauty' is enshrined in the 1949 National Parks and Access to the Countryside Act (it was also subsequently included in the Nature Conservation and Amenity Lands Order (NI) 1985), the Town and Country Planning (Scotland) Act 1997, and the Planning etc. (Scotland) Act 2006). Natural beauty is not exhaustively defined in the legislation, but its meaning has been clarified and interpreted through a series of studies, guidance documents and public inquiries (see 'Further reading'). *N.B. Since the term 'natural beauty' applies to national designation, it is not the purpose of this note to define it.*
Natural capital	The elements of nature that directly and indirectly produce value or benefits to people, including ecosystems, species, fresh water, land, minerals, the air and oceans, as well as natural processes and functions. (Natural Capital Committee, 2014)
Scenic quality	The extent to which the landscape appeals to the senses (primarily, but not only, the visual senses) (Landscape Character Assessment Guidance 2002)
Special qualities	A statutory expression used in (amongst other places) sections 5 and 11A of the National Parks and Access to the Countryside Act 1949 (as amended), section 87 of the Countryside and Rights of Way Act 2000 and National Parks (Scotland) Act 2000 (although the term is not defined in legislation). Special qualities are defined by Nature Scot as 'the characteristics that, individually or combined, give rise to an area's outstanding scenery'

Appendices

A1 (Appendix 1) Assessment of landscape value: a summary of historical background and context

A1.1.1 Land has always had a productive value for food and other natural resources, but our appreciation of the landscape has evolved over time. A summary is provided below.

A1.1.2 During the 17th century in Europe, an appreciation of landscape became closely linked to ideas about beauty and aesthetics. In the 18th–19th centuries influential artists writers and thinkers such as Turner, Ruskin, Wordsworth and others publicly described their appreciation of scenic qualities, landform, nature, vernacular architecture, traditional agriculture, tranquillity and wildness, raising awareness of these landscape qualities.

A1.1.3 From the 19th century, the value of access to natural landscapes for recreation and wellbeing was also recognised, partly as a response to industrialisation. The National Trust was the first organisation to use the term natural beauty. Originally called the National Trust for Places of Historic Interest or Natural Beauty, it was established in 1895.[18] Its purpose, confirmed in the first National Trust Act passed in 1907, was 'promoting the permanent preservation for the benefit of the nation of lands and tenements (including buildings) of beauty or historic interest and as regards lands for the preservation (so far as practicable) of their natural aspect features and animal and plant life'.[19]

A1.1.4 Pressure in the early decades of the 20th century resulted in the establishment of the Addison Committee in 1929 and in 1931 the Addison Report (see Ministry of Town and Country Planning, 1947) recommended the identification of national parks in England and Wales. However, it was the establishment of the National Parks Committee and the publication of the Dower report (Ministry of Town and Country Planning, 1945), the Ramsay Report (Department for Health for Scotland, 1945) and the Hobhouse Report (Ministry of Town and Country Planning, 1947) that finally led to the 1949 National Parks and Access to the Countryside Act. This Act established a National Parks Commission with the purpose of preserving and enhancing 'natural beauty in England and Wales', and particularly in the areas designated under this Act as National Parks or as 'areas of outstanding natural beauty', for encouraging the provision of 'opportunities for open air recreation and the study of nature'.[20]

A1.1.5 The 1949 Act did not define 'natural beauty', but since then its meaning has been debated and tested through a series of studies, guidance documents (see the section on 'Further reading'), Secretary of State Decision letters, an Appeal Court judgement, and public inquiries. Some clarification has also been provided through legislative amendments to the 1949 Act, e.g. NERC Act 2006 Section 99. Following the 1949 Act national landscape designations were made in England and Wales following advice from experts who relied on criteria originally defined by Hobhouse (Ministry of Town and Country Planning, 1947) to assess the value of an area for its natural beauty and recreational opportunity. The first statutory designations in the UK were the Peak District and Lake District National Parks in England, and Snowdonia in Wales (all confirmed in 1951).[21] This approach to assessing

[18] For England, Wales and Northern Ireland. The National Trust for Scotland was established in Scotland in 1931.
[19] National Trust Act 1907.
[20] National Parks and Access to the Countryside Act 1949.
[21] Scotland passed the National Parks (Scotland) Act in 2000 and designated the Loch Lomond and the Trossacks National Park in 2002. Northern Ireland passed the Nature Conservation and Amenity Lands (Northern Ireland) Order in 1985 but has no designated National Parks at present, despite a proposal to designate the Mourne Mountains.

landscape value continued throughout the 1950s and 60s. **Appendix A3** provides a summary of current landscape designations within the UK.

A1.1.6 In the 1970s there were attempts to introduce a quantitative approach to assessing landscape value. These, along with other methods, were tested at the North Pennines AONB Public Inquiry in 1985. The inspector noted the lack of an agreed methodology to evaluating landscape, acknowledged that there was inevitably a degree of subjectivity, and recommended the use of informed opinion, a trained eye and common sense. The quantitative approach was generally considered inappropriate because it reduced complex concepts to a series of numerical values.

A1.1.7 In the 1980s a new methodology for understanding and recording what is important about a landscape began to emerge. Then known as Landscape Assessment, and now known as Landscape Character Assessment (see Landscape Institute, 2015), it was not limited to identifying landscapes worthy of designation but considered all landscapes with the objective of identifying what makes one area 'different' or 'distinct' from another (Countryside Agency and Scottish National Heritage, 2002b). Although the landscape assessment approach covered all landscape, early guidance included advice on evaluating landscapes (Countryside Commission, 1987) by identifying factors for evaluating 'natural beauty' which built on the Hobhouse criteria. The 1993 landscape assessment guidance (Countryside Commission, 1993) was specific in separating the classification and description of landscape character, which concerns what makes one area 'different' or 'distinct' from another, from landscape evaluation, which concentrates on relative value (Countryside Agency and Scottish National Heritage, 2002b). The 1993 guidance included criteria for evaluating 'landscape quality' (particularly in relation to designating landscapes) and identified factors important for evaluating natural beauty (see **Appendix A2**). Historic Landscape Characterisation, piloted at the end of the 1990s, also developed as a way of understanding and mapping the time-depth of places.

A1.1.8 In 1996, the evolving national approach for Landscape Assessment in Wales (Countryside Council for Wales, 1996), LANDMAP, took the strategic decision to include landscape evaluation information. A range of national criteria, grouped under different landscape themes, was developed to provide a relative indication of landscape value to prompt further investigation and consideration as part of planning projects or landscape assessments (see **Appendix A2**).

A1.1.9 The Countryside Agency and Scottish Natural Heritage (2002a) guidance on Landscape Character Assessment developed the criteria set out in the 1993 Landscape Assessment Guidance further, and these were presented as criteria for making judgements about 'landscape value' more widely (i.e. not just in relation to designated landscapes). These criteria informed subsequent guidance including guidance on Local Landscape Designations in Scotland (2006, updated 2020), Natural England's *Guidance for Assessing Landscapes for Designation as National Park or Area of Outstanding Natural Beauty in England* (2011) and Box 5.1 in the *Guidelines for Landscape and Visual Impact Assessment* (GLVIA3) (LI and IEMA, 2013). **Appendix A2** provides a summary of the evolution of factors used in the assessment of natural beauty and landscape value from 1945 onwards.

A1.1.10 The European Landscape Convention (2000) (ELC) was informed and influenced by the UK's landscape assessment work in the 1980s and 1990s. The first international treaty dedicated to the protection, management and planning of all landscapes in Europe, it was signed by the UK government in 2006[22]. Signatories acknowledge that 'the landscape is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas'[23] and that 'the landscape is a key element of individual and social well-being'. Article 6 of the Convention places a responsibility on all signatories to increase awareness of 'the value of their landscapes, their role and changes to them'.[24] As a signatory to the ELC, the UK has an obligation to enhance the natural and cultural value of all landscapes though a blend of strategies: managing and planning (restoring, creating/enhancing) landscapes.

A1.1.11 The importance of landscape and its value continues to be recognized, for example in DEFRA's 25 Year Environment Plan (HM Government, 2018). There has also recently been a re-emergence of the

[22] The UK remains a member of the Council of Europe, which is a separate body from the European Union.
[23] European Landscape Convention – Preamble.
[24] European Landscape Convention – Article 6.

word ‘beauty’ in the field of planning and placemaking (for example in the UK Government's commissioned ‘Living with Beauty’ report; see Building Better, Building Beautiful Commission/MHCLG, 2020).

A1.1.12 The landscape profession’s understanding of landscape value is still developing, particularly in light of the nature and climate emergency (as well as the lockdowns caused by the Covid-19 pandemic). People today value different aspects of landscape than they did in the past or may do in the future, but it is clear that landscape value is more than just beauty and aesthetics.

A2 (Appendix 2) An evolution of factors used to describe landscape value

A2.1 Introduction

A2.1.1 This Appendix summarises the factors used in the assessment of natural beauty and landscape value from 1945 onwards.

A2.2 1945

Report on National Parks in England and Wales (Cmd 6628), John Dower, Ministry of Town and Country Planning

A2.2.1 In 1942 John Dower, a research officer in the Planning Department of the Ministry of Works and Planning, was requested to report on the establishment of National Parks in England and Wales. In his 1945 report, he noted that 'the task of selecting and delimiting the areas which are to be established as National Parks ... will clearly be no easy matter ... It must rest on an adequate and disinterested survey and investigation of all areas which are, or are claimed to be, in any way suitable, and it must take into account a wide range of factors' (Ministry of Town and Country Planning, 1945).

A2.2.2 These factors were included in **paragraph 6**, as:

- *landscape beauty*
- *wildlife*
- *suitability for rambling access*
- *popularity*
- *existing and potential land utilization*
- *existing or threatened disfigurements*
- *transport and accommodation facilities, and*
- *the financial and administrative strength of the local authorities concerned.*

National Parks: A Scottish Survey, 'The Ramsay Report', Department of Health for Scotland

A2.2.3 The Scottish National Parks Survey Committee was set up to advise on areas suitable for National Parks and to supervise a survey of potential areas. The Committee laid down seven selection criteria (see Department for Health for Scotland, 1945):

- *outstanding scenic beauty*
- *accessibility*
- *preservation and preservability*
- *recreational facilities (of an open-air type)*

- *educational, cultural and social interests*
- *flora and fauna, and*
- *accommodation.*

A2.3 1947

Report of the National Parks Committee (England & Wales) (CMD 7121), Sir Arthur Hobhouse, Ministry of Town and Country Planning

A2.3.1 Para 35 - Factors in selection (of National Parks; see Ministry of Town and Country Planning, 1947)):

Natural beauty	Great natural beauty
Recreation	A high value for open-air recreation
Substantial continuous extent	Distribution so that at least one of them is quickly accessible from each of the main centres of population in England and Wales
Merit in variety	With the wide diversity of landscape which is available in England and Wales, it would be wrong to confine the selection of National Parks to the more rugged areas of mountain and moorland, and to exclude other districts which, though of less 'outstanding' grandeur and wildness, have their own distinctive beauty and high recreational value

A2.4 1986

Wildlife and Countryside Acts 1981 & 1985: Section 3 Conservation Maps of National Parks – Guidelines (CCD6), Countryside Commission (out of print)

A2.4.1 This guidance included a table of 'factors affecting natural beauty' in response to Section 3 of the Wildlife and Countryside Acts of 1981 and 1985 which placed a responsibility on each of the National Parks of England and Wales to prepare a map showing those areas of mountain, moor, heath, woodland, down, cliff or foreshore, the natural beauty of which the Authority considers it is particularly important to conserve. The same factors were subsequently reproduced in Countryside Commission (1987).

Physiographic	Geology, soils, relief/landform, land use, vegetation, ecological habitats, natural history/wildlife, archaeology, artefacts – buildings, walls
Associations	a. Historical – general history of settlements, special events b. Cultural – well-known personalities, literary, painting, music
Aesthetics	a. Visual – extent/degree of enclosure, form, scale, continuity/harmony/ contract, diversity, colour (hue, time), texture, presence of eyesores, detractors from scene, contribution to wider landscape, views out – length and breadth, views in – length and breadth, boundaries to views b. Other Senses – sounds, smalls, tastes, touch
Relative to other areas	Nationally rare, regionally rare, typical/representative of an area

Feelings evoked in the observer	Comfort, awe, remoteness, solitude, joy
Public accessibility	Indirect/visual, direct/actual – by vehicle, bicycle, horse or foot

A2.5 1991

Landscape Assessment: Principles and Practice, Countryside Commission (out of print)

A2.5.1 This Countryside Commission for Scotland (1991) guidance proposed criteria for evaluating landscape quality in Scotland, in relation to designation of National Scenic Areas, which are summarised in **Table 2** (originally **Table 4.2** of Part 4) of the University of Sheffield's 'A Statement on Natural Beauty: A Report to the Countryside Council for Wales' (2006).

Table 2: Proposed criteria for evaluating landscape quality in Scotland:

Main criterion	Factors considered	Explanation
Landscape as a resource	Rarity	Value conferred by virtue of scarcity value either of landscape as a whole or elements within it
	Representativeness/ typicality	Value because a landscape is typical or representative of its type demonstrating better than other areas the combination of features and attributes which characterise that type
Scenic quality	Combination of landscape elements	Landscape quality arising from the particular mix of landscape elements in an area of their disposition in relation to each other
	Aesthetic quality	Landscape quality resulting from the interaction of elements in terms of visual characteristics such as form, line, colour, texture, diversity, memorability, intactness and so on
	Intangible qualities	Includes sense of place or the 'genius loci' and ideas from preference theory including ideas of prospect/refuge and landscape legibility
Preference	Evidence on public preference	Ideally based on preference attitude surveys
	Informed consensus on value	Evidence from planners and landscape professionals, interest groups involved with landscape and writers, artists and photographers
Special values	Wild land/wilderness quality	Depends on factors such as apparent naturalness, remoteness, extent and feelings of solitude, escape and exposure
	Cultural associations	Landscape can assume significance because of its special cultural associations with people or events
	Special heritage interests	Landscape cannot be divorced from other interests and wildlife, archaeological and historical features and geological or geomorphological features will make major contributions to landscape character as well as having conservation value in their own right

A2.6 1993

Landscape Assessment Guidance (CCP 423), Cobham Resource Consultants, Countryside Commission (1993)

A2.6.1 The section of the 1993 guidance dealing with landscape evaluation dealt explicitly with the need to evaluate the quality of the landscape, especially where the assessment related to an area of designated landscape. A list of criteria for evaluating landscapes for designation was included, developing the factors contained in the Countryside Commission's 1991 guidance. They were:

Landscape as a resource	Important for reasons of rarity or representativeness
Scenic quality	High scenic quality, with pleasing patterns and combinations of features
Unspoilt character	Unspoiled by large scale, visually intrusive industry, mineral extraction etc.
Sense of place	Distinctive and common character, including topographic and visual unity
Conservation interests	Such as features of historical, wildlife or architectural interest
Consensus	Consensus of both professional and public opinion as to its importance

A2.7 1995

Guidelines for Landscape and Visual Impact Assessment (GLVIA1), Landscape Institute and Institute of Environmental Assessment (1995)

A2.7.1 Paragraph **3.41** suggested that a qualitative analysis requires an assessment to be made of landscape condition and importance in the sense of aesthetic or cultural value. It suggested that the analysis may include:

Landscape designations	List of landscape designations that may apply
Reasons for designations	Summary of the reasons for landscape designations, e.g. landscape type is rare in a national or regional context
Scenic quality	Professional judgements as to the scenic quality of the site and its wider landscape context, and to the importance of landscape components
Condition of landscape components	Assessment of the condition of important landscape components, including management of land, and the extent of deviation from the perceived optimum condition
Conservation interests	Details of any notable conservation interests such as features of historical, wildlife or architectural importance
Cultural associations	Reference to any special cultural associations, such as important writing and paintings that feature local landscapes
Local perceptions	Past and present perceptions of local value

A2.7.2 GLVIA1 also referred to Countryside Commission (1993) for further advice on criteria for evaluating landscape quality in England.

A2.8 1999

Interim Landscape Character Assessment Guidance, C. Swanwick & Land Use Consultants, Countryside Agency and Scottish Natural Heritage (out of print)

A2.8.1 Criteria for making judgments about landscape value were:

Landscape as a resource	Rarity, representativeness or typicality
Landscape quality	Extent to which typical character is demonstrated in an area and condition or state of repair of the landscape
Scenic quality	Depends upon perception and reflects the particular combination and pattern of elements in the landscape, its aesthetic qualities and its more intangible sense of place or genius loci
Consensus	Consensus of opinion, expressed by the public, informed professionals, interest groups, and artists, writers and other media
Conservation interests	Presence of features of wildlife, earth science or archaeological or historical interest which add to the value of the landscape as well as having value in their own right
Other values	Landscapes may be valued for their wilderness qualities, or particular cultural associations, or because of their tranquillity

A2.9 2001

LANDMAP 2001, and as amended to date. Countryside Council for Wales (2001)

A2.9.1 The LANDMAP assessment for Wales developed a set of evaluation criteria for separate themed layers.

A2.9.2 A method document for each theme set out and defined each criterion[25], as follows:

[25] LANDMAP methodology, including definitions of each layer, reports, guidance and interactive map browser.

Geological Landscape	*Landscape Habitats*	*Visual and Sensory*	*Historic Landscape*	*Cultural Landscape (NB: not evaluated by degree of importance)*
• *Research value* • *Educational value* • *Historical value* • *Rarity/ uniqueness* • *Classic example*	• *Priority habitats* • *Significance* • *Opportunity* • *Expansion rates* • *Sensitivity* • *Connectivity/ cohesion* • *Habitat evaluation* • *Importance for key species*	• *Scenic quality* • *Integrity* • *Character (strength of)* • *Rarity*	• *Integrity* • *Survival* • *Condition* • *Rarity* • *Potential*	• *Recognition/ transparency* • *Rarity* • *Group value* • *Survival*
Further layers, for seascapes and (ecosystem cultural) services are being added. The latter responds to the Welsh policy context, which views landscape value through ecosystem services, well-being and placemaking.				

A2.9.3 Not all evaluations will be relevant to all projects, so intelligent selection is needed. 'Adding up' evaluations for different themes is discouraged as that masks what is important about a landscape (and would just confirm that all landscapes are very important in some way). Their intended use is to open rather than close discussion of landscape value, by alerting users to topics and areas that may need more detailed enquiry.

A2.10 2002

Landscape Character Assessment: Guidance for England and Scotland (CAX 84), Countryside Agency and Scottish Natural Heritage (2002a)

A2.10.1 Paragraph 7.22 states, 'In considering natural beauty and amenity, and in any other situation which requires that a landscape be identified as requiring special attention, judgements must be based at least in part on the concept of landscape value'. The reasons may be set out according to a range of more detailed criteria that may include the following:

Landscape quality/ condition	Intactness of the landscape and the condition of features and elements
Scenic quality	The term that is used to describe landscapes which appeal primarily to the visual senses
Rarity	The presence of rare features and elements in the landscape, or the presence of a rare landscape character type

Representativeness	Whether the landscape contains a particular character, and/or features and elements, which is felt by stakeholders to be worthy of representing
Conservation interests	Presence of features of particular wildlife, earth science or archaeological, historical and cultural interest can add to the value of a landscape as well as having value in their own right
Wildness	Presence of wild (or relatively wild) character in the landscape which makes a particular contribution to sense of place
Associations	Associations with particular people, artists, writers, or other media, or events in history

A2.11 2006

A Statement on Natural Beauty, Sheffield University Landscape Department, Countryside Council for Wales (CCW; Selman and Swanwick, 2010)

A2.11.1 This was an academic study commissioned by CCW. Paragraph **6** refers to criteria that can be taken into account in defining landscape value and hence defining landscapes which have outstanding 'natural beauty' as:

Scenic quality	Aesthetic aspects of landscape (those which give pleasure to the senses), its perceptual dimensions and the spiritual or emotional impact that both have on people
Sense of place	Unity and distinctiveness of landscape character
Landscape quality/condition	Intactness of the landscape and its condition, distinctiveness of landscape character in a particular locality
Integrity	Intact rural character and general lack of large-scale, visually intrusive or otherwise inharmonious development
Perceptual qualities	Perceptual qualities which make a particular contribution to sense of place, including wildness and tranquillity
Associations	Important associations of the landscape with people, places or events relevant to a particular place
Cultural descriptions	Expressions or descriptions of the landscape in art, literature, music and other art forms, through language and folklore, and through modern media
Rarity or representativeness	Either of the landscape as a whole, or of individual elements and features within it
Conservation interest	Presence of features of particular wildlife, earth science or archaeological, historical and cultural interest which add value to the landscape as well as having conservation value in their own right

Guidance on Local Landscape Designations, SNH and Historic Environment Scotland[26]

A2.11.2 SNH and Historic Environment Scotland's (2006) guidance on local landscape designations suggested that local authorities need to identify both the character and qualities of the landscape considered to be of particular value in the local context, and suggested the following aspects/factors could be considered:

	Definition	Description
Aspects of landscape character		
Typicality	Elements of landscape character which are particularly common within the assessment area as a whole	Landscape features or combination of features that recur throughout the area
Rarity or uniqueness	Particular aspects of landscape character which are rare or unique in the area	Landscape features or combination of features which are rare or unique within the assessment area as a whole
Condition or quality	The degree to which individual characteristics of landscape character are in a good state of repair or health	Landscape features or combination of features which are in a good state of repair
Landscape qualities		
Scenic	Aspects of the landscape and our reaction to it which contribute to its natural beauty and aesthetic appreciation	Landscapes with strong visual, sensory and perceptual impacts and experiential appeal. May contain a pleasing combination of features, visual contrasts or dramatic elements
Enjoyment	Aspects of the landscape and our reactions to it which contribute to its potential for recreation and amenity	Landscapes of importance as local greenspace, as tranquil areas and/or for countryside recreation. May contain viewpoints and landmarks
Cultural	Aspects of the landscape and our reactions to it which contribute to the understanding of its historic character and the wider cultural record	Landscapes rich in archaeology, built heritage, literary, artistic and other cultural associations and local history. May include historic gardens and designed landscapes
Naturalness	Aspects of the landscape and our reactions to it which contribute to its naturalness	Landscapes with extensive semi-natural habitat, a lack of human presence and perceived qualities of wildness. May include areas of wild land

A2.12 2011

Guidance for assessing landscapes for designation as National Park or Area of Outstanding Natural Beauty in England, Natural England (2011)

A2.12.1 Table 3 of this guidance sets out factors that are related to Natural Beauty. These are expanded upon in Appendix 1 to include sub-factors and indicators, as follows:

[26] Accessible at [redacted]

Factor	Example sub-factor	Example Indicator
Landscape quality	Intactness of the landscape in visual, functional and ecological perspectives	Characteristic natural and man-made elements are well represented throughout
	The condition of the landscape's features and elements	Landscape elements are in good condition
	The influence of incongruous features or elements (whether man-made or natural) on the perceived natural beauty of the area	Incongruous elements are not present to a significant degree, are not visually intrusive, have only localised influence or are temporary in nature
Scenic quality	A distinctive sense of place	Landscape character lends a clear and recognisable sense of place
	Striking landform	Landform shows a strong sense of scale or contrast
		There are striking landform types or coastal configurations
	Visual interest in patterns of land cover	Land cover and vegetation types form an appealing pattern or composition in relation to each other and/or to landform which may be appreciated from either a vantage point or as one travels through a landscape
	Appeal to the senses	Strong aesthetic qualities, reflecting factors such as scale and form, degree of openness or enclosure, colours and textures, simplicity or diversity, and ephemeral or seasonal interest
		Memorable or unusual views and eye-catching features or landmarks
		Characteristic cognitive and sensory stimuli (e.g. sounds, quality of light, characteristic smells, characteristics of the weather)
Relative wildness	A sense of remoteness	Relatively few roads or other transport routes
		Distant from or perceived as distant from significant habitation
	A relative lack of human influence	Extensive areas of semi-natural vegetation
		Uninterrupted tracts of land with few built features and few overt industrial or urban influences
	A sense of openness and exposure	Open, exposed to the elements and expansive in character
	A sense of enclosure and isolation	Sense of enclosure provided by (e.g.) woodland, landform that offers a feeling of isolation
	A sense of the passing of time and a return to nature	Absence or apparent absence of active human intervention

Relative tranquillity	Contributors to tranquillity	Presence and/or perceptions of natural landscape, birdsong, peace and quiet, natural-looking woodland, stars at night, stream, sea, natural sounds and similar influences
	Detractors from tranquillity	Presence and/or perceptions of traffic noise, large numbers of people, urban development, overhead light pollution, low flying aircraft, power lines and similar influences
Natural heritage features	Geological and geo-morphological features	Visible expression of geology in distinctive sense of place and other aspects of scenic quality
		Presence of striking or memorable geo-morphological features
	Wildlife and habitats	Presence of wildlife and/or habitats that make a particular contribution to distinctive sense of place or other aspects of scenic quality
		Presence of individual species that contribute to sense of place, relative wildness or tranquillity
Cultural heritage	Built environment, archaeology and designed landscapes	Presence of settlements, buildings or other structures that make a particular contribution to distinctive sense of place or other aspects of scenic quality
	Historic influence on the landscape	Visible presence of historic landscape types or specific landscape elements or features that provide evidence of time depth or historic influence on the landscape
	Characteristic land management practices	Existence of characteristic land management practices, industries or crafts which contribute to natural beauty
	Associations with written descriptions	Availability of descriptions of the landscape in notable literature, topographical writings or guidebooks, or significant literature inspired by the landscape
	Associations with artistic representations	Depiction of the landscape in art, other art forms such as photography or film, through language or folklore, or in inspiring related music
	Associations of the landscape with people, places or events	Evidence that the landscape has associations with notable people or events, cultural traditions or beliefs

A2.13 2013

Guidelines for Landscape and Visual Impact Assessment (GLVIA3), Landscape Institute and Institute of Environmental Management & Assessment (2013)

A2.13.1 Box 5.1 contains a 'Range of factors that can help in the identification of valued landscapes'. These are:

Landscape quality (condition)	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual area, the intactness of the landscape and the condition of individual elements
Scenic quality	The term used to describe landscapes that appeal primarily to the senses (primarily but not wholly the visual senses)
Rarity	The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type.
Representativeness	Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples
Conservation interests	The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right
Recreation value	Evidence that the landscape is valued for recreational activity where experience of the landscape is important
Perceptual aspects	A landscape may be valued for its perceptual qualities, notably wildness and/or tranquillity
Associations	Some landscapes are associated with particular people such as artists or writers, or events in history that contribute to perceptions of the natural beauty of the area

A2.14 2017

Guidance Note 1: LANDMAP and Special Landscape Areas, Natural Resources Wales (2017)

A2.14.1 Paragraph **6.1.2** states that 'by definition, an SLA designation usually only applies to areas that are deemed as 'special' in terms of their local landscape character. This reflects both local distinctiveness and sense of place, as well as landscape quality in its own right'. Examples of landscape criteria are:

Rarity	A landscape that is particularly rare/unique or special in the local context
Distinctiveness	An area with a distinct landform or topography, forming a discrete and recognisable area in the local landscape
Natural or cultural character	A landscape with strong character linked to natural or cultural factors, which contribute to an understanding of historic character, wider cultural values or create a strong degree of naturalness
Cultural associations	A landscape with particular cultural associations, represented in art, literature, music, language or folklore
Scenic qualities	An area of recognisable character with a strong sense of place and/or scenic qualities

Guidance on Local Landscape Areas (Draft), Scottish Natural Heritage and Historic Environment Scotland (now superseded)

A2.14.2 **Table 1** of Scottish Natural Heritage and Historic Environment Scotland's (2017) draft guidance set out the common criteria used to define landscape qualities:

Landscape Qualities	Definition	Description
Scenic	Landscape that appeals primarily to the visual senses, appreciated for its natural beauty	Landscapes with strong visual, sensory and perceptual impacts and experiential appeal. May contain a pleasing combination of features, visual contrasts or dramatic elements
Cultural	Landscape with features of archaeological, historical or cultural interest, offering a time-depth to people's experience.	Landscapes rich in archaeology, built heritage, literary or artistic connections, consciously designed (parks and gardens), the scene of historic events (such as battles), other cultural associations and local history. and designed landscapes
Natural	Landscape of strong natural or semi-natural character, with wildlife or earth science features	Landscapes with extensive semi-natural habitat, distinctive topography or geology, a lack of human presence and perceived sense of 'wildness'
Enjoyment	Landscape recognised for recreation and amenity, which evokes pleasure	Landscapes valued as tranquil areas and/or for countryside recreation. May contain viewpoints and landmarks
Rarity or uniqueness	The presence of rare elements or features in the landscape or a rare landscape character type	Landscape features or combination of features which are rare or unique within the assessment area as a whole. Landscapes that are distinctive with a strong 'sense of place'
Typicality	A landscape that is a good example of a particular landscape type, and often relatively common within the assessment area	Landscape features or combination of features that recur throughout the area

A2.15 2020

Guidance on Designating Local Landscapes, NatureScot and Historic Environment Scotland (2020)

A2.15.1 This guidance states, at paragraph **2.4.2**: 'Selection criteria are essential. These must be fit for purpose, developed by agreement with interested stakeholders where possible, and applied consistently. The criteria relate to the special qualities of a landscape'. **Table 1** of the guidance sets out the range of evaluation criteria commonly used, noting 'this is not a fixed list as the criteria need to be appropriate to each designation process' (paragraph **2.4.4**). The criteria in **Table 3** of the guidance are:

Landscape criterion	Definition	Description
Scenic	Landscape that appeals primarily to the visual senses, and is appreciated for its beauty	Landscapes with strong visual, sensory and perceptual impacts and experiential appeal. May contain a pleasing combination of features, visual contrasts or dramatic elements

Cultural	Landscape with clear evidence of archaeological, historical or cultural interests / associations / significance, offering a time-depth to people's experience	Landscapes rich in archaeology or built heritage, or consciously designed (e.g. parks and gardens), or largely the product of human interaction. May include the scene of historic events (such as battles), have literary or artistic connections, or other cultural associations and local history
Natural	Landscape of strong natural or semi-natural character, with clear evidence of ecological, geological or geomorphological interest	Landscapes with extensive semi-natural habitat, distinctive topography or geology, a general lack of permanent human presence and a perception of wildness
Recreation and enjoyment	Landscape recognised as offering opportunities for recreation and amenity, where experience of landscape is important	Landscapes valued for recreation. May contain viewpoints, landmarks and renowned vistas; paths and trails including core paths, rights of way, long distance trails, national cycle routes; and scenic routes
Local distinctiveness and sense of place	Landscape that has a strong sense of identity	Landscape features or combination of features which are identified as being characteristic of a particular place. Landscapes that are distinctive with a strong 'sense of place'
Health and wellbeing	A landscape which makes particular contribution to both the physical and psychological health and wellbeing of a local community and/or visitors	Landscape facilities and features which are well-used and valued by local communities and visitors
Important spatial function	Landscape that performs a clearly identifiable and valued spatial role	Can include, for example, settlement 'gateways', or separation between developments

A2.15.2 The guidance notes that the list is not fixed as the criteria need to be appropriate to each designation process. It also recognises that not all the criteria need to be met in every case: a landscape might be deemed so valued under one criterion that it merits designation on that basis alone. The guidance explains that the aim is to identify and analyse what the qualities are that, individually or when combined, make the area special in terms of its landscape and scenery.

A3 (Appendix 3) Designated landscapes: UK policy and guidance

A3.1 Introduction

A3.1.1 This Appendix considers how landscape is valued in UK legislation and in UN, European and UK policy statements, regulations and guidance. It describes the current UK hierarchy of international, nationally protected, and locally designated landscapes, including the different approaches of devolved nation governments.

A3.2 Internationally valued landscapes

A3.2.1 Globally, under the **UNESCO World Heritage Convention 1992**, landscapes may be designated to ensure the protection of their natural and/or cultural heritage. World Heritage Sites must have values that are outstanding and universal, and it is each site's Outstanding Universal Value (OUV) that is to be protected. Cultural landscapes are said to 'express a long and intimate relationship between peoples and their natural environment'.

A3.2.2 In the UK there are 32 sites on the current list. The UNESCO 2008 operational guidelines describe categories of 'clearly defined landscape designed and created intentionally by man, organically evolved landscape, and associative cultural landscape, identified on the international list as 'cultural, natural or mixed' sites'. Criteria for selection are described on UNESCO's website[27].

A3.2.3 **The International Union for Conservation of Nature (IUCN)** provides a global classification system for Protected Areas. National Parks in England, Wales and Scotland, and Areas of Outstanding Natural Beauty (AONBs) in England, Wales and Northern Ireland are internationally recognised as **Category V Protected Areas**, as living, working landscapes and seascapes. National Parks and AONBs are periodically assessed by the IUCN to ensure continued compliance with the standards and management guidelines[28].

A3.3 The European Landscape Convention

A3.3.1 The UK is a member state on the Council of Europe and a signatory to the **European Landscape Convention (ELC) 2004**, which came into effect in the UK in 2007. The first aim of the ELC is to encourage public authorities to adopt policies and measures at local, regional, national and international level for protecting, managing and planning landscapes throughout Europe.

A3.3.2 The treaty introduces the concept of all landscapes having value in terms of quality of life and wellbeing. Signatories commit to 'acknowledging that the landscape is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas.' The ELC's 'all-landscapes' approach is compatible with the identification of 'valued landscapes' as it seeks to promote 'measures to preserve the present character and quality of a landscape which is greatly valued'.[29]

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27 [redacted]
28 [redacted]
29 [redacted]

A3.4 National landscape designations

A3.4.1 Planning legislation and policy in each of the UK's devolved nations recognise landscape value at both national and local levels. England, Wales, Scotland and Northern Ireland each have their own primary planning legislation.

A3.4.2 It should be noted that Green Belt is not a landscape designation and does not denote landscape value, although it does perform a spatial function in the landscape.

England

A3.4.3 Statutory designations of landscapes in England, which are safeguarded by legislation, originated with the National Parks and Access to the Countryside Act 1949. The Broads National Park is designated under its own Act of Parliament (the Broads Act 1988). National Park purposes are defined as 'conserving and enhancing its natural beauty[30], wildlife and cultural heritage, and promoting understanding and enjoyment of its special qualities by the public'. The 1949 Act also made provision for the designation of AONBs to 'preserve and enhance natural beauty'. This original purpose of 'preserving and enhancing' was subsequently changed to 'conserving and enhancing' (Environment Act 1995).

A3.4.4 The Countryside & Rights of Way (CROW) Act 2000 consolidated the provisions of the 1949 Act, enabling conservation boards to be set up for larger AONBs and requiring management plans to be adopted for AONBs. Two AONBs have Conservation Boards, the Chilterns and Cotswolds AONBs.

A3.4.5 AONBs carry the same status and level of landscape protection as National Parks (Defra Vision and Circular 2010). Paragraph 20 states: 'The Government continues to regard National Park designation (together with that for Areas of Outstanding Natural Beauty ['AONBs']) as conferring the highest status of protection as far as landscape and natural beauty is concerned'.

A3.4.6 In England, Heritage Coasts (from 1973) are protected by policy rather than statute, though many are located within National Parks or AONBs and benefit from their statutory protection. They are defined (rather than designated) by agreement between local authorities and Natural England. The policy framework for Heritage Coasts in England was issued by the Countryside Commission (the predecessor to Natural England) in 1992. Heritage Coasts are defined as coastlines of exceptionally fine scenic quality, which are more than a mile in length, substantially undeveloped and contain features of special significance and interest.

A3.4.7 Historic England maintains a statutory 'Register of parks and gardens of special historic interest in England' and a separate 'Register of historic battlefields'. Although these designations bring no additional statutory controls, they contribute to landscape value as well as being heritage assets which are protected through national policy. National policy also requires local authorities to make provision for the protection of the historic environment in their policies and their allocation of resources.

Wales

A3.4.8 Historically, Wales shared most of the legislation and guidance relevant to landscape with England, notably the National Parks and Access to the Countryside Act 1949. The statutory landscape designations that apply in Wales are therefore the same as in England: National Parks, which are valued for their 'natural beauty and recreational value', and AONBs, valued for their 'outstanding distinctive landscape character and natural beauty'. In Wales, National Parks and AONB authorities are legally required to produce a management plan which sets out the Special Qualities of the area and policies to conserve and enhance the natural beauty of the designation. As set out in Planning Policy Wales, National Parks and AONBs are of equal status in terms of landscape and scenic beauty, and must both be afforded the highest status of protection from inappropriate developments.

A3.4.9 In 2014 Welsh Government commissioned a Review of Designated Landscapes and the 'Marsden Report' was published the following year. The review concluded in 2018 with Welsh

[30] The term 'natural beauty' is enshrined in the 1949 Act. The 1949 Act did not define what 'natural beauty' actually meant. Since then, its meaning has been clarified and interpreted through a series of studies, guidance documents, Secretary of State Decision letters, an Appeal Court judgement and public inquiries. Some clarification has also been provided through legislative amendments to the 1949 Act, e.g .NERC Act 2006 Section 99. Today, it is understood that natural beauty goes well beyond scenic or aesthetic value: it is to do with the relationship between people and place, and encompasses everything - 'natural' and human - that makes an area distinctive.

Governments response: 'Valued and Resilient' (Welsh Government, 2018). This sets out Welsh Governments priorities for the National Parks and AONBs in Wales.

A3.4.10 Non-statutory landscape designations valued at a national level include Heritage Coasts, which represent the most scenically outstanding stretches of undeveloped and unspoilt coast in Wales. Cadw, the historic environment service of the Welsh Government, in partnership with Natural Resources Wales (NRW) and the International Council on Monuments and Sites (ICOMOS UK) compiled (in 2014) a Register of landscapes of outstanding or special historic interest in Wales. This is a non-statutory register, 'intended to provide information and raise awareness of an initial selection of the most important and significant historic landscape areas in Wales in order to aid their protection and conservation'.[31]

Scotland

A3.4.11 Scotland's two National Parks (Loch Lomond and The Trossachs National Park and the Cairngorms National Park) are designated under the National Parks (Scotland) Act 2000. Scotland also has National Scenic Areas (NSAs), designated as *'areas of outstanding scenic value in a national context'*[32], and broadly equivalent to AONBs in England and Wales. NSAs were first described in 'Scotland's Scenic Heritage' (CCS 1978) and have been recognised within the planning system since 1980. As explained on the Scottish Government's website[33], in 2010, Scottish Ministers issued directions to local authorities under provisions in section 263A of the Town and Country Planning (Scotland) Act 1997 (inserted by section 50 of the Planning etc. (Scotland) Act 2006) to designate the current suite of NSAs. The NSAs include areas of landscape described variously on the [redacted] website as 'spectacular, dramatic, picturesque and richly diverse'.

A3.4.12 Wild land is not a statutory designation but the third National Planning Framework (NPF3, 2014) 'recognises wild land as a nationally important asset and indicates that Scotland's wildest landscapes merit strong protection'. NatureScot has identified 'wild land areas' – nationally important extensive areas of semi-natural landscapes that show minimal signs of human influence.[34] Historic Environment Scotland maintains the Inventory of Gardens and Designed Landscapes and the Inventory of Historic Battlefields. The cultural significance of sites can be taken into account in the planning process.

Northern Ireland

A3.4.13 In 2015, a new two-tier planning system came into force under the Planning Act (Northern Ireland) 2011. It introduced a sharing of planning responsibilities between eleven Councils and the Department for Infrastructure (DfI). The new planning system involved a move away from a suite of Planning Policy Statements (PPS) to a single Strategic Planning Policy Statement (SPPS 2015). However, a transitional period is in operation until local authorities adopt their Local Development Plans (LDPs). The Department of Agriculture, Environment and Rural Affairs (DAERA) has two Executive Agencies, namely Northern Ireland Environment Agency (NIEA) and Northern Ireland Forest Service.

A3.4.14 The main legislative basis for DAERA NIEA in relation to landscape and amenity protection is the Nature Conservation and Amenity Lands Order (NI) 1985 (NCALO). Through this, the former Department of the Environment for Northern Ireland (DOE NI) designated the seven landscape areas with the highest amenity value as Areas of Outstanding Natural Beauty (AONB), although the Lagan Valley AONB remains designated under an earlier act, The Amenity Lands Act 1965.

A3.4.15 'Shared Horizons' (2003) is the former DOE NI's Statement of Policy on Protected Landscapes, relating to the protection and sustainable use of Northern Ireland's finest landscapes. Such areas are usually recognised by some form of designation, which sets them apart from the wider countryside. Whilst the only designation currently in use in Northern Ireland to identify areas of high landscape

[31] https://lle.gov.wales/catalogue/item/RegisteredLandscapesOfOutstandingHistoricInterestInWales/?lang=en

[32] Planning etc. (Scotland) Act 2006 2006 asp 17.

[33] [redacted]

[34] [redacted]

quality is that of Area of Outstanding Natural Beauty (AONB) provision has been made for the potential designation of National Parks in future.[35]

A3.5 Local landscape designations

England

A3.5.1 England has seen a rise and fall in the use of local landscape designations over the years. In line with the Town and Country Planning Act 1968, many county councils adopted some form of non-statutory landscape designation when preparing their structure plans. Local designations had various names such as Areas of Great Landscape Value, Special Landscape Areas, Areas of Special Landscape Value, Undeveloped Coast and Coastal Preservation Areas.

A3.5.2 In 2004 national guidance in Planning Policy Statement (PPS 7): Sustainable development in rural areas (ODPM 2004) (now cancelled and superseded by the National Planning Policy Framework (NPPF 2019)) advised local planning authorities only to rely on statutory designations when seeking to conserve 'specific features and sites of landscape, wildlife and historic or architectural value'. Paragraph 25 stated that 'Local landscape designations should only be maintained or, exceptionally, extended where it can be clearly shown that criteria-based planning policies cannot provide the necessary protection'. This resulted in a decline in the use of local landscape designations in England, and in many places they were replaced by criteria-based local plan policies linked to local landscape character assessments.

A3.5.3 NPPF paragraph 171 requires development plans to 'distinguish between the hierarchy of international, national and locally designated sites'; but does not make any specific reference to local landscape designations. However, national Planning Practice Guidance (PPG) Paragraph: 036 [Reference ID: 8-036-20190721] makes it clear that strategic policies should provide for the conservation and enhancement of landscapes and that this can include locally designated landscapes. The NPPF also enables land to be designated as a 'Local Green Space' through local and neighbourhood plans – these are areas that are special to a local community or have particular local significance, for example because of their beauty, historic significance, recreational value, tranquillity or richness of wildlife.

A3.5.4 Future changes in the planning system are proposed in the Government's draft planning white paper: *Planning for the Future* (2020), but it is not yet clear how 'valued landscapes' may be interpreted within the proposed categories of 'growth', 'renewal' and 'protected' areas.

Wales

A3.5.5 Since the establishment of the Welsh Assembly Government in 1999, and following the 2011 referendum and the Wales Act 2017, Wales has been developing its own regulatory framework for landscape. Planning Policy Wales (PPW10 2018) currently sets the context for planning in Wales. Para 6.3.3 explains that 'all the landscapes of Wales are valued for their intrinsic contribution to a sense of place'.

A3.5.6 PPW10 supports local landscape designations and advises (para 6.3.11) that 'Planning authorities should provide for the conservation and, where appropriate, enhancement of local landscapes. This may include policies for landscape features, characteristics and qualities of local significance, and the designation of Special Landscape Areas (SLAs). Planning authorities should state which features, characteristics or qualities require extra protection, and explain how the policy or designation will achieve this protection'. Special Landscape Areas (SLAs) in Wales are non-statutory local landscape designations used by some local authorities to define areas of high landscape importance and to provide for their conservation and enhancement through policies in their local plans and supplementary guidance. SLAs are defined using LANDMAP, and mainly include landscape areas evaluated as Outstanding and High (of national or county importance). In June 2020, 17 local authorities out of 22 had SLAs linked to a local policy plan.

A3.5.7 LANDMAP is the all-Wales GIS based landscape resource that records and evaluates landscape characteristics, qualities and influences on the landscape for the purposes of landscape assessment. LANDMAP Guidance Note 1 (Natural Resources Wales, 2017) sets out an approach for defining Special

[35] https://www.daera-ni.gov.uk/articles/shared-horizons

Landscape Areas (SLAs). These may be designated for 'their intrinsic physical, environmental, visual, cultural and historical importance, which may be considered unique, exceptional or distinctive to the local area'. They should be 'important for their distinctive character, qualities and sense of place'.

Scotland

A3.5.8 National policy in Scotland is set out in NPF3 and Scottish Planning Policy (SPP 2014). SPP states that the planning system should 'facilitate positive change while maintaining and enhancing distinctive landscape character' (paragraph 194), and the ELC is listed as a key document. Paragraph 197 advises that 'Planning authorities are encouraged to limit non-statutory local designations to areas designated for their local landscape or nature conservation value: the purpose of areas of local landscape value should be to safeguard and enhance the character and quality of a landscape which is important or particularly valued locally or regionally; or promote understanding and awareness of the distinctive character and special qualities of local landscapes; or safeguard and promote important local settings for outdoor recreation and tourism'.

A3.5.9 Local Landscape Area (LLA) designations (previously Special Landscape Area; prior to that a variety of names was used), are used in local development plans across Scotland. NatureScot and Historic Environment Scotland (2002) jointly published *Guidance on Designating Local Landscape Areas* (LLAs) is a revised and updated version of guidance originally produced in 2006). This is intended primarily for local authorities to use in taking forward their own designation process. The guidance acknowledges that local landscape designations are a valuable tool in the development plan toolbox and outlines the process for designating new LLAs and refreshing existing designations.

Northern Ireland

A3.5.10 Planning Policy Statement 2 (PPS2 2013) sets out policies for the conservation, protection and enhancement of Northern Ireland's natural heritage. Local authorities are responsible for zoning a variety of landscape related areas as part of their Local Development Plan process. The designations that may be used for local landscapes include Local Landscape Policy Areas (LLPAs) and Areas of High Scenic Value (AoHSVs), although Areas of Townscape Character (ATCs), Areas of Village Character (AVCs) and Countryside Policy Areas (CPAs) may also be designated.

A3.5.11 Planning Policy Statement 6 (PPS6 1999) explains that 'Environmental assets, identified as part of the process of Countryside Assessment, will normally form the basis for the designation of local landscape policy areas. These consist of those features and areas within and adjoining settlements considered to be of greatest amenity value, landscape quality or local significance and therefore worthy of protection from undesirable or damaging development'.

A3.5.12 The Department of the Environment's 'Strategic Planning Policy Statement for Northern Ireland' (SPPS 2015), which will supersede PPS6, highlights Local Landscape Policy Areas (LLPAs) stating that Local Development Plans should, where appropriate, designate LLPAs and bring forward local policies and guidance to maintain the intrinsic landscape, environmental value and character of such areas.

A4 (Appendix 4) The valued landscape 'policy test' in England

A4.1 2012 National Planning Policy Framework (NPPF)

A4.1.1 In 2012, the first version of the NPPF was published. It included a policy (paragraph 109) which stated that 'The planning system should contribute to and enhance the natural and local environment by: [inter alia] protecting and enhancing valued landscapes'.[36] No definition of a 'valued landscape' was given in the NPPF[37]. Planning Practice Guidance paragraph 036 Ref ID:036-20190721 provides advice on the use of policies for landscapes of a particular local value but there is no guidance on how to identify such landscapes.

A4.1.2 The term valued landscape appears in the 2002 landscape character assessment guidance and in the title of GLVIA3 Box 5.1 ('Range of factors that can help in the identification of valued landscapes') which was published in 2013. However, the reference in GLVIA is a quote from the 2002 guidance and not a response to the use of the term 'valued landscapes' in the 2012 NPPF.

A4.1.3 Following the 2012 NPPF the identification of 'valued landscapes' took on a new level of significance in planning appeals. Methods used to identify 'valued landscapes' in the context of the NPPF began to emerge, based on evidence presented by expert landscape witnesses at inquiry, Inspectors'/Secretary of State's decisions, and court judgements. The evolution of approaches to the identification of 'valued landscapes' is summarised in **Appendix A5.** The 'preferred' approach that has emerged is based on the value factors set out in GVLIA3 Box 5.1.

A4.1.4 One particularly influential judgment[38] accepted an approach which identified whether a landscape had sufficient 'demonstrable physical attributes' to take it beyond 'ordinary landscape'. This judgment also found that the 2012 NPPF was clear that 'designation' and 'valued' in relation to landscapes do not mean the same thing. Although this approach is still widely accepted the particular term 'demonstrable physical attributes' is not used in this TGN because it can be misunderstood as focusing exclusively on physical factors and excluding the perceptual and associative factors that may contribute towards the value of a landscape.

A4.2 2018/9 NPPF

A4.2.1 In July 2018, the NPPF was revised, and the 2012 'valued landscape' paragraph 109 was transposed, with modifications, to paragraph 170. The NPPF was revised again in February 2019[39] but paragraph 170 remained unchanged. There is still no definition of 'valued landscapes'.

A4.2.2 Paragraph 170 a) qualifies the term 'valued landscapes' as follows (qualification underlined): 'Planning policies and decisions should contribute to and enhance the natural and local environment by:

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[36] Planning Policy Statement 7 Sustainable Development in Rural Areas P24 introduces the idea of valued landscapes which can be protected via of criteria-based policies rather than local designations.

[37] The Landscape Institute is aware of the lack of clarity regarding the expression 'valued landscapes'. The LI drew attention to this wording in a response to the government consultation on the draft NPPF 2012, and again on the draft revised NPPF 2018 (in 2017). The LI continues to respond to all relevant government consultations, in particular those issued by MHCLG and DEFRA. The LI uses these invitations to comment and draw attention to any perceived lack of clarity or inconsistencies in the text of consultation drafts, making suggestions for revised wording where appropriate.

[38] Stroud DC v SoSCLG [2015] EWHC 488 (See Appendix 2 for further discussion of this judgement).

[39] The current consultation draft of a proposed revision to the NPPF (2020) does not include any changes to the wording of paragraph 170.

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (*in a manner commensurate with their statutory status or identified quality in the development plan*)'.

A4.2.3 The precise meaning of *in a manner commensurate with their statutory status or identified quality in the development plan* has been the subject of much debate, especially at planning inquiries, since 2018. **Appendix A5** refers to a number of decisions relating to its interpretation which provide an indication of the issues inspectors have considered to be relevant in the light of this qualification. However, there is no consensus on the meaning of the qualification and the interpretation of policy intentions and meanings can only be determined by the Courts. At the time of writing there have been no court judgments, post the 2018 revision, that have addressed the issue of 'valued landscapes'.

A4.2.4 This Appendix sets out the Landscape Institute's guidance on how landscape professionals should identify 'valued landscapes' and in particular how landscape professionals might interpret the phrase 'in a manner commensurate with their statutory status or identified quality in the development plan'. It is intended to:

- *guide landscape professionals undertaking landscape assessments in England, so that their judgments about landscape value are based on a transparent and structured approach such as the one set out in Table 1 above; and*
- *assist decision-makers in England who have to interpret and balance the judgments made by different landscape professionals.*

Statutory status

A4.2.5 The interpretation of the phrase 'in a manner commensurate with their statutory status' is relatively straightforward. Where a landscape has a statutory status, such as a National Park or AONB, it is self-evident that it is a valued landscape[40]. The great weight that should be given to conserving and enhancing landscape and scenic beauty in nationally designated landscapes is set out at NPPF paragraph 172 and relates to the statutory requirements with regard to natural beauty and (for National Parks only) the opportunities afforded for open-air recreation. Paragraph 170 a) does not alter those requirements.

Identified quality in the development plan

A4.2.6 The interpretation of 'identified quality in the development plan' is not clear. There are two fundamentally different interpretations that have been adopted by inspectors, which are considered below in more detail:

1. It means non-statutory, locally designated landscapes;
2. It means any landscape where there is evidence to justify the identification of a 'valued landscape'. Local designation alone may not be sufficient evidence.

In both cases it is assumed that the word 'quality' means degree of excellence.

Locally designated landscape

A4.2.7 The phrase 'identified quality in the development plan' was interpreted by one inspector as meaning a locally designated landscape. This interpretation was accepted by the Secretary of State, although the acceptance was implicit not explicit.[41] However, this interpretation has not been adopted by subsequent inspectors who have identified problems with this approach, in particular:

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[40] In cases where a particular area within a National Park or AONB may not demonstrate the level of quality expected of its designation status, this does not mean that its value is diminished. Such an area is still a component of the nationally designated area with the characteristics associated with the park or AONB as a whole, and the aim should be to bring it back or much closer to the quality and character of the wider designated area so that it can be a positive contributor to the statutory purpose (to conserve and enhance the area's natural beauty).

[41] App 3197293 Pods Brook Road, Braintree, Essex (June 2019).

- *that many planning authorities, following previous policy guidance,[42] no longer have local landscape designations; and*

- *that some local designations do not have an underlying evidence-base.*

A4.2.8 At least one inspector has disagreed with the interpretation that any locally designated landscape must automatically be a valued landscape because in that case the parties agreed there was no evidence base to support the designation.[43]

Development plan policy support

A4.2.9 Many inspectors have continued to consider evidence presented to support the identification of a 'valued landscape' whether a local landscape designation exists or not. Evidence that has been used in reaching judgements about whether a landscape should be considered to be a valued landscape includes:

- *factors that are generally agreed to influence landscape value as set out in GLVIA3 Box 5.1;*

- *the presence of qualities in the landscape that are identified in the development plan (which includes neighbourhood plans) as requiring protection, such as in policies that require development to respect key aspects of a local landscape identified in the local landscape character assessment; and*

- *when a local designation exists, whether the landscape in question demonstrates the landscape qualities that are identified as important for that designation.*

A4.2.10 The Landscape Institute supports the evidence-based approach. The Landscape Institute does not consider that planning authorities which removed local designations following previous policy guidance, or those which never had local landscape designations, should be considered to have no 'valued landscapes' outside nationally designated areas.

A4.2.11 Where a landscape has a statutory status, it will not be necessary to undertake an assessment based on Box 5.1 of GLVIA3 or the factors identified in Table 1 of this TGN. It may also be unnecessary where a local designation is supported by a strong evidence base. However, where there is little published evidence to support existing local landscape designations, an assessment based upon these factors would be helpful to support planning decision making.

Valued landscape definition

A **'valued landscape'** is an area identified as having sufficient landscape qualities to elevate it above other more everyday[44] landscapes.

A4.2.12 Where possible the development plan should be referenced to support the value placed on the landscape. Where the development plan is silent, evidence should be provided in the form of professional analysis. Key points to note are as follows:

- *It is not possible to set a definitive threshold in this TGN above which a landscape is considered to be a 'valued landscape'. It is a judgment that must be made on a case-by-case basis, based on the evidence. There should be a weight of evidence that supports the recognition of a landscape as valued above more everyday landscapes.*

- *The character and quality of landscapes across England are variable and what may be defined as reaching the 'valued landscape' threshold/criteria in one part of the Country may be considered to be an 'everyday landscape' in another.*

- *It would be expected that a 'valued landscape' would demonstrate the presence of a number of indicators of landscape value, as set out in Table 1, although it is possible for one indicator to be of*

[42] Planning Policy Statement (PPS 7): Sustainable development in rural areas (ODPM 2004) – see Appendix A3.
[43] App 3215534 Tuffs Road and Maple Way, Eye, Suffolk (March 2020) The local plan policy was based on an old structure plan and the parties agreed there was no evidence base for that.
[44] 'Everyday' landscapes may nevertheless have value to people.

*such importance (e.g. rarity, association or perceptual aspects) that the landscape is judged to be a **'valued landscape' even if other indicators are not present.***

- *The identification of landscape value needs to be applied proportionately ensuring that identification of 'valued landscape' is not over used.*
- ***In line with the ELC's approach, landscapes that are not judged to be 'valued landscapes' may still** have value, and NPPF paragraph 170 b) requires planning policies and decisions to recognise the intrinsic character and beauty of the countryside. It is well-established that a landscape does not **have to be a 'valued landscape' to be afforded protection from inappropriate development (see Appendix A5**).*

A5 (Appendix 5) Inspectors' decisions and case law in relation to the interpretation of 'valued landscapes' in the National Planning Policy Framework (NPPF) in England

A5.1 Introduction

A5.1.1 This Appendix summarises how inspectors' decisions and case law have dealt with the interpretation of 'valued landscapes', first set out in Paragraph 109 of the NPPF 2012 which referred to 'protecting and enhancing valued landscapes'. This was subsequently updated in Paragraph 170 of the revised NPPF 2018 (with the addition of the qualifying phrase 'in a manner commensurate with their statutory status or identified quality in the development plan') and carried forward to the 2019 NPPF.

A5.1.2 The aim of this Appendix is to demonstrate some of the permutations of the arguments and evidence presented in relation to valued landscapes. Planning appeal decisions, by Inspectors and the Secretary of State, must be read as a whole to understand the full context of decisions, noting that Appeal decisions are made independently and on the basis of the evidence before the Inspector or Secretary of State at that time. Interpretation of policy intentions and meanings can only be determined by the Courts.

The 'Stroud Judgement'

A5.1.3 The 'Stroud' Appeal decision in 2014 is of significance because it became the subject of the first definition of 'valued landscape' (in relation to Paragraph 109 of the NPPF) by the courts. An Appeal was made by Gladman Developments Ltd against Stroud District Council's refusal of planning permission for 150 houses at the foot of the escarpment to the Cotswold Hills (Appeal reference APP/C1625/A/13/2207324). In his decision, the Inspector acknowledged that there was no agreed definition of 'valued' as used in Paragraph 109 of the NPPF and that in the absence of any formal guidance on the point, he considered that to be valued would 'require the site to show some demonstrable physical attribute rather than just popularity'. He went on to say that 'In the absence of any such designation, I find that paragraph 109 is not applicable to the appeal site' (Paragraph 18). In this instance, the Inspector found that the site was not a 'valued landscape' and allowed the Appeal.

A5.1.4 Stroud District Council challenged the Inspector's decision (summarised above) in the High Court on four grounds including the Inspector's approach to valued landscape. During the hearing between Stroud District Council and the Secretary of State for Communities and Local Government & Gladman Developments Limited, the Council suggested that the Inspector equated valued landscape with designated landscape. In his judgement (dated February 2015) Mr Justice Ouseley stated that if the Inspector had concluded that designation was the same as valued landscape he would have been wrong because in the NPPF, 'the word "designation" is used when designation is meant and "valued" is used when valued is meant and the two words are not the same'. Mr Justice Ouseley then considered whether the Inspector really meant that he equated designation with valued landscape and concluded that he did not. He judged that the Inspector knew that designation was not the start and finish of the debate. He concluded that '. . . in the end I am satisfied that the Inspector did not make that error. In particular, the key passage is in the third sentence of paragraph 18, in which he said that the site to be valued had to show some demonstrable physical attribute rather than just popularity' (Paragraph 14).

A5.1.5 In Paragraph 16 of the judgment he explains the Inspector's reasoning: 'It is not difficult to see that the sort of demonstrable physical attributes which would take this site beyond mere countryside, if I can put it that way but into something below that which was designated had not been made out in the Inspector's mind'.

Demonstrable physical attributes

A5.1.6 Following this judgment a number of Inspectors have considered the issue of what constitutes a valued landscape by reference to 'demonstrable physical attributes' that take the landscape beyond ordinary countryside and this phrase was taken as a general principle by many. However, in a later judgement (CEG Land Promotions II Lts v SoS HCLG 2018 EWHC 1799), Mr Justice Ousley made it clear that he was not laying down any general principles when he concluded that it was reasonable for an Inspector to look for such demonstrable physical attributes in reaching a conclusion on valued landscape (Paragraph 58).

The role of the site in the wider landscape

A5.1.7 When assessing landscape value, there has been a growing consensus regarding the importance of looking at the role that a site plays in the wider landscape and not limiting the assessment to the site itself. The Inspector for APP/Z1510/W/16/3160474 (West Street, Coggeshall, July 2017) concluded at Paragraph 30 of her decision as follows:

> 'Whilst the Framework paragraph 109 test based on the Stroud case (which I shall consider later) refers to "this site" I consider that it would be too narrow to just consider the appeal site. A site might have a variety of characteristics but, taken in isolation, for some sites it would be difficult to assess whether those characteristics have any particular value or importance. Moreover, a site might be important because of its position in the landscape as part of it rather than being important in its own right, rather like the pieces of a jigsaw puzzle. Further, as my colleague in the Nanpanton Road appeal sets out, the interactions between people and place are important in the perceptions of landscape and people will perceive the site in a wider context'.[45]

A5.1.8 While this decision pre-dates the amendment of the NPPF, its approach to assessing landscape value remains relevant.

Does a lack of local landscape designation preclude the presence of a valued landscape?

A5.1.9 An Inspector in his report for Appeal 3197293 (Pods Brook Road, Braintree, Essex) concluded that 'A straightforward reading of paragraph 170(a) does not lead to the view that there are other categories of valued landscape (which are not statutorily designated or identified in a development plan)'[46] and he equated this with some form of protection in the development plan. This interpretation was accepted by the Secretary of State, although the acceptance was implicit not explicit. However, this interpretation has not been adopted by other inspectors as set out in the following paragraphs.

A5.1.10 An inspector in a decision letter for APP 3200335 (Watlington Road, Lewknor) made clear that he considered the lack of a local landscape designation should not preclude the presence of a valued landscape: 'It would be wrong in my view to conclude that a landscape cannot be considered as valued simply because it was not identified in a development plan formulated at a time when no such requirement existed'.[47]

A5.1.11 In this instance the inspector was not persuaded that the landscape in question was a 'valued landscape' but this judgement was based on the evidence the parties had put to him about the value of the landscape rather than lack of a local designation.

A5.1.12 In relation to App 3207509 (Land off Colchester Road, Bures Hamlet) the Inspector concluded 'Neither, having regard to Paragraph 127, do I consider that the exhortation to protect and enhance "valued" landscapes is necessarily limited to landscapes that have either a statutory designation or a local designation in the development plan' (Paragraph 21). In this case an evaluation for potential

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[45] APP 3160470 West Street Coggeshall Inspector Hill Paragraph 30 2017

[46] Appeal 3197293 Pods Brook Road, Braintree, Essex Inspector Clegg Paragraph 185 June 2019

[47] APP 3200335 Watlington Road, Lewknor Inspector Baugh-Jones Paragraph 40 January 2019

extension of the Dedham Vale AONB to include the land in question had been undertaken and so there was a detailed evidence base to demonstrate landscape value despite the lack of designation.

A5.1.13 In relation to App 3214324 (Poplar Hill, Stowmarket, August 2019) the inspector concluded that the development would harm a valued landscape even though the site was not located within a nationally or locally designated area. Additionally, it was in a district that still had local landscape designations. The inspector was concerned with the harm that would arise to features in the landscape surrounding the appeal site as a consequence of development on the appeal site, stating:

> 'Although the site is not recognised in published documents as an exemplary or outstanding component of the Suffolk landscape and its development would in some ways be consistent with characteristic patterns of development along valley sides, the appeal proposal would compromise the appreciation of sufficiently impressive examples of other characteristic features of the landscape as to cause an unacceptable effect on the landscape character and appearance of the area. These characteristic features are Combs Wood and St Mary's Church both of which have statutory status and so would qualify the landscape to be regarded as valued, to be protected and enhanced in terms of NPPF paragraph 170(a)'.[48]

Implication of the NPPF wording for local landscape designations?

A5.1.14 There has been some speculation as to whether the addition of the qualifying phrase 'in a manner commensurate with their statutory status or identified quality in the development plan' to the 2018 version of the NPPF (and carried forward to the February 2019 version) will result in a resurgence of local landscape designations. In his decision letter, the Inspector for App 3207509 (Land off Colchester Road, Bures Hamlet) concluded:

> '22. The Framework does not provide a definition of a valued landscape. However, *I consider it improbable that the addition of the words in brackets to paragraph 170(a) which occurred in July 2018 was intended to encourage policy makers to revive the practice of creating local "Special Landscape Areas" or similar designations in development plans* as a means of identifying a valued landscape. Previous advice had sought to discourage such designations in favour of landscape character assessment which would identify the distinctive and valued qualities of landscapes'[49] (emphasis added).

A5.1.15 Other inspectors suggest the local plan process is the proper forum for landscape value to be considered and for designations to be made. For example, the inspector for App 3200409 (Old Street, Stubbington, January 2019) concluded:

> '30 a . . . the landscape is not specifically recognised for its quality in the current development plan. This is because local landscape designations fell from favour in national planning policy. Previously, the Lower Meon Valley had been identified as an Area of Special Landscape Character.
>
> 31. *In view of para 170 the matter of landscape value will no doubt be considered through the emerging Local Plan process. That is the proper forum for any designation to be made.* However, until that time it is difficult to understand why there would be a change in terms of intrinsic value'[50] (emphasis added).

If a landscape is not a 'valued landscape' can it still have value?

A5.1.16 At the appeal in relation to Bayley Gate Farm, College Road, Cranfield Appeal 3190779 neither the council's nor the appellant's landscape architect considered that the site was a valued landscape. Nevertheless, the inspector concluded that this did not mean it had no value, stating:

> 27. 'The site does not form a valued landscape for the purposes of paragraph 109 of the National Planning Policy Framework (the Framework), a position accepted by both parties. *That however does not mean that it has no value* and although it may not be rare or have significant conservation interest or have any known associations it is very representative of the wider landscape, has a pleasant and attractive scenic quality and is in good condition. Its arable

[48] App 3214324 Poplar Hill, Stowmarket Inspector Clark Paragraph 81, August 2019.
[49] App 3207509 Land off Colchester Road, Bures Hamlet, Inspector Mellor, Paragraph 22, March 2019.
[50] App 3200409 Land west of Old Street, Stubbington, Hampshire, January 2019.

nature, strong boundary hedge and tree treatment ensure that it, along with the surrounding fields, narrow country lanes, bridleway and public rights of way create a strong rural character'[51] (emphasis added).

[51] App 3190779 Bayley Gate Farm, College Road, Cranfield Inspector Stone Paragraph 27, July 2018.

Appendix C

Say No To Sunnica: Heritage Comments on D4 and D5 Submissions

Dr Richard Hoggett FSA MCIfA (Heritage Consultant, Richard Hoggett Heritage)

1. Introduction

1.1 This note sets out comments and additional information pertaining to the heritage-related content of documents submitted by Sunnica at Deadlines 4 and 5. The following documents are considered:

Deadline 4

- REP4-031: Sunnica 8.57 Appendix A Chippenham Park Historic maps
- REP4-036: Sunnica 8.62 Applicant's Response to Say No To Sunnica Action Group Ltd Deadline 2, 3 and 3A Submissions

Deadline 5

- REP5-014: Sunnica 6.2 Appendix 10I Landscape and Ecology Management Plan (Tracked) - Rev: 02
- REP5-052: Sunnica 8.46 Arboricultural Impact Assessment Report (Clean) / REP5-053: Sunnica 8.46 Arboricultural Impact Assessment Report (Tracked)
- REP5-056: Sunnica 8.71 Applicant's Response to ExA Second Written Questions
- REP5-057: Sunnica 8.72 Applicant's Response to Local Planning Authorities Deadline 4 Submissions
- REP5-059: Sunnica 8.74 Second Change Application
- REP5-060: Sunnica 8.76 Report on Current Status of Heritage Aspects of the RPG
- REP5-066: Sunnica 8.79 Sunnica Detailed Archaeological Mitigation Strategy

2. Deadline 4 Submissions

2.1 REP4-031: Sunnica 8.57 Appendix A Chippenham Park Historic maps

2.1.1 At the ExA's request following ISH2, Sunnica submitted these historical maps of Chippenham Park, but as they apparently contained confidential information access was restricted. It was subsequently indicated by Sunnica that they could not be released due to copyright issues. Copies of the historical mapping were provided to SNTS on request.

2.1.2 The submitted mapping contains a low-resolution reproduction of an estate map of Chippenham Park produced in 1712. Given the resolution and small scale of the image, no meaningful detail is able to be determined from it. No archive reference is given to the original map, but it is assumed to be part of the five-sheet series known as 'A survey of part of the manor or Lordship of Chippenham in the parish of Chippenham in the county of Cambridge', drawn in 1712, and held in the Cambridgeshire Record Office (K71/P/3/3–7).

2.1.3 The Estate Map is complemented by two sections of the 1842 tithe map, which are again reproduced at low resolution and small scale, such that details cannot be easily discerned. Although the label doesn't indicate it, the first is the 1842 tithe map of Chippenham, which shows details of the park and the northern part of the avenue (National Archives IR/30/4/19). The second is the tithe map of Snailwell, which shows the planting on the avenue and its relationship with the Limekilns (National Archives IR/30/4/62).

2.1.4 The fifth and sixth pages reproduce the Ordnance Survey 1-mile-to-6-inch maps from 1884, from which the northern extent of Chippenham Park and the southern extent of the avenue

are missing. Better coverage is provided by the First Edition of the Ordnance Survey 1-mile-to-25-inch series mapping, surveyed in 1884 and published in 1885, which is available online via the National Library of Scotland. To assist the Examination, static copies are included here as Appendix 1, and high definition zoomable versions of these maps can be accessed via these links:

[redacted]

2.1.5 The seventh and eighth pages reproduce the equivalent 1-mile-to-6-inch Ordnance Survey mapping from 1901. Again, better coverage is provided by the Second Edition Ordnance Survey 1-mile-to-25-inch series mapping, revised in 1901 and published in 1903, which is available online via the National Library of Scotland. To assist the Examination, static copies are included here as Appendix 2, and high definition zoomable versions of these maps can be accessed via these links:

[redacted]

2.1.6 The ninth and tenth pages reproduce the equivalent 1-mile-to-6-inch Ordnance Survey mapping from 1925. Better coverage is provided by the Third Edition Ordnance Survey 1-mile-to-25-inch series mapping, revised in 1925 and published in 1926, which is available online via the National Library of Scotland. To assist the Examination, static copies are included here as Appendix 3, and high definition zoomable versions of these maps can be accessed via these links:

[redacted]

2.1.6 The eleventh and twelfth pages reproduce the 1-mile-to-6-inch Ordnance Survey mapping from 1950, for which there is no larger scale equivalent freely available online.

2.1.7 The historical mapping described above has been submitted without commentary or references, but an interpretation of the content of the mapping is included in the Deadline 5 REP5-060: 8.76 Report on Current Status of Heritage Aspects of the RPG, the content of which is considered below.

2.2 REP4-036: Sunnica 8.62 Applicant's Response to Say No To Sunnica Action Group Ltd Deadline 2, 3 and 3A Submissions

2.2.1 The Cultural Heritage section (2.10) of this document contains very little which is new, just the restating of the content of the original ES. However, there is omission of the direct impact of the proposals crossing the avenue at Chippenham Park. It is noted that the documents submitted at Deadline 5 indicate that this impact has subsequently been removed.

2.2.2 **Deadline 2 WR + Heritage Impact Assessment:** This section acknowledges that SNTS and the Sunnica agree on certain impacts and disagree on others, but in general only really restates the original argument put forward in the ES on points of disagreement. There is nothing new introduced here by the applicant.

2.2.3 The applicant acknowledges the 'moderate (significant) effect' which the development will have on the scheduled barrow group within the Sunnica site, but only in the context of disagreeing with the SNTS assessment of a higher level of harm. The change in the current agricultural setting is acknowledged, but downplayed.

2.2.4 The applicant states that there will be 'no appreciation' of the scheme from the triumphal arches at the south of Chippenham Park, with which SNTS disagree and which can be tested in-person during the next ASI.

2.2.5 Regarding Waterhall Farm, the applicant states that 'the retention of field boundaries will maintain the wider agricultural landscape, albeit with a change of character', which is a rather contradictory premise. If an agricultural landscape is taken out of agricultural production, it is no longer of agricultural character.

2.2.6 Regarding Chippenham Park, the applicant acknowledges that the proposal will result in a moderate (significant) impact, and reiterates that the impact will be upon the setting, not the designated area. The applicant makes no mention of the proposed crossing of the avenue with cables and tracks, or the felling of the trees, all of which are direct impacts on the designated monument itself. It is noted that the ExA requested further details on this issue and that a fuller assessment of Chippenham Park was submitted at Deadline 5, and this is considered below.

2.2.7 Regarding the impact on the Snailwell Roman Villa, the applicant states that this will be removed by the removal of Sunnica West Site B from the scheme, and I agree. The formal notification of these changes to the scheme was submitted at Deadline 5 and is considered below.

2.2.8 Regarding the Limekilns, the applicant acknowledges 'heritage interest' but highlights that they are not officially designated. SNTS have argued that the Limekilns are a non-designated heritage asset (REP2-240c). The applicant states that the historic interest in the Limekilns is derived from their association with the wider horseracing heritage of Newmarket and not as a standalone heritage asset, and that overall impact should be assessed only in the context of impact on the wider racing industry. SNTS disagree with this position, and consider that the Limekilns are significant in their own right as a landscape feature created for a specific purpose and actively managed for some 300 years. The connection with Newmarket's world-class horseracing industry adds to the significance of the Limekilns, but is not the sole reason for it. We look forward to discussing this issue more fully at ISH4.

2.2.9 The applicant makes no mention in their response to our discussion of the impact on the Isleham crash site, although this issue is considered in the latest change request and was discussed at ISH2.

2.2.10 Finally, the applicant notes that we and they agree that all harm is 'less than substantial' in planning terms, but with varying degrees of severity identified by them and us.

2.2.11 **Deadline 3A – Comments on Applicant's Responses to ExQ1:** We welcome the applicant's acknowledgement than an Historic Environment Management Plan will be prepared, and note that a draft was submitted at Deadline 5. SNTS continue to support the LPAs' position on this issue.

2.2.12 **Deadline 3 – Comments on Local Impact Report – Required Mitigation:** The applicant acknowledges that harm has been reduced as much as possible by mitigation and cannot be reduced further. They now depend upon the application of the planning balance against the public benefit of the scheme. We do not consider this to be an appropriate approach to heritage mitigation. More could have and should be done to mitigate actively these impacts via appropriate siting and design, rather than acknowledging the harm and stating that it can be off-set in the planning balance.

2.2.13 **Deadline 3 – Comments on Local Impact Report – Non-Designated Heritage Assets:** The applicant again sets out their approach to NDHA's and acknowledges that High Lodge (at the southern end of the Chippenham Park avenue) was considered and ruled out of further assessment. At time of writing, the building is being considered for local listing by the District Council.

2.2.14 **Deadline 3 – Comments on Local Impact Report – Archaeological Evaluation:** The applicant continues to work with the LPAs to agree a scheme of archaeological works, and SNTS continue to support the LPAs' position on this issue.

3. Deadline 5 Submissions

3.1 REP5-014: Sunnica 6.2 Appendix 10I Landscape and Ecology Management Plan (Tracked) - Rev: 02

3.1.1 SNTS welcome the submission of the Outline Historic Environmental Management Plan as Annex F of this document. This sets out details of ten Archaeological Protection Areas (APAs) within the wider scheme area which have been identified in consultation with the Historic Environment Teams for Cambridgeshire County Council, Suffolk County Council and Historic England.

3.1.2 It is noted that the HEMP also defines the extent of the 'Crash Site Protection Area' in E05 as a 50m x 50m box with the caveat 'subject to licence'. The applicant's approach to the management of the crash site was discussed at ISH2 and in follow-up submissions (REP4-121), and is considered more fully below in the content of Sunnica's Second Change Application submitted at Deadline 5 (REP5-059).

3.2 REP5-052: Sunnica 8.46 Arboricultural Impact Assessment Report (Clean) / REP5-053: Sunnica 8.46 Arboricultural Impact Assessment Report (Tracked)

3.2.1 Following discussion about the likely impact on the avenue of Chippenham Park, the updated AIA includes a new paragraph 6.1.4 which states that the tree-lined avenue to the south of Chippenham Park is part of the RPG and that it is understood to have originally comprised a

double line of beech trees. While many of the original beech trees are no longer present, a small number of mature beech are still present which may have formed part of the original avenue feature, together with some semi-mature and early mature beech.

3.2.2 The new paragraph 7.3.11 states that 'Impacts to trees which form part of the tree avenue within the Registered Park and Garden of Chippenham Hall will be avoided, either by micrositing the Scheme works around them, or through implementing HDD.'

3.2.3 The new paragraph 8.1.8 states that 'No trees are to be removed from the tree avenue which forms part of the Registered Park and Garden at Chippenham Hall.'

3.2.4 This recognition of the significance of the trees in the Chippenham Park avenue, and that some of the original trees survive, is welcomed. So, too, is the statement that no trees are to be removed from the avenue, be they original trees or otherwise. Any micrositing and / or Horizontal Directional Drilling will need to ensure that root networks are also avoided and that physical disturbance to the avenue itself is minimised.

3.3 REP5-056: Sunnica 8.71 Applicant's Response to ExA Second Written Questions

3.3.1 Question 2.4.1 required the submission of more information about the proposed cable route which crosses the Chippenham Park avenue and its likely impact on the existing trees and the proposed new planting. The applicant indicates that this has been submitted, but without providing references, and this is assumed to be the material discussed above as part of the updated Arboricultural Impact Assessment (REP5-052 & REP5-053) and Report on Current Status of Heritage Aspects of the RPG (REP5-060) considered below.

3.4 REP5-057: Sunnica 8.72 Applicant's Response to Local Planning Authorities Deadline 4 Submissions

3.4.1 Section 2.1 under 'Environment – Built Heritage' responds to the Councils' concerns regarding the impacts on Chippenham Park. It simply reiterates the same material set out in the Cultural Heritage section of the ES and signposts the new REP5-060 (Report on Current Status of Heritage Aspects of the RPG) considered below. The Applicant concludes that 'the Scheme results in less than substantial harm to heritage assets', but states that 'there is no heritage reason why parcels W03–W12 require removal from the Scheme'. This is a position which SNTS and the Councils do not agree with, as has been set out consistently in our various submissions to date.

3.4.2 The section on 'Non Designated Heritage Assets' simply restates the Applicant's approach to identifying and assessing NDHAs located outside Conservation Areas.

3.5 REP5-059: Sunnica 8.74 Second Change Application

3.5.1 This submission sets out changes to the proposed scheme, which had been flagged previously at Deadline 3A in REP3A-037 (Sunnica Update by the Applicant on Heritage Matters and Substation Connection) and discussed in part at ISH2.

3.5.2 **Sunnica West Site B:** The removal of Sunnica West Site B is proposed, although some of the site will continue to be used for the cable route. The applicant identifies that that change reduces the cumulative impact on the Snailwell Conservation Area which has its setting eroded by both Sunnica West Site A and B. The removal of Sunnica Site B will retain more of this setting. Their remains an effect from Sunnica West Site A which will be minor adverse.

3.5.3 The removal of Sunnica West Site B also removes the impact upon the historic setting of the Scheduled Roman Villa to the south-west and Roman settlement to the north of Sunnica West

Site B and significantly reduces direct the impact on below ground archaeology within Sunnica West Site B to the cable route of Grid Connection B only.

3.5.4 SNTS welcomes the removal of the Sunnica West Site B from the proposed scheme on heritage grounds, having previously commented on the harm which this part of the development caused to the Roman villa and its landscape and to the Snailwell Conservation Area (REP2-240c).

3.5.5 **Isleham Crash Site:** As part of Change 3, the crater for the B-50 Bomber which crashed at Isleham in 1949 is proposed to be excluded from the developable areas within E05. The exclusion zone will cover a 50m x 50m (0.25 ha) area centred on the crater. The Applicant states that this 'removes the impact upon below ground archaeological remains at the crash site in E05 (not identified in the ES Chapter 7 [APP-039])'.

3.5.6 SNTS are pleased that the Applicant has recognised the presence of the Isleham crash site and that they propose to exclude it from the development area. However, as was discussed at ISH2 and set out in SNTS post-hearing (REP4-121 Appendix D), SNTS consider that the applicant's proposed 50m x 50m exclusion area is inadequate. It barely covers the dimensions of the plane (which had a wingspan of 46m) and certainly does not cover the large scatter of crash-related debris located (but not identified as such) during the geophysical survey. The dimensions of the impact crater on the geophysical survey measure 15m x 10m, but the wider scatter which surrounds the crater measures at least 85m x 55m, well beyond the limits of the small exclusion area. We consider that the Applicant's proposed 'Expanded Exclusion Area', comprising a 100m-radius circle around the crash site, would be more appropriate irrespective of the outcome of the licence application on heritage-related grounds, but also for moral and ethical reasons, given the loss of life and the significance of the site to the local community.

3.6 REP5-060: Sunnica 8.76 Report on Current Status of Heritage Aspects of the RPG

3.6.1 While the material presented in this submission is welcomed, it should be noted that it has only been submitted at the request of the ExA and should have been included in the original ES and supporting documents. The report incorporates new desk-based and field-based survey by heritage specialists and an arboriculturist, which should have formed part of the original baseline assessment of the RPG and its environs and which should have informed the Applicant's original assessment of the impact on this designated heritage asset.

3.6.2 As discussed above, the Applicant admits that the proposed development will have an adverse effect upon the setting of the RPG, which in turn will harm its significance. However, the opening paragraph of this document states that focusses on the area of the RPG which lies within the boundary of Sunnica West A, that is, the avenue, and not the wider park. The report draws upon the historic mapping submitted at Deadline 4 (reproduced in the report without confidentiality issues) in order to attempt to understand the historical development of the avenue.

3.6.3 Section 1.2 sets out the historical development of the park and avenue in broad terms, but remains inconclusive on the original character and date of the avenue and the landscape within and surrounding the park. It is stated that the park has its origins in the 17th century and that the layout of the park is captured in the 1712 estate map, but it is also stated that this map provides no details of the land to the south of the park, where the principal entrance was then situated. This map, therefore, provides no evidence either way for the presence, absence or character of the avenue at this date, which is unhelpful.

3.6.4 Paragraph 1.2.2 states that John Tharp was responsible for the reorientation of the park to a new northern entrance in the late 18th or early 19th centuries, and that extensive tree planting was undertaken in and around the park. However, paragraph 1.2.3 states that the earliest cartographic depiction of the avenue dates from 1842, being the Chippenham and Snailwell tithe maps, and that the avenue did not extend all the way to the south lodges. This conclusion is likely to be erroneous and fails to take into account the fact that the maps in question post-date the 1712 estate map by some 130 years, during which time the orientation of the park was changed and the avenue presumably became less used. The fact that the depiction of the avenue spans two different tithe maps, with individual trees in the avenue depicted on the Snailwell map and no trees in the avenue depicted on the Chippenham tithe map, is also important. That the depicted break in the avenue planting coincides with the edges of these maps, which mark the parish boundary, is suggestive of different treatments of the planting in different parishes. More detailed analysis of the ownership and character of the fields traversed by the avenue would be illuminating, but is not included in the report.

3.6.5 Paragraph 1.2.3 states that the trees in the avenue were likely to be beech trees, of which some examples survive at Chippenham, although there is no supporting evidence beyond this and the possibility remains that other species were also planted as part of the avenue. The updated Arboricultural Impact Assessment has identified a number of Beech trees which consistent with the likely historic planting, interspersed with pine and ash, although only two examples are identified as being potentially associated with the original feature. The majority of specimens date to from the mid- to late 19th century and may represent a concerted replanting effort. These details are welcome, but again should have been submitted as part of the baseline assessment of the site and formed part of the ES. Ultimately, the Applicant describes the avenue as 'a feature of lesser historic significance contributing little to the overall significance of the designated asset' (para. 1.4.9), which SNTS consider underplays the significance and contribution of the avenue as part of the RPG.

3.6.6 Paragraph 1.4.6 reiterates the Applicant's position that the impact to the designated asset is therefore limited to changes within its setting, and in particular that this impact is restricted to changes around the avenue. In particular, the impact will be caused by the change of landscape character, which will be appreciable, although the Applicant states that the retention of boundaries preserves an understanding of the historic changes which have occurred within this landscape, and the low level of the scheme will preserve the openness of the landscape. They conclude that the harm comes from the change from a purely naturalistic character to one which incorporates modern infrastructure.

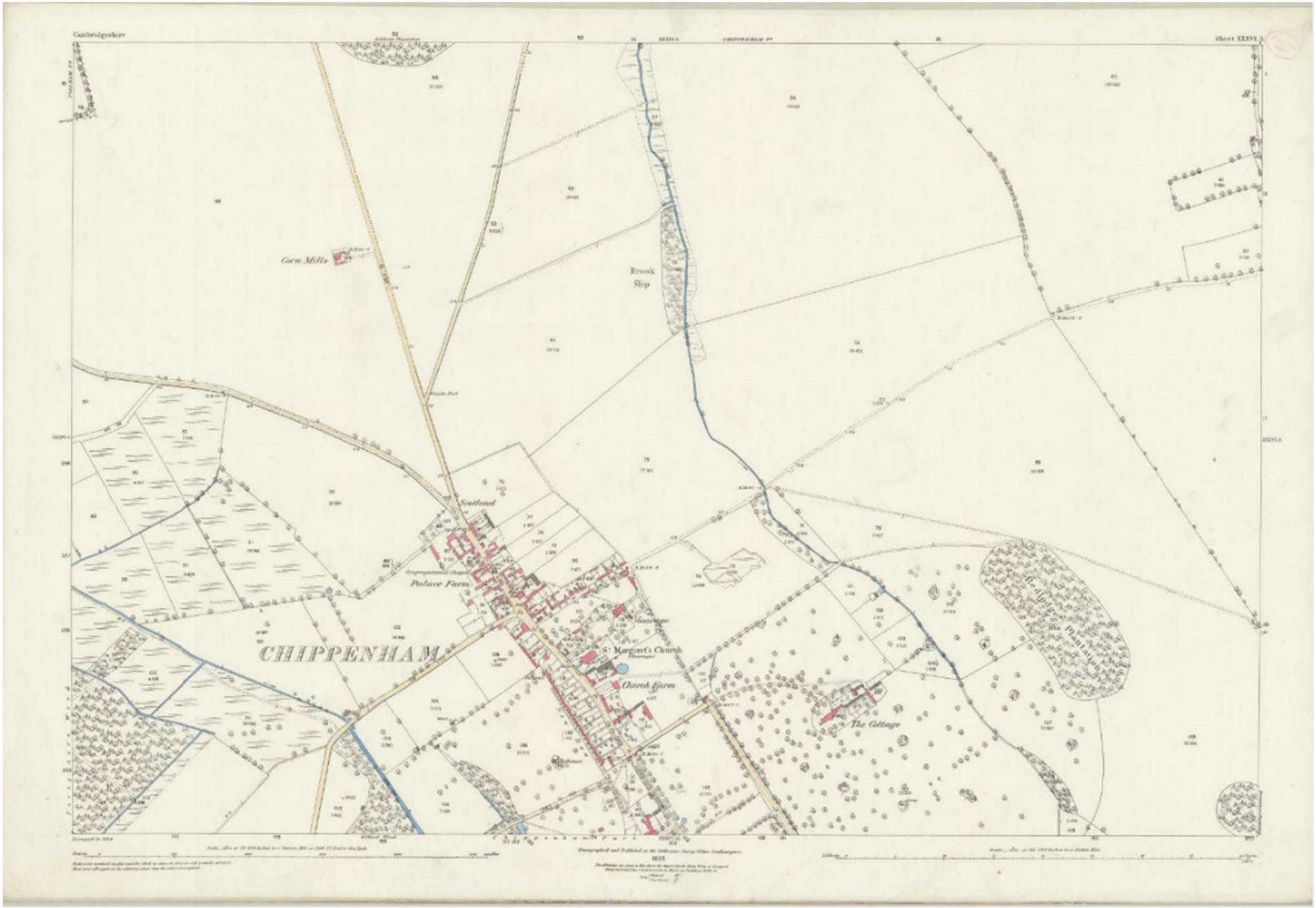
3.6.7 As was discussed at ISH2, the proposed development will have a detrimental impact upon the Grade II Chippenham Hall Registered Park and Garden, the majority of which lies immediately to the north of the Sunnica West Site A. The significance of the asset is derived from the park itself and the listed buildings within it, but is also derived from the surrounding landscape within which it is situated. As discussed at ISH2, it is important to consider that, although the park itself is an enclosed space, the exterior view of the park wall and the symbolic message which it conveys to those outside the park is an important part of its significance. The avenue, which formed the original 18th-century entrance to the park, was constructed in order to facilitate long views of the park in its surrounding landscape as those entering or leaving the park traversed its length. The avenue survives as a legible landscape feature, is part of the RPG and, therefore, makes a strong contribution to the significance of the park.

3.6.8 As the Applicant states, the proposed development will have a significant impact upon the character of the agricultural landscape which forms the setting of the RPG. The Applicant concludes that, even after the implementation of mitigation, the construction of the Sunnica West Site A will have a moderate adverse effect on this heritage asset. This is a significant effect, but SNTS consider that the impact is understated. In our own assessment of heritage impact (REP2-240c), we conclude that change of landscape character caused by the development will result in a 'major adverse' significance of effect. In planning terms, this constitutes 'less than substantial harm' at the upper end of the scale. As highly graded designated heritage assets, 'great weight' needs to be given to this harm during the application of the planning balance.

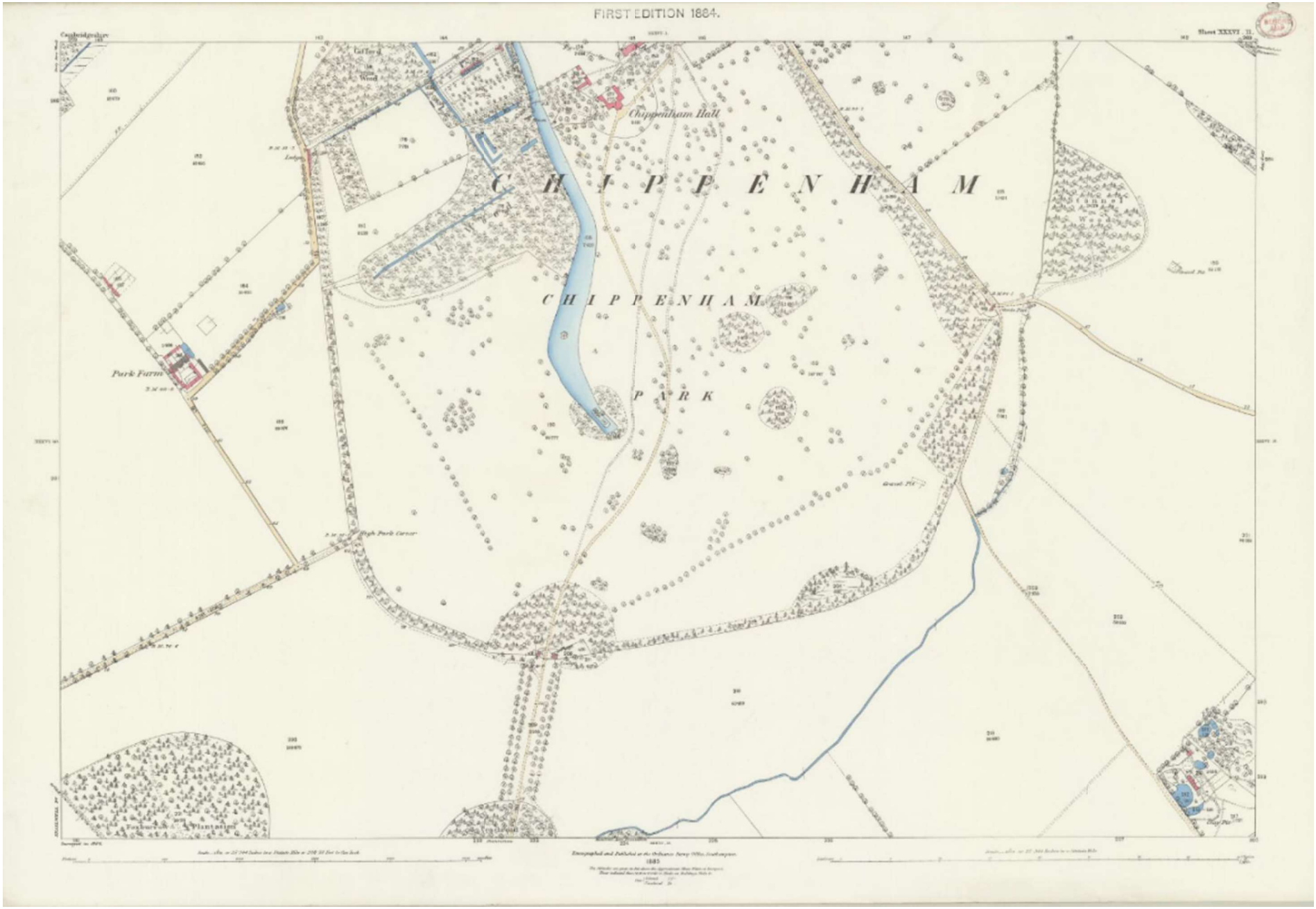
3.7 REP5-066: Sunnica 8.79 Sunnica Detailed Archaeological Mitigation Strategy

3.7.1 SNTS welcome the submission of the Detailed Archaeological Mitigation Strategy, although we note that a brief for a programme of archaeological investigation and mitigation has not yet been issued by Suffolk County Council's and Cambridgeshire County Council's archaeological advisors. As a consequence, this version of the DAMS does not incorporate the recommendations and requirements made by the responsible local planning authorities, and SNTS continue to support the position of the Councils on the content of the DAMS. It is assumed that this document will be updated once the required brief is issued and resubmitted at a later deadline.

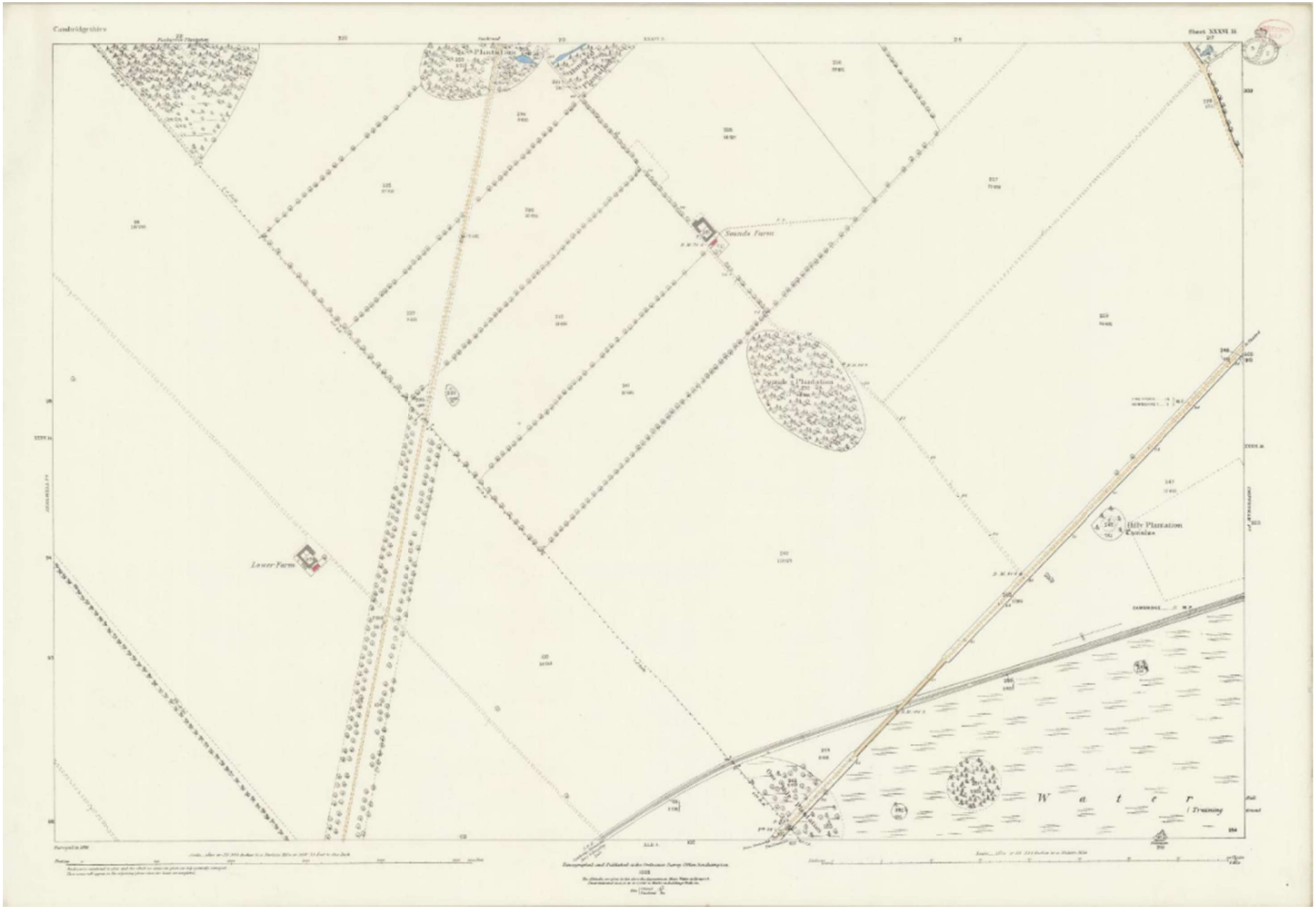
Appendix 1: First Edition of the Ordnance Survey 1-mile-to-25-inch series mapping (1885)



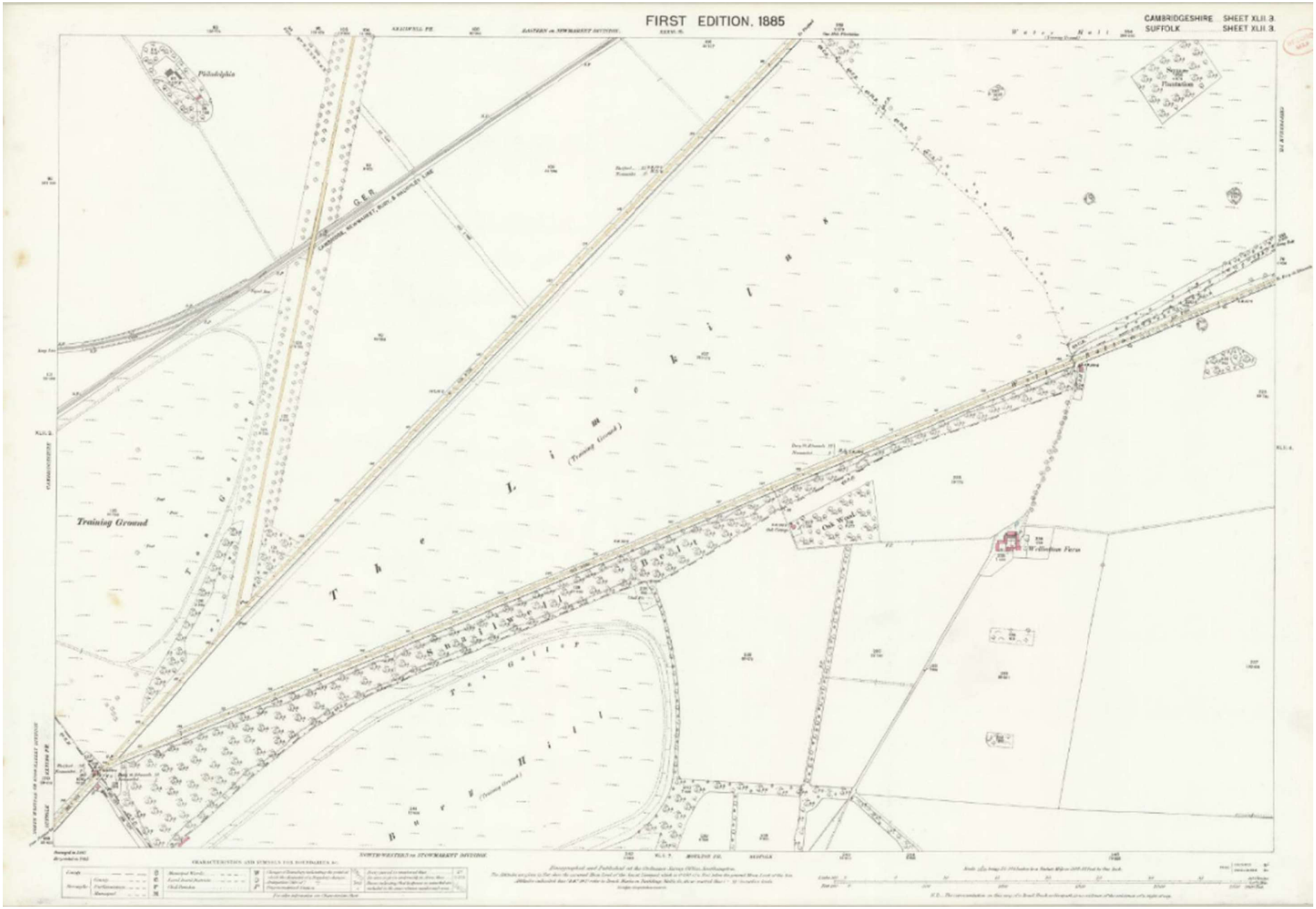
Cambridgeshire XXXVI.7 (Surveyed: 1884, Published: 1885) [redacted]



Cambridgeshire XXXVI-11 (Surveyed: 1884, Published: 1885) [redacted]



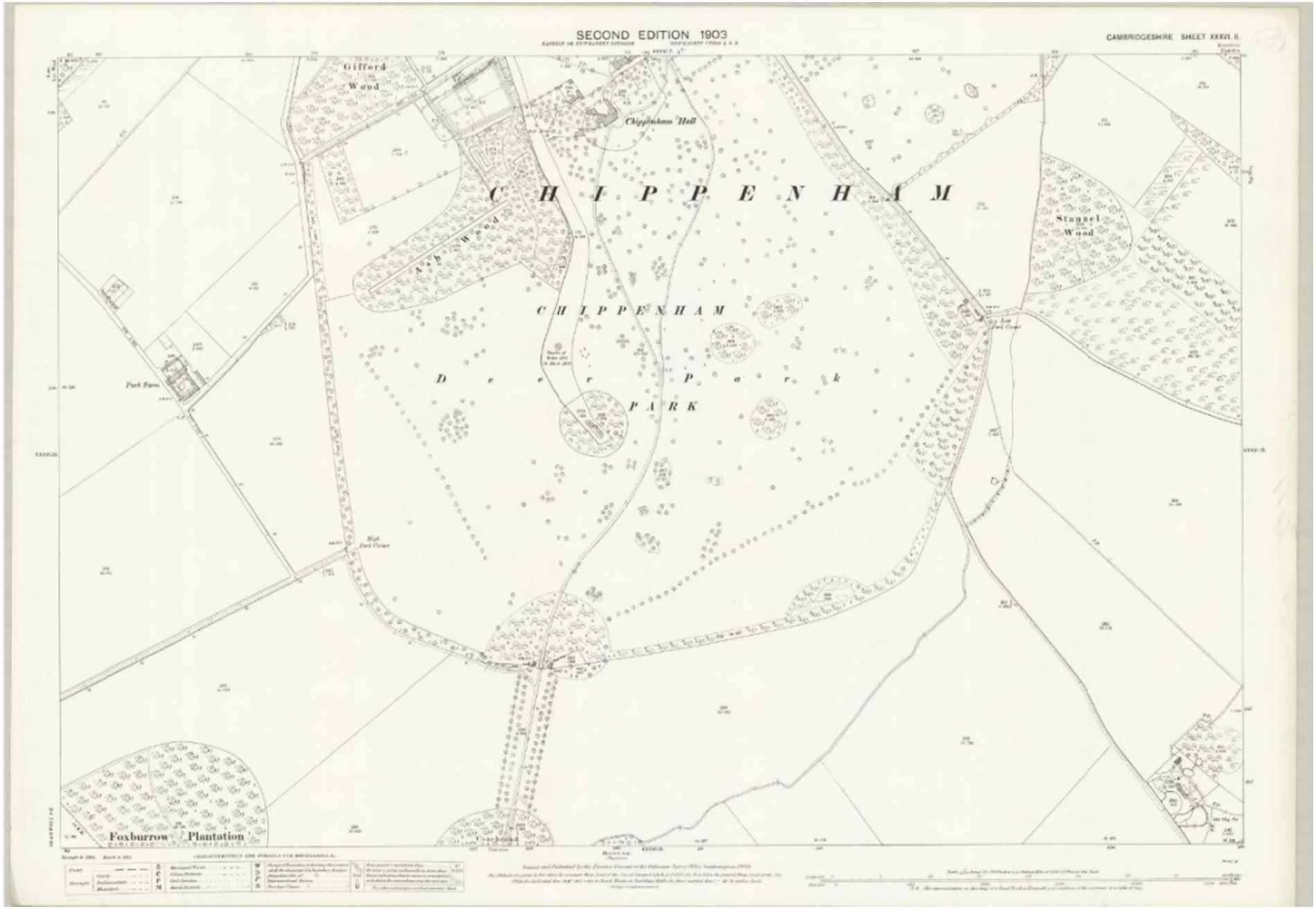
Cambridgeshire XXXVI-15 (Surveyed: 1884, Published: 1885) [redacted]



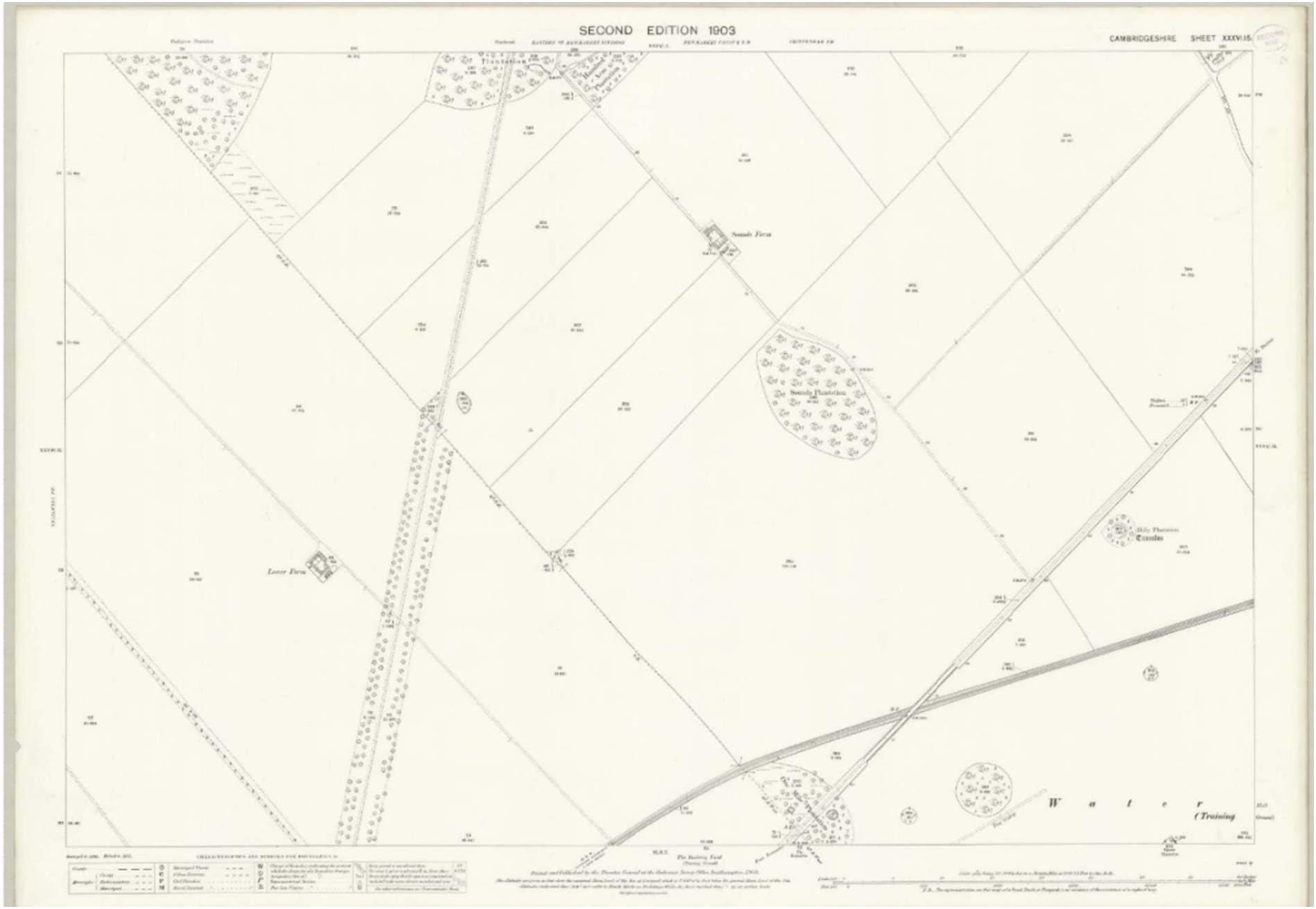
Cambridgeshire XLII-3 (Surveyed: 1883, Published: 1885) [redacted]

Appendix 2: Second Edition Ordnance Survey 1-mile-to-25-inch series mapping (1903)

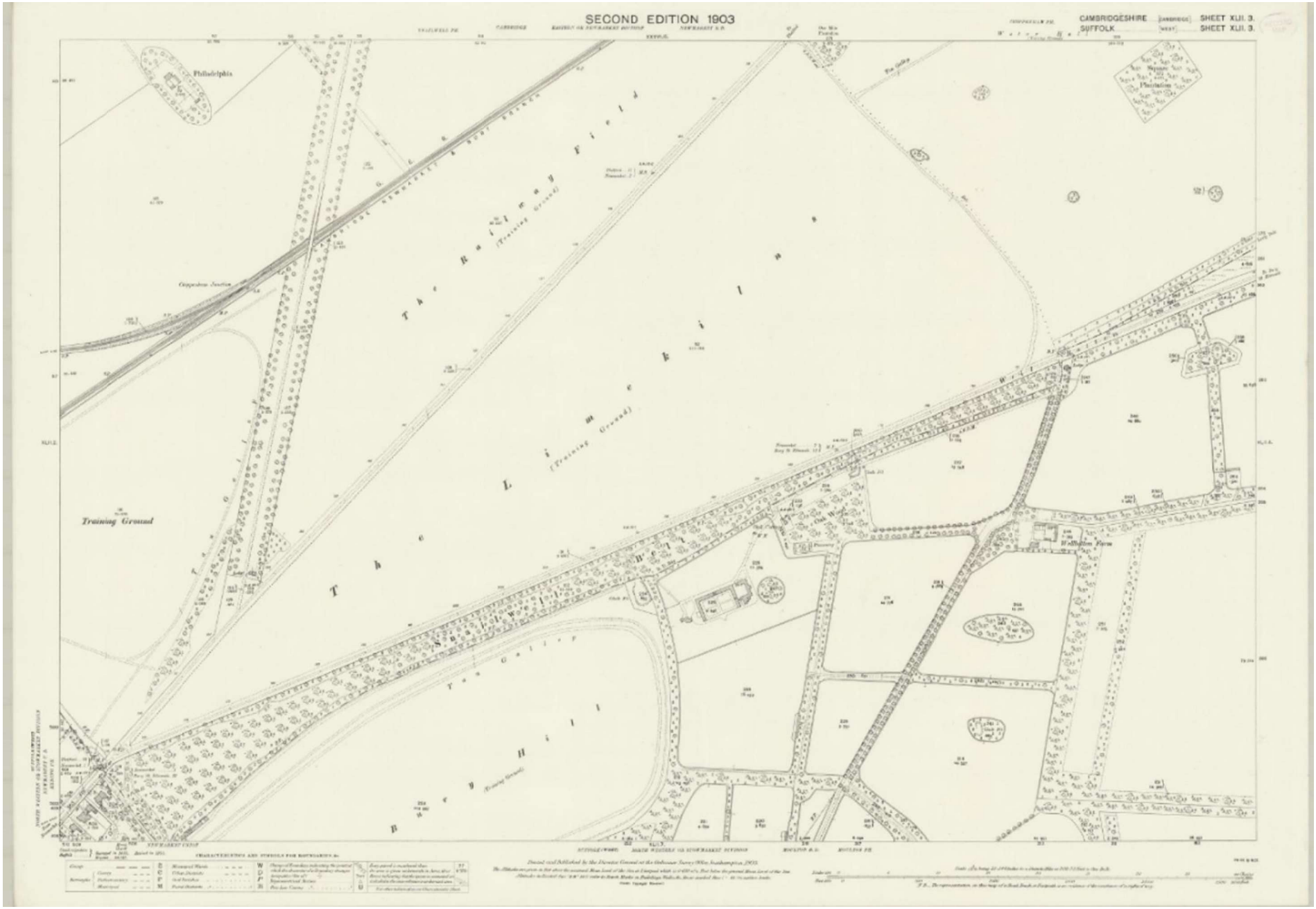
Cambridgeshire XXXVI-7 (Revised: 1901, Published: 1903) [redacted]



Cambridgeshire XXXVI-11 (Revised: 1901, Published: 1903) [redacted]



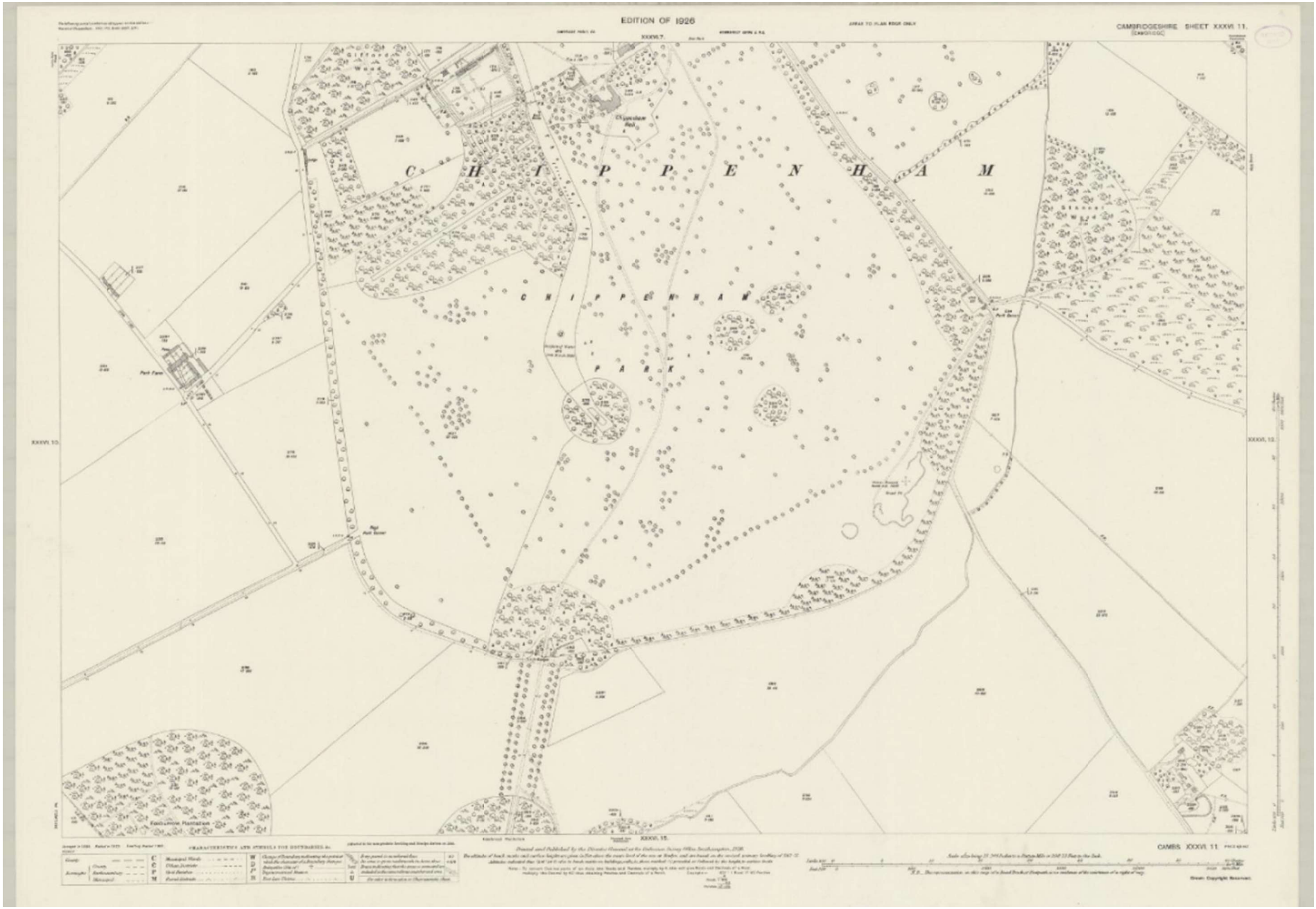
Cambridgeshire XXXVI-15 (Revised: 1901, Published: 1903) [redacted]



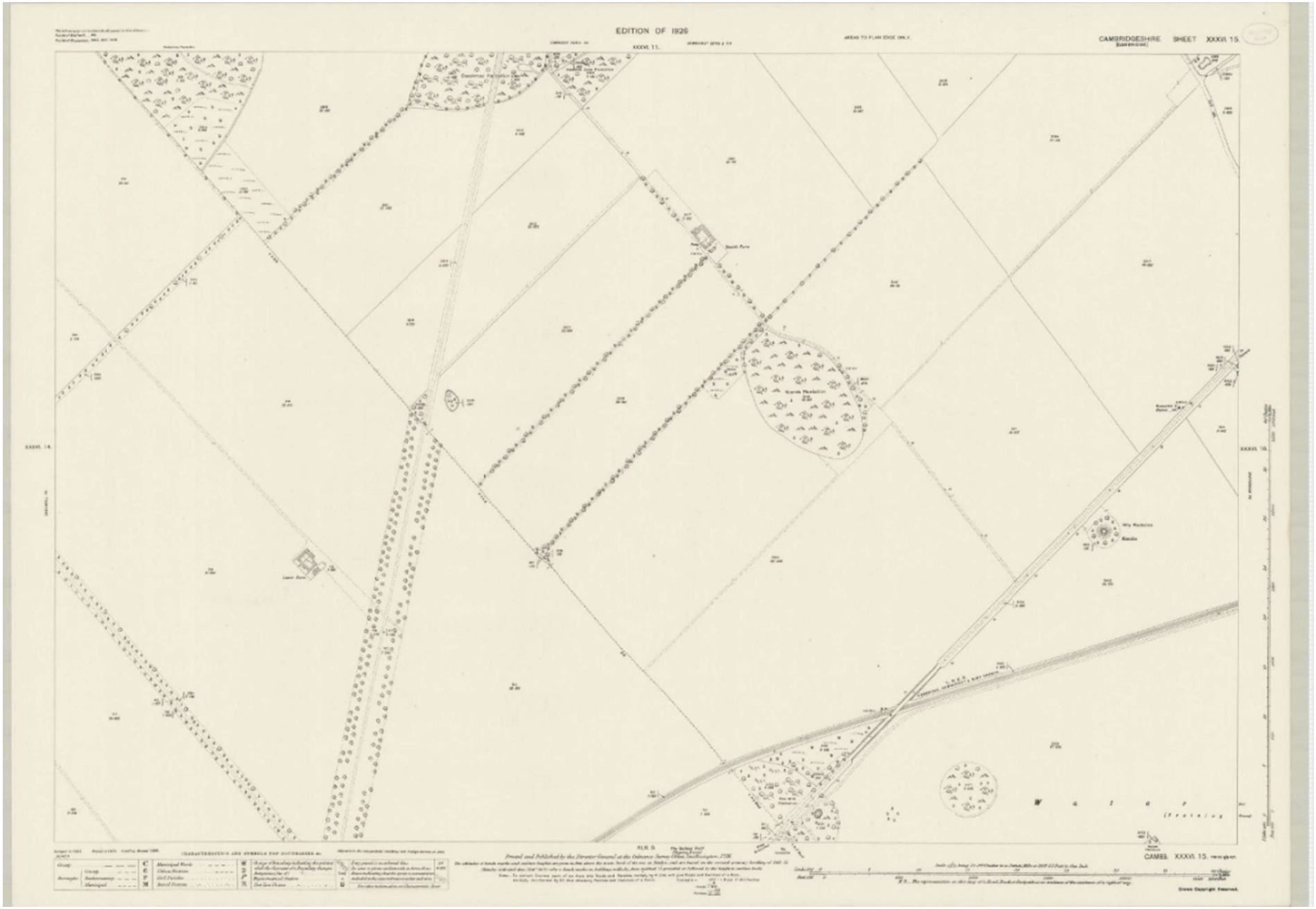
Cambridgeshire XLII-3 (Revised: 1901, Published: 1903) [redacted]

Appendix 3: Third Edition Ordnance Survey 1-mile-to-25-inch series mapping (1926)

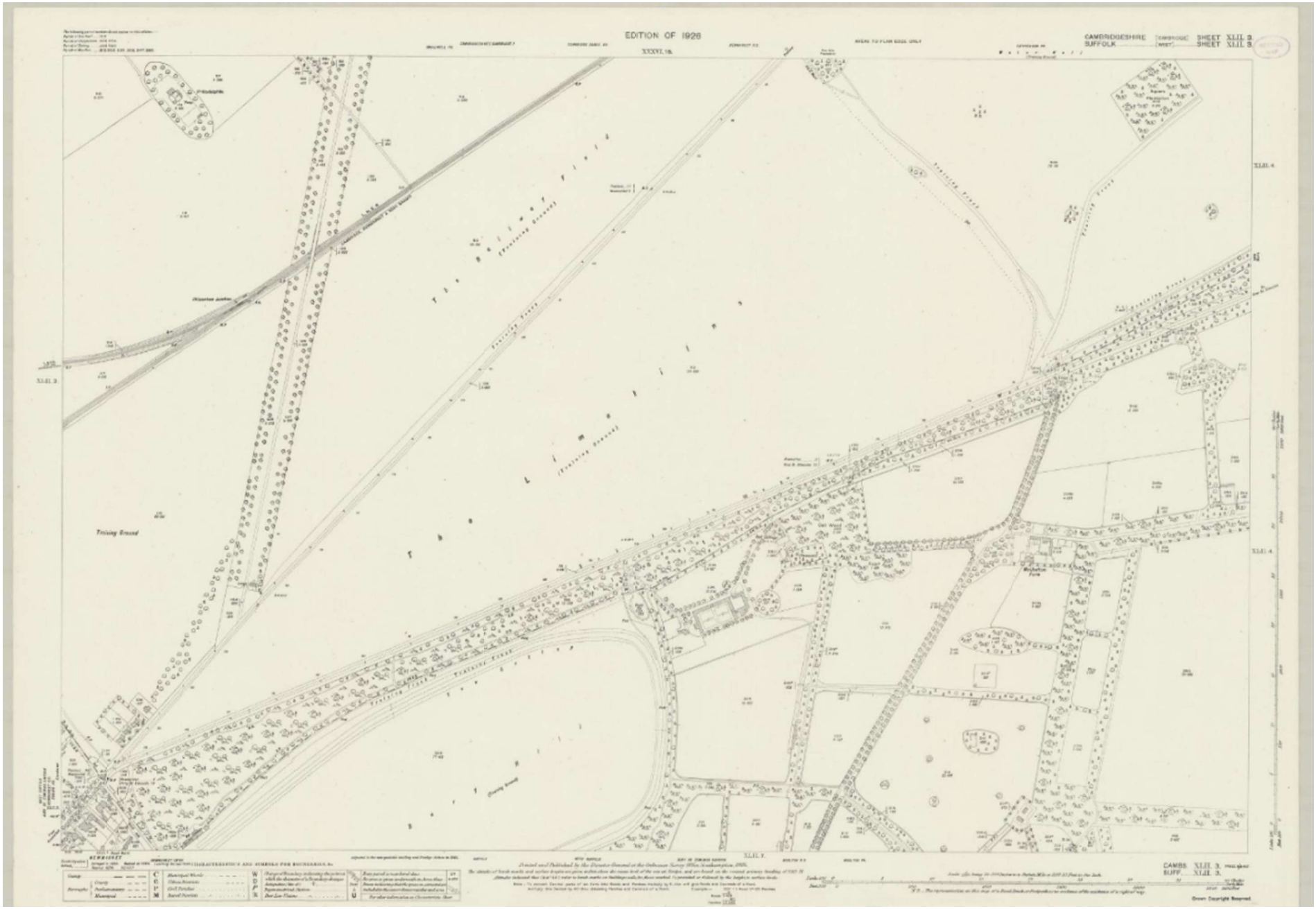
Cambridgeshire XXXVI-7 (Revised: 1925, Published: 1926) [redacted]



Cambridgeshire XXXVI-11 (Revised: 1925, Published: 1926) [redacted]



Cambridgeshire XXXVI-15 (Revised: 1925, Published: 1926) [redacted]



Cambridgeshire XLII-3 (Revised: 1925, Published: 1926) [redacted]

Appendix D

BIOSCAN UK LIMITED FOR SAY NO TO SUNNICA
DEADLINE 6 SUBMISSIONS:
NOTE 1: RESPONSE TO APPLICANT'S AND OTHERS' DEADLINE 5 SUBMISSIONS
ECOLOGY AND NATURE CONSERVATION MATTERS

This note responds to and/or passes comment upon the following documents concerning ecology and nature conservation matters, as submitted to the Examination at Deadline 5 by Sunnica Ltd, and various other parties. A separate note responds to the applicant's 'Response SNTS submissions at Deadlines 2, 3 and 3A' document (**REP4-036**), which was submitted at Deadline 4:

1. **REP5-044 Sunnica Ltd: Deadline 5 Submission - 6.2 Appendix 8M Habitats Regulations Assessment: Report to Inform an Appropriate Assessment (Clean) - Rev: 02**

1.1 It is noted that there is no tracked version of this document so it is not easy for readers to appreciate what changes have been made. We note that the barbastelle/Eversham Woods SAC omission is not formally addressed here (though the applicant responds to it in REP4-036). We assume and anticipate that the applicant will formally correct this in its RIES.

2. **REP5-046 & REP5-047 Sunnica Ltd: Deadline 5 Submission - 6.6 Offsetting Habitat Provision for Stone-Curlew Specification (Clean) - Rev: 01**

2.1 This revision includes significant additions to explain the stone curlew survey methodology but it is noted that Natural England appear to maintain their concerns about its adequacy. In anticipation of a general consensus being reached between the applicant and NE, that up to five pairs of stone curlew will be impacted, this does not change the comments that Bioscan/SNTS have made previously, and at ISH2, about lack of headroom or contingency for failure risk for this number of pairs. It is notable that the LPAs are still also concerned on this point.

2.2 At 4.1.11 of the document there is the suggestion that commercially available seed would be used for habitat creation. The comment made here that it would be "*sourced well ahead of construction*" seems to have been made in cognisance of the concerns Bioscan/SNTS and others have expressed about resourcing such vast quantities of seed for this project. If the applicant's response to this is going to be to stockpile years in advance, then the fecundity and diversity of this seed will be negatively affected and poorer results will be achieved. This point is of course also relevant to the BNG assessment and the optimistic scores for future habitat creation enshrined within the applicant's BNG calculations. The applicant continues to cite Emorsgate as the likely source of suitably native and geographically provenanced seed, but this single company, as equipped for scale as it is, will be in no position to service the seed demands of this project. This remains a challenge that the applicant has provided no satisfactory answer to, yet it still seeks to claim the results of the proposed seeding will be close to 100% successful.

2.3 We would also note how this document adds to the list of tasks for site ECoWs and post-completion ecologists – a list that continues to grow. We suggest that the Examining Authority needs to be provided with some comfort that these commitments and undertakings can and will all be resourced, in terms of both funding and suitably experienced manpower. For example, are the plot management actions going to be delegated to the landowner? What sanctions will there be if they are not done and how are these regulated/enforced/monitored? The applicant's

response to concerns raised very often proves to be additional monitoring or oversight commitments to provide reassurance, but as yet there is little confidence that these are tangible and enforceable commitments backed by appropriate provision within the DCO or other regulation and absent clear sanction in the event they do not materialise.

3. REP5-048 & REP5-049 Sunnica Ltd: Deadline 5 Submission - 6.7 Biodiversity Net Gain - Rev: 02 - Late Submission accepted at the discretion of the Examining Authority

3.1 Bioscan/SNTS are alarmed that the applicant has limited its revisions to its BNG calculations to a) closer alignment with the Metric 3.1 methodology and b) to reflect revisions to the Order Limits.

3.2 Despite the applicant's acknowledgement that arable habitat resources of District and County importance and value to nature conservation (in particularly scarce arable flora) are present - resources that unarguably should be scored higher than the 'lowest possible score' Metric 3.1 defaults - the applicant has chosen to eschew the opportunity to produce calculations that are more accurate and representative of the factual baseline position. It has instead sought to continue to exploit the widely acknowledged deficiencies in the metric calculator tool to present a more favourable (but less accurate) calculation.

3.3 This is despite the applicant having long been aware of the habitat mapping and classification errors first brought to their attention in Bioscan's August 2022 report. In their 16th September reply (contained in SNTS's Written Representation Annex D (appendix 2) – REP2-240e) the applicant states (*inter alia*):

> "*It is useful to have received the information in Table 1 of Bioscan's report (pages 7-9) and we will integrate the locations identified into ongoing habitat surveys*"
>
> And;
>
> "*Changes to habitats within the site picked up in the Phase 1 Habitat survey have identified locations that need Phase 2 Habitat survey and, again, surveys had been planned for 2022 some time ago. The results of these update surveys will be reported in a technical note which will be shared with all stakeholders through submission to PINS during the Examination for Deadline 1.*",

3.4 It appears from the information submitted by the applicant at Deadline 5, that in fact, the locations where Bioscan flagged error and omission were not in fact 'integrated into ongoing habitat surveys'. The opportunity to revise and submit a more accurate and representative BNG calculation was consequently ignored, and – furthermore - that decision has been kept from the Examination until now, despite the promise that such a revised calculation would be forthcoming at Deadline 1. Consequently, the applicant's BNG calculations remain flawed, unrepresentative and unreliable, and opportunities to address these deficiencies have been passed over.

3.5 This is no more than symptomatic of the applicant's systemic obduracy in the face of the exposure of errors in its baseline survey work. The Examining Authority is reminded that Bioscan brought these errors to the applicant's attention in August 2022 and that in its response of 16

September 2022 they acknowledged the need for corrections and advised that these would be made and a revised BNG calculation submitted at Deadline 1.

3.6 There is little more to be said on the applicant's BNG claims until (at the very least) it provides calculations that at least attempt to better reflect the reality, especially in terms of the applicant's own acknowledgement that much of the arable land within the Order Limits is of higher value than the default scoring attributed to it by the Metric 3.1 Excel calculator tool. We believe it is willfully misleading of the applicant to continue to try and exploit the limitations of the tool to 'give a better answer' in this way.

3.7 The Examining Authority remains bereft of anything close to a robust case that the scheme will deliver a positive BNG score at all. It therefore remains similarly bereft of robust evidence that the scheme can or will avoid short and long-term net losses of biodiversity.

3.8 We invite the Examining Authority to place no weight at all on the applicant's BNG claims until these matters are properly engaged with. The applicant should not be permitted to present and rely upon a demonstrably flawed approach to the application of biodiversity metrics.

4. **REP5-052 & REP5-053 Sunnica Ltd: Deadline 5 Submission - 8.46 Arboricultural Impact Assessment Report - Rev: 01**

4.1 We note on reviewing this revised AIA document that comments which Bioscan/SNTS, have made in previous submissions - and orally at ISH2 - still apply. We note that the LPAs also have concerns about the ongoing lack of precision in terms of the applicant's assessment of impacts on arboricultural resources, the flexibility it seeks to maintain and the implications of that for knock on impacts such as in relation to net and cumulative effects on bird nesting and bat roosting habitat and for foraging resources for both of these taxonomic groups.

4.2 Bioscan note that the track-changes amendment to para 2.1.3 of the report is concerning – if cable routes were only surveyed remotely, there is high scope for omission and error.

4.3 We also draw the Examining Authority's attention to para 2.1.9. At ISH2 it was contended that the AIA allowed greater precision on and supported previous assumptions about tree and hedgerow loss, and yet this paragraph indicates that hedgerows were excluded from the assessment where not containing trees.

4.4 Table 4 appears to shows upward revisions in terms of numbers of all tree categories and an overall upward revision of the total count from 255 to 352. Table 5 shows upward revisions of impact. We are concerned that this is symptomatic of the applicant's approach to environmental impact assessment generally – i.e. that only when it is challenged on errors or omissions and exposed as having got it wrong are more accurate (and consistently more negative) assessments forthcoming. The suggestion that its assessment of arboricultural impact is a 'reasonable worst case' is made: if that is so, presumably the applicant will accept conditions on the DCO tying it to a maximum level of tree loss.

5. **REP5-056 Sunnica Ltd: Deadline 5 Submission - 8.71 Applicant's Response to ExA Second Written Questions**

5.1 ExQ2.2.2: (p55): The applicant has provided no evidence in support of its claim that arable flora is restricted to the margins/boundaries of W09. The suggestion that arable flora interests are restricted to field margins is refuted by SNTS/Bioscan, and is proven incorrect by the position on the ground within the DCO limits. The benefit of the applicant's design amendments for this field is therefore questionable. It is noted that it continues to want to develop W06 which is of acknowledged District importance and that (as discussed under 3 above) the applicant's revised BNG calculations still do not elevate any of the arable components of the site above the minimum default in the metric, despite the applicant's acknowledgement that there are resources of District and County importance present. We remain wholly unconvinced that the impact on scarce arable flora has been appropriately assessed, mitigated or compensated.

5.2 ExQ2.2.3: Bioscan and SNTS's ability to comment on stone curlew matters remains hampered by the applicant's redactions and refusal to submit information on this species to SNTS, but we would remark here, and in the context of the applicant's answer to this question, that it remains unclear whether there is an element of double counting of areas already regularly or habitually used by stone curlew, but also proposed for compensation.

6. **REP5-057 Sunnica Ltd: Deadline 5 Submission - 8.72 Applicant's response to LPA Deadline 4 Submissions**

6.1 At page 7 of this document, the applicant discusses its surveys of flora, including in particular, arable flora. Despite committing to investigate the habitat classification and qualitative assessment errors brought to its attention prior to the opening of the Examination (see applicant's note of 16 September 2022 in SNTS's Written Representation Annex D (appendix 2) – REP2-240e) we note that the applicant has failed to do so (see comments on Appendix A of REP-057 below). Instead, it appears to now prefer simple statements of reiteration of the 'veracity' of the Phase 1 and other habitat surveys, while seeking to play down the errors and deficiencies in its baseline, and disregarding the evidence before the Examination that arable flora resources of elevated value are more widespread than it has yet acknowledged, reported or assessed.

6.2 Pages 10-20 of REP5-057 discuss stone curlew mitigation. The applicant's response highlights that it has sought to address the stone curlew constraint in a quantitative rather than scientific manner. It has simply calculated an area and set that aside, without fully considering whether the species can be successfully encouraged to adjust its habitual and rotational nesting patterns within the DCO limits, whilst failing to build in any significant headroom or contingency in the event that it doesn't. No provision for enhancement (net gain) is built in, rendering the scale of ambition rather meagre. The Examining Authority is invited to note that "*Sufficient nesting (1 plot) and foraging habitat (a second plot)*" for five pairs eats up all of the provision committed to - meaning that if only a single plot fails to achieve its purpose, there is likely to be net displacement of stone curlew. This remains a very high risk and thereby, in the view of Bioscan and SNTS, an inadequate mitigation and compensation strategy. We note that the LPAs consider a contingency fund ought to be put in place to account for this risk. As NE have determined that

the population within the DCO is not functionally linked to the Breckland SPA, the compunctions of the 2017 Regs may not apply – however this does not resolve the applicant from the more general biodiversity responsibilities and duties that apply, particularly given the scarcity of this species. Bioscan, on behalf of SNTS, advise that a contingency fund is one possible fall-back option, but it would be preferable to have identified additional land beyond the order limits that could be secured as a failsafe.

6.3 Page 51 of REP-057 sets out the applicant's 'ecological vision'. It is stated here:

> "*The Applicant disagrees that the Scheme will result in the loss of the majority of notable arable flora and groundnesting bird populations, with arable flora retained in existing margins of fields, undeveloped land incorporated into the Scheme to benefit ground-nesting birds, among other species. No significant impacts on these species have been identified*".

6.4 This is another example of reiteration of previously submitted statements without meaningful engagement or highlighting of evidence in support. We note that the applicant has simply refused to undertake a further evaluation of the county/regional importance of local populations of bird species such as lapwing, yellow wagtail and corn bunting, <u>despite a verbal undertaking at ISH2 that it would do so</u>. It is a further instance of the approach taken in respect of the clear deficiencies in its baseline information on flora: it remains the case, even after the supplementary information in Appendix A of REP5-057 (see below) that the applicant has omitted to recognise that potentially much larger areas within the proposed DCO limits have elevated value for arable flora than it seeks to present. It is particularly noted that it refuses to adapt its BNG calculations to reflect the reality, choosing instead to rely on the Metric 3.1 defaults which suppress scores for such resources. This is simple dogmatism in the face of clear evidence that the assessments should be revised.

6.5 We would support Cambs CC's assertion that in potentially devaluing the area for arable flora, the scheme does not support the East Cambs Interim NRN. SNTS are similarly unconvinced (along with the LPAs) that the District and County level importance of certain arable fields (eg W06 and W09) can be maintained alongside their use for solar arrays.

6.6 At pages 53-55 of REP5-057, the applicant provides responses on amendments, corrections and revisions to the Phase 1 mapping, and to the questions and challenges from the Councils on this matter. Its responses are simply obfuscation. There are fundamental problems with the accuracy of its habitat classification, mapping and value judgments and omissions in respect of important resources such as arable flora. It simply seeks to brazen these matters out by saying that any changes it makes to the baseline on this issue are or would be non-substantive. That is not a tenable (nor a responsible) position. The same applies in relation to the errors and omissions exposed around trees and woodland, and around hedgerows. Similar comments apply in relation to the applicant's responses to the Councils on the shortfalls in the bat roost survey data and scope for impact on bats through tree and hedgerow loss.

6.7 Bioscan and SNTS agree with the Councils' concerns around funding and resourcing the growing volume of monitoring, mitigation, oversight and aftercare commitments and suggest the ExA should similarly be satisfied that the applicant is prepared to properly resource these in terms of manpower, expertise, funding and (e.g. in relation to seed) supply chains. The sheer volume of such measures is an illustration of the number of issues with the scheme, itself a function of insufficient application of the mitigation hierarchy.

6.8 Appendix A of REP5-057 (pp124-126) contains the long-awaited updates to the baseline habitat survey information. Despite the fieldwork being completed on 5th and 7th September 2022, and the results promised by the applicant at Deadline 1, it has taken until Deadline 5 for the applicant to furnish the examination with these results.

6.9 In light of the comments in the applicant's note of 16 September 2022 (as presented in SNTS's Written Representation Annex D (appendix 2) – REP2-240e) Bioscan and SNTS expected this update information to include amendments in response to the errors of classification and evaluation exposed by Bioscan's site visit in July 2022, which were brought to the applicant's attention in August 2022. It was also not anticipated to be restricted to arable habitats, as classification and evaluation errors and omissions had been flagged in relation to other habitats such as grasslands.

6.10 Indeed, given the applicant's statement in Annex D (appendix 2) of REP2-240e that "*Changes to habitats within the site picked up in the Phase 1 Habitat survey have identified locations that need Phase 2 Habitat survey and, again, surveys had been planned for 2022 some time ago*", Bioscan and SNTS were expecting something rather more involved for this large c.1000ha site than a mere two days of walkover survey in early September.

6.11 This is an inopportune time of year for detecting arable flora, much of which comprises annual plants that may not be apparent by late summer even in a normal year, let alone one as hot and dry as 2022. The inopportune timing seems instead to be very likely to have been reactive to Bioscan's report alerting the applicant to misclassifications and errors in its habitat surveys, more than something already 'planned'. In any event, the level of effort (two days of walkover survey) is far short of what would be required for any meaningful Phase 2 survey coverage.

6.12 On a practical note, relating to legibility – we observe that the 'annotated Figure 1' referred to is not included with the document. A process of deduction and reference back to APP-079 permits a degree of understanding of some of the locations the table refers to, but not all. The applicant should be asked to provide the omitted Figure 1.

6.13 What is in any event clear from the table is that the work was extraordinarily cursory. There is some suggestion that only locations previously subject to Phase 2 work were looked at, and there is no engagement with the clear errors highlighted to the applicant in Bioscan's report of August 2022.

6.14 Consequently, Bioscan and SNTS have no confidence that the errors previously flagged to the applicant have been addressed and consider that the applicant's baseline information on habitats, and the value of the arable flora resource in particular, remains far from robust.

7. REP5-058 Sunnica Ltd: Deadline 5 Submission - 8.73 Applicant's response to other parties Deadline 4 Submissions

7.1 In general, the ExA is again asked to note, when reading this document, the regularity with which the applicant resorts to bland repetition of statements along the lines of 'the baseline is robust' without engaging with the specific matter being raised, and despite clear evidence to the contrary. We have tried to avoid repetition of points already made but merely ask that the ExA considers whether the applicant has engaged with, responded positively to and/or provided any evidence-based rebuttal where dealing with such points.

7.2 In terms of more specific points:

7.3 It is noted that, in this document, the Applicant makes some attempt to temper the incongruity in its position over the ecological value of the arable land resources within the proposed DCO limits. The Examining Authority heard much from the applicant at ISH2 to suggest that the ecological value of the land in its baseline state was *de minimis* and therefore any land use change was likely to be beneficial, notwithstanding the incongruity of that position with the applicant's acknowledgement that arable flora communities of up to county value were present. The applicant's statement that it recognises "*that arable fields [within the scheme] have an important ecological value*" (page 13) is therefore welcome (if overdue). However, and despite acknowledging this, the Applicant continues to treat these resources as having next to no ecological value when it comes to the determination of biodiversity change using Metric 3.1 (see 3 above). In short, despite accepting that the premise it advanced at ISH2 that 'all arable land is of lowest possible value' is incorrect, it continues to exploit such a premise, via an anomaly in the Metric 3.1 calculator tool, to suppress the BNG score of the land in its current (baseline) state. Its BNG calculations, and related statements such as "*it is reassuring that the calculations using metric 3.1 show a significant net gain*" (page 13) are therefore unreliable and can be given no weight.

7.4 Bioscan and SNTS would accept that cessation of agricultural inputs (particularly chemical fertilizers, weedkillers and pesticides) and other factors associated with a shift away from annual cropping have the potential to deliver net biodiversity improvements in intensively farmed areas. However, the applicant has sought to highlight these, without acknowledging the counter-balancing negative effects from shading and significant net loss of habitat availability for arable plants, given that they cannot compete or survive in permanent grassland. In addition, SNTS are still not clear whether the applicant is committed to no use of any chemicals in maintenance of the solar arrays (for example weedkiller). If it is, SNTS are not aware of any wording reflecting that commitment in the DCO provisions.

7.5 SNTS also highlight that due to the failures it and others has exposed in survey coverage and adequacy, the applicant's premise that (for example) "*the habitats containing rare/scarce arable*

flora (i.e. notably within and along the boundary of the retained grassland south of W09) have been avoided" (p14) cannot be relied upon. The additional Phase 2 survey work submitted at Deadline 5 (see 6 above) does next to nothing to remedy this situation. It remains certain in Bioscan's and STNS's minds that significant arable flora resources have not been identified, and therefore that these have not been factored into constraints analysis and development design, nor used to inform the type and quantum of appropriate avoidance, mitigation and compensation.

7.6 The Applicant attempts to suggest that such shortfalls in assessment and (by extension) certainty are overcome when 'all taxa are considered'. Specifically, it states that "*the Applicant considers that when all taxa and impacts of the Scheme are considered, there is a clear improvement in the biodiversity baseline which arises from the Scheme, whether considering the biodiversity metric, or in considering the various improvements that are proposed in the OLEMP and shown in the Environmental Masterplan*." (p.14). Bioscan and SNTS consider that this statement is not backed up by the facts and evidence in front of the examination. The applicant's failure to mitigate and compensate appropriately for impacts on farmland birds, in particular species such as lapwing and skylark, means that for this taxonomic group as an example, the likely position remains one of net loss.

7.7 We note that the applicant defends its methodology and coverage in respect of the baseline bird surveys (p14-15), but it has reneged on the commitment it made verbally at ISH2 that it would furnish the examination with a better understanding of the relative value of the populations of species on the site, as measured against county and regional estimates. The fact that the applicant's ES appears to have incorrectly downplayed the significance of the numbers of key species, including species likely to be at risk of significant displacement effects such as skylark, yellow wagtail and lapwing, is simply being ignored by the applicant. This undermines the statements made that attempt to suggest that non-habitat ecological resources weigh the balance towards net benefit. That is not a premise supported by the applicant's own evidence.

7.8 The Applicant continues with its theme of bland statements of repetition in defence of its baseline habitat and botanical surveys at page 18. It fails to respond to the point that the Phase 1 surveys were carried out at an inopportune time of year, that this is likely to have compounded habitat classification errors and the under-estimation of the extent of arable flora resource, and that this deficient work was used to scope and define the Phase 2 surveys, with the result that these were inevitably limited in scope as a direct consequence. The statement "*a Phase 1 Habitat survey can be carried out at any time of the year, so this does not imply any limitation for the results obtained*" is simply wrong on any ecological basis. It is beyond contention that a Phase 1 survey carried out in the winter will be far less capable of recognising arable flora resources as compared to a summer survey, and therefore decisions about Phase 2 survey coverage made on the strength of information obtained in the winter are going to compound that deficiency. This is incontrovertible.

7.9 We note that the applicant attempts a brief response to address the omission of any consideration of Eversden and Wimpole SAC (p21), which was omitted from the HRA despite the applicant claiming there were no bat-designated SACs within 30km of the proposed Order Limits. However, the applicant has declined to provide the evidence it references. It may well be that this SAC can be screened out of requiring further consideration, but we consider that the ExA may wish the

HRA and/or RIES to be amended to correct the errors and omissions, rather than the matter being dealt with cursorily in comments made in response to third parties, and buried in a table in one of the applicant's Deadline 5 submissions.

7.10 SNTS note that the applicant claims that the further surveys undertaken in 2022 "*were to re-affirm current conditions in respect to habitats including arable flora. They were not to determine baseline conditions*" (p.21). This appears to contrast somewhat with Sunnica's response to Bioscan's August 2022 report (which can be found at SNTS's Written Representation Annex D (appendix 2) – REP2-240e) which states inter alia "*It is useful to have received the information in Table 1 of Bioscan's report (pages 7-9) and we will integrate the locations identified into ongoing habitat surveys*[1]" and "*Changes to habitats within the site picked up in the Phase 1 Habitat survey have identified locations that need Phase 2 Habitat survey and, again, surveys had been planned for 2022 some time ago. The results of these update surveys will be reported in a technical note which will be shared with all stakeholders through submission to PINS during the Examination for Deadline 1*." The clear impression from the latter comments is that Sunnica Ltd were intending to check the omissions identified by Bioscan, and indeed the timing of this supplementary work (September 2022) suggests a reactive rather than proactive approach to these omissions. That September 2022 work was carried out at a suboptimal time of year for arable flora (particularly after the exceptionally hot and dry summer of 2022) and therefore the suggestions variously that it was a 'routine update' or that it was part of work 'planned for 2022 some time ago' appear unlikely to be correct. The ExA will be able to read between the lines and absorb the relevant facts here: the applicant's survey coverage for scarce and important arable flora remains deficient and their attempts to remedy it have been no more than reactive and cursory. This means that the baseline work remains deficient, notwithstanding the applicant's bland repetition of claims that it is "robust" in the face of all the evidence to the contrary.

7.11 At page 22 to applicant appears to renege on its promise, made at ISH2, to review and advise on how the numbers of declining farmland bird species recorded in their bird surveys of the proposed Order Limits compare to county and regional populations of those species. A bland and obdurate statement is merely provided: saying [the applicant] "*does not believe further calculations of figures for declining farmland birds are required and believes that the values presented in the Environmental Statement are accurate*". As stated by Mr Woodfield for SNTS at ISH2, independent review suggests that the populations of certain species are county significant. It is incumbent on the applicant to honour its commitment to look at this again and it really does not assist the Examination for it to promise to do so and then renege on that promise.

7.12 Finally, we note the comment at page 23 that "*Ecological mitigation and enhancements previously presented in West Site B, were specific to offsetting any impacts associated with the Scheme in this location and as such were specific to the ecological receptors present here. Given other sensitivities in this area, e.g., archaeology or a change in the baseline landscape, the land take purely for ecological enhancement cannot be justified, nor is it required by the Scheme to deliver Biodiversity Net Gain*". No evidence is provided to support the assertion that the mitigation

[1] On the evidence provided at Deadline 5, this evidently wasn't done.

was linked to offsetting requirements solely generated by Sunnica West Site B. The applicant's BNG figures are also demonstrably unreliable in any event, as discussed at section 3 of this note.

8. Comment on Applicant's revised draft Development Consent Order (dDCO)

8.1 Bioscan and SNTS are not convinced that a contingency fund in the event of mitigation failure is a defensible or correct approach in respect of stone curlew. Failure risk and design contingency to address such risk should be built in to the mitigation and compensation proposals, in accordance with proper application of the mitigation hierarchy. If there is a shortfall of confidence that mitigation/compensation will be successful, as there appears to be (consistent with the applicant's somewhat de minimis approach catering narrowly for only up to five displaced pairs), it is incumbent on the applicant to re-route back to 'avoidance', demonstrate other matters are overriding, or improve its mitigation and compensation scheme. We suggest that the compatibility between this approach – a contingency fund in lieu of improved certainty of mitigation and compensation efficacy – and relevant legislation requires consideration.

9. Comment on West Suffolk Council's response to Applicant's Deadline 4 submissions

9.1 At page 5, West Suffolk Council consider the LEMP, in the context of Schedule 2 requirement 8(b). Bioscan/SNTS agree with West Suffolk's request that greater clarity should be sought on the timescales for set up of ecological areas relative to the construction phase. There are very good reasons to commence these immediately upon granting of any DCO and we are not aware that the applicant has made any commitment in that direction. We note that West Suffolk echo the other LPAs in respect of comments about a stone curlew contingency fund and other matters, on which we have commented above. We suggest that the LPAs should not be satisfied with the applicant's response at D5 to updating and amending the EIA baseline, for the reasons highlighted above.

9.2 Bioscan/SNTS note that West Suffolk Council makes the following comment: "*The Council welcomes confirmation that the Applicant will be updating the OLEMP at Deadline 5 and trusts that the spatial distribution of the arable flora mitigation will be reflected in the Environmental Masterplan and in the BNG calculation*". Neither of these things have been done. In particular, and as discussed under section 3 and elsewhere in this note, the applicant refuses to change its BNG calculations to reflect the acknowledged reality of elevated value arable land being present within the proposed DCO limits, and has made no substantive effort to remedy the corrections in coverage and accuracy of its arable flora survey information.

10. Concluding remarks

10.1 Bioscan/SNTS are very concerned that the applicant has failed to deliver on its commitments and review and where necessary correct its baseline survey information, and has contrived, through delay, to release the information that confirms this failure so late in the Examination process, when it originally committed to supply it at Deadline 1.

10.2 Bioscan/SNTS believe the failures in baseline survey work, evaluation and impact assessment, in particular in respect of arable flora resources, but to a lesser extent also grasslands and other habitats, continue to undermine the certainty that the Examining Authority can have that net loss of biodiversity from this scheme will be avoided, still less net gain achieved. The applicant's output figure from its Metric 3.1 calculations is demonstrably unsound, and it is a point of acute disappointment and concern that the applicant seeks to benefit from shiortfalls in metric 3.1 methodology to 'give a better answer', rather than honestly and transparently present a defensible figure that is representative of the biodiversity implications of the proposed land-use changes.

10.3 The applicant appears to increasingly be adopting a bunker mentality to the exposure of these errors. However, simply repeating a mantra that 'the baseline is robust' does not make it so, even disregarding all the evidence presented by SNTS and others that it is very far from robust. The lack of confidence in the applicant's assessments of impact from habitat loss and change and related impact on scarce arable flora and other habitat resources infects the confidence that can be had in the likely efficacy of its mitigation and compensation proposals for stone curlew and other species – in particular declining farmland birds, about which the applicant appears to have a particular blind spot that is now married with obdurate refusal to follow through on the assurances it gave at ISH2.

10.4 This attitude does not afford confidence that the very long and increasing list of commitments, back-up plans and nebulous plans for reactive mitigation and compensation can be relied upon. The logistical and resourcing challenge presented by this increasing list of matters deferred to later is simply not being engaged with. Bioscan and SNTS are extremely concerned that the examination is barrelling towards a conclusion with so many matters central to ecological impact unresolved and in some cases seemingly ignored.

Appendix E

BIOSCAN UK LIMITED FOR SAY NO TO SUNNICA

DEADLINE 6 SUBMISSIONS:

NOTE 2: RESPONSE TO APPLICANT'S DEADLINE 4 SUBMISSION REP4-036 ("APPLICANT'S RESPONSE TO SAY NO TO SUNNICA SUBMISSIONS AT DEADLINES 2, 3 AND 3A")

ECOLOGY AND NATURE CONSERVATION MATTERS – PAGES 22-42

1. This note is being submitted at Deadline 6 in order that Bioscan/SNTS could review the extent to which the applicant's Deadline 5 submissions addressed, resolved or otherwise furthered matters.

2. It provides an update on SNTS/Bioscan's position in response to the applicant's document "*Response to SNTS submissions at Deadlines 2, 3 and 3A*" **(REP4-036).** This, at pages 22-42, sets out the applicant's responses to concerns and points made by Bioscan/SNTS at Deadlines 2, 3 and 3A.

3. The note groups SNTS's/Bioscan's further responses in themes or issues identified by bold heading below – these correspond to the same theme's referenced in Column 1 of the applicant's table:

Robustness of ecological assessments

4. Page 22, row 2. As set out in SNTS/Bioscan's Deadline 6 submissions, the applicant's claim that the baseline ecological surveys were robust at the point of ES submission is refuted, and further drawn into question by the supplementary survey material submitted by the applicant at Deadline 5, which remains deficient in scope, coverage and timing.

5. Page 23 row 2. It is a matter of fact that NE requested further information on stone curlew to address concerns it has expressed about the thoroughness of the baseline survey coverage. The rejection of this by Sunnica Ltd is not understood.

6. Page 24, row 2. On the departure from CIEEM point, the answer given by Sunnica Ltd does not address the point. Significant impacts at local scale risk being disregarded by the approach, which we maintain is a departure from the CIEEM guidelines.

7. Page 24, row 3. On the point regarding adequacy of the high-level framework approach to CEMP, LEMP and OLEMP, the response provided by Sunnica Ltd again fails to address the concern. Compliance with the mitigation hierarchy is required to be demonstrated at decision making stage, and the scant information supplied by the applicant combined with the extent of design flexibility they seek provides either inadequate assurance that it has been (in order to minimise environmental effects) or, where deferral to a future detailed stage is justified, clear scope for it to be circumvented or demoted in importance in decision making at such later stages. SNTS look to the Examining Authority to secure sufficient and appropriate controls and safeguards to ensure and where necessary enforce application of the mitigation hierarchy to all matters left to detail.

Study areas

8. Page 25, row 2. SNTS notes that the 'guidance and best practice' referred to here is not cited. Questions and/or concerns remain in respect of the distances beyond the proposed Order Limits covered for species such as stone curlew, great crested newts and barbastelle bats.

Baseline surveys

9. Page 25, row 3**:** The applicant claims that the only survey work rendered necessary post submission of the ES is update surveys, and yet it has advised the ExA that it has undertaken additional surveys of arable flora and other matters during the course of 2022, and has advised Bioscan that the locations where error has been identified would be included. As revealed at Deadline 5, this did not happen and therefore the errors remain.

10. Page 26, row 1: In respect of skylark, that the assessment approach to this species is inadequate to inform a robust determination of the extent and significance of impacts on local populations is simply brought into sharp focus by the applicant's response here. There is initially an attempt to 'lose' the skylark impact within a lumped and multi-species 'farmland bird' receptor (rather like lumping impacts on stone curlew in within 'farmland birds'). Then, when dealing with the species directly, there is a non-quantified assessment which is heavily predicated on perceived enhancement of a much smaller area of land than currently available to the species as somehow neutralising impacts. In order for the full suite of potentially significant environmental impacts from this scheme to be properly identified and weighed into the decision-making process, a quantified assessment of impact on this declining species is called for, assessing the magnitude of net territory loss/displacement against site, local and county populations. Disregarding significant displacement impacts on this declining, Red List and S41 Priority species simply because it remains fairly common locally is not a thorough approach to impact assessment.

11. Page 26, row 2: In respect of arable flora, the applicant's Deadline 5 submissions reveal that the update survey work was too limited in scope, effort and timing to rectify the omissions flagged by SNTS/Bioscan and indeed that despite assurances, the applicant did not survey the specific areas where such omissions were flagged. It remains the position that fields of elevated value for arable flora have not been documented in the ES.

Bats

12. Page 26, row 4. In respect of the ES's and HRA's failure to consider barbastelle and scope for functional linkage to Eversden and Wimpole Woods SAC, the applicant concedes that this international site is within 30km of the proposed Order Limits and that as a consequence its claim that no such sites were within 30km was incorrect. It dismisses the possibility of functional linkage without supplying any supporting evidence for doing so. No such evidence has been provided at Deadline 5 although allusions to the existence of some are made. A significant effect on the SAC may well prove to be unlikely on proper and thorough examination, but dismissing it absent any basis to do so is not a robust approach.

Stone curlew

13. Page 27, row 3: SNTS remain concerned that the quantum of compensatory provision for stone curlew nesting opportunities takes insufficient account of delivery risk, and that as a consequence, even if fully successful, it is unlikely to provide a net beneficial result for this species as opposed to a minimum level of compensation. The suggestion that offering displaced pairs the choice of no more than two potential alternative nest plot sites provides 'adequate' headroom to account for delivery risk is not accepted.

14. Stone curlew – mitigation or compensation: SNTS does not accept the applicant's submission that providing alternative nesting plots for displaced stone curlew is 'mitigation' not 'compensation' and asks the applicant to explain the basis for that claim.

Other declining farmland birds

15. Page 30, row 1: In respect of skylark, it is noted that the applicant no longer appears to claim net gain for this species, but instead no significant impact, again without any form of quantitative assessment. See our previous comments on this above.

Revised BNG calculation

16. Pages 31-33. The applicant appears to suggest/concede that the revised metric output figure which at the time of submission was yet to be made will be significantly different from what SNTS always contended was a vastly exaggerated net gain figure submitted with the application. The revised BNG assessment submitted at Deadline 5 confirms this to be the case but it remains unreliable due to continuation of the omissions, bias and error referred to in column 3 of these pages, and not a robust basis for considering whether net biodiversity loss can or will be avoided.

Habitats Regulations Assessment

17. Page 36, row 2. For the reasons given above in respect of the applicant's failure to note the existence of the Eversden and Wimpole Woods SAC within its 30km search zone, SNTS maintain that the HRA needs to be revised to present an evidential rather than anecdotal basis for screening out the possibility of likely significant effects on this site**.** This remains the position after Deadline 5.

Note ends

Appendix F

Sunnica Energy Farm (EN010106) Deadline 6

24 January 2023

Peter Danks – Reading Agricultural Consultants:

Response to the Deadline 5 submissions [REP5-***]

Instructions

Reading Agricultural Consultants Ltd (RAC) is instructed by Say No To Sunnica Action Group Ltd (SNTS) to respond to the agricultural aspects of the Applicant's Deadline 5 submissions regarding Sunnica Ltd's application for a Development Consent Order (DCO) for the construction, operation and decommissioning of Sunnica Energy Farm.

These comments have been prepared by Peter W Danks, Senior Director of RAC.

Natural England – Deadline 5 submission [REP5-096]

Comments on written summary of Applicant's oral submissions at ISH3:

Natural England's (NE) comments on the temporary and unproven benefits to soil health associated with the use of former productive arable for solar development are consistent with current research.

The use of benefits unsupported by robust evidence to arrive at an assessment of 'moderate beneficial' impact on soil health is not consistent with the rigorous assessment of environmental impacts.

The full establishment of a grass sward across the proposed development area prior to the commencement of construction, described by NE as a key mitigation measure is not addressed adequately in the CEMP **[APP-123]**. The CEMP fails to describe the grass mix to be used in the sward, how the swards will be established or mitigating measures to be taken in the event of the sward failing to establish.

Images taken at an established solar installation on land neighbouring the proposed development area (Figures 1&2 below) show extremely poor sward establishment, dominated by moss growth, more than six years commissioning and a failure of grasses to thrive uniformly in the developed area.

Figures 1 & 2 Grass Establishment at Bay Farm, IP28 6BW (NGR: TL 70306 71407) (14ha, 7.5MW, commissioned 2014)

Technical Note: Clarification requested by Natural England on ALC:

Whilst NE 'broadly agrees' with the ALC grading presented in Figures 12-2 **[APP238]** and 12-3 **[APP-239]** in the ES, the assumptions made in the assessment of grades across the area remain unclear as set out in these comments. Further, the observations themselves do not concur with detailed soils maps of, and memoirs for the area published by the national Soil Survey, or soil profiles found during reconnaissance surveys undertaken for SNTS.

NE requests the provision of Moisture Balance calculations that were requested by SNTS in August 2022. The response of the Applicant to this request was that:

> *"With regard to Mr Baird's calculations, all moisture deficit values used are given in Table 5-1 (page 6) of the Environmental Statement (ES), Appendix 12B: Soils and Agriculture Baseline Report [APP-115]. All of the information required to calculate moisture balances is publicly available within the ES Appendix 12B [APP-115]. This includes the records of soil depth, texture, stone content, and subsoil structure from each sample point"*

The failure of the Applicant to produce details underlying the calculation of Moisture Balance across all of the baseline assessment renders its ALC grading opaque and inconsistent with the requirements of detailed soil mapping required by the British Society of Soil Science.

Failure to disclose data for all observation points used in the assessment of ALC across the proposed development area reflects the level of care given to the work and so demands that findings of the ALC baseline survey and the interpretation of observations are confirmed by an independent third party or in cooperation with SNTS.

Applicant's Response to Other Parties' Deadline 4 Submissions [REP5-058]

A G Wright & Sons

1/ Evidence regarding the development of Government policy and guidance with regard to the role of irrigation in ALC is before the ExA. It is for the ExA to decide on whether or not irrigation has a role in the classification of agricultural land.

3/, 15/ & 23 It is evident from the available published detailed soil mapping and associated memoirs that the six pits excavated after the main soil investigation are not representative of the significant soil types found in the proposed development area.

4/ & 5/ Detailed (1:10,560) mapping of the soils of the area has been carried out twice since 1950. This published mapping is at a more detailed scale than that published in the Environmental Statement (1:17,500) and does not appear to have been consulted by the Applicant in the course of its assessment.

6/ & 18/ The depth of soils used in the assessment of ALC is not in dispute. The soil baseline survey fails to find evidence of soils mapped in detail by the Soil Survey of England and Wales and this incongruity should be investigated by an independent third party.

It is accepted that the types of crops grown on land or the performance of those crops is not used in the assessment of ALC. However, these factors are reasonably used as indicators of land quality and the consistent use of the land in the proposed development area for the growing of high value, high yield crops is not consistent with the grading of that land under the ALC system as Grades 3b and 4, which soils are normally limited in their use.

The results of RAC's survey as used in the Sunnica agricultural baseline are representative only of a small proportion of the proposed development area as mapped. There is evidence before the ExA regarding the relevance of irrigation to ALC and it is for the ExA to decide on the evidence before it.

The Applicant states its view that:

> *"Given the lack of agreement over how the ALC guidelines are to be applied… …there is little to be gained by undertaking a joint survey"*

The dispute here is not about the general application of ALC guidelines, which are accepted by all, but about the accuracy of observation given the available detailed soils information for the area. In the circumstances, it is acceptable that an independent survey is carried out by way of confirmation of the agricultural soils baseline. This is in line with the Applicant's use of Land Research Associates to verify Patrick Stephenson Ltd's report.

Say not to Sunnica Action Group

Patrick Stephenson is a qualified and experienced soil surveyor who meets the required standards of the British Society for Soil Science with regard to the carrying out of ALC surveys and the interpretation of results thereof.

Applicant's response to second written questions [REP5-056]

Q2.0.5

The Applicant seeks to confine the context of agriculture in the planning system to the limiting of loss of Best and Most Versatile agricultural land. This is simplistic and ignores the ecosystem services supported by agricultural land, particularly of provisioning.

The EIA fails to take into account the productivity of the land in terms of regional and national food security and of the jobs associated with the cultivation, harvesting, processing, packing and transport of agricultural produce.

The applicant instead relies on the evidence set out in the agricultural baseline to justify the removal from production of a significant area of land that is generally accepted to be highly productive and of good quality.

Q2.9.1-2.9.8

The issues discussed here have been addressed earlier in this and other submissions/

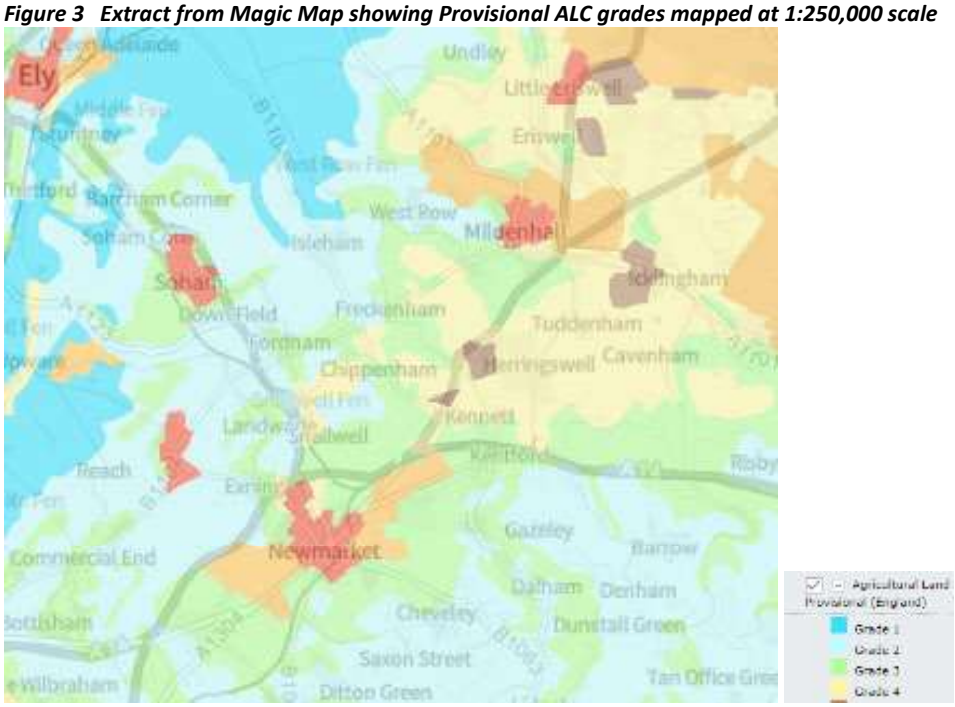
In summary:

- The Sunnica baseline survey fails to observe soils of the quality and type found by earlier surveyors of the area working for Cambridge University and the Soil Survey of England and Wales. These soils were mapped in greater detail than in the agricultural baseline (1:10,560 -v- 1:17,500 **[APP-238 & APP239]**) and significantly greater detail than the 1:250,000 soil association mapping used to inform the baseline.

- There is a significant inconsistency between the results of the RAC survey and those used in the baseline assessment. The incidence of soils similar to those found in the RAC survey across the proposed development area is very small. The findings of the RAC survey cannot be extrapolated across the proposed development area.
- The observations made by Patrick Stephenson Ltd 10m outside the boundary of the proposed development area are consistent with the soil types that are expected to be found in the area, as seen in the detailed soil mapping.
- It is agreed that the classification of agricultural land should be carried out in line with the published 1988 guidance only.
- The purported benefits to soil health of land being used for solar farming are discussed above. There is no evidence to support the contention that any benefit will accrue from the use of arable land for solar energy production.
- Accounting for the productivity of land in EIA and in the planning process is discussed above.

The Applicant response **[p67]** to comments that Sunnica's grading contradicts the post 1988 ALC on Magic.gov.uk is that "*It is the same grading but with the no longer supportable irrigation upgrade removed*". This is not the case. A large area south of Isleham is shown as Grade 2 on Magic (Figure 3). Grade 2 land if downgraded by one grade in line with the Applicant's assertion that it was upgraded by a single grade to take into account irrigation, would be classified as Grade 3a, Best and Most Versatile.

Figure 3 Extract from Magic Map showing Provisional ALC grades mapped at 1:250,000 scale



Appendix A

The status of non-BMV land in the planning balance, as discussed in the extracts of DCO Decisions and Recommendation Reports referred to in Q2.0.2 and Q2.0.5 is not questioned here. It is the grading and accounting for productivity of land that is questioned, specifically regarding the accuracy of the baseline soil survey and interpretation of the results of that survey, and the role of irrigation and productivity in both the grading of land and in the planning balance.

Appendix C

The land use statistics are not disputed but it should be borne in mind that 41% of the UAA is permanent grassland, this does not take into account the significant area of rotational grassland used in livestock production, and that figure includes a significant area of low quality land well-suited to solar energy production.

Appendix D

These statistics relate to the Defra statistical East of England region. They do not address local production which takes into account the exceptional agricultural nature of much of the proposed development area. The land use statistics set out in RAC's original report **[REP2*240d]** use the observed land use in the parishes of: Isleham; Freckenham; Worlington; Chippenham; Snailwell; Fordham; Exning; Burwell; and Red Lodge for the period 2017-2021 is shown below.

Crop Area (ha)	2017	2018	2019	2020	2021	Average	%age of whole
Sugar Beet	876	980	764	953	950	904.6	12.34
Potatoes	484	548	539	528	473	514.4	7.02
Maize	385	172	417	293	377	328.8	4.49
Peas	0	0	83	163	64	62	0.85
Field Beans	255	248	93	115	109	164	2.24
Other	1262	1055	855	831	686	937.8	12.80
Grass	399	431	479	479	391	435.8	5.95
Oilseed Rape	112	170	168	61	112	124.6	1.70
Spring Barley	671	319	725	699	708	624.4	8.52
Spring Oats	0	0	0	0	11	2.2	0.03
Spring Wheat	25	298	261	152	260	199.2	2.72
Winter barley	739	780	743	670	653	717	9.78
Winter Wheat	2127	2330	2204	2205	2349	2243	30.61
Solar farm	0	0	0	176	176	176	2.40
Total	7335	7331	7331	7325	7319	7328.2	

It is notable in the statistics set out in Appendix D show that the East of England accounts for 30% of English potato production and 62% of sugar beet, which crops are significant in the development area.

Appendix E

The Ministry of Housing, Communities and Local Government statistics relate to total areas of agricultural land, much of which is low quality. It does not put the proposed development area into context with comparable land.

Appendix F

The CPRE report advocates a national land use strategy, guidelines to minimise the loss of valuable farmland and the maintenance of agricultural capacity to deliver domestic food production. In the case of this application, the quality of the land in the proposed development area is disputed, and the role of that land in delivering agricultural outputs, ignored.

The report quotes from the Government's Food Strategy document published in June 2022, which stated that: "*We* [England] *have some of the best performing farms in the world, with 57% of agricultural output coming from just 33% of the farmed land area*". The farms in the proposed development area have yields in the top 33% of English farmland.

Agricultural Land Classification (ALC) Guidance [REP5-067]

The three documents at this appendix are:

- Ministry of Agriculture, Fisheries and Food: Agricultural Land Classification of England and Wales (1988)
- The Met Office: Climatological Data for Agricultural Land Classification (1989)
- Natural England Technical Information Note TIN049 – Agricultural Land Classification: protecting the best and most versatile agricultural land (2012)

The content of these documents is agreed without alteration or qualification.

The guidance set out in these documents requires that the existence of irrigation should be taken into account in the grading of land.

Peer Review of SNTS ALC Report [REP5-065]

This review of survey work carried out by Patrick Stephenson Ltd (PSL) was carried out by Mike Palmer of Land Research Associates (LRA), which company has specialised in the study of agricultural land and soil for more than thirty years.

The survey used to inform the baseline assessment of soils in the proposed development area **[APP-115]** is not subject to review by LRA or any other peer reviewer acceptable to the Applicant.

Observations similar to those made by LRA of the PSL reporting might also be levelled at the DBSC baseline report:

- No map showing soil pits is provided in the soils baseline report;
- The baseline report was not carried out on a randomised grid pattern, the pattern was aligned with a standard 100m based on the Ordnance Survey's 100m grid lines;
- Field data for soil stone content, subsoil structure and depth, and effective rooting depth are not informed by observations from representative pits.
- There are no images to support pit observations;
- The records of top and subsoil stone content from auger and pit observations do not always appear accurate when compared with detailed soil mapping and associated memoirs;
- Soils derived from chalk geology are not recorded as being calcareous; and
- "*It is normal practice to extrapolate calculations from pit investigations to surrounding auger logs*". This is not the case with the baseline survey, which preceded the pit observations.

Similarly, the conclusions of the peer review might also be applied to the DBSC baseline, based on the position of NE:

- Whilst a detailed investigation appears to have been undertaken, there are significant data omissions in the report, the absence of which makes grading land difficult. In particular, incongruous observations of soil depth and texture when compared with authoritative detailed scale mapping.
- The auger borings are not informed by soil pit observation data; and
- No detail is provided of droughtiness calculations, it is not possible to determine how the omissions and inconsistencies in data have been overcome to reach the grading conclusions.

Appendix G

Cranfield University comments on "Appendix A 8.62 Applicant's Response to Say No To Sunnica Action Group Deadline 2,3 and 3A Submissions" [REP4-036]

1. Appendix A sets out a response to the Cranfield University paper **[REP2-240g]** and poses a number of scenarios that claim to demonstrate a whole-life net carbon benefit. It is commented that "the calculations presented in the Climate Change chapter of the Environmental Statement (ES) [APP-038] (and therefore those undertaken by Cranfield University) underestimate the carbon benefit of the Scheme considerably as they do not account for the carbon benefits of the BESS."

2. It is unfortunate that the data supplied in the response was not provided in the ES; it would have assisted considerably in understanding the scheme. It is gratifying to note that Cranfield managed to calculate an approximate installed capacity of 625 MWp necessary to achieve the quoted energy output. (In fact, Table 1 of the response refers to 636 MWp being "modelled in the ES", although this value wasn't specifically mentioned in the ES at the time). It is also heartening that the response confirms that the replacement rate assumed for BESS in the ES was an omission and that our suggested 13-year life span for the batteries, resulting in 2 replacements in the 40-year lifetime, has been applied to sensitivity testing of the scenarios presented. (It should be stressed that 13 years was selected by Cranfield as being at the "favourable end" of the battery lifetime spectrum).

3. Unfortunately, we have not been provided with the underlying calculations for the work done in the appendix to **[REP4-036]**. Thus, is it not possible to properly comment on that work. In particular we note Table 2, where a methodology is indicated and the results presented. Without the underlying calculations, it is not clear how the whole-life carbon values have been calculated and it is important to understand this as they are crucial to understanding the BESS benefits. We would invite the applicant to provide the underlying calculations as soon as possible so as to better inform both us and the examining authority how these figures have been reached.

4. In addition to this general point, we have two areas we wish to comment on:

(1) **Reduction of Operational Intensity from 9 to 0.3g CO2e/kWh**:

5. In section A.1.2.6 of the appendix to **[REP4-036]**, operational maintenance and worker transportation emissions have been removed from the operational GHG intensity figure to give a like-for-like comparison with the grid average. This reduction by a factor of 30 would indeed make the Scheme's GHG emissions less. However, if you omit operational maintenance and worker transport emissions, we calculate operational intensity as around **1.4 gCO2e/kWh**. This was calculated using the values presented in Table 6-15 of the ES (Table 5 of the Cranfield report – see below):

Table 5: replication of ES Table 6-15: Operational GHG emissions (based on first year of operation with lifetime "inferred" emissions). (ES section 6.8.17, Table 6-15, p6-27)

Emissions Source	Emissions (tCO_2e)		% of Operation Emissions[13]
	1st year	"Inferred" Lifetime	
Worker transportation	199	6,264	3%
Maintenance	4,624	169,135	81%
Operation	909	33,409	16%
Total	**5,733**	**208,809**	**100%**

6. Omitting worker transportation and maintenance, leaves an operation emission of 208,809 tCO2e. The given energy output from the ES is 23.2 TWh over the 40-year lifetime, therefore operational intensity is 208,809 tCO2e divided by 23.2 TWh which equates to 1.44 gCO2e/kWh. This would change the reduction factor from 30 to 6 which is significant. We do understand that the reduction might be partly due to the lower grid decarbonisation that were used in calculating aspects of "operational" emissions.

7. As was noted generally above, it would assist to have the underlying calculations for this paper. In particular in respect of this point, a further explanation of what constitutes 'operation' and how 0.3gCO2e/kWh would be useful.

(2) Use of OGTC and CCGT emissions intensity values to evaluate BESS benefits:

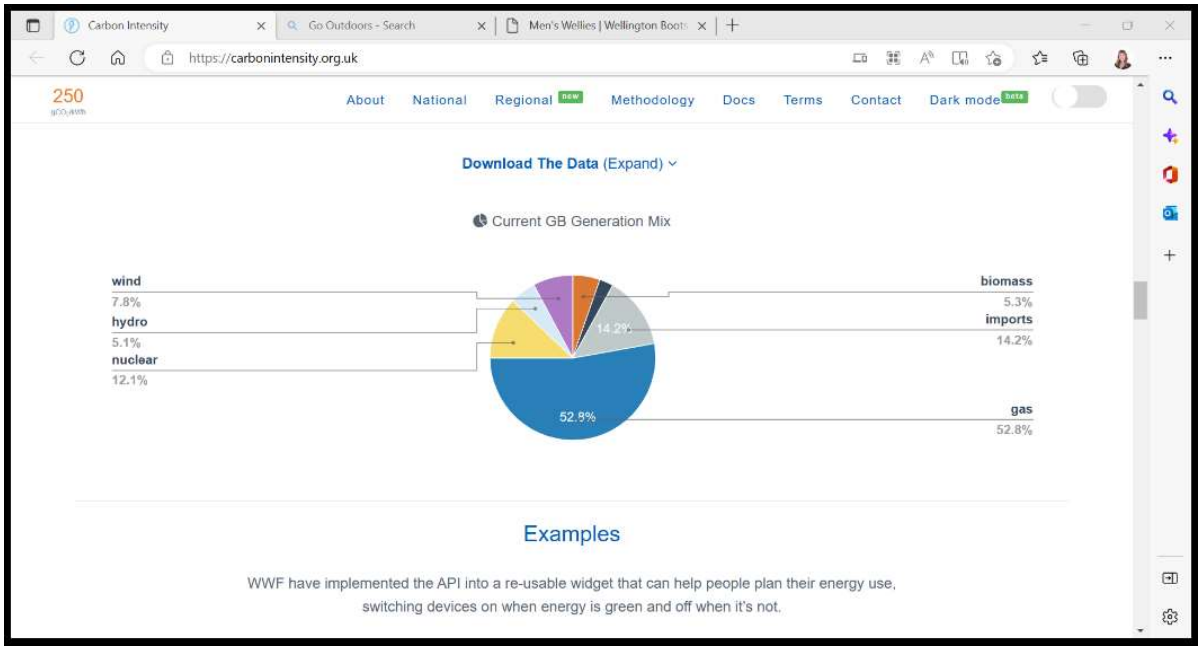
8. Section A 1.2.12 of the appendix to **[REP4-036]** suggests energy stored in BESS will be exported to the grid during periods of high energy demand and as such, Open Cycle and

Closed Cycle Gas Turbine (OCGT and CCGT respectively) emissions intensity values are used to evaluate the BESS benefits.

9. The above statement assumes that the BESS will only offset either CCGT or OCGT, due to their quick start-up advantages (ie. as per BESS). This assumption does not appear to reflect the fact that the grid operates as an "energy mix". Such mix is best represented by the operational intensity of the grid. It also does not appear to reflect the fact, recognised in the applicant's original assessment, that the operational intensity of the grid (including any use of CCGT and OGTC) is projected to fall dramatically over time.

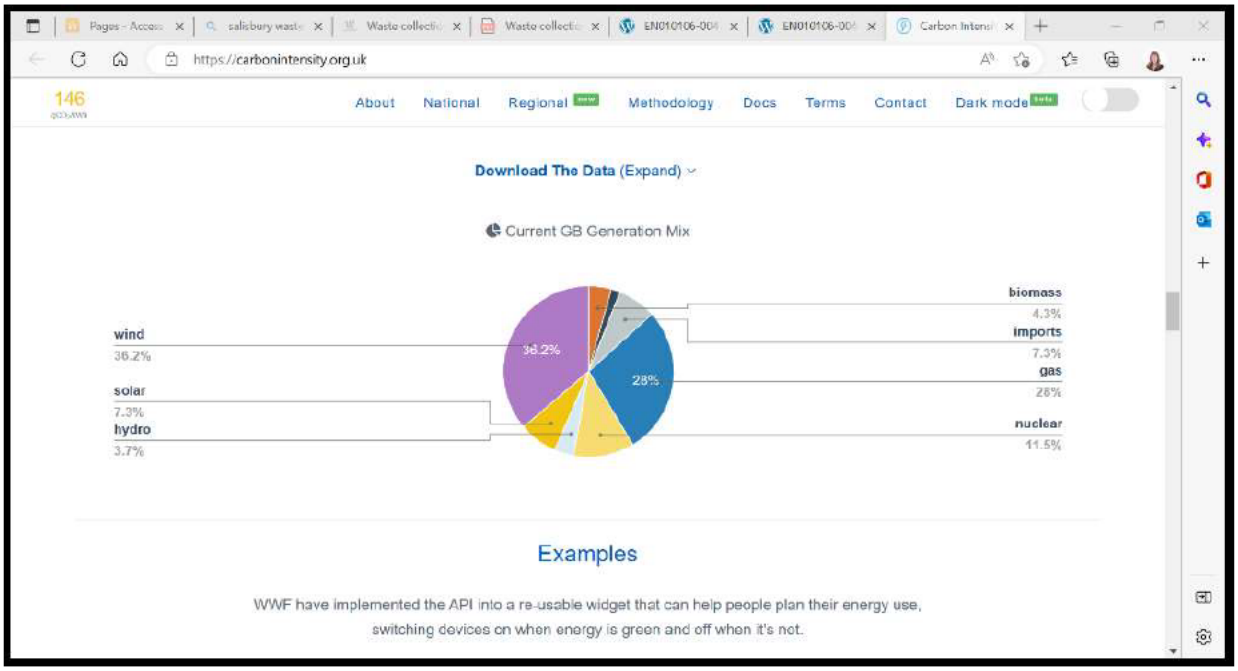
10. Even considering the position today, the assessment does not consider other fast start-up sources of electricity, and the availability of other sources. For example, pumped storage, hydropower and others like wind and hydro which are ramped up during peak times, thus potentially lowering the emissions estimates.

11. It may be useful to consider the "energy mix" in current times as this is important in considering that the paper provided does not account for energy currently provided from other less carbon intensive sources. For example, National Grid ESO, Environmental Defense Fund Europe, the University of Oxford Department of Computer Science and World Wide Fund indicate on their Carbon Intensity API website ([redacted]) that the mix as of 19:00hrs on 28th Jan 2023 is as follows:



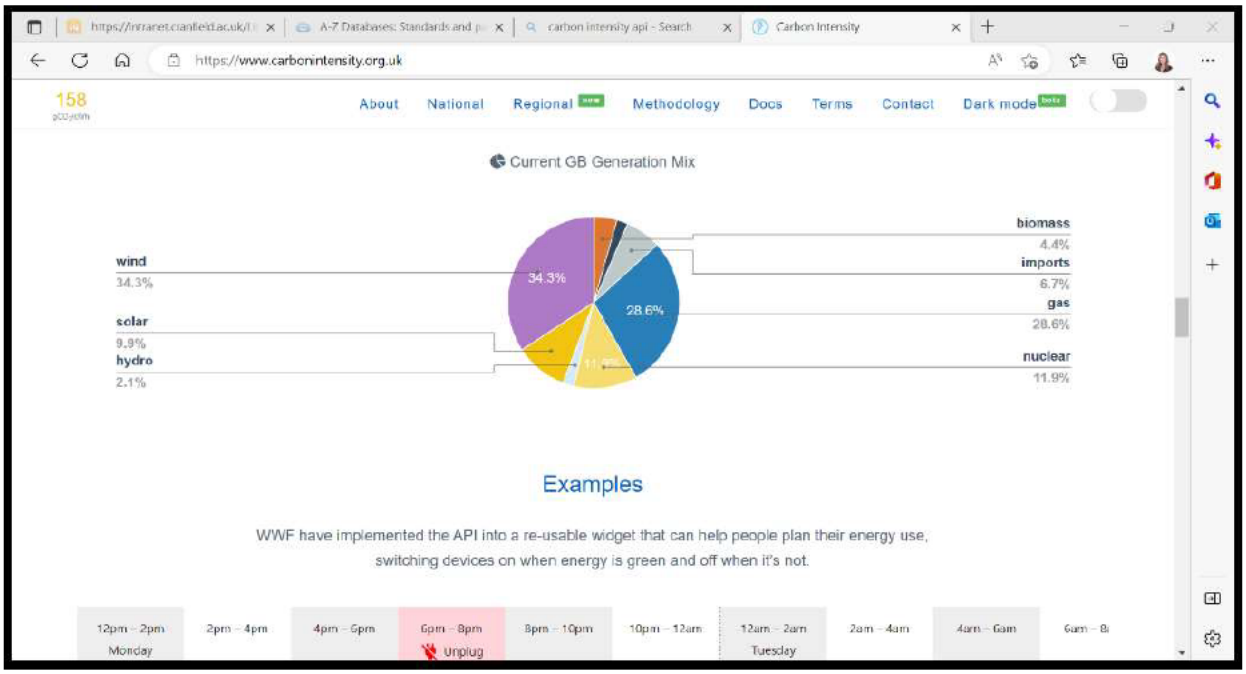
Screenshot of energy mix as of 27th Jan 2023 (19:00hrs), source: [redacted]

As a comparison, the mix at 11:30hrs on 30th Jan 2023 is:



Screenshot of energy mix as of 30th Jan 2023 (11:30hrs), source: [redacted]

12. Slightly later on the same day (30th Jan 2023 at 14:00hrs), the corresponding plot is:



Screenshot of energy mix as of 30th Jan 2023 (14:00hrs), source: [redacted]

13. We feel that the issue of energy mix, including how it changes (scheme's grid emissions projections over project life) requires further information and expansion. Without this, it

is very difficult to assess the position advanced in respect of the emissions produced and saved by the BESS.

Cranfield University comments on "Appendix A Applicants response to Cranfield University's report on carbon emissions" [REP3A-035] dated 28 Nov 2022

14. Much of the commentary in this paper is a prelude to the paper discussed above, so our comments above stand. However, we have one issue over the use of a 1% assessment threshold used to determine the significance of GHG emissions associated with the Scheme in the ES. Cranfield maintains its position in its original report in that 1% significance approach does not reflect a realistic approach to the assessment of GHG emissions. It seems to that 1% is about gaps in data rather than a threshold to be applied to overall GHG emissions (Quantifying the greenhouse gas emissions of products PAS 2050 & the GHG Protocol Standard available at: [redacted]. Accessed: 30th Jan 2023)

Appendix H

SNTS AG Ltd response to "8.62 Applicant's Response to Say No To Sunnica Action Group Ltd Deadline 2, 3 and 3A Submissions" (REP4-036)

Section 2.3: Topic – Consultation

1) SNTS has set out the reasons why local residents had difficulty understanding the information provided during the statutory consultation and why they felt that the consultation was inadequate. These have been submitted as part of the Adequacy of Consultation Representation from the 4 local host authorities (AoC-015 and AoC-019) and submitted by SNTS into the examination as **REP2-240h**. We stand by the representations made in that report, which address the points made by the Applicant in their response submission **REP4-036**.

2) Our position on the confusion surrounding the exact location, size and scale of the scheme (including in terms of hectares / acreage) are discussed in detail in sections 3.1.2 – 3.1.7 of REP2-240h, with examples of advertisements, etc. provided. It also covers the impacts of the late addition of the land area E05 nearest to Isleham (discussed in Section 3.2 of **REP2-240h**).

3) As acknowledged by the Applicant under Theme "Poor Consultation Material," the parish councils were encouraged to feedback difficulties with the consultation. An example of where this was done is included in **Appendix 1** (letter sent to Sunnica Ltd by Freckenham parish council). Unfortunately, this did not result in the provision of larger, clearer maps or more accurate and easy to interpret visualisations.

4) SNTS also notes under this "Theme" that letters sent to those identified as consultees for compulsory purchase/ acquisition were sent to some residents several months after the statutory consultation. In at least one case requests by the recipients for clarification as to what exactly was intended went unanswered causing anxiety (see example in **Appendix 2**). The recipient resorted to contacting their local MP for assistance since none was initially forthcoming from the Applicant (further explained in section 3.3.10 of **REP2-240h**).

5) Section 3.4.5 - 3.4.7 of **REP2-240h** describes the lack of consultation with the travelling community on Elms Road who only became aware of the scheme around 10 months after the statutory consultation had closed. A copy of a letter they sent to the councils and MPs at the time is attached as **Appendix 3**. SNTS maintains the view that it is the responsibility of the Applicant to carry out due diligence to identify those residents who are affected by the scheme and to contact them directly. The Applicant failed in this regard.

6) Regarding the comment about accessibility of the material for those with no or limited computer access (as described in **REP2-240h** sections 3.4.12 – 3.4.13) and the limited awareness of online materials (51% of people surveyed indicating that they were unaware of/ unable to access online material), please could the Applicant provide a full breakdown of the number of responses and ages, etc. of the consultation feedback and whether their responses were online or using the questionnaire or other means of response in order that SNTS may comment more fully on this?

7) SNTS has outlined its position on the availability of the important Preliminary Environmental Impact Report (PEIR) in Sections 3.4.27 - 3.4.35 of **REP2-240h** and we stand by the concerns raised. The Applicant did not 'identify the opportunity' to provide hard copies of the PEI report to the parishes but were requested to do so on several occasions by members of the public and the parish councils. After initial hesitation the Applicant eventually offered hard copies of the PEI Report to the parish councils. This involved several stages of requests from the parish councils before a copy was eventually dispatched, all of which ate into the consultation time. See **Appendix 4** for typical correspondence. Chippenham Parish Council received their PEIR on 29th October (over 5 weeks into the consultation period), Fordham PC received their copy in December as the consultation period was drawing to a close, despite them having sent reminders to the Applicant. The hard copies of the PEIR that were eventually provided did not include technical appendices, so were incomplete.

8) Section 3.5 of **REP2-240h** outlines SNTS's position on the ineffectiveness of the webinars in detail and will not be repeated other than to make the point that webinars being "widely publicised" does not necessarily mean "effectively publicised" and noting that 65% of 562 people surveyed by SNTS were not aware of the webinars and attendance ranged from 12 - 21 people for the first set of six consultation webinars.

9) As outlined previously, visualisations were not available to all from the outset of consultation because the PEIR was not available to all from the outset. Furthermore, the visualisations that were provided were difficult to interpret as indicated by the comments submitted by Freckenham parish council in **Appendix 1** and highlighted in sections 3.6.3 – 3.6.8 of **REP2-240h**.

10) Overall, there was considerable feedback from residents on misleading / missing / conflicting information. This is not only outlined in SNTS's REP-240h (Section 3.6) but also similar observations were made by the 4 host local authorities as outlined in their 79-page joint response to the statutory consultation submitted to Sunnica in December 2020 (**Appendix 5**). This report is a catalogue of many missing details, confusing points, including what they refer to as *"a lack of any information regarding the decommissioning phase and how this will impact on newly created habitats and their long-term survival (i.e. beyond 40 years)."*

11) This was further alluded to in the oral submission by one of the county councillors (Cllr Rout of Suffolk County Council) who commented that the proposed Sunnica project is "the poorest application I have dealt with to date" (**REP4-123**).

12) Statutory Consultation responses submitted to Sunnica by other organisations e.g. Suffolk Preservation Society (**Appendix 6**), also repeated comments about the inadequacy of the information available in the PEIR in several areas, making proper assessment of the impact impossible.

13) As outlined in section 3.6.14 – 3.6.22 of **REP2-240h** information regarding the BESS was particularly inadequate and the booklet omitted the proposed 'energy trading' use for the BESS. Furthermore, responses were consistently provided throughout the consultation process (and indeed the examination) that the BESS need to be located well away from people's properties and ideally in an industrial setting. This has not been taken into account, with the location of the BESS being in the countryside, very close to people's homes and businesses (particularly on Elms road) and is a contradiction to a statement by the Applicant during the Grid Connection webinar on the 10th October 2020 in which they state that, *"The location of the battery storage has also been chosen in particular such that it is located well away from any potential hazard receptors."* (Recording available on [redacted]. Luke Murray, Sunnica director, speaking at approx. 43 minutes)

14) Regarding the statement about agricultural land, the ExA is aware that there is disagreement between the Applicant and a number of registered parties including SNTS regarding the soil quality assessments. This will not be reiterated here. What is important is that correct assessments must be presented to communities during the consultation so that they can assess the impact of the scheme on agricultural land and food production. The local communities and all consultees have been misinformed on this point.

15) Regarding traceability, the software used for the online consultation submissions offered no option to request confirmation of receipt. Normal practice with online forms is that an automatic acknowledgement is generated when a form has been successfully submitted. Sometimes a reference number is received. This was not the case with the software used in this instance. There was also no provision to opt to request a receipt for the consultation questionnaires submitted by post. Please can the Applicant provide details about the consultation questionnaires submitted to which they provided an acknowledgement of receipt (including the number of these acknowledgements and how these were sent)?

Appendix 1

Freckenham Parish Council complaint letter to Sunnica regarding parishioner's difficulties with the statutory consultation materials

FRECKENHAM PARISH COUNCIL

Jadi Coe
Clerk to the Council

[redacted]
Mildenhall
Suffolk
[redacted]
[redacted]
[redacted]@hotmail.com

Luke Murray
Director
Sunnica Limited
2 Crossways Business Centre
Bicester Road
Kingswood
Aylesbury
HP18 0RA
info@sunnica.co.uk

9th October 2020

Dear Mr Murray,

Please find below a number of concerns about the current Statutory Consultation noted by Freckenham villagers and reported to Freckenham Parish Council. We welcome the opportunity to discuss these points with you, however our position is that the current consultation is flawed in a number of key respects. Overcoming these flaws will require changes and a significant extension to the consultation period. Given that any extension to the consultation would bring the end date towards Christmas 2020, Freckenham Parish Council requests that the consultation is extended until at least the 31st January 2021, or ten weeks after the issues are resolved if later. Our concerns are as follows:

Physical consultation events

- The lack of physical consultation events is excluding many villagers who would otherwise engage with the consultation. Freckenham and surrounding villages are able to hold community events such as monthly outdoor Farmers Markets and the recent Freckenham Neighbourhood Plan consultation event (26th September) while complying with Government COVID-19 safety guidelines. It should be possible for Sunnica to design a safe event for each village.
- Freckenham has a high proportion of villagers who are not confident in accessing online materials or webinars, who are hence excluded from the opportunity to ask questions or view the scheme in sufficient detail. Villagers are also reporting difficulties with the consultation booklet (see below) and would much prefer to see maps at large scale. The population profile of Freckenham shows that 25.4% of villagers are over 65, a higher proportion than the national average of 18.4% (ONS 2019, see [redacted])
- The Statement of Community Consultation page 16 details the process for beginning consultation events, but the decision point at the 27th October 2020 and the two-week notice period mean any events would not start until mid-November. With only two weeks until the consultation closes on 2nd December 2020, Freckenham Parish Council believes the consultation closing date should be significantly extended. This would allow more time for villagers to visit an event, consider the scheme and how it affects them, and make a meaningful consultation response. [redacted]

The Consultation Booklet

- Villagers are reporting problems reading and understanding the consultation booklet which is negatively affecting their ability to engage with the consultation. They report:
- Maps on pages 7, 9, 11, 17, 21-24 are scaled for A3, but reduced to less than A4. Many villagers report these maps are too small for them to read. The incorrect scaling for the printed page size means that they cannot measure any distances on the map and correctly interpret them, for example the width of Native Grassland Planting or distances from their homes to the edge of the scheme. Certain maps such as Sunnica East Site A and B Parameter Plan on page 9 show no village names, road names or other landmarks, meaning they must be read in conjunction with other maps which is difficult for people to manage given they may also be using magnifying lenses. All these points mean that larger format maps are required for many villagers to comprehend the boundaries and features of the scheme
- Consultation booklets were delivered in plain white envelopes addressed to "The Resident" without any mention of Sunnica on the outside (including the return address). People may have mistaken them for unwanted marketing materials and discarded them. This point was raised in Freckenham Parish Council's response to the Non-statutory Consultation [redacted]
- The instructions on booking an individual appointment to speak to a member of the Sunnica staff is located on the back of the booklet, in small point type. The use of small typefaces was raised in Freckenham Parish Council's response to the Non-statutory Consultation [redacted]) For those with a visual impairment, knowledge about telephone appointments is effectively hidden. A statement at the front of the booklet, or in other advertising, would have been much more effective in ensuring appointments were accessible to those who need them.
- Given the above points about the Consultation Booklet, Freckenham Parish Council believes that the consultation end date should be extended to allow time for large print maps and consultation materials to be made available to those requiring them. Villagers requiring these items could make themselves known to Sunnica through contact with Parish Councils and other relevant organisations in Consultation Zone 1. The large print maps should be made available free of charge: in our view it would be discriminatory to apply the £0.35 per page printing fee mentioned on the reverse of the consultation booklet.

Advertising the consultation

- The Statement of Community Consultation Table 3 states that the consultation will be publicised in local newspapers including the Newmarket Journal and the Bury Free Press. There are no advertisements of the type used during the non-statutory consultation in the paper editions of the Newmarket Journal dated 10th, 17th, 24th September and 1st October, nor in the Bury Free Press dated 2nd October.
- Freckenham Parish Council submitted a written question to the 21st September briefing requesting a single large banner advertising the consultation for display in a prominent position in villages directly affected by the scheme. The question was mentioned during the briefing, but no response has been made. The use of banners agrees with the adopted West Suffolk Council Statement of Community Involvement on "Line of sight publicity" (Table 1) as recommended by Advice Note 2 from the Planning Inspectorate, Section 5.3 "A local authority's adopted Statement of Community Involvement (or Community Involvement Scheme in Wales) is likely to have a bearing on its response to the developer's SoCC Consultation."
    - https://www.westsuffolk.gov.uk/planning/Planning_Policies/upload/18-12-20-SCI-adopted-version.pdf
    - https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/03/Advice_note_2.pdf
- The lack of effective advertising has limited awareness of the consultation in progress, and this is shown in the lack of engagement in online activities such as the webinars, where fewer than 20 connections were made for webinars on the 1st and 3rd October 2020. Freckenham Parish Council believes the consultation end date should be significantly extended while proper advertising in the press is carried out as detailed in the Statement of Community Consultation, allowing villagers time to engage properly with the consultation.

Webinar format

- The consultation webinars provide a means for villagers to have an audio-description of the scheme as it affects them. It isn't clear why the 30-minute presentations weren't recorded up-front, since they could have been made available as soon as the consultation opened, maximising the time they were available. A villager wishing to hear the webinar on Construction and Operations would need to wait almost one month from the start of the consultation until the webinar is available. The webinar format could have focussed on the questions and answers, with the presentation inset at the start if required. However, the format of the question and answer session is currently inadequate, as there is no facility for a meaningful dialogue between the people asking and answering a given question. The open audio format used during the Parish Solar Alliance briefings on the 15th July and 21st September 2020 was much more effective in promoting an open dialogue on the points raised.
- Freckenham Parish Council believes that the webinar presentations should be made immediately available online, and the consultation extended to allow villagers time to consider the webinars, utilise the question and answer sessions and make their responses to the consultation.

In conclusion, Freckenham Parish Council hasn't received any written responses from Sunnica to written questions previously submitted. Still outstanding are responses to Freckenham Parish Council's response to the Non-statutory Consultation, and written questions submitted by email to the 15th July 2020 and 21st September 2020 briefings. We look forward to written responses to these submissions and, more importantly, to the points raised in this letter.

Yours sincerely

[redacted]

Jadi Coe
Clerk to the Parish Council

Appendix 2

Dialogue regarding compulsory purchase or acquisition

---------- Forwarded message ---------
From: **Neil Burns** <[redacted]
Date: Sat, 2 Oct 2021, 19:13
Subject: Message for Cath Judkins
To: No Sunnica <[redacted]

Hello

Recently at a meeting to discuss the Sunnica plan a friend of mine mentioned that we had received a letter from WSP (acting for Sunnica) about potential compulsory purchase of our land or property. We received a letter -special delivery- in July addressed to my wife and I at [redacted]. I think house no [redacted] also got the letter. It stated that we may be subject to compulsory purchase of our property or land. We attempted to get some clarification of why they should want the land or house because we are a long way from the pipe run or sub-station in Burwello. We did not get a reply from WSP or Sunnica. However, We contacted Luscy fraser's office and one of her team did get a reply. They said that it was unlikely that they would impact the property or our land. They had to inform us because there would be removal of what they called street furniture in [redacted] Burwell when they brought heavy equipment down the road, and since we owned the sub-soil under [redacted] we had to be informed. We checked the land-registry and it does not show any ownership of the sub-soli under the road. I queried this with Sunnica (WSP) it was a legal rtequirement that they must consider that house holders may own the subsoli. A further letter from WSP indicated again there would probably not be any impact on our property but there would be the movement of heavy equipment down the road including three large cranes.. they also mentioned there could be some overswing of the cranes although it was unlikely. That is how the issue stands at present.

Appendix 3

Letter from Travelling Community to councillors and MPs sent in October 2021

[redacted]

18TH October 2021

Dear Mr Phillips and Ms Barrow

OBJECTION LETTER TO THE SUNNICA INDUSTRIAL PARK

We have lived at our site off [redacted] for four years with our families. This is our home. We have shown our site shaded red on the attached plan

We are the closest people to the Sunnica East Site B Battery Energy Storage System and the solar panels come right up to our boundary. We estimate we are only 50 yards from the batteries.

We have NEVER been contacted or consulted about this scheme by Sunnica or any representative of Sunnica.

If this scheme was allowed to go ahead it would have a very bad effect on our property. We should have been contacted and consulted. We do not want to live within 50 yards of one of the Largest Battery farms in the world. It will make us nervous and have a very bad effect on our property and our general health and wellbeing. Currently we have two children living here [redacted]

We know these types of batteries catch fire, we have heard about thermal runaway, we know if they do catch fire they give off dangerous gasses, and they can't be put out. Why do people have to live so close to them. We must be protected.

It is not acceptable for us to have not been consulted and we strongly object to the scheme, which should be refused. It will destroy the area we live in and is not a green scheme. It will generate more carbon than it saves. Apparently the batteries will have to be replaced 5 times during the 40 years of the scheme

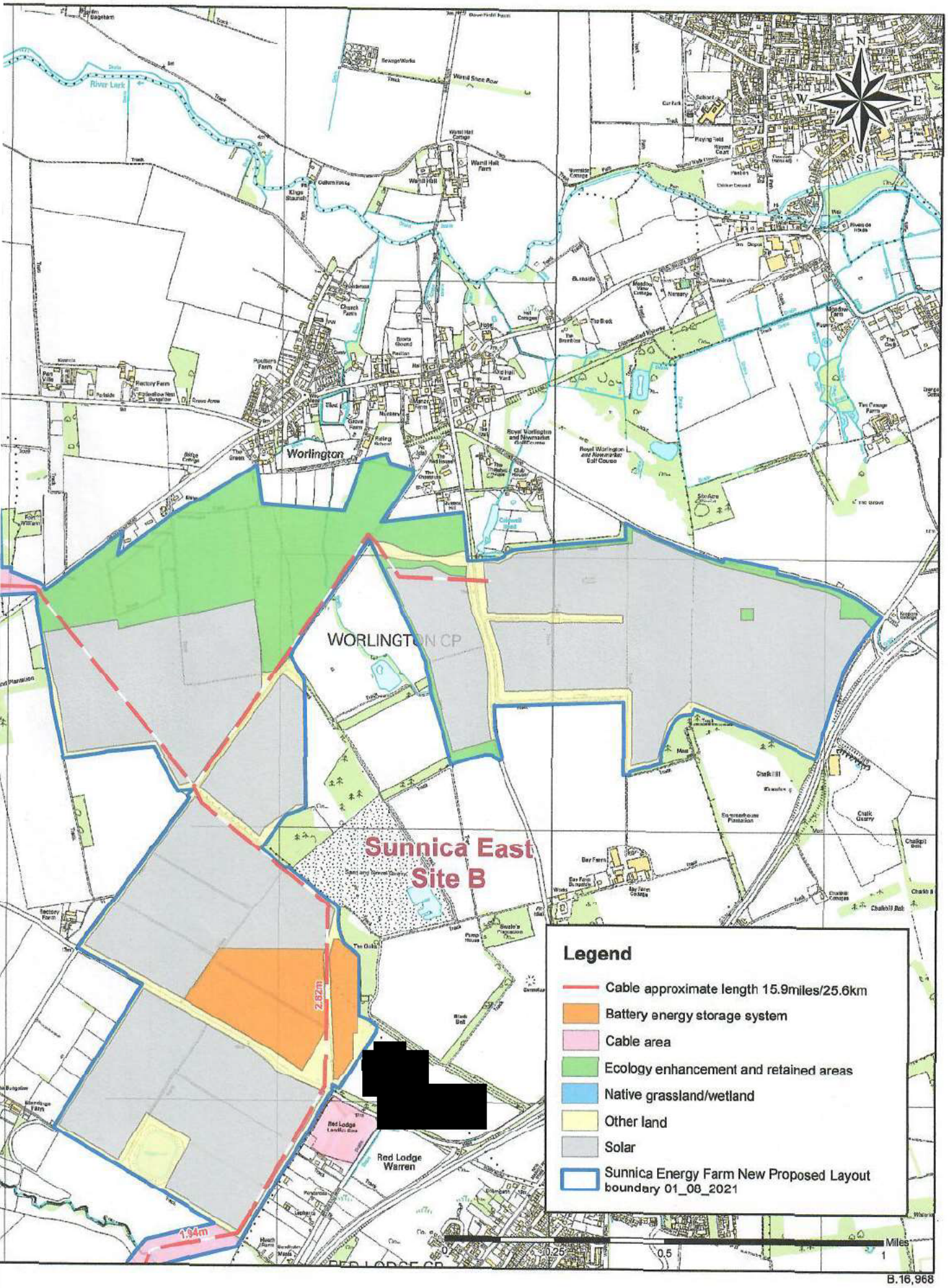
Please contact us as a matter of urgency.

Signed by the Traveller Community Elms Road

[redacted]

Copied to Matt Hancock MP
Lucy Frazer MP
Brian Harvey West Suffolk
Julia Huffer ECDC
Josh Schumann ECDC

ed Layout - East Sites A & B



B.16,968

Appendix 4

Sample email of PEIR request from Worlington Parish council and Red Lodge parish council

Re: worlington and PEI Report

From: Catherine Judkins [redacted]

To: [redacted]

Date: Tuesday, 24 January 2023 at 16:13 GMT

From: Scott Harker <[redacted]
Sent: 15 October 2020 15:14
To: worlingtonparishcouncil worlington [redacted]
Subject: RE: Sunnica statutory consultation: PEI Report

Dear Vicky,

Thank you for your email and for expressing an interest in receiving a hard copy of the core chapters of the PEI Report and its non-technical summary.

We are able to send these documents to you but would like you to review and reply to the attached letter before we dispatch the documents to you.

If you have any questions please do not hesitate to get in touch. Alternatively, you can contact the wider project team by calling Freephone 0808 168 7925 or by emailing info@sunnica.co.uk

Kind regards,

Scott Harker

(For and on behalf of Sunnica)

Scott Harker | Consultant

NEWGATE COMMUNICATIONS

[redacted]

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50 Basinghall Street
London
EC2V 5DE

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Part of SEC Newgate S.p.A. [redacted]

From: worlingtonparishcouncil worlington <[redacted]
Sent: 07 October 2020 21:28
To: Scott Harker <[redacted]
Subject: Re: Sunnica statutory consultation: PEI Report

Dear Scott

Yes please, Worlington Parish Council would like a copy.

[redacted]

Many thanks

Vicky Bright Sent from my iPhone

On 7 Oct 2020, at 17:18, Scott Harker <[redacted] wrote:

Good afternoon,

I am contacting you on behalf of Sunnica because we would like to enquire as to whether your parish council would like a hard copy of the main body of the PEI Report (the non-technical summary and chapters 1-18) for public use. We are making this offer as we have received requests from a number of parishes in the area to make this document available to them in hard copy.

Should your parish council request a copy, Sunnica is happy to provide the document to yourself in your role as parish clerk. It will be the responsibility of each parish council, should they invite people to view the document in person, to only facilitate access to the document in line with the Government's Covid-19 guidance and regulations in place at the time.

The use of the document is outside the direct control and management of Sunnica.

If you would be interested in this, please reply to this email or contact the Sunnica project team at info@sunnica.co.uk or by calling 0808 168 7925.

Kind regards,

Scott Harker

(For and on behalf of Sunnica)

Scott Harker | Consultant

[redacted]

Sky Light City Tower
50 Basinghall Street
London
EC2V 5DE

[redacted]

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Red Lodge Sunnica statutory consultation: PEI Report

From: Catherine Judkins [redacted]
To: [redacted]
Date: Monday, 30 January 2023 at 17:54 GMT

From: Scott Harker [mailto:s[redacted]
Sent: 15 October 2020 15:30
To: Red Lodge Clerk [redacted]
Cc: info@sunnica.co.uk
Subject: RE: Sunnica statutory consultation: PEI Report

Dear Shazia,

Thank you for your email and for expressing an interest in receiving a hard copy of the core chapters of the PEI Report and its non-technical summary.

We are able to send these documents to you but would like you to review and reply to the attached letter before we dispatch the documents to you.

If you have any questions please do not hesitate to get in touch. Alternatively, you can contact the wider project team by calling Freephone 0808 168 7925 or by emailing info@sunnica.co.uk

Kind regards,

Scott Harker

(For and on behalf of Sunnica)

Scott Harker | Consultant

[redacted]

Sky Light City Tower
50 Basinghall Street
London
EC2V 5DE

[redacted]

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PR Agency of the Year - Headlinemoney Awards 2020
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Best Corporate Communications Campaign of the Year - CIPR Excellence Awards 2020
Best Integrated Campaign of the Year - CIPR Excellence Awards 2020

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Part of SEC Newgate S.p.A [redacted]

From: Red Lodge Clerk <[redacted]
Sent: 09 October 2020 12:53
To: Scott Harker <[redacted]
Cc: info@sunnica.co.uk
Subject: Re: Sunnica statutory consultation: PEI Report

Good Afternoon,

We will be pleased to receive this document.

Kindest regards,

Shazia Shujah

Clerk/RFO

Red Lodge Parish Council

The Sports Pavilion

Hundred Acre Way

RED LODGE

Bury St Edmunds

Suffolk. IP28 8FQ

[redacted]

From: Scott Harker <[redacted]
Sent: 07 October 2020 17:18
To: Scott Harker
Cc: info@sunnica.co.uk
Subject: Sunnica statutory consultation: PEI Report

Good afternoon,

I am contacting you on behalf of Sunnica because we would like to enquire as to whether your parish council would like a hard copy of the main body of the PEI Report (the non-technical summary and chapters 1-18) for public use. We are making this offer as we have received requests from a number of parishes in the area to make this document available to them in hard copy.

Should your parish council request a copy, Sunnica is happy to provide the document to yourself in your role as parish clerk. It will be the responsibility of each parish council, should they invite people to view the document in person, to only facilitate access to the document in line with the Government's Covid-19 guidance and regulations in place at the time.

The use of the document is outside the direct control and management of Sunnica.

If you would be interested in this, please reply to this email or contact the Sunnica project team at info@sunnica.co.uk or by calling 0808 168 7925.

Kind regards,

Scott Harker

(For and on behalf of Sunnica)

Scott Harker | Consultant

[redacted]

Sky Light City Tower
50 Basinghall Street
London
EC2V 5DE

[redacted]

Appendix 5

Joint local authority statutory consultation response sent to Sunnica Ltd in Dec 2020

SUNNICA ENERGY FARM - RESPONSE TO STATUTORY CONSULTATION

December 2020

Introduction

This document is the joint response of West Suffolk Council, Suffolk County Council, East Cambridgeshire District Council and Cambridgeshire County Council (referred to as "the Councils" in this response) to Sunnica's Section 42 consultation. Unless it is identified otherwise in specific sections, the Councils share their views on matters within this response. Any views expressed in regards to East Cambridgeshire District Council are at an informal professional officer view only.

The following comments are organised according to the chapters of the Preliminary Environmental Information Report

Contents

EIA Methodology

Policy considerations

The Councils acknowledge the need to increase renewable energy generation. For example, West Suffolk Council is an investor, developer and supporter of renewable energy generation and has set out its plan to achieve Net Zero Emissions. The Councils recognise the demands for new additional generation and the UK Government's legal obligation to achieve Net Zero Emissions by 2050, as supported by research and publications by the Committee for Climate Change.

East Cambridgeshire District Council on the 21 October 2019 declared a climate emergency. Policy ENV6 of the Adopted Local Plan 2015 and the Council's Renewable Energy SPD both support in principle solar farms, with battery storage to use the solar energy created at the most appropriate times during the day.

NPS EN-1 (the Overarching National Policy Statement for Energy) was published in July 2011. This sets out the UK Government's commitment to increasing renewable generation capacity and recognises that, in the short to medium term, much of the new capacity is likely to come from onshore and offshore wind. Solar is noted within the document as being an intermittent renewable technology.

NPS EN-3 (the National Policy Statement for Renewable Energy Infrastructure) does not include solar power or electricity storage within its scope. NPS EN-3 suggests that, at the time of designation in 2011, other types of onshore renewable energy generation were not technically viable at a scale of more than 50MW, and that the Government would consider revisions to NPS EN-3 or separate NPSs to cover such technologies should the situation change. The Councils acknowledge that the feasibility of delivery of solar PV technology has advanced to enable deployment on a larger scale, however, no such updates to the NPSs have been produced to indicate that solar PV on the scale proposed is appropriate.

In relation to 1.2.10, the Councils welcome a diverse energy generation mix to support the growing need for clean renewable energy. The East of England has significant solar photovoltaic generation in place, with more planned in the future that will make it one of the dominant onshore renewable generation technologies in the short term[1].

In relation to the policies set out and the acknowledgement to the developing West Suffolk Local Plan, it is clear that Councils will need to develop clear strategic plans to achieve net zero emissions balancing out demand reduction with increased electrical demands and renewable generation alongside the needs of the community and the need for wild biodiverse ecosystems that will provide the carbon positive countryside we demand upon.

East Cambridgeshire requires the developer to assess the significant loss of agricultural land over the lifetime of development and how this loss might be further

[1] See East of England Renewable Capacity Plan: https://www.eastsuffolk.gov.uk/assets/Planning/Suffolk-Coastal-Local-Plan/Document-Library/Infrastructure/east-of-england-renewable-energy-capacity-study.pdf

pressurised by the need for the Council to deliver dwellings, employment and the need to provide greater areas of biodiversity.

The Councils therefore require additional information in relation to the carbon balances of the development as the land take required is clearly significant and relevant to the local activities to achieve net zero emissions.

The UK Solar PV Strategy requires proposals to be appropriately sited, with proper weight given to environmental considerations such as landscape and visual impact, heritage, and local amenity, and provide opportunities for local communities to influence decisions that affect them. As detailed elsewhere in this response, insufficient weight has been given to the environmental effects of the proposal, particularly in relation to its landscape and visual impact. Insufficient attention has been paid to the views of the local communities and there is little evidence to demonstrate that the local communities have had any meaningful input to the scheme design.

The proposed Development Consent Order (DCO) boundary definition makes reference to land potentially being required temporarily and/or permanently. Clarification as to what land is required on a temporary basis and for which periods is required.

The scheme definition refers to a *potential* Battery Energy Storage System (BESS). If there is a possibility that this element of the scheme may be removed, then the needs to be non-BESS scenarios within the PEIR. Clarity is necessary as all other references within the PEIR indicate that this is a confirmed part of the scheme.

East Cambridgeshire District Council wish to point out that the village of Witchford has an adopted Neighbourhood Plan, as the developer does not make reference to this in their adopted policies for East Cambs while referencing the other adopted neighbourhood plans.

West Suffolk Council highlight that Freckenham as an emerging Neighbourhood Plan and the Freckenham Landscape Character Assessment with Key Views is complete and published on the Parish Council website.

Scheme Location

This section describes the location of the project. The Councils do not disagree with this description. Our view on site selection can be found in the Alternatives section.

Scheme Description

The scheme description fails to identify the electrical generation capacity for the scheme, and it is considered that this information should be contained within this section in the same way that it is detailed in the Scoping Opinion. Likewise, confirmation of the BESS electrical capacity should also be contained within this section.

Plate 3-10 depicts a typical battery storage compound configuration. The BESS electrical capacity of this configuration needs to be set out including how this relates to the proposed BESS system as set out in the Scoping Opinion.

The solar PV generating capacity is significant as it will enable an assessment of the Green House Gas (GHG) impacts benefits from the project set out in later chapters. Further comments in this response in relation to the energy proposed to be generated and the need for clarification of the size of the solar array relate to the scheme description as do the role of the BESS in emissions savings and the quantification of the overall emissions benefits.

Paragraph 3.6.12 refers to the volume of staff on site, and the vehicle journeys this will generate and is of significant concern. Whilst a Travel Plan will be produced, its effectiveness will depend on investment and consideration as to implementation. The potential for, a shuttle bus or holding non-critical journeys away from the site should be part of the Travel Plan. An understanding of how vehicle journeys will be distributed across the sites is required in order to aid the understanding of the key issues and would assist the promoter in developing a travel plan and recommendations to manage journeys that can actually be implemented. Does the applicant intend to make provision for any temporary living accommodation on site for staff and/or make land available for privately owned accommodation to be sited?

In relation to paragraphs 3.6.15, 3.6.16 and 3.6.27, the Councils expect further details in relation to the fuel used on site and how this will be monitored and managed for efficient use. The promoter should provide a final report of the fuel consumption and carbon footprint of the scheme after completion showing what was undertaken to reduce fuel consumption and emissions generation.

Concerns are raised in relation to paragraph 3.6.25 and the treatment of topsoil and spoil from the sites. In terms of the soil as a natural resource, retaining the distinct ecological characteristics of the sites and to encourage local biodiversity back to the sites there needs to be a priority for topsoil management, retention and redistribution on site. Further reference to the management and maintenance of the sites post construction should be made and it is suggested reference is made to DEFRA's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites and that this tool is utilised- [redacted]. The operational phase management should minimise fuel demands and avoid spraying, and this should be detailed.

Clarity is also required on where the weather stations be positioned and what form will these take.

Paragraph 3.6.13 states that working hours are expected to be 07:00 to 19:00 Monday to Saturday. An assurance is required on these hours and that there will be no working on Sundays, bank holidays and public holidays. Chapter 11 of the PEIR (noise and vibration) is based on these working hours and assumed construction plant such as a push press piling rig. The actual methods are not confirmed but, as noted in 11.8.10 for example, vibration distances are lower for push piling than other piling activities.

East Cambridgeshire Council's Environmental Health Officer has raised concerns in

regards to proposal, these are included within the Noise and Vibration section below. In addition, concern is raised about why flood lighting is required, when other solar farms have demonstrated they can secure the site with infrared lights during the operational stage of the development.

The location of the office/warehouse at Sunnica East Site A is questioned given the amount of vehicular traffic that will need to use the local road network to access the site. The office/warehouse would be better located at parcel E18 where there is access from the major road network. It is unclear from the parameter plans what is occurring on parcel E23.

Alternatives

The PEIR states that a report setting out the assessment of alternative sites will be submitted with the DCO application. While the PEIR sets out that a key consideration in relation to site selection was the chosen connection point at Burwell, it is unclear how a search radius of 15km from this point was arrived at. East Cambridgeshire specifically would refer to the elements of the energy farm near Isleham that are located a substantial distance from Burwell given the route of the electrical cable. Furthermore, the promoter should explain why land closer to Burwell Substation does not form part of the scheme, to negate the need for the installation of extensive connecting cables, and that the use of four separate sites is an efficient strategy given the additional connection work that will need to be undertaken.

The PEIR fails to include two critical requirements in connection with site selection in connection with the avoidance of areas that have an impact on residential areas and, in respect of Sunnica East, the avoidance of an impact on The Brecks. The Sunnica East sites are located close to ancient villages (some dating back to 1000 AD) such that over 11,000 residents will be impacted by the development. The proposal will surround a number of villages, reducing the perceived openness of their landscape setting, and in places individual properties/farms are enclosed by the development. For further details of the landscape impacts see the Landscape & Visual Amenity section below.

It is noted that there are proposals for other solar PV installations in the vicinity of Burwell substation and it is assumed that all such installations will want to use the same connection point. The promoter should demonstrate that their proposal is still feasible and viable should these other installations be completed ahead of the anticipated operation years.

Geographical location, local weather patterns, pollution levels and damage or failure of key components are some of the important factors influencing the overall effectiveness of solar PV. The promoter should provide further detail to demonstrate that such factors have been taken into account including, for example, whether damage from bird strikes has been considered. West Suffolk Council has experience of damage being caused to solar panels from birds dropping stones from height onto the panels, believing that they are a body of water.

The promoter should demonstrate that sufficient light will pass through the solar PV panel tables to support plant growth below.

It is considered that the option of 'No Development' should be included in the Environmental Statement in sufficient detail given the extent of land that will be occupied by the scheme and the adverse effects it may have on soil and carbon storage and any future options to increase the carbon sequestration from this considerable land area.

The need for the generation of renewable energy should not be stated in isolation. The Committee on Climate Change (CCC) have stated that a considerable amount of carbon could be stored by improved land use and from land use change, as set out in 'Land use: Reducing emissions and preparing for climate change':

> *'Land is a critical natural asset. It provides us with the fundamentals of life: clean water, food, timber, and the natural regulation of hazards such as flooding. Key to the effective functioning of these is biodiversity. Land is also an essential resource to mitigate climate change, naturally sequestering and storing carbon. Over the rest of this century and beyond, climate change combined with other social, economic, and environmental pressures will present significant risks to the services provided by the land. Unless land is managed more effectively over this transition, its essential functions will not be maintained for future generations'.*

The above document is now being utilised to set out environmental targets within the Environment Bill, which will detail how soil health and improved woodland health should be achieved, monitored, and reported. It would be beneficial to understand how this project may impact on these expected targets and the stated ambitions for a Nature Recovery Network.

The Councils agree with the point made at 4.2.7 in relation to energy diversity and would highlight that, in the East of England, Suffolk and Cambridgeshire are locations where solar PV is the predominant onshore renewable energy generation technology. However, the projects role in diversification locally is not adequately explained.

The Councils expect to see a comparison to other energy generation technologies in this section. It is noted from 4.1.3 "*The NPS confirms that from a policy perspective there is no general requirement to consider alternatives or to establish whether a development represents the best option*." However, this is contested given the rapid growth of the renewable energy industry, the need to achieve Net Zero Emission by 2050 and the roles that land use and land use change will play in achieving this Net Zero Emissions target, the discussion around "best option" might have moved on.

It is appropriate to consider how alternative schemes using the same technology may have different acceptability depending on the scale of development. As the scale of a development increases, the resulting increase in benefits is presumably directly proportional as the amount of clean energy that can be produced increases with the amount of land that can be used for arrays. However, it is not obvious that the relationship with environmental impacts is necessarily proportional in the same way, as the marginal impact of each additional hectare of land may be greater than the last. It could therefore be appropriate to consider the relative impact of multiple smaller sites amounting to the same total output. It is our view that this scenario

constitutes a reasonable alternative for the purposes of paragraph 14(2)(d) of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

To better understand comparisons to projects with significant visual impact, the Councils would like to see an appraisal of Onshore Wind as a comparator project or a hybrid Onshore Wind and solar PV project. The reason for this appraisal of the alternative generation technologies is to help us to understand the benefits and challenges of the proposed approach.[2]

East Cambridgeshire District Council seeks greater clarification on the amount of different grade's of agricultural land in order for the developer to justify its statement under 4.3.16 that states the scheme "maximises the utilisation of low grade, non best and most versatile agricultural land".

Climate Change

In relation to 6.3 Assumptions, the assessment should include the emissions from land use and land use change and the carbon sequestration of the land. This is significant given the area of land and the need for increased carbon sequestration from land and vegetation[3].

Section 6.3.3 states that 'it has been assumed that overall loss of vegetation will be minimal'; this needs to be firmed up and must state what will be impacted.

In Section 6.3.10 the Councils cannot identify a target for waste material recycling from the project. We would suggest that a higher recycling percentage than 50 percent should be targeted.

Section 6.3.17 - It is requested that the information from the promoter's design team be shared. What is the expected peak electrical generation and annual energy generation for the site and what assumptions are being made in relation to the BESS?

A diagram showing the GHG emissions boundaries should be included at 6.4.3.

Table 6-2 - In relation to "Operation stage" the information should include information in relation to soil carbon and sequestration in vegetation[4]. Given the large area and the figures available for soil and vegetation carbon storage and the 40-year lifetime of the development we feel this is a significant omission. Especially given the need for soil carbon improvements and afforestation as a measure to store carbon.

At 6.4.22, the Councils would prefer to see a county or regional approach with reference to total GHG emissions. The development, located in the districts of West Suffolk and East Cambridgeshire, will feed power into the local grid, and would be accounted for as part of Net Zero Emissions targets for West Suffolk, East Cambridgeshire, and the region. The generation will be included as a regional asset

[2] See, for example: [redacted] and [redacted]
[3] See: [redacted]
[4] See: [redacted]

for Suffolk and Cambridgeshire, it will impact on the local distribution network as managed by UKPN. More importantly, the development impacts on local people and the local environment and therefore it should be able to define its benefits and risks in line with those of the community in which it is situated. This approach means that the Magnitude Criteria for GHG Impact Assessment needs to be reviewed.

Given the need to achieve Net Zero Emissions by 2050 and the need for increased levels of carbon storage and sequestration, the assessment should include data in relation to fluxes of carbon based upon changes to land use over time and in comparison to a baseline scenario where the land is managed in a consistent way to present.

In relation to section 6.6, Baseline Conditions, as set out in Table 6.6 in the comments from the Planning Inspectorate a more detailed response in relation to baseline conditions is required.

The Councils have are several questions with regard to sections 6.6.2, 6.6.3 and 6.6.4. What figures for carbon storage has the EIA processes used to assess the soil carbon storage and carbon sequestration from vegetation from the 1,073-hectare site? What is the annual rate of carbon storage and what is the value over 40 years and then in comparison to the construction, operation and decommissioning of the proposed development? How does this figure compare to the following statement in 6.6.4?

> " '*While the current land use within the DCO Site will have minor levels of associated GHG emissions, it is anticipated that these emissions will not be material in the context of the overall Scheme. Therefore, for the purposes of the lifecycle GHG impact assessment, a conservative GHG emissions baseline of zero is* applied'

In relation to section 6.7, Embedded Design Mitigation, given the scale of the development, the waste generated, the water and fuel inputs, vehicle journeys and the need to limit the overall GHG emissions arising from the construction phase, the use of the Considerate Constructors Scheme (CCS) is not suitable to the project.

Although listed as Best Practice, the CCS is, instead, commonplace with a light touch approach to on-site environmental management. It does require monitoring of impacts but we would expect that such a development will seek to ensure it meets environmental management best practice in terms of target setting, on site management, monitoring and reporting as well of off-site reporting to key stakeholders. In terms of demonstrating Best Practice, the Councils would expect a stated objective to achieve an Excellent or higher CEEQUAL rating as set out in Version 6 targeting key outstanding credits, such as 4.4 "Change and enhancement of biodiversity" and 7.2 "Reducing whole life carbon emissions with an independent third-party certification of carbon management activities".

In addition to SuDS, how will the site design in surface water flood attenuation from this use of vegetation and also ensure a net positive impact in the loss of soils into water systems or air?

In relation to section 6.8.7, as stated previously, the calculations used to determine the professional judgement with regards to the loss of carbon sink from the land use change should be set out. The land area is significant for the districts of West Suffolk

and East Cambridgeshire, and stated ambitions to achieve Net Zero Emissions means that the Councils will need to balance energy generation, energy demand reduction, emissions savings policies and activities alongside soil carbon and other forms of carbon sequestration.

The Councils request the figures utilized alongside to evaluate soil carbon and carbon sequestration as the baseline alongside the figures for the construction, operation, and decommissioning phases to better demonstrate the baseline emissions alongside the GHG impacts from the proposed development.

In relation to section 6.8.23, the promoter should clarify the size of the peak electrical generation capacity of the proposal. The Councils note the 653,973 MWh stated and this would require 1350kWh/kWp/yr from a 500MWp array (which is not possible) or an array with a rated peak generation of around 725MWp using West Suffolk Council's standard solar PV calculation model.

It follows that confirmation is required that the figures stated in relation to the operational emissions benefits are correct – it is noted as being 744,061 tCO_2e (6.8.32) over the 40-year project life – with an average emissions factor of 0.0316 tCO_2e/kWh. It is noted that the detail in 6.8.28 and 6.8.29 shows the forecast grid intensity in Plate 6-1.

If there is an issue with the energy generation and emissions savings figures then all emissions figures should be reviewed to ensure Completeness, Accuracy, Consistency, Relevance, and Transparency.

Potentially these overall emissions savings also account for some benefits from the BESS. If that is the case this should be set out together with clarification on the installed generation capacity of the solar PV array modelled and the BESS size and operation benefits assumptions.

In relation to the Significance of Effect, 6.8.33 to 6.8.41, it is felt that these figures should reflect the impact locally in relation to the emissions arising from the areas that the development is located in as the development will affect the strategic plans for the local areas to meet their Net Zero Emissions targets and impact on future decision making.

Have the 'Increased summer and winter temperatures' been taken into account in relation to the impact on the Solar cell performance at 6.8.49?

In relation to 6.9.1 and as set out previously it is recommended that this development sets a CEEQUAL target to achieve and enhance the level of monitoring of key emissions sources during construction and the works to manage and reduce these to achieve the stated targets.

In relation to 6.9.2 it is good to see the overall emissions for the development in comparison to the other figures for energy generation options. It would be useful to see these again once the generation and emissions figures have been clarified. With this in mind, and given the oversight of the soil carbon and the need for improvements and carbon sequestration, we do not feel it is sufficient to rely on the emissions savings during operation instead of ensuring the emissions from construction, operation and decommissioning are properly targeted and managed. In addition, the UK Net Zero Emissions target means it is even more important that the construction, operation, and decommissioning emissions arising from the

development are minimized as much as possible as the GHG benefits of the site will diminish over time.

In relation to the points above and also the local significance of this development the Councils feel that additional mitigation measures should be put in place to ensure that soil and vegetation carbon storage is improved and the emissions arising from the development are minimized.

East Cambridgeshire District Council welcome the fact that comparisons to gas, nuclear and wind power have been made.

Cultural Heritage

Built Heritage

The Councils broadly consider the chapter on cultural heritage acceptable in as far as it relates to built heritage. The following point should however be addressed:

- Paragraph 7.4.1 refers to the study area as being 1km which extends to 5km for higher grade assets. There does not appear to be any explanation for this, and the setting of Grade II listed buildings is protected in the same way as the higher-grade buildings.
- Table 7.17 – Sunnica East B refers to views to the north of the Freckenham Conservation Area potentially being affected. This is more likely to be in views to the east. Sunnica West A also refers to the same view from Freckenham being affected. It is assumed that this is included in error.

East Cambridgeshire District Council's Conservation Officer states:

"The Preliminary Environmental Information Report itself notes:

'7.8.31 Chippenham Hall RPG (Grade II, NHLE 1000615) is likely to experience adverse effects as a result of the Scheme at Sunnica West Site A…The Scheme will have short- and long-term, and permanent adverse impacts on this asset. It will introduce new infrastructure elements within the rural setting of the park that although will be screened for its most part, the landscape around the park will be altered.'

'7.6.63 The formal parkland is defined by its brick boundary walls, with the south drive extending towards Newmarket. While the wider rural landscape is not visible from within the park, it does form part of its setting, revealing evidence of the impact landowners had on the landscape, and forming part of the informal parkland context.'

'7.8.32 … The southern part of the drive is included within the scheme boundary. While there will be no development along the drive, it does extend on both sides. Impacts have been limited through enhancement planting of the drive. This has been designed to supplement what is already there and reinstate vegetation which has been lost. Nevertheless, the Scheme will change the character of the wider parkland which forms the setting of the RPG and may be visible along the former main drive. As such, the Scheme is likely to have a medium magnitude of impact, resulting in a moderate adverse effect on this asset of medium value.'

The scheme's underlying assumption seems to be that as Chippenham Park is 'only' Grade II registered, and hence of 'medium value', impacts can only be correspondingly 'medium'. Chippenham Park is remarkably coherent, both visually and topographically, for a designed landscape and has a strong, distinctive presence within its surrounding area. It is very important locally and the report's own definition of medium change still acknowledges that this constitutes a 'noticeably different change to setting affecting significance, resulting in erosion in our ability to understand and appreciate the asset.' That is in plain terms a harm.

The impact is most acute where the south drive extends beyond the perimeter of the park proper, as this effectively bisects West Site A. There is no indication on the 1:17500 scale figures of how closely W04 and W05 will encroach upon the drive, but clearly the wider the buffer the more effect it is likely to have. It should also be noted that even if the scheme proposes to restore planting along the drive, it cannot itself constitute screening: an avenue by definition is a sequence of trees at regular intervals and depends upon space for its effect. Further information will be required on these points to demonstrate that the conflicts have been mitigated as far as possible."

Archaeology

SCC and CCC officers are engaged in an ongoing workstream to determine the acceptability of AECOM's trial trenching proposals. The site contains areas of high archaeological potential, and it is necessary for the promoter to provide sufficient trial trenching coverage to ensure that impacts on below-ground heritage assets can be mitigated by detailed design.

Archaeological trial trench evaluation will enable any sites of national significance which warrant preservation in situ to be identified, to allow archaeological mitigation strategies to be defined at the earliest opportunity and to ensure that archaeological findings are taken into consideration as the scheme design is refined. Not undertaking sufficient archaeological assessment at pre-consent will mean that the nature, extent and significance of below ground archaeological remains will not be fully understood. This will also mean that insufficient information will be available to allow informed planning decisions to be made regarding the impact of proposals on below ground heritage assets.

Mitigation requirements cannot be defined without full evaluation. There needs to be a commitment to undertake archaeological mitigation- either preservation in situ or full excavation-across the entire development area and factor that possibility into project programmes, given that the extent of the archaeological resource is currently unknown and the worst-case scenario approach.

The Councils are pleased that a geophysical survey has been undertaken, although there are a number of key land parcels which have not yet been able to be surveyed. It is essential that the outstanding areas circa 74.6ha in Zone B and 19.4ha in Zone C, 113ha of land on the cable route or in the 10ha required for HV connections, which leaves a total of 217ha to revisit (plus any additional elements of the scheme which have since been added into the red line boundary) are surveyed. This work should be undertaken as a priority at the earliest opportunity- before DCO submission- given that they include high archaeological potential areas, in key sections which have limited flexibility. It is presumed that this work will be submitted

as part of the Environmental Statement, but it would be preferable for the Councils to see the preliminary results as soon as they are available.

If the promoters wish to undertake an 'avoidance' mitigation approach to below ground heritage where possible, they cannot finalise the design without having fully defined all the surviving below ground heritage assets which will be impacted upon by different elements of this scheme. The Councils are extremely concerned that further scheme refinement is being undertaken without sufficient archaeological assessment to inform this work. There is still 217ha of outstanding geophysical survey. Where geophysical survey has defined a number of anomalies likely to be archaeological in nature, their nature and significance is not understood, and this survey will not have defined all below ground heritage assets (for example, due to masking factors or feature types which might not show up well). As a result, there is also high potential for additional unknown archaeological remains to survive throughout the scheme red line boundary area which are of high significance, including a potential for human remains, funerary monuments and settlement. The geophysical survey undertaken to date is a considerable commitment and achievement, but it needs 'ground truthing', as part of a suite of techniques.

It is strongly advised that all elements of the scheme should be subject to archaeological trial trench evaluation. Several of the anomalies defined during geophysical survey which are likely to be archaeological in nature are situated in key areas of the project where flexibility is limited or are of a scale that they cannot be avoided. Therefore, understanding the nature and significance of these remains through trial trenching is essential before planning decisions can be made. The Environmental Statement should set out the approach to any outstanding archaeological evaluation which is required, alongside mitigation.

The Councils wish to highlight the severe risk to extremely tight project timetables by leaving the second phase of evaluation until post consent which means that archaeological mitigation requirements will not be able to be defined until this point. Delays are possible if extensive areas requiring archaeological mitigation are defined.

Insufficient assessment has been undertaken to determine the full scope and significance of heritage assets and therefore the impacts of different elements of this scheme. Many of the statements presented in this chapter are assumptions based upon insufficient assessment to support these conclusions. The potential for additional unknown remains is also not clearly set out. There are additional scheme elements which have the potential to impact upon archaeological remains which are not considered here.

Significant portions of information related to Archaeology is out-of-date and does not reflect the discussions the Councils have had with the promoter since the non-statutory consultation in 2019. In particular the Desk-Based Assessments (DBAs) are dated from April 2019, and use the original scheme boundaries as proposed at that time. This excludes many of the sites in Sunnica East A which are of the highest sensitivity and with the greatest know archaeological potential. The DBAs contain data from the Historic Environment Record which is two years out-of-date.

Additional areas now included into the red line boundary, including revisions to the red line boundary area for PV array fields, compounds, substations, cable route etc. and for scheme elements including new access roads, internal roadways, laydown

areas, compounds, ecological mitigation, landscaping and planting, site access etc., need to be included in all assessments going forward into the Environmental Statement.

As such, the assessments relating to archaeological impact in the PEIR cannot be agreed unless these DBAs are updated and the assessments are made on the basis of the proposal as it stands today. We would encourage the promoter to ensure the DCO proposals reflect and capture all discussions which have taken place to date.

Archaeology should be factored into traffic management, water management, dust and spoil management, landscape management, ecological works plans etc., as proposals have the potential to have archaeological impacts. To avoid conflicts between different priorities and proposed mitigations for other aspects, a joined-up, holistic approach is needed. Archaeological matters, as well as being in the Written Scheme of Investigations (WSIs), should be considered in RAMS documents and Construction Environmental Management Plans, Materials Management Plans, Decommissioning Environmental Management Plans etc. Logistical considerations should be reflected throughout for instance:

- Spoil management associated with archaeological work should be factored in;
- Plant movement should be factored into traffic assessments;
- Ecological implications of pre-construction archaeological work should be considered.

Impacts connected with linear pipelines and cable trenches typically surround the temporary works more than the trench itself: the stripping of working easements (usually between 15-30m working widths) to subsoil depths in order to enable vehicular movements for multiple crews to lay the cable and for the erection of compounds, soil stores and welfare. The damage caused to archaeological sites of vehicles traversing the exposed surfaces of archaeological features is substantial, especially where the evidence relates to buildings, burials or votive sites.

Some preliminary discussions have taken place to seek to reduce or eliminate the stripping of easements by the use of ecogrid of a suitable grade that will enable vehicles to traverse the site alongside the cable, restricting stripping to a far narrower impact width than typically specified. Operating a new way of working will provide the Sunnica project with greater environmental credentials and will have the additional benefit of reducing the need for hundreds of evaluation trenches to check the geophysical survey results, which, though valuable, are not a perfect science.

Local authorities will work to ensure that this restricted easement requirement is included in mitigation strategies and the CEMP prepared for this scheme's DCO application. Reducing stripping would have a tripartite purpose:

1. to reduce the need for largescale evaluation trenching, saving this for where it is most essential;
2. to reduce damage to archaeological remains and concomitant costs for excavation;
3. provide a measurable environmental benefit to the scheme by reducing carbon emissions from multiple stages of machine excavation and soil movements.

Insertion of the cable by drilling is considered for special sections of its route: road/rail/river/infrastructure crossings, but would provide greater benefits to archaeological landscapes if rolled out more extensively - the carbon cost of which

would have to be modelled alongside that for traditional open cut cable laying in stripped working easements. Under current climate change agendas, all major construction schemes should have greater regard to this aspect of construction and reduce pollution from carbon emissions as far as possible.

Sunnica East Site A (PEIR Fig 3.1)
The west part of this site is partly in Isleham parish, Cambridgeshire, the larger part of this site being in West Suffolk. In Cambridgeshire it will include a large solar field **(E05)** fringed with woodland and native grassland on the north west and south sides and a large area to the south where a significant, complex archaeological site will be fenced off from all construction traffic/use and preserved *in situ* with long-term management under new grassland. This site is recorded as undated cropmarks in the Cambridgeshire Historic Environment Record database (CHER ref MCB27640) but geophysical survey conducted for the PEIR has enabled a far greater understanding of the scale and character of the evidence and relate it, morphologically, to the Roman period though with prehistoric elements too. The removal of this site from plough cultivation is highly recommended and very welcome.

The archaeology of Isleham is well known for its richness at fen edges and in the river vallies, where high water tables and relict peat soils and alluvium have aided the survival of organic remains and through intermittent preservation of old land surfaces and prehistoric occupation in the many undulations in the chalk 'upland' of the parish. Understanding these area and their potential can only occur though physical evaluation (trench based), which is yet to occur. Elsewhere, soil deposits are thin, typical of chalk landscapes, and archaeological sites have been severely damaged by ploughing and show as scatters of artefacts on field surfaces or from aerial photographs at suitable times of year.

Sunnica East Site B (PEIR Fig 3.1)
This site, near Freckenham and Worlington, is entirely in Suffolk and not further discussed here.

Sunnica West Site A (PEIR Fig 3.2)
This large area of grouped solar fields lies between the A14 north-east of Newmarket, south of Chippenham Park - the designated 18th-19th century pleasure gardens of Chippenham Hall (National Heritage List Entry 1000615), and in fields straddling the A11 in Kennett parish.

A battery energy storage system (BESS) and substation will be centrally located in the large solar fields. Five archaeological areas are proposed for preservation in situ by removing them from cultivation, managing them under grass and preventing construction impacts of any kind within the selected areas. These areas were defined by geophysical survey and relate to prehistoric burial grounds and large occupation sites, mostly of late prehistoric to Roman date. North of the A14, the southern part of the linear tree lined avenue that formerly led to the Gallops at Newmarket from Chippenham Hall (CHER MCB8994) will be preserved as a landscape feature and enhanced with new woodland planting. The avenue once formed the east side of RAF Snailwell (CHER MCB15150) on which part of the solar fields will be placed.

We agree with the areas selected for preservation and will continue to work with the Sunnica project team to ensure that the land management strategies are appropriate

for the conservation of these sites: both for the construction period and the lifetime of the energy farm.

Sunnica West Site B (PEIR Fig 3.2)
In Snailwell parish, to the south-west of Chippenham Fen Nature Reserve, an area of former wetland in the floodplain of the River Snail has been selected for this significantly smaller solar site, to the south of the grounds of Fordham Abbey (MCB14463). Proposals show that the archaeological remains in the centre of the area would be preserved under grassland and be surrounded by smaller solar fields to the east, west and south. Wetland restoration would arc around the solar fields on the north, west and south sides.

This wetland fringe, together with existing woodland would separate the site from Roman villa settlement designated as a nationally important Scheduled Monument (NHLE 1006868), providing a buffer between it and the solar farm. Historic England will have presented their opinion on the character of the buffer and suitability of development to the Sunnica project team.

Our concerns surround the potential impact of perforating wetland deposits in which ancient organic archaeological remains might be preserved (in the floodplain/fen area) and in so doing risk their dewatering, degradation and loss of palaeoenvironmental and organic content. Evaluation trenches will be needed to assess the deposit sequences and palaeochannels surviving in this archaeologically sensitive area, as shown in the CHER records, to validate or dispel this concern, to determine whether development is suitable here and to refine the mitigation solutions for development and its scale in this location. Piled PV panel foundations can be replaced by concrete shoes where ground conditions and archaeological evidence dictates, but it is too soon to comment on the best approach to such strategies. This area, however, should be classed as highly sensitive until further, tangible evidence has been acquired.

Sunnica Cable Route to Burwell Substation
A 132kV underground cable will connect all of the solar farm areas to the Burwell National Grid Substation. It will be buried in a 1.2m wide trench to a depth pf around 2m below the ground surface.

Impacts connected with linear pipelines and cable trenches typically surround the temporary works more than the trench itself: the stripping of working easements (usually between 15-30m working widths) to subsoil depths in order to enable vehicular movements for multiple crews to lay the cable and for the erection of compounds, soil stores and welfare. The damage caused to archaeological sites of vehicles traversing the exposed surfaces of archaeological features is substantial, especially where the evidence relates to buildings, burials or votive sites.

Some preliminary discussions have taken place to seek to reduce or eliminate the stripping of easements by the use of ecogrid of a suitable grade that will enable vehicles to traverse the site alongside the cable, restricting stripping to a far narrower impact width than typically specified. Operating a new way of working will provide the Sunnica project with greater environmental credentials and will have the additional benefit of reducing the need for hundreds of evaluation trenches to check the geophysical survey results, which, though valuable, are not a perfect science.

CHET will work to ensure that this restricted easement requirement is included in mitigation strategies and the CEMP prepared for this scheme's DCO application. Reducing stripping would have a tripartite purpose:

1. to reduce the need for largescale evaluation trenching, saving this for where it is most essential;
2. to reduce damage to archaeological remains and concomitant costs for excavation;
3. provide a measurable environmental benefit to the scheme by reducing carbon emissions from multiple stages of machine excavation and soil movements.

Insertion of the cable by drilling is considered for special sections of its route: road/rail/river/infrastructure crossings, but would provide greater benefits to archaeological landscapes if rolled out more extensively - the carbon cost of which would have to be modelled alongside that for traditional open cut cable laying in stripped working easements. Under current climate change agendas, all major construction schemes should have greater regard to this aspect of construction and reduce pollution from carbon emissions as far as possible.

Review of the PEIR Chapter 7: Cultural Heritage - direct response

7.4.4 Correction: Aerial photographic transcriptions have not taken place owing to the temporary closure of the national repository of aerial archives for archaeological research due to the Covid-19 pandemic. Other aerial and satellite sources have not been examined. This work is vital as it provides additional information that enables the landscape context and geomorphological setting of archaeological sites to be better understood that from geophysical survey data alone. These surveys are typically carried out together as their joint benefits allow greater understanding of the archaeological resource and geomorphological setting.

7.4.4 and Table 7-3 Portable Antiquity Scheme data has not yet been acquired for the Cambridgeshire Sites. I believe work is in hand and we have contacted the British Museum's PAS office to assist the Sunnica project team with this

7.4.6 It is more accurate to consider that work is still in hand to agree the evaluation trenching strategy. Non-intrusive work for geophysical survey only has occurred, the trenching work remains in discussion.

7.6.93 Geophysical Survey Zone G – this technique is not recommended for wetland areas, trenching will be required to be undertaken by professionals used to working in wetland areas, supported by geoarchaeological investigation and research. That said, that site evidence was found suggeste that there are localise high spots within the floodplain and/or that this part of the floodplain as been significantly drained.

7.6.111 Table 7-9: It is important to note that the physical archaeological evidence reported in this table (and others) has been acquired through physical excavation. These sites were unknown prior to development-led archaeological programmes secured by planning conditions. Most of the non-designated CHER data in this area related to cropmarked sites, field finds and historic buildings and their settings. The significant contribution of investigative fieldwork, including palaeoenvironmental investigation to revealing buried archaeological evidence serves to be fully noted.

7.6.121 – no archaeological evidence is yet known, probably owing to the character of deposits at the Burwell fen edge.

7.7.6 – Further mitigation measures outlined here are as have been discussed and will be carefully considered following the proposed trench based evaluation of scheme areas.

Table 7-10 Summary of mitigation measures for cultural heritage:

General section (page 7-42): officers from Historic England do not assess trench locations for schemes setting out to evaluate non-designated archaeological evidence. This is a matter for local authority archaeology services. HE's science advisers do supply valuable advice regarding the application of scientific techniques for archaeological investigation and this advice is highly profitable to archaeological enquiry at all levels.

7.8.10 "Those non-designated assets within the baseline that comprise either discrete findspots or metal detector finds are considered to be no longer present within the Scheme and there would therefore be no impact upon them." This statement is commonly contained within desk-based assessments and can be quite wrong in its assumptions. It is agreed that the individual artefacts are no longer in situ, but their value is to highlight the presence of potential underlying sites, particularly when there is aggregated value to a field scatter, or denote early prehistoric activity or from finds recorded by responsible hobbyist metal detectorists (sometimes these point to unknown burial grounds). For this reason, the PAS data is required to be acquired from the British Museum and assessed for Cambridgeshire, and greater consideration of the significance of find spot evidence. Agreed, this should not be exhaustive but their dismissal from further attention is unwise.

An example of such a scatter site is in Table 7-13 where MCB9032 "Iron Age and Roman finds scatter" and MCB9033 "Bronze Age material recovered including burnt flint. Some gravel, also dark area." These are attributed a low value in the report as they are in longer *in situ*. This is a basic error of judgement as it fails to recognise what the presence of this type of occupation evidence signifies in terms of potential homestead or village remains, the scale of which cannot, of course, be imagined from single find spots. Given that there is no general accord with this method of assessment, the associated designations/value given to Magnitude of Impact upon the remains (Very low) and Effect Category (Minor) or Significant Effect (No) do not follow. Surface finds or find spot information is not given due consideration in this method of appraisal as the preliminary assumption regarding 'value' is flawed.

See also page 7-50 (for example) Summary of Magnitude of Impact and Significance of Effect tables that provide subjective sensitivity values. These do not always accord with CHET's opinion (eg Table 7-12: MSF10199 Single ring ditch, (approximately 30m diameter) identified from on 1956 aerial photograph. Sensitivity (value): Low Ring ditches of this size typically denote barrows – *tumuli* – the quarry ditches encircling the burial area covered over with an upcast mound. Not low value

Only where geophysical survey has contributed site evidence to the record (for example MCB20063 in Table 7-14) have the Magnitude of Impact and Effect Categories of the scheme upon the remains considered to be significant - shown as High and Moderate. This is an extremely biased assessment of the value of known

data and will only be altered by the results of evaluation trenching, after which theses tables should be corrected.

No synthesis of the surface finds evidence has been made to highlight the potential for underlying sites being present, they have merely been considered as individual artefacts, now gone from the site with no further significance. This is archaeological interpretation at its worst.

The opinions given for harm to non-designated remains for the cable connections (7.8.56, 7.8.61) and to the Burwell substation extension: 7.8.65 "As there are no heritage assets in this area within the footprint of the substation extension, there are no direct impacts to heritage anticipated from this aspect of the Scheme. Further information regarding the presence or absence of archaeological remains will be obtained through trial trench evaluation works with appropriate archaeological mitigation proposed following these works (if warranted)."

At a fen edge location, it is unwise to predict that no archaeology will be present. The highlighted part of the statement above is flawed. It would have been apposite to consider the effect *unknown* until the completion of non-intrusive surveys (aerial photograph transcriptions, PAS data review) and physical evaluation had occurred. We place considerable emphasis in assessing fragmentary evidence of the historic environment by period, alongside each other and the landscape settings in which they occur to enable predictions to be made about what might lie beneath the soil based on their interpreted value.

Ecology

Introduction

Documents reviewed

- Preliminary Environmental Information (PEI) Report: Chapter 8 Ecology
- All appended ecology reports, including unredacted breeding birds
- Construction Environmental Management Plan
- Landscape and Environmental Management Plan
- Parameter Plans
- Other relevant chapters of the PEI accessed for supporting information but not assessed

Consultation

During the course of this review, the following organisations have provided input:

- Wildlife Trust BCN
- Natural England
- RSPB
- West Suffolk Council
- Suffolk Wildlife Trust
- Suffolk County Council

Key Findings

Baseline surveys appear to have been carried out to a high standard (although terrestrial invertebrate surveys are not yet complete and cable connection routes are not yet surveyed).

The Ecology chapter of the PEI is lacking important detail. Specifically, inadequate characterisation of impacts and unjustified exclusion of ecological features from detailed assessment. Detailed assessment fails to address all potential impacts and relies heavily on the CEMP and LEMP for mitigation, which in themselves are lacking crucial details.

There has been insufficient adherence to the Mitigation Hierarchy, specifically with respect to the avoidance of important habitats and species. The scheme needs to be redesigned to avoid impacts on important habitats and species.
Habitat creation proposals are lacking details, such as how they link to form a coherent nature network and their long-term management regimes.

Lack of any information regarding the decommissioning phase and how this will impact on newly created habitats and their long-term survival (i.e. beyond 40 years).

Opportunities exist to deliver enhancements and benefits, should the scheme be delivered, and these should be explored much further at this early stage in the process and incorporated into the final submitted scheme.

What changes to the parameter plan layouts would we like to see?

- Retention of the whole of the area of habitat supporting scarce arable plants judged to be of County importance (within Sunnica West A).

- Retention of areas T7, T8, T9, T13 and T14 which have been assessed as being of County importance for flora (as shown on plans in Appendix 8B: Flora Report).

- Retention of fields found to support nesting stone curlew, with appropriate areas of connected foraging habitat also retained (more could be delivered as part an enhancement package).

- Removal of area E23 from the solar farm infrastructure (shown on Parameter Plan 3.1) as its current inclusion will result in the loss of County importance acid grassland.

- Wider set-backs from external boundaries; we suggest 20m rather than 5m.

- Undeveloped mitigation areas for habitat creation to deliver a coherent and connected network of habitats, specifically designed to deliver for biodiversity, as opposed to individual parcels/strips of land ‘fitting in’ around the edges of the solar farm infrastructure.

- More details of the locations of specific types of habitat to be created (rather than the broad-brush 'Native Grassland Planting'), showing where these are being created and how they are connected.

- Appropriate mitigation for skylark, including provision of replacement habitat offsite if this cannot be retained onsite.

Potential benefits that the development could deliver

Improving connectivity between Chippenham Fen and Snailwell Meadows. The wetland grassland proposed at Sunnica West B represents an opportunity to improve connectivity between Chippenham Fen SSSI and Snailwell Meadows SSSI. This would be a positive gain for the area. However, it can only be considered as such if it is committed to on a long-term basis. At present, there is no clarity regarding what will happen to areas within the DCO site post-decommissioning, and this includes habitats created as part of the scheme's compensation/enhancement package.

Habitat for turtle doves. Turtle dove was recorded as possibly breeding within the survey area, and the DCO site does fall within the RSPB's Operation Turtle Dove area. Targeted enhancements for this species will tie in with other species enhancements (such as stone curlew, as well as a variety of invertebrate species) as foraging habitat for turtle dove works best on areas of retained open ground, with patches of bare earth, sown with an appropriate seed mix. The proposed retention of hedgerows is good for this species, and it may be appropriate to also allow scrubby areas to develop / infill gaps in hedgerows to provide better nesting habitat, and also create ponds for birds to drink from.

Improvements to watercourses. The LEMP makes mention of possibilities to improve watercourses associated with the DCO site. More details and a commitment to such initiatives could benefit a range of species, including water voles.

Research opportunities. Given the size of the proposed solar farm and the apparent lack of research into impacts on wildlife, this application would represent an opportunity to lead on UK-based research into the operational impacts of solar farms on wildlife. The potential impacts on varying taxa may be adverse, beneficial or neutral, but any additional research to build on current understanding would be beneficial. This represents an opportunity for the promoter to demonstrate industry leadership in an important and currently under-researched area of ecological impact assessment. It is an area whereby the development, if it proceeds, can deliver wider-reaching positive outputs and thereby increase its societal benefits. It is recommended that a commitment to a specified package of relevant ecological research proposals is included within the application.

Specific comments on the Ecology chapter (ecological impact assessment)

Overall comments

Whilst it is acknowledged that this is a preliminary assessment ahead of the full Environmental Statement, its Methodology section is clear that it is an ecological impact assessment and is following the CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland. The following comments have been made in expectation of the Ecology chapter providing an ecological impact assessment utilising the extensive survey data collected and the scheme design details presently available.

The approach presented in the preliminary impact assessment in the Ecology chapter currently does not follow CIEEM (2018) standards:

- The assessment should aim to characterise ecological impacts: extent, magnitude, duration and frequency. All these should be quantified where possible, for example to give areas of habitat to be lost or % changes to areas of habitat or estimated proportions of bird territories affected.

- Durations should be expressed in months / years.

- Use of the phrases 'short term' and 'temporary' are used throughout the assessment and are never quantified or explained in the context of what that means for the specific ecological features being assessed (some ecological features may be more sensitive to short term impacts than others).

- Insufficient detail is given regarding the mitigation measures and/or compensatory habitat, upon which the conclusions of the impact assessment are hinged.

- Insufficient regard to cumulative impacts.

Comments regarding the evaluation of designated sites:

- Chippenham Fen and Snailwell Poor's Fen, including Fenland SAC, Chippenham Fen Ramsar / NNR, Chippenham Fen and Snailwell Poor's Fen SSSI. The Ecology chapter does not make reference to any published research regarding the potential for operational impacts on the adjacent European Site. For example, there is no evidence that consideration has been given to Natural England Evidence Research (2017) which discusses the potential for aquatic invertebrates to confuse reflected polarised light from the panels for water. This receptor should be taken forward for more detailed assessment.

- Havacre Meadows and Deal Nook CWS. The Ecology chapter says that the installation of required infrastructure will be done via tunnelling underneath the CWS. Does the promoter have any previous experience or examples where this has been successfully done? In the absence of such previous experience, how will the promoter plan for unforeseen problems that may occur? This receptor should be taken forward for more detailed assessment to consider all possible impacts on the CWS.

- Worlington Heath CWS and Badlington Lane CWS. These are within the DCO boundary and it is stated that these will be retained and protected, however,

the Landscape Masterplan / Parameter plans show these areas as under native grassland planting. This receptor should be taken forward for more detailed assessment.

- Joans's Meadow CWS and Worlington Golf Course CWS are on the DCO boundary and Landscape Masterplan / Parameter plans show potential provision of permissive routes around these. Where is the assessment regarding the potential for recreational disturbance due to increased walkers around these sites? This receptor should be taken forward for more detailed assessment.

- No consideration has been given as to how the construction and operational phases could cause recreational impacts on designated sites through potential changes to:

- public access
- avoidance of local area during construction (sending the public elsewhere)
- loss of access
- newly created public access

The site is located within the buffer around Breckland SPA within which in-combination recreational effects are a concern. The potential effects of loss of recreational access in the vicinity of existing settlements as a consequence of this development should be assessed.

<u>Comments regarding the ruling out of the following features for further evaluation</u>:

- 'Aquatic Macro-invertebrates'. The Ecology chapter does not make reference to any published research regarding the potential for operational impacts on relevant receptors. For example, Natural England Evidence Research NERR012 (2017) discusses the potential for aquatic invertebrates to confuse reflected polarised light from the panels for water, yet this has not been considered within the Ecology chapter.

- 'Wintering birds' and 'Wintering skylark'. Permanent loss of arable habitat (and some temporary loss of hedgerows) would appear to inevitably result in some effects on the wintering birds that have been found to use the site. As well as a direct loss of habitat, there could be impacts from noise during construction (which is defined in Chapter 3 as a period of 24 months). Whether or not these are significant is not clear, but this receptor should not be excluded from further assessment, in order to provide clarity. Reference is made to 'undeveloped mitigation areas' but no further information is supplied as to specifically how these will deliver habitats for wintering birds.

- 'Bats'. The chapter states that 'there will be no loss of important habitats used by bats anywhere in the DCO site'. By 'important' does this mean the habitats scored as 'high' in the Bat Report (Appendix 8G)? It's not clear how the statement in the Ecology chapter links directly to the data collected in the field surveys and query why there are maps highlighting areas of most (and least) value for potential bat roosts, but not for commuting and foraging habitat. This needs further exploration. Use of thresholds for defining levels of bat activity must be used with care due to differences in the detectability of

species and query whether such thresholds should be tailored for individual species/groups of species to take account of this. In terms of impacts, habitat loss is not the only one – what about consideration of lighting and noise disturbance? As set out below, the CEMP does not deal with these impacts to a point where they can be discounted from the assessment.

Assessment of impacts and significance of effects on receptors

Direct loss of unimproved acid and semi-improved acid grassland

The Ecology chapter says that there will be direct loss of acid grassland and that this will result in a temporary short term impact. There is no qualification as to what is meant by 'short term'. Impacts need to be characterised and quantified wherever possible (CIEEM, 2018).

On what basis are the impacts in acid grassland considered to be temporary? This is not discussed. Presumably it relates to the fact that there are proposals to create/restore new acid grassland but no details are given regarding proposed compensatory habitat.

There is no quantification of how much acid grassland will be lost, how much this is as a % of the total existing on the site and how much will be restored/created in compensation.

There is no indication of when it is expected that created/restored habitats will be of a quality such that they can be considered as providing a compensation for that which has been lost.

Has an analysis of soils been undertaken to demonstrate there are suitable areas available to create habitats of the same quality as those being destroyed?
There are no details/commitment to how they will be managed long-term.
Taking all this into account, it is unclear how the conclusion of 'temporary' impacts can be justified, or that the effects from the project will not be adverse or significant.

Direct loss of semi-improved calcareous grassland – same comments as for direct loss of acid grassland.

Direct loss of marshy grassland - same comments as for direct loss of acid grassland.

Direct loss of arable habitat supporting notable arable flora

The Ecology chapter says that there will be direct loss of arable habitats, particularly field margins, supporting notable arable flora and that this will result in a temporary short term impact.

There is no quantification of the areas of arable habitat to be lost (i.e. how many ha of County importance arable habitat, how much District level, and Local level?).
There is no detail as to how much is being lost as a percentage of the total existing on the site nor how much will be restored/created in compensation.

The chapter says 'it is possible that construction activities will create ground disturbance that may benefit arable flora during the construction in certain areas'. Whilst this may be true, a much more definitive statement regarding what can confidently and realistically be delivered is needed within an ecological impact assessment. Furthermore, what happens once construction is complete? As discussed further below, there are no details in the LEMP regarding the creation and management of arable habitat, including, crucially, how the required conditions, such as ongoing ground disturbance, will be provided.

Therefore, the report provides no explanation of how the loss of this habitat type (including that of County importance) can be compensated for, such that it will result in the stated negligible effects.

Direct loss of habitat supporting notable terrestrial invertebrate species and assemblages
When will compensatory habitat be of sufficient floristic diversity or suitable habitat structure such that it can support the invertebrate species and assemblages recorded on the site?

Specifically, which areas of habitat creation shown on the Landscape / Parameter plans are envisaged to provide replacement habitat for the invertebrate species affected?

How do the areas of habitat proposed link up to provide connectivity?
Whilst compensatory habitat is developing, can the species affected survive on remaining areas of habitat? And if so, where are these areas and how big are they? Otherwise, there is a risk of species being lost permanently from the area, even if the habitat loss is temporary.

Temporary loss of stone curlew breeding habitat and Disturbance to stone curlew
Sunnica East development will displace up to four pairs of breeding stone curlew. One pair of stone curlew are considered to require 16ha of good quality breeding habitat. This would equate to approximately 65ha of habitat required. It is understood that the proposals would deliver approximately 70 ha of habitat in the undeveloped mitigation areas (plus an additional 10ha of specific stone curlew plots). This would superficially appear to potentially be a large enough area of replacement habitat. However:

- These areas do not form a particularly coherent network of habitats, with poor connectivity in many places and do appear to be areas 'added on' around the edges of the solar farm infrastructure, rather than specifically designed to deliver for biodiversity.

- How has the level of disturbance in these areas been assessed? Disturbance to nesting stone curlew could result from the operational maintenance activities

on the solar farm or from areas of replacement habitat being provided close to roads or well-used footpaths, including proposed permissive paths.

- The proposals for acid grassland creation would appear to aim to deliver a suitable habitat structure (suitable sward height and areas of bare ground) but no quantification is provided as to how much of the undeveloped mitigation areas will be acid grassland, as opposed to semi-improved grassland which would likely have a denser sward (more suitable for foraging than breeding). Therefore, despite the figures looking suitable, much of the newly creation grassland may need to be discounted from the calculations as it may not provide suitable breeding habitat.

- No information is provided regarding the specifics of the three stone curlew plots, so it is not possible to understand their suitability in terms of distance from sources of disturbance, linkage to suitable foraging habitat, how they will be managed long-term to retain suitability.

The construction phase is stated to take two years. This is a significant period of time during which there will be high levels of disturbance (despite the intentions of the CEMP). Stone curlew can be slow to return to breeding areas after displacement and so how will the construction disturbance affect the overall stability and size of the wider stone curlew population?
The HRA Screening report references the Breckland Local Plan (2017) which takes 3km as the maximum distance over which stone curlews outside the SPA can be considered to be functionally linked to the SPA site. However, research undertaken since that time has demonstrated stone curlews travelling up to 5km from nest sites during the breeding (unpublished manuscript under review, Hawkes *et al*) and observations of colour-ringed birds shows movement of stone curlews between the development site and the SPA. This demonstrates a link between Breckland SPA and habitats over a greater distance than the previously defined 3km buffer, to the extent that they may have an important role in maintaining or restoring the population of the qualifying species (stone curlew) at favourable conservation status. At their closest, the stone curlew nesting in the DCO site were 3.2km from Breckland SPA.

Taking all this into account, we would dispute the findings of impacts on stone curlew as being temporary and not significant.
Furthermore, the updated research relating to stone curlew movements around the Breckland SPA should prompt a revisiting of the Stage 1 HRA Screening report. If deemed to result in 'likely significant effects' on stone curlew, these will need to be considered within the Stage 2 Appropriate Assessment.

Breeding bird assemblage
The undeveloped mitigation areas appear to be providing replacement habitat for a very large array and diversity of displaced species and there is no clarity regarding the carrying capacity of these habitats and whether they realistically can deliver for all taxa affected.

Is there evidence that species such as skylark will nest under solar panels at the density proposed at this site? If so, this should be presented and discussed. Details of how displacement of Skylark will be mitigated / compensated for, e.g. by provision of Skylark plots at an equal or higher number than any lost to the scheme, should be considered.

The timing of when the replacement/compensatory habitats will be available for breeding birds is not given. There is no discussion regarding how temporary the loss will be and how the bird species affected will fare in the intervening period. This is exacerbated by the two year construction phase and associated disturbance.

There is no discussion relating to potential operational impacts on breeding birds, with no reference to any published literature which discusses how birds may be affected by solar panels (e.g. birds trying to drink from solar panels, collision risks) or examples of successful breeding bird habitat created between panel arrays.

Cumulative Assessment

The study breaks the scheme into component sub-sections (West A and B, East A and B, Cable routes) and whilst this may have been useful for the initial survey reports, in terms of assessing impacts, these need to be brought back together: there is no proposal to develop only parts of the scheme, it is a whole package.

Construction Environmental Management Plan

Lighting – The Bat report states that the site is of 'up to County importance for bats', including County/District importance for foraging and commuting barbastelle, common and soprano pipistrelle. Therefore, such areas of habitat need to be protected from disturbance, including lighting. The same is true of potential bat roosts. This necessitates a highly robust approach within the CEMP document. However, the CEMP in its current form does not make a specific commitment not to illuminate important bat flight lines, foraging habitat or potential roosts, nor other habitats that may be of importance for other nocturnal wildlife. Given that the Ecology chapter relies on the CEMP for its conclusion of 'no significant effects on bats', the CEMP contains insufficient detail to allow such a conclusion to be made. The CEMP states in relation to lighting '*controls on lighting/illumination to minimise…potential adverse effects on…bats will be considered as far as is reasonably practicable'*. We would expect that important / potentially important bat habitat, in all its forms would be identified and highlighted as areas to be kept dark (no change to existing baseline) during both construction and during the operational phase of the solar farm. If this is not possible, then the Ecology chapter needs to identify and highlight that there is potential for significant adverse effects on bats, providing an adequate level of detail so that it is understood how the various species of bats will be affected by the different phases of the project.

Noise – The CEMP states, in relation to noise, that '*Best Practicable Means will be applied, as far as is reasonably practicable*'. Given the unspecific nature of the reduction measures set out in the CEMP, we would expect the effects of noise disturbance, in particular on birds, to be more fully explored within the Ecology chapter.

Reliance on a CEMP to rule out an assessment of impacts within an EcIA would not appear to follow best practise; a CEMP is not an integral part of the design of the development.

Outline Landscape and Ecology Management Plan (LEMP)
Some of the habitats that will be lost require a big commitment to maintain them long-term and so we question the feasibility of re-creating them and would urge consideration be given to keeping and protecting what already exists (avoid impacts in the first place), allowing existing land management regimes to continue in these areas. We have provided further details below.
We would like to see a commitment to grazing, as this seems the only solution to create and maintain the conditions required by the majority of the various grassland habitat types. The LEMP correctly states that grazing is generally preferable to mowing. Therefore, a clear commitment to grazing is required, in order to accept that the habitat creation proposals will truly deliver what they set out to. Unfortunately, many solar farm applications have promised the creation of flower-rich grasslands, to be managed by grazing, but have failed to deliver the promised habitat benefits, instead creating grasslands among the solar panels that are heavily shaded, affected by rain shadow and manged by regular mowing and herbicides. Changes may be needed to the height of the solar panels to allow sheep grazing and these aspects need to be considered now.

Arable Flora: The LEMP talks about maintaining valuable field boundaries for arable flora. However, it is envisaged that rotavating the ground / use of other mowing machinery will be unlikely to be carried out due to the potential for debris/stones to kick up and damage the solar panels. The time involved in tracking such machinery in and around the lines of panel arrays would also seem to make it unlikely to happen in reality. It seems unrealistic that the required ongoing ground disturbance will happen year after year around the solar farm infrastructure. Therefore, in the case of arable flora, we cannot see how suitable habitats can be created and maintained within a solar farm. Ground disturbance is key to maintaining favourable conditions for these plant species and no demonstration of a feasible approach to long term habitat management has been provided.

Marshy grassland: No details are supplied within the LEMP as to how this habitat will be created. The Ecology chapter (para 8.7.2) says the project '*will consider suitable water level management*' and '*alternatives* [to abstraction from the River Snail] *will be considered*'. This statement fails to provide any definitive explanation for how the

proposed grazing marsh will be created. Without the correct underlying hydrology, this type of habitat simply will not exist.

Decommissioning
How does the promoter ensure the survival of compensatory habitats beyond the 40 year lifespan of the Solar Farm?

Even at this outline stage, it seems reasonable to be provided with a better understanding of the plan beyond 40 years. Given the exceptional size of the land within the DCO, it would seem reasonable / pertinent to require more details about the decommissioning process. Whilst it is accepted that the details of this will be a matter for a separate assessment nearer the time, given the huge amount of land involved, it is considered appropriate at this stage to request information on what is proposed for the land (or even just some specific key areas of the site) after decommissioning. For example, whether there is any commitment to retain the compensatory grassland and arable habitats to ensure they survive beyond the 40 year lifespan of the solar farm.

Forty years is not a long time in landscape planning / management terms and it is not appropriate to avoid considering what will happen beyond this point. The end of the project is very much a crucial part of the decision-making process, and not something that should be left out of the assessment. Otherwise it is very possible that long-term, there could be a net loss to biodiversity across this varied landscape, which would affect large areas of both Cambridgeshire and Suffolk. If this is a possibility, then it needs to be highlighted in the impact assessment.

A stronger, clearer vision for the site should be provided for the post decommissioned stage.

Loss of arable farmland compromising landscape-scale nature conservation projects
We note that the assessment of the loss of arable land will be covered in the ES and that very little assessment has been made at this stage (ref Chapter 12 Socio economics and Land Use).

We would like to request that the next stage of assessment also considers the loss of such a large extent of countryside landscape in relation to the impact this may have on allowing conservation minded-farmers and charities to deliver habitats for wildlife at a landscape scale. There has been a positive move in recent years (post the Making Space for Nature Lawton Report, 2010) to aim to deliver 'bigger, better and more joined up habitats'. In order to do this, land needs to be available to support such initiatives. The loss of such a significant area of productive farmland, which happens also to be in close proximity to several strategic landscape-scale nature conservation initiatives, has the potential to compromise efforts to deliver nature

conservation priorities elsewhere in East Cambridgeshire and West Suffolk, by making it harder to secure arable land for habitat creation in the best places.

Water Resources

Flood Risk

The majority of the land required for Sunnica East Site A has a low risk of flooding (less than a 1 in 1,000 chance of being flooded each year). There are some small areas at greater risk of flooding (1 in 100 to 1,000 annual probability) presents within Sunnica East Site A, associated with the Lee Brook within the western extent, and also north from the River Lark. The Sunnica East Site B is located on land with a low risk of flooding (less than a 1 in 1,000 chance of being flooded in any given year).

A range of mitigation measures, such as crossing of watercourses with trenchless techniques, removing infrastructure from Flood Zone 3b areas, and implementation of swales/drainage ditches, are embedded within the design of the scheme or captured within standard construction practices reflected in the CEMP so as to prevent or minimise effects on the water environment.

Overall, the councils agree with the assessment of flood risk; only Sunnica East A contains notable sources of fluvial risk from Lee Brook but construction works will be outside Flood Zone 3. Surface water flooding is very low across all site and we therefore agree with the findings of the report

Drainage Strategy

The use of open SuDS features to route runoff towards a basin is acceptable. All features are shallow, which is satisfactory and follows Environment Agency groundwater criteria and our local guidance on open SuDS.

The proposal to mimic natural drainage is a suitable approach, but it is difficult to evaluate as the topographic plans are difficult to use. No levels are provided, and resolution is poor. It would be better to convert contours into heat maps given the size of the plots. We need these plans to be able to follow logic behind the siting of swale and basin locations. We recommend the use of LiDAR if surveys have not already been undertaken. It would be helpful if the plans showing conveyance swales could include flow arrows.

Though we anticipate that infiltration is likely to be successful based on local knowledge of the site areas, no infiltration testing has yet occurred. At this stage, we would expect at least some intrusive investigations at each site to gain a better understanding of conditions. The critical factors are groundwater levels and how far below ground any chalk deposits are.

The section of chapter 9 concerned with Management of Construction Site Runoff does not appear to be based on the runoff dynamics of the site. It is also concerning that this section proposes “site drainage, including surface runoff and dewatering effluents, will be discharged to sewers”. This is the opposite approach to the SuDS hierarchy; surface water should not be discharged to sewers. Instead, we would suggest that the best temporary drainage system would be temporary SuDS based

on an infiltration strategy with increased levels of pollution and sediment control (i.e. silt and oil traps).

In addition, this document should contain some assessment of the surface water drainage impacts of proposed access and haul roads through the site, both in terms of the quantity of run-off and the quality.

The decision to use piled foundations rather than concrete pads for solar panels is suitable from a drainage perspective. However, it is recommended that the risk of scouring and/or rutting caused by localised compaction during construction followed by intense rainfall being routed off panels is evaluated in order to consider whether any mitigation is necessary.

The promoter should also consider the possibility of conflict between drainage features and archaeology due to the shallow soils in the area.

It is not clear from the drainage strategy whether existing land drains are to be retained. They do not seem to be mapped in the PEIR documentation, so clarification would be welcome.

Finished floor levels should be raised 300mm above surrounding ground levels, or 600mm above the predicted river flood levels, whichever is highest.

Drainage Technical Note (FRA/Drainage Strategy Appendix F)

The Councils have the following specific comments to make on the technical note provided:

- A conservative infiltration rate has been selected – This is acceptable for this stage, however we do not agree with suggestions that ground investigation is cost prohibitive at this stage as groundwater levels information is important.
- 10% PIMP is an acceptable assumption for solar arrays but 50% for compound areas seems too low.
- FEH13 or observed rainfall should have been used given the scale of these sites and not FSR.
- 0.6m deep Suds features are satisfactory.
- Table 2 suggest 8% increase in impermeable due to the development – 45ha increase for eastern sites – This seems reasonable, but should be reflected in body of report at 4.1.
- Results in a conservative estimate of 53,400 m3 of storage required across all sites (88ha of imp area) – again seems reasonable.

Document Quality

Although the Councils generally agree with the recommendations of this chapter, there are a number of quality issues in the document which must be addressed in the Environmental Statement.

- In terms of drainage strategy, the PEIR does not match the findings and recommendations in the Flood Risk Assessment (FRA, Appendix 9A). The main chapter refers to attenuation features or detention basins throughout the document whereas the FRA uses infiltration as the basis for control. This is an

important distinction, as attenuation is unlikely to be acceptable to the Ministry of Defence due to the risk of bird strikes for military aviation caused by standing water.

- The drainage strategy assumes that 50% of the total area will be impermeable. If this relates to the compound and substation areas only, then it seems a little low, as it is presumed that there is little green space in these areas.
- At 4.1 it seems unlikely that the contributing area will not change post-consent, even if only due to the addition of the compound and substation areas. It would be useful to provide a map showing the contributing areas mentioned.
- The table with Greenfield runoff rates shows the Qbar rate being the highest. It may be that the return periods have been incorrectly inserted within the table, however, this should be accurate in future applications when determining the runoff rates.

Landscape and Visual Amenity

The characterisation of the baseline and the assessment of the adverse effects of the proposals, as well as the suggested mitigation/compensation are not appropriate or acceptable. Therefore, as it is currently presented, the proposed scheme is not acceptable in respect of landscape and visual amenity, and in this respect cannot be supported. However, the Councils consider that many of the methodological and baseline characterisation issues can be resolved, if the promoter is willing to engage effectively on these issues.

If a project of this scale must proceed, there will be substantial residual landscape character and visual impacts that just cannot be mitigated. A creative approach to design is required avoiding monotonous rows of panels. This could be through, for example, emulating field patterns or creating shapes and vistas that promote more visual interest. If the promoter was prepared to recognise the need for an exemplary approach to the design and mitigation, of what is currently the largest solar proposal in the UK, the Councils consider that there might be scope for considerably more of the landscape and visual amenity impacts to be mitigated.

Key Issues – relating to the overall scheme

Landscape character assessments and Landscape effects assessments

The boundaries are blurred between baseline findings and assessment. This applies to the PEIR and Appendices 10D and 10E. A clear distinction should be made between the baseline landscape character and the assessments of value, susceptibility, and sensitivity in relation to the proposals.

All levels of published landscape character assessments (as referenced in Appendix 10D) should inform the baseline studies within the Local Landscape Character Area (LLCA) Assessment (Appendix 10E). This assessment should describe how the LLCAs nest within the wider assessments, which elements and qualities of the landscape,

found locally, represent/ relate to the wider assessments and which are a-typical. If it is apparent that the boundaries of the LLCA do straddle the boundaries of wider areas/typologies, this should be explained and justified. Once a clear and coherent picture of the local landscape character is established, this can form the basis, together with the regional level character assessments for assessing the landscape effects.

The boundaries around the character areas defining the villages are far too tight. The settings of the villages and the features which define the boundaries of the villages are not adequately identified and described.

Whilst the principle of a detailed local landscape base is welcome, this should be developed and agreed in consultation with the relevant local authorities prior to its use in the Environmental Statement. This is essential if it is not to become an area of uncommon ground at a later date.

Action required –

1. Set out methodology, based on existing guidance (such as Natural England's, 'An Approach to Landscape Character Assessment', October 2014), for defining LLCAs and agree with LPA
2. Provide references to all levels of published Landscape Character Assessments and set out how the LLCAs are representative of or different from the wider character areas and provide justification where LLCAs do not nest within wider character areas and boundaries are re-defined
3. Base justifications for value, susceptibility and resulting sensitivity on sound methodology, that is agreed with LPAs (see LPA comments on Appendix 10C LVIA Methodology)
4. Restructure the assessment of the landscape effects to improve the communication of findings.
5. All aspects of landscape need to be assessed, not just physical elements.
6. Refine the presentation of figures (maps) so they visually aid the interpretation of the landscape character across the study area.

Design

The proposals have evolved (and continue to do so), and the red line has changed significantly. This means that some of the earlier comments made by the local authorities may have become obsolete. However, it also means that the following new concerns have arisen:

1. The proposed areas for PV panels are encroaching too close towards Isleham, and the proposals (including mitigation) do not respect the fenland edge character of this area.
2. The proposal is encroaching too close to the avenue leading to Chippenham Hall, affecting the setting of a registered park and garden.
3. Further landscape concerns are around the U6006 road, Worlington, West Row, La Hogue Road, the B1085 and the view from Newmarket (Limekilns), E18 and E33
4. Despite the significant changes to the red line, Sunnica West A would be a vast expanse of uninterrupted solar plant.

5. All boundary changes should be reviewed as they could result in additional effects on receptors, for example at Biggin Farm (close to Grade II Listed Fordham House) and at Chippenham Fen (additional encroachment on avenue).

Action Required – In order to minimise and eliminate adverse landscape impacts from the revised layout of the scheme, a creative and iterative approach to the design of the solar farm and landscape mitigation is necessary to resolve these issues.

Mitigation

The mitigation proposals across the scheme are too homogenous and, in some areas, inappropriate to the extent that the adverse effect of the proposed mitigation planting is potentially greater than the adverse effects of the solar plant proposals. (Isleham / La Hogue Road/ Golf Links Road/ B1085 view out of Chippenham and possibly other locations).

Further details are required about specific mitigation planting that is suitable for the different identified landscape character areas. Planting proposals should be based on the landscape character and observed existing vegetation.

Action Required – an effective and locally appropriate scheme of mitigation reflecting the local characteristics of the different areas in which the project is built is essential if the project is to be made acceptable – Detailed discussions with the LPAs is essential if these issues are to be resolved.

Public Rights of Way

There are concerns about the visual impact on PROWs. This includes the various different users of the network, with viewpoints not being covered for equestrian use as previously agreed.

The closure of all Rights of Way within the red line boundary for the duration of the construction phase seems excessive and needs to be reconsidered. There is concern that Worlington and Freckenham will effectively be cut off from recreational routes in the area during the construction phase. A phased approach should be adopted, and routes should only be closed for a minimum period, when works require it. Alternative routes should be provided. There are areas of the network that should remain open at all times due to routes being around the edge of the scheme area and not physically affected by works.

The closure of routes could potentially have a negative impact on other recreational areas in the wider area, including areas designated for their ecological value. These impacts will need to be assessed in the report and in the Habitat Regulation Assessment.

The public access has not sufficiently increased. The suggestions from the Rights of Way Officer for desired additional routes were not taken further; some of the

proposed additional permissive routes may interfere with ecological aims, for example in stone curlew areas.

There are concerns over noise from inverters, switchgear and other associated equipment disturbing equestrian users, for example on Bridleway 204/5. Such equipment needs to be located a sufficient distance away from PROW.

Because permissive paths either cross or are bordered by the proposed DCO area, it is recommended that the works promoter seeks clarification from the Cambridgeshire Asset Information service as to the lateral width of PROW and highways in the affected area. This will help to ensure that any works proposed or undertaken within the DCO area do not encroach upon the PROW or have a negative impact on the users of the network.

LVIA Methodology

The methodology for the assessment of landscape and visual effects of the scheme is fundamentally flawed and therefore leads to conclusions that the Councils cannot agree with. This needs to be addressed. It would have been preferable to do this prior to the PEIR, but the Councils are happy to give further detail as to what changes to the methodology are necessary (see also below).

Action required - methodology should be agreed prior to preparation of Environmental Statement to avoid uncommon ground in this area.

Visual presentation

The viewpoints have not been updated to reflect changes to the DCO red line and the scheme design that has occurred. A number of viewpoints which previously were representative are now redundant as they no longer focus on the application site, while other viewpoints that would focus on the most intrusive parts of the development are missing or focused away from these features.

The viewing angles of some of the photographs go much beyond the human field of vision, resulting in a fish-bowl effect for some views. This also leads to the proposed development appearing smaller within the photograph.

Some important views (photomontages) are presented across two pages, with the result that the important and central elements of the views, the solar installations, are effectively pushed to the edge and/or split in half. This makes it harder to read the photomontages and to understand the effects of the proposals in the landscape.

The photomontages do not appear to have location maps. The remaining viewpoints have small location maps that are difficult to read, especially as all viewpoints in the area have been left in and it is near impossible to identify which viewpoint relates to the photograph. The relevant viewpoint should be highlighted on the location map for clarity.

For each viewpoint three photographs are included in the figures, a summer and a winter panorama and a more focused view. However there does not appear to be any explanation as to why this is the case, and it is not clear whether the assessment is undertaken in the context of the panorama or the more focused area. The photographs have hardly any annotations, and the focused view has none; description and assessment have to be found in the appropriate appendix, which is cumbersome. The focused views are unusual, but could provide additional insight and be very useful, if they were annotated so the location, extent and context of the proposals are clear.

Information clarifying how/at what size the photographs should be viewed is missing, and the photomontages are to be viewed at A1 size and at a comfortable arm's length according to the note. Given that this statutory consultation is taking place exclusively online and that officers, Councillors and many members of the public are likely to continue using the online material, the visual representation should be made much more user friendly.

It would be useful to add to Year 15 visualisations a succinct comment of when this level of mitigation can be expected to be reached. For some mitigation planting (e.g. reed beds or hedges) this could be much earlier than in Year 15.

Action required - Reassess and agree the baseline methodology and the viewpoints in light of changes already made to the DCO site and scheme design and any future changes prior to preparation of Environmental Statement to avoid uncommon ground in this area.

Inter- and Intra-Cumulative effects

The assessment addresses the potential interaction of effects (chapter 17) caused by the scheme and has also identified other developments in the area that may lead to cumulative effects (section 10.11). It has, however, not sufficiently addressed and reported on the potential intra-cumulative effects.

The proposal now effectively consists of four sites, plus interlinking cable routes. Therefore, the most relevant results from both the landscape character and visual assessments are those described in the PEIR as the 'combined' effects. However, these assessments are lost in the volume of information presented, although it is noted that these assessments are used in chapter 16. However, in chapter 16 effects on landscape character and visual environment should be differentiated and the view reference used.

It is not sufficient to state that from no visual receptor can the entire development be viewed and bury the findings within the appendices that assess landscape and visual effects and not summarise them in the main report.

It is further necessary that the sequential aspects of moving through the area are thoroughly assessed for all users, and that it is fully understood how the perception, that users have of the landscape within and around Sunnica, is affected by the proposals.

Action required – methodology for dealing with intra and inter cumulative effects of the project should be agreed prior to preparation of Environmental Statement to avoid uncommon ground in this area.

Glint and Glare
There is concern as to the impact of glint and glare, noting proposals to use planting to mitigate the impact will take a number of years to establish.

There is concern regarding glint and glare for equestrian users south of Sunnica West site A. Proposals should investigate methods to mitigate these impacts in the years before the planting is established.

Receptor heights have not been covered fully for equestrian use for the public rights of way network, with a number of routes not assessed at the increased height detailed in the assessment.

Action required – Review the issues associated with glint and glare for equestrian receptors.

Other concerns

It is concerning that many suggestions and recommendations previously made by the Councils do not seem to have been taken on board, for example:

- No reference can be found in the PEIR for assessment of views for equestrian users as visual receptors (separate from glint and glare).
- The proposed permissive paths are not what was asked for.
- Some additional viewpoints are still missing (most importantly along the avenue towards the entrance of Chippenham Hall, but also from B1085 looking south-east into the Sunnica West A (slightly north-east of viewpoint 32).
- The directionality of viewpoints on maps is still inaccurate in places and double arrows are unhelpful.
- The impact of lighting has not been sufficiently considered in the landscape section.

Comments in more detail

More detailed comments with regard to these key issues as well as additional comments on Chapter 10 of the PEIR are detailed below. Given the fact that the design is still evolving and the Councils are seeking fundamental changes to the methodology, assessment and mitigation, the Councils reserve the right to raise additional matters of detail beyond the statutory consultation period.

The Councils are happy to collaborate in updating the approach to the LVIA between now and the submission of the DCO application.

Within West Suffolk, the assessment concluded that the proposals would have a significant effect on the landscape character of the Sunnica East site A and B and on the local landscape character for Sunnica East site B, and that the effects would persist in the long term and at decommissioning. Visual effects would be significant during the construction phase; however, these would be short to medium term and

would be reduced as the landscape planting matures. In the long term there would continue to be significant visual effects which would be experienced by recreational users and users of the training ground at the Limekilns located on the northern side of Newmarket.

Within East Cambridgeshire the assessment concluded that the proposals will have a significant effect on the landscape character of the Sunnica East site A, as well as Sunnica West sites A and B, and that the effects would persist in the long term and at decommissioning. Visual effects would be significant during the construction phase for all three sites; by Year 1 these would be reduced for Sunnica East site B, and by Year 15 also for Sunnica East B, as the mitigation planting matures. In the long term there would continue to be significant visual effects for Sunnica West site A.

PEIR Assessment assumptions

Groundworks: An assumption within the PEIR is that localised ground levelling will be required. It is not clear what the scope of this would be, for example would the ground levels be manipulated by +/− 0.5m such that they would be imperceptible, or would changes in ground levels be more significant and therefore have an additional impact on landscape character and visual amenity. The assumptions include that the excavated material from the cable route and other excavation will be stored within the DCO site. However, it is not clear where this will be stored, and how it will be accommodated both in the short term and during operation. This has the potential to contribute to the landscape effects of the proposal.

Ground preparation: There does not appear to be any provision for de-compacting the soil after use of heavy machinery during construction and prior to mitigative seeding/planting (10.3.7).

Perimeter fence: An assumption is that the perimeter fence will be a 2m high deer proof fence constructed early in the construction period to help protect retained vegetation. Chapter 3 suggests that this could be up to 2.5m in height. Whilst the early construction of the perimeter fence is welcomed, it is not clear what the design (noting that plate 3-11 is a typical example of a deer fence) or alignment of the perimeter fencing will be. These factors will contribute to the landscape character and visual effects – the fence itself has the potential to have a significant effect on its own if not aligned carefully in relation to existing landscape features. More detail is required. It appears that the BESS, substations and other infrastructure such as the solar stations would require more substantial security fencing and it is not clear whether this has been taken into account.

Appendix 10B High Level Tree Constraints Report

The PEIR and design of the proposals to date relies on a High-level tree constraints report, **Appendix 10B**. The methodology used relies on approximate tree height and canopy spread information taken from the National Tree Map (NTM) data set and a walk-over assessment for accessible areas. The data has been used to derive underground and above ground constraint buffers for trees and to identify trees likely to be of higher value. Whilst it is agreed that this high-level assessment may be suitable for this early-stage design and planning purposes, focusing on the likely quality and benefits of the trees, there are likely to be gaps that will come to light at

later stages. The PEIR confirms that further survey is required, and this should be undertaken to inform the ES and the DCO application.

The mitigation hierarchy must be applied to trees and hedges. The LPAs expect that the proposals will be reviewed, and tree losses avoided and minimised, for example along cable route A, between Sunnica East Site B and Sunnica West Site A at Heath Plantation; here the cable route is still shown to cut through a woodland, which the High-Level Tree Constraints Plan identifies as a group likely to be of high Value (Sheet 14). The alignment of the cable route corridor should be amended so that it avoids the woodland entirely.

It is essential that a suitably qualified arboriculturist is appointed as soon as possible to advise on tree matters at the detailed design stage, to supervise any tree works throughout the construction of the scheme (including installation of tree protection fencing, tree work, construction within close proximity to trees) and to produce a post completion inspection report detailing the condition of all trees that may have been affected by the works carried out.

PEIR Assessment methodology

Study Area
The study area should continue to be reviewed by the promoter if the parameters of the scheme change including the footprint and the height of the structures.

A large area of the original site area of Sunnica East around Freckenham has been removed from the scheme; instead, the scheme now comes much closer to Isleham. Sunnica East is now split into A and B. While this brings much needed relief in the area between Worlington and Freckenham, the location of solar panels in close proximity to Isleham may not be appropriate. Although this area is still within Rolling Estate Chalklands, the landscape here is beginning to change and transition into the settled fenland character type, being quite flat with wide open views.

Methodology
The methodology for the LVIA is derived from the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3), 2013 and the photomontage methodology is derived from the Landscape Institute's TGN 06/19: Visual Representation of Development Proposals, 2019 which are considered to be the industry standard. The methodology is set out in **Appendix 10C** (*see below*). Reference is also made to the glint and glare assessment **Appendix 16A** (see below).

The scheme design has evolved and the viewpoints that have been chosen will need to be adjusted to ensure that the visual effects of the more intrusive infrastructure elements such as access points, BESS, substations and security fencing are also assessed.

Residential Visual Amenity Assessment has not been considered necessary (section 10.4.24 -28). However, in light of the concerns about the methodology this should remain a matter for review.

The potential effect of lighting during construction, operation, and decommissioning of the proposals does not appear to have been considered. The need for lighting is

detailed on page 8-70 of the PEIR, however, it doesn't appear to have been considered in the landscape section. West Suffolk planning policy JDMPD DM13 requires that development should protect and enhance the nocturnal character of the landscape.

Appendix 10C LVIA Methodology, August 2020

Table 1-2: Landscape susceptibility, p.2

- The susceptibility criteria are ill defined and generic rather than specific.
- All assessments should be carried out against the current proposals as they stand (bearing in mind the Rochdale Envelope).
- The 'likelihood of undue consequences' is not a criterion for susceptibility. It is the susceptibility of a particular site to the changes resulting from a specific scheme that determines the likelihood of undue consequences.
- In order to establish the susceptibility of a specific area of a specific landscape to change caused by a specific development the criteria need to be landscape based and should include aspects like landform, location (valley – valleyside – plateau), characteristic vegetation, local landscape character, tranquillity. GLVIA 3rd states on pp.88f. that susceptibility *"means the <u>ability of the landscape</u> (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or <u>a particular aesthetic and perceptual aspect</u>) <u>to accommodate the proposed development</u> without undue consequences for <u>the maintenance of the baseline situation</u> and/or the achievement of planning policies and strategies."*

Table 1-3: Landscape Sensitivity, p. 2

- The criteria to discern 'medium' and 'low' sensitivity seem to be too similar and we suggest losing the 'very low' category and use its criteria for the 'low sensitivity' category. Otherwise, there is a danger that landscapes of community and local value may slide too easily into the 'very low sensitivity' category.
- Looking at the provided tables more holistically, we cannot see much difference between Landscape Sensitivity and Landscape Value. There are no categories for landscapes/ sites that have limited or very low value, because they are degraded, yet have little capacity for further adverse change, but could benefit from improvement. Nor does there appear to be a category for highly valued landscapes of national importance that may be able to accommodate a certain degree of change, because of factors in the landscape.
- There is concern that the methodology is calibrated in a way that may put more of the expected effects into the non-significant bracket. This could be mitigated by the professional judgement in the narrative. However, this cannot be verified for Viewpoint 33, north-west of La Hogue Road, at the junction with La Hogue Farm. It is difficult to follow the judgement that the change of view by year 15 from wide open landscape to looking up close onto the edge of a tree belt as far as the eye can see can result in a negligible effect.
- There is a need to question statements such as:
  10.6.201 The susceptibility of the LLCA mainly ranges between low to high. The low susceptibility is due to many developed areas or <u>fields without landscape features such that development could be accommodated</u>. The high

susceptibility is due to Conservation Areas, or defined 'stud' landscapes, with limited ability to accommodate change. (PEIR, p.10-55)
In particular around Isleham, but also south-west of La Hogue Road, wide open spaces with few features are part of the character and highly susceptible to change.

Appendix 16A Glint and Glare Assessment

The mitigation embedded in the proposals has been accounted for in assessing glint and glare; this could be problematic, as the mitigation philosophy and resulting mitigation measures have not been agreed with the LPAs and are subject to change. In addition, the mitigation will take some time to establish and become effective. Re-assessment may be required once mitigation planting is finalised and agreed.

- Paragraph 16.3.29 mentions native and non-native evergreen species to be planted next to the temporary hoarding; clarification is required which species are proposed here, particularly which- non-native species.

There is also concern over the impact on equestrian use on the PRoW and impact on viewpoint 40 with regard to early morning impacts when this route receives high use.

- All PRoW that have equestrian access, as shown in Section 5.4, should be assessed at a height of 3.5 metres of horse and rider to reflect the equestrian receptor.

- The geometric calculation results do not give a true interpretation of the impact for the Public Right of Way network as detailed in 8.8 of the assessment.

PEIR Stakeholder engagement

Consultation with ECDC, CCC, WSC and SCC Landscape Officers and other consultees has been undertaken to discuss some technical issues ahead of the PEIR. However, many details of the scheme including the parameter plans, and the DCO outline were evolving at that time. As a result, those early comments may not now be relevant to the design currently being assessed and similarly comments made in relation to the PEIR are focused on the current scheme which may be different to the final scheme submitted.

PEIR Baseline conditions

The GLVIA 3 is clear (section 5.41-5.42) that sensitivity of a landscape may be based on a published 'intrinsic' sensitivity study (such as those in the landscape character assessments) but should be an assessment of the susceptibility of the receptors in relation to change arising from the specific development proposals. The GLVIA 3 advises that the assessment of sensibility should not be recorded as part of the landscape baseline. The methodology used does not appear to have followed this principle.

The PEIR does not take into account that West Suffolk policy DM13 identifies the Brecks as a valued landscape which has "by reason of their landform, historic

landscape importance and/or condition, a very limited capacity to absorb change without a significant material effect on their character and/or condition." The evidence documents behind this are the Norfolk and Suffolk Brecks Landscape Character Assessment and the Brecks special qualities study which Officers have already made the consultants aware of.

Appendix 10D Local (Published) landscape character assessment

The Sunnica development is located across three national landscape character areas, as clearly shown in figure 10-5 illustrating the National Character Areas. The various regional and county character assessments reflect these, each refining the boundaries, and describing landscape character types/typologies in more detail. Unfortunately, this is not demonstrated in the presentation and organisation of the baseline information. The mapping could better illustrate the compatibility of the landscape assessments at the different levels if the colours used were more carefully selected.

- The boundaries between baseline studies and proposal assessment are not sufficiently defined. The sensitivity of the landscape to this project is not a part of the baseline but forms part of the assessment.
- The assessments and judgements of value and susceptibility are not adequately evidenced and explained.
- Perceptual, aesthetic, cultural and social aspects of landscape do not appear to be considered; the focus is on physical features, which is important, but not sufficient.

Appendix 10E Local landscape character areas

The fine-grain approach to local character areas is welcomed as a baseline for assessment. Paragraph 1.1.1 states that the LLCAs have been identified via fieldwork. The methodology for this field work, based on existing guidance (such as Natural England's, 'An Approach to Landscape Character Assessment', October 2014), for defining LLCAs should be clearly set out, i.e., which criteria were used to subdivide and, in some cases redefine the boundaries of the landscape types and areas of the published Landscape Character Assessments.

It is expected that the Local Landscape Character Areas would be based on ("nest in") and developed from all available layers of published Landscape Character Assessments (see Appendix 10D). In Appendix 10E reference is made only to the National Landscape Character Areas, which is not comprehensive enough. As the grain of assessment gets finer on the local assessment level, it is important to further refine and adjust the assessments of coarser grain assessments, where available, and to analyse where the local character is congruent and where it is different from the wider landscape character. These likenesses and differences need to be presented with more than a one-or-two-word reference to key characteristics of the respective National Character Area. More evidence and justification are required to answer the following:

- How far are the key characteristics identified in other Landscape Character Assessments present in the local area?

- How is the local area similar or different from the wider landscape area?
- To what extent is the local character area representative of the various character areas/typologies in which it sits (define: representative – somewhat representative – less representative - not representative; should there be other categories?)?

The paragraphs relating to value, susceptibility and sensitivity should not form part of the baseline, as they are part of the assessment. The justifications for Landscape Value, Landscape Susceptibility and Landscape Sensitivity

- are too formulaic,
- are based on a methodology which the LPAs consider to be fundamentally flawed,
- need to be more descriptive and detailed (for example a description should be included of the potential changes in the local area resulting from the proposals, and the ability of the landscape to accommodate these changes (susceptibility).

There are concerns about the boundaries of some of the LLCAs, particularly around settlements, and where they cut across landscape typologies defined in other higher-level studies.

The colours representing the Local Landscape Character Areas appear to have been chosen mainly for ease of *telling apart*; for this transitional landscape it may be more useful if the colours were also to illustrate this transitional character and, if possible, use colours akin the those of the wider area assessments. This would then provide an additional visual layer of information to the text, and unusual pockets of character different from the wider areas could be more easily recognised.

The paragraphs relating to susceptibility do not adequately analyse how the proposed development (or the elements of the development present within this area) would affect certain elements of the landscape. For example, the area around Isleham, which is named: East Fen Farmland (LLCA 11): no explanation is given as to what effect the proposals have on the baseline of particular aesthetic and perceptual qualities of this area; it only briefly refers to landscape features: *"1.1.51 The LLCA is an open, very gently undulating arable landscape with limited vegetation cover, such that the extent of features with the potential to be impacted is low. the LLCA is therefore assessed as being of low susceptibility to the type of development proposed".*

Appendix 10F Visual baseline

Visual baseline methodology
The information included in the visual baseline appendix goes beyond baseline description to include assessment, and the boundaries between baseline studies and assessment are blurred. Sentences such as 'no part of the scheme is visible' are considered to be part of the assessment, as would the assessment of susceptibility, value and sensitivity. Whilst it might be convenient to group this information together with the baseline description, the status of this information should be clear through appropriate labelling.

The descriptions of the existing views skip to the detail of the views without properly setting the scene; for example, neglecting to note if it is a *rural view of open countryside*. The descriptions only extend as far as they can be related to the proposals, often from the first sentence. They do not explain which qualities of the landscape, if any, contribute to the view. The GLVIA suggests that the nature, composition and characteristics of the existing view are described and goes on to give examples of visual characteristics as the nature and extent of the skyline, aspects of visual scale and proportion, especially with respect to any particular horizontal or vertical emphasis, and any key foci.

The methodology for assessing sensitivity is flawed – see above. In addition, the assessment is not consistent throughout the viewpoints.

When valuing viewpoints consideration should be given to the features of the Brecks as a valued landscape. The special qualities of the Brecks are described in:

[redacted]

Viewpoints
The viewpoints have not been updated to reflect changes to the DCO red line and the scheme design that has occurred. A number of viewpoints which previously were representative are now redundant as they no longer focus on the application site, while other viewpoints that would focus on the most intrusive parts of the development, for example the BESS and other infrastructure at E18, E33 and (insert re cambs) are missing, or focused away from these features.

- An additional viewpoint is required from Devil's Dyke.
- An additional viewpoint is required from the avenue leading from the original main entrance to Chippenham estate looking in all directions, from a suitable location, where the extent of the PV panels on either side of the avenue and the resulting effects on the setting are evident. This should be a Type 4 visualisation (photomontage).
- An additional viewpoint is required from B1085 looking south-east into the Sunnica West A.
- An additional viewpoint is required for the proposed redline change at Biggin Farm A142. Fordham House is a Grade II Listed Building and will need to be assessed as a visual receptor. Any potential effects on the setting of Fordham House will also need to be assessed (Cultural Heritage).
- View to E33 from the road to West Row.

There is still concern that the location and field of view of viewpoints is not precise on the plan and the direction of view is not always consistent with the photographs. The use of double arrows instead of a fan indicating the visual field is not useful. The PINs scoping opinion drew attention to this matter in the scoping opinion (4.5.13).

For example: Viewpoint 9, shown on the plan to be looking north-west, while the photo does appear to be looking north; in addition, the caption on the photo page

refers to trees visible along the B1102, which is impossible as the B1102 is situated south of the viewpoint. The trees may be located along Beck Road.

The title of the viewpoint should include the viewing direction.

The provision of photomontages does not appear to be sufficient, particularly for Sunnica West and around Burwell substation. It is suggested that Viewpoints 41, 46 and 54/55 are reconsidered.

Comments on the visual presentation are included above.

PEIR Embedded Design mitigation

- The assessment of the effects of the various infrastructure elements, for example the BESS relies on tonal rendering of the infrastructure elements to reduce their visual effects. Landscape colour is likely to vary along with the main landscape character areas. There is no evidence that a colour study has been undertaken. This should form part of the design code for these built features.

- The embedded landscape mitigation in 10.7.5 in general lacks detail. There are no minimum offsets and the minimum width of tree belts is not detailed. A tree belt of 5m in width will perform differently from one of 15m or 30m wide.

- The landscape proposals should respond to the landscape character typology.

- The mitigation does not always appear appropriate for the local landscape character/type, in some cases, to the extent that the mitigation planting itself has a greater adverse effect than the development proposals.

PEIR Assessment of likely impacts and effects

This section of the report is the assessment of likely significant effects of the scheme. Effects on both landscape character (***Appendix 10G***) and visual amenity (views) (***Appendix 10H***) are covered.

The effects of the individual elements of the project areas are assessed individually and of the project as a whole, for example where there are two site areas within a character area, or a view is of more than one component part.

- The description of the construction activity across the landscape is underplayed. The presence of the construction materials within the landscape is not included, nor the presence of the workforce and the vehicle movements that would be required across the project areas and on the network. The assessment states that *individually the construction equipment and excavation within the fields would not be uncharacteristic within an agricultural landscape* – this is not entirely true as many of the vehicles and machinery that will be present are not generally associated with farming and the increased activity in the rural area would be widespread across a large area of farmland leaving a visible footprint.

- The assessment of construction effects on the published landscape character assessments relies on the fact that the effects are focused on only a small part of each of the landscape character areas. Whilst the GLVIA allows for the geographical extent of the effects to be part of the consideration, in this assessment, significant weight is given to the fact that the effects would only be on small and localised in relation to the wider extent of the published landscape character area.

- The quarry close to Rectory farm is not perceptible in the landscape because of mature tree belts and the farm is typical of its rural location. The BESS, substation and compound at E18 is likely to have a significant visual effect and this is not picked up in the assessment and additional viewpoints are required.

- Golf links road, which is a quiet country lane between Worlington and Barton Mills, is used by pedestrians for recreation as well as motorists. The sensitivity of receptors should reflect this.

- The effects of the elements of the project areas are assessed individually and then the interconnectivity of the project as a whole, for example where there are two site areas within a character area, or a view is of more than one component part.

Cumulative effects are those that result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments (associated with or separate from it). The study does not consider whether the total effect of the individual development parcels is greater than the sum of the parts. The study should consider whether the cumulative landscape effects would change the landscape character of the area to the extent that it becomes a significantly different character type. This might be the case if the proposals are likely to change aesthetic and perceptual qualities of the landscape such as scale, pattern and colour, sense of naturalness, remoteness and tranquillity which would lead to modification of key characteristics (GLVIA 7.28).

Whilst combined visual effects may have been considered, sequential visual effects are potentially more relevant in this case. The concern is that residents in some settlements, for example Worlington, would have a series of sequential views when travelling to or from their home by either car or when walking for recreation. The geographical extent of this development suggests that a more thorough assessment of the combined effects of the development areas is required.

Landscape officers requested that a narrative on the overall effects of the proposals on each village and identifying within each village how the effects might vary. The promoter has responded (PEIR page 10-30) "A local landscape character assessment has been undertaken to assess the likely impacts and effects on the villages. This has been undertaken by a local landscape character assessment of the villages and identifying their sensitivity to the Scheme".

This appears to refer to Appendix 10E Local Landscape Character Areas (see comments above), which falls short in describing the potential effects for each village in a meaningful way. The settings of the villages and the features which define the boundaries of the village were not identified and described. The sensitivity analysis

and the further assessment of landscape and visual effects do not provide the narrative requested.

Appendix 10G Landscape effects

The organisation of information in Appendix 10G Landscape effects, whilst it has a logic, provides an assessment that is over-complicated and fragmented, to the extent that it risks becoming unintelligible.

In assessing the impact of the proposed development separately for each published and local landscape character assessment, the PEIR (and the associated appendix 10G) present a fragmented picture of the impacts of the proposal on landscape character, based on the scale of the assessment used rather than on the important and valued components of the landscape in and around the study area.

Five levels of landscape character areas and types (in total around 60 areas) are assessed separately against each individual site or cable route section and at each phase (construction, year 1, year 15, decommissioning) of the scheme. It may be more effective to assess the individual sites and cable route sections and assess which landscape character areas they would affect and how, over time. Intra-project effects could then be assessed at the end.

West Suffolk planning policy requires that landscape effects resulting from a scheme are based on the county landscape types and the local landscape character. East Cambridgeshire expects that the East Cambridgeshire Landscape Guidelines (1991) form the basis for detailed local character assessments. As the Sunnica proposal straddles two counties it is considered most appropriate for the assessment of landscape effects to be focused on the regional and local levels.

The assessment is selective about the elements of the various landscape character areas/types that would be undermined by the development. In particular the significant effect on agricultural land through the change in land-use and land-cover is underplayed, and the effects dismissed because it would be reversible and/or would only occupy a small part of any one large landscape character area. A more consistent and systematic approach should be taken, based on the characteristic elements of the landscape highlighted in the assessment of baseline conditions including perceptual, aesthetic, cultural and social aspects of landscape as well as physical features.

Year 15 assessments should be compared to the baseline situation as well as the year 1 situation.

Consideration should also be given to whether the proposed scheme would have any impact on landscape character across the different landscape character areas/typologies, for example associated with the change of land-cover across such a diverse area.

Appendix 10H Visual effects

The assessment of visual effects does not fully explore the impact of the proposals. Whilst a general description of the elements of the development is given, the

description does not go far enough in providing detail on size and scale, geographical extent and duration of effects.

The year 15 situation should be assessed both against the year 1 situation but also against the baseline to ensure that changes are fully considered, particularly where an open view is to be lost.

The viewpoints for Public Rights of Way and the U6006 have been set at 1.6 metres for pedestrian view. A higher equestrian view has not been provided as previously requested. This does not give a true interpretation of visual effects for all recreational users.

PEIR Additional mitigation measures and enhancement measures

There were no additional landscape and enhancement measures identified (10.9 of the PEIR). Officers disagree that further mitigation measures are not practicable and are of the opinion that innovative design could find solutions to at least some of the effects identified.

It is noted that retention of existing landscape features will be implemented through the CEMP and this is welcomed, as is monitoring of the establishment of the landscape through the OLEMP (**Appendix 10I**).

There may be a requirement for assessment of the landscape effectiveness at a future point to see if the proposed measures are effective or whether additional planting is required.

Appendix 10I - Outline Landscape and Ecology Management Plan

The content of the OLEMP should closely reflect that set out in the British Standard BS42020-2013 Biodiversity — Code of practice for planning and development. In this draft document a disproportionate part of this document deals with a description of the site and existing features. This would be more useful if it were accompanied by detailed plans.

The OLEMP sets aside only 5 pages to detail the management of the DCO site which is insufficient given the complexity and size of the site. The management detail should be site specific, cover both the short and long term and must reflect the nuances of the different parts of the site. BS42020:2013 requires the following detail which will be expected with the DCO OLEMP:

- Aims and objectives of management.
- Appropriate management options for achieving aims and objectives.
- Prescriptions for management actions.
- Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period).
- The plan shall also set out (where the results from monitoring show that conservation aims and objectives of the LEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme.

If the Vision is for 'The Scheme', it should reference the main purpose which is to provide energy. The network of environmental features is largely existing, and the vision should include for the retention and enhancement of these along with new features that are required/proposed. Together these will form the framework in which the development will sit. However, a key component in the success of the GI will be appropriate management in the short and long term and this should be part of the vision. If the intention is for the GI to reflect the surrounding landscape character and context, this should also be part of the vision.

It is noted that existing woodland, treelines, and hedgerows are to be retained and additional woodland and hedgerows are to be planted. However, it is not clear where hedgerow losses will occur, these need to be defined and quantified. Concern is that significant hedgerow removal will be required to provide visibility splays at access points, and that this will have significant habitat and visual consequences, which will need to be mitigated (for example with hedges along the returns into the site).

Further, the proposals for woodland and hedgerow planting are not clear. The scale of the parameter plans, at 1:18000, does not provide an acceptable level of location detail. The details provided of landscape planting presented in the OLEMP, including tree species and sizes trees, hedgerow planting and replacement are too generic, and therefore not acceptable in their current form. Landscape proposals including tree planting, and new grassland creation should be tailored to the location and conditions, noting that these change across the DCO site. Specific management prescriptions will be required. Both landscape proposals and management prescriptions should be detailed.

Where hedges are being retained and relied on for mitigation of landscape effects, the condition of the hedgerow needs to be established and management prescriptions should be made clear.

5m buffers around panel fields – please confirm that these will not be used for access. In previous iterations this offset was applied to features on internal boundaries with no visibility. Along external boundaries with roads, settlements, and PRoW a buffer/offset of more than 20m was proposed and this strategy should be retained.

It is essential that a suitably qualified arboriculturist is appointed as soon as possible to advise on tree matters at the detailed design stage, to supervise any tree works throughout the construction of the scheme (including to sign off tree protection fencing, tree work, construction within close proximity to trees) and to produce a post completion inspection report detailing the condition of all trees that may have been affected by the works carried out.

Noise and Vibration

11.2.9 of the report states "The DCO application will include a statement of statutory nuisance." It is unclear what such as a statement will address.

Section 158 of the Planning Act 2008 advises that in developments of this size the statutory authority for carrying out a development provides a defence in any civil or

criminal proceedings for nuisance under Part III of the Environmental Protection Act 1990 i.e. the nuisance was the inevitable consequence of what has been authorised. This is termed the statutory authority defence but only applies to actions that are a nuisance and not those determined to be prejudicial to health.

Although statutory noise nuisance does not provide for a maximum level of noise to be attained, the spirit of the legislation is the prevention of an unreasonable and substantial interference to a person's quality of life. This is the threshold at which a nuisance is assessed. Although EN1 advises it is very important that, at the application stage of an energy NSIP, possible sources of nuisance under section 79(1) of the 1990 Act and how they may be mitigated or limited are considered so that appropriate requirements can be included in any subsequent order granting development consent, it is the PH&H view that the DCO application needs to address adverse amenity impacts and satisfy the aims of the Noise Policy Statement for England in that the development will mitigate and minimise adverse impacts on the quality of life, and not only be required to demonstrate the prevention of an unreasonable and substantial interference from noise and other nuisances.

Therefore, if the DCO application includes a statement advising that a statutory noise nuisance will not be caused from this development then this is not considered to go far enough.

That said the report does go on the categorise amenity impacts using the recognised concepts of LOAEL and SOAEL against which the sensitivity of receptors is compared.

11.4.11 of the report correctly references E.3.2 of BS5228-1 to identify noise threshold levels during construction. However, the report has not correctly addressed the variation between threshold daytime noise levels and the threshold levels at weekends, namely Saturdays after 1300 hours. Although the calculated range of predicted construction noise at all the receptors is calculated to be below a threshold level of 65dB(A) some are above the weekend threshold value of 55dB(A). Taking into account this issue the levels categorised as appropriate for describing a LOAEL and a SOAEL must be revisited as it is not a single threshold level of the noise that is to be considered but also the day of the week that construction is occurring and when elevated noise levels may occur.

Further explanation to expand on the details in 11.8.5 are required. Does the maximum period of 1 month for high construction noise levels at any of the receptors relate to levels below 65dB(A)?

Agree with the determination of LOAEL and SOAEL levels for vibration impacts in 11.4.13 but cannot comment on the acceptability or otherwise of the guideline values for cosmetic damage to buildings. The information provided with respect to human responses to vibration from 11.8.7 onwards and the determination of negligible or minor adverse impacts is accepted. However, the human response to vibration is very sensitive, even at low levels. Concerns are often raised about breaches of acceptable standards and damage to property, so it is recommended that as part of the noise monitoring procedures to be adopted within the detailed CEMPs and any S 61 applications, that vibration monitors are also installed at key sites during specific periods, to enable reassurance to be provided to residents and the LA that guideline limits are being met.

Baseline Noise Survey – It is noted that for the long-term monitoring survey several of the sites chosen were immediately adjacent to roads. Practical considerations may have required this, but would expect ambient and background noise levels at domestic properties in many of the villages, particularly those sited away from roadsides or screened by buildings, to be lower. The development sites are positioned in isolated fields often some distance from roads, with construction plant and operational plant potentially having a line of sight to rural dwellings with no intervening existing noise sources, particularly at night. It is noted that L90 levels at 6 of the long-term monitoring sites is measured to be 40 dB(A) or higher at night, with only 5 sites showing a L90 of below 40 dB(A). The lowest measured ambient level during the daytime is 49dB(A), with the highest 4 ambient levels being shown at roadside monitoring positions. That said it is noted that the predicted construction and traffic noise assessments calculate the noise to be sufficiently below the reported ambient levels to allow for some uncertainty whilst still demonstrating a negligible impact. It will be important when developing the detailed CEMP(s) to have regard to the rural nature of many of the dwellings in this area which are not adjacent to roads leading into or out of villages (therefore experiencing lower ambient levels) and to fully consider the adequate protection of their external amenity areas during construction phases.

Operational Noise Monitoring -

a) Clarification required of the figures being quoted for sound power levels of the substations (sound power levels referenced may be sound pressure levels). Clarification is required on the difference in sound power of the transformers proposed on East A, West A and East B compared to that of the proposed extension to the existing Burwell Substation.

b) Information as to worst case noise levels should be provided. The data appears to be suggesting that the sound power of the transformers increases from 90 dB(A) to 92 dB(A) with +50% load. Rational of accepting this as representative and information as to the sound power and potential resultant noise levels at sensitive receptors with greater than 50% loading is required.

c) Clarification as to the noise levels being quoted are for externally sited transformers or internal ones housed in solar stations. If solar stations are to be used to house all the equipment how will they be cooled and what noise impacts would result from cooling units serving these?

d) Low frequency hum from any of the proposed fixed plant is an issue that needs to be considered, and technical evidence provided in any final report if predictions show negligible adverse impact. Measurements of the existing Burwell substation did not identify distinguishable low frequency components from transformers already on site, but no data has been supplied to provide confidence that low frequency hum will not be an issue at any residential properties in the West Suffolk area, taking into account potential maximum loading scenarios and the number and type of proposed inverters, transformers, and battery units that will be stationed at each of the proposed sites. In addition, the promoter should be providing confidence that the significance of operational noise impacts are sufficiently low that they will remain negligible under all weather conditions such as temperature inversions, positive downwind scenarios etc, and will not impact those properties who

may experience lower background noise levels at night than those reported in the Baseline Noise Survey.

e) The assumptions made for the generation of the construction and operational noise models require further exploration and assessment. Plant items were modelled as point sources at a standard height of 1m above ground levels. Some of the fixed plant will be 3.5 m high with the battery storage containers 6m high. The proposals suggest that such items of plant will be grouped together and therefore confirmation that the cumulative effects of the equipment, in addition to their increased heights, will not affect the modelling results is required. Receptor points were set at 1m above ground. Night time receptor points would be bedrooms at 4.5m high and so account should be taken of this issue in any modelling scenarios.

Noise issues concerning the proposed extension to the Burwell substation (within East Cambridgeshire)

a. There appears to be some inconsistencies in the rating noise level (LAr,Tr) at R1 that is quoted in Table 11-20 compared to that predicted in 11.8.24 and a different predicted Lar,Tr is then referenced in 11.8.26. Clarification of the actual rated noise level is required.

b. Taking the figure quoted in Table 11-20 it identifies R1 as having a medium magnitude of impact under the operational noise assessment, during the night, early morning, and late evening periods. These are considered the most sensitive periods for noise impacts, as persons are more likely to be at home, enjoying their gardens during later summer evenings or resting. In any assessment of future noise impacts undertaking a BS4142 assessment on an industrial/commercial noise source and recording a +5dB difference between specific noise source and background levels could indicate complaints being likely. Referring to the implications of Section 158 of the Planning Act 2008 it is vital that all means are taken to not only be confident in predicted noise levels but also to mitigate them to the extent where sufficient noise impact protections throughout the lifetime of the development are in place. The mitigation being proposed is that of the building envelope of the residential properties in the vicinity (not able to be influenced by the promoter), with the conclusion that whilst noise may be audible inside properties, the absolute noise level is considered not to be of a sufficient magnitude (once assessed from inside the property), to warrant a significant noise effect. A minor adverse effect internally is therefore quoted.

   Residents who currently experience low background noise levels outside their homes and correspondingly a quiet internal environment with windows open for ventilation, may consider otherwise and I therefore require further exploration of noise reduction measures in addition to the reliance on the efficiency of individual building structures, to provide the mitigation required to result in negligible significance internally and minor or negligible adverse impact externally.

c. The rated noise level externally has been calculated in accordance with BS4142 to be 34 LAr,Tr, as per Table 11-20. In 11.8.20 it states that as the plant will be designed to have no tonal, impulsive, or intermittent features no

penalty/correction has been applied to this predicted level. 11.7.6 advises that the use of enclosures, local screening, silencers etc will be used as appropriate and should there be any such acoustic features present in the operational phases then a correction in accordance with BS4142 will be applied. This appears to contradict the earlier assertions. Any correction will increase the specific sound level and therefore the exceedance over background will increase. Such a scenario would therefore require further mitigation measures to be adopted to any currently anticipated. My question is also how is the operational noise, identified as a rated level of 34 in Table 11-20, described if it has no acoustic features? For example, is it a continuous drone, hum, buzzing sound etc and if so why is it not considered appropriate at this stage, for any correction factor to be added?

d. A measurement of existing tonal noise environment, and a calculation of future potential low frequency components of cumulative noise impacts an extension to the existing Burwell substation would have, was requested in early stage discussions. Background noise monitoring was undertaken between 12.45 pm on 5th Nov 2019 and 10.30 am 12th Nov in the vicinity of the Burwell site. The report suggests long term monitoring at L1 did not identify distinguishable tonal features in the local noise environment, with the conclusion being that "an expansion of the Burwell site is not expected to result in noticeable changes to the character of the existing noise environment."

e. The concerns I have with respect to this statement are:

The long-term spectrum results do not report on the third octave bands. Only octave band levels from 31.5 Hz to 8 kHz are tabled. Low frequency noise can often occur at 40 Hz and to identify if a low frequency component is present it is usually applicable to review the 10 Hz to 160 Hz range.

In addition, the results of the 7 days monitoring period are produced as an octave band day and a night average over the whole period. Plots of third octave Leq,5 mins over different 24 hour periods would reveal a more detailed pattern and allow more confidence in any conclusions that existing transformers on this site had no tonal content to be considered for cumulative low frequency impacts from an extension to the site.

The results that have been produced may suggest no tonal features, but I do not believe it fully addresses my original points of concern, that low frequency noise impacts from additional equipment must be fully considered and measures taken to mitigate any adverse impacts. Low frequency noise from transformers on large substation sites is an area of concern for many people living close to such sites. It is often reported that low frequency sounds vary in their audibility possibly during certain weather conditions or the number of transformers operating at any one time or the loading on the transformers themselves. Reports from persons affected by low frequency sounds generally suggest it can have a significant detrimental effect on their wellbeing. I do not consider the data to be sufficient at this time, to provide confidence that an expansion to the transformers on this site will not have a cumulative effect on low frequency noise levels in the vicinity of the Burwell site.

Framework Construction Environmental Management Plan –

a) Hours of work during construction phases are proposed to be between 0700- and 1900-hours Mon-Sat. Construction hours on development sites are restricted in West Suffolk to be between 0800 and 1800 Mon-Fri, 0800 and 1300 Sat and at no time on Sundays or Bank Holidays. Extensions to these hours have been agreed during the pandemic, when Government policy encouraged the relaxation of construction working hours, but only when adverse noise impacts could be appropriately controlled. Extended hours have therefore been adopted on other development sites within the District but has required agreement to additional measures to minimise noise impacts outside of the normal working hours. Such measures should equally be applied to this site, for example a commitment not to undertake the noisiest works prior to 0800 hours Mon-Sat, higher noise impact works to be completed by 1800 hours Mon-Fri and if working through to 1900 hours on Saturdays I would wish to see additional methods employed so that those tasks with the potential for higher noise impacts are adequately mitigated between 1300 and 1800 hours and are not undertaken after this time.

b) There is the suggestion in this document that site works may need to be conducted outside the core working hours. There should be no working undertaken on Sundays or Bank Holidays and this authority would not be supportive of any such requests.

c) The general information provided in the framework CEMP is agreed with respect to noise and dust controls and it is acknowledged that detailed CEMP(s) will be provided at later stages for individual subsections relevant to specific sites within the development. Although the mechanism for liaison with local authorities, residents and other parties who may have concerns is clearly described we highlight the importance of recording the actions taken to resolve any justifiable concerns received about noise and/or dust deposits. Such a log can positively influence future work methods and controls moving forward into later stages of the construction.

d) Noise monitoring proposals have been identified in the framework CEMP as a future noise control measure. 11.9.1 of Chapter 11 of the report suggests no additional mitigation, enhancement or monitoring measures for the construction/decommissioning and operational phases are required given that no significant adverse impacts have been predicted. The promoter should refer to the points raised in this response and provide further assurances either through additional monitoring or evidence, to satisfactorily address these concerns.

At this stage there is insufficient detail provided in the documents to consider the location of the Solar Stations containing inverters, switchgear and other associated equipment. The Preliminary Environmental Information Report in section 4.7.5 predicts the effects of noise to be negligible. The British Horse Society advice on Solar Farms noise explains that noise from inverters can be intrusive. This could potentially be disturbing to equestrian users, for example on the Bridleway 204/5. It should be noted that a horse’s range of hearing is wider than a humans and sounds are audible at lower decibels. CCC would recommend that Solar Stations are sited away from the Public Rights of Way and new permissive routes, and where this is not possible, that suitable sound insulation is used to mitigate against disturbance to equestrian users.

Socio-Economics and Land Use

Land Use

Chapter 12 of the PEIR states that effects related to agriculture and soils has not been assessed at this stage. Given that the vast majority of the development site is in agricultural use this is disappointing. The ALC soil survey indicates that the land within Sunnica East A and B is predominantly classed as Grade 3b and 4. We are concerned that these surveys seem to understate the land quality of these areas, as indicated for example by Natural England's Regional Agricultural Land Classification maps[5]. Though these are strategic-scale maps, they indicate that there may be areas of grade 2 land located within the scheme. The promoter should publish the surveys relied on in the PEIR to allow them to be scrutinised.

Even if correct, while the survey indicates that the promoter has met the requirement to minimise impacts on the best and most versatile agricultural land, the PEIR does not acknowledge that the site is mostly productive agricultural land used for the production of crops such as potatoes, sugar beet, onions, carrots and maize. The importance of local food production should not be underestimated, and it is considered that the assessment of the proposal on agricultural land should not be limited to its classification. The Agriculture Bill 2019-21 contains a requirement for Ministers to consider the need to encourage the production of food in Egland, in an environmentally sustainable way. A further measure requires a report on food security at least once every five years.

West Suffolk Council would question the conclusion that as the sites are currently in agricultural use the scheme will not result in any employment loss (albeit that the PEIR then concedes that an estimated two temporary jobs will be lost). The evidence obtained by the promoter to support this assessment should be clearly set out in the ES.

West Suffolk Council and East Cambridgeshire District Council have concerns that the size of the scheme and the subsequent loss of agricultural land may also impact the ability of the Councils to deliver future housing and employment growth, while maintaining a suitable level of agricultural land.

Economy

In this chapter the Councils would expect to see references to relevant local policy in paragraph 12.2.7, such as:

- Norfolk & Suffolk Local Industrial Strategy
- Local Energy East Strategy
- Suffolk County Council's Raising the Bar Strategy
- Suffolk County Council's Suffolk Growth Strategy
- Transforming Suffolk: Suffolk Community Strategy 2008-2028

Section 12.4 is aimed at setting out the methodology for socio-economic assessment of impacts of the scheme.

[5] See:

The use of baseline data and the assumptions made in this assessment are flawed to the extent that the figures produced cannot appropriately be used to assess impact. The use of the Cambridge Travel to Work Area (TTWA) as the area of impact is inappropriate for a number of reasons. First, the scheme covers a great deal of land in both the Cambridge TTWA and in the Thetford and Mildenhall TTWA and may include land in the Bury St Edmunds TTWA, so using only the Cambridge TTWA will not provide complete baseline. Second, the Cambridge TTWA will be distorted by the heavy weight of Cambridge's economy, which accounts for much of the travel within the TTWA. This distortion further reduces the relevance of this baseline to a scheme on the periphery of the TTWA with very different employment characteristics. Thirdly, the use of the Cambridge TTWA implies that workers from within West Suffolk are not local for the purposes of impact evaluations. This is clearly an undesirable outcome.

There is also a concern about the consistency of geography use. In section 12.6, East Cambridgeshire and West Suffolk are used for unemployment and economic activity rates. It would be preferable to be consistent in geography use to the extent possible.

For a project of this scale it would be more appropriate to define a bespoke TTWA using census data, perhaps using the two district geographies as a starting point. The selection of TTWA is relevant because it defines the leakage percentage used in economic additionality calculations.

The multiplier used in 12.4.19 to calculate indirect and induced employment gains (1.5) is high for a scheme like this. For example, the Scottish Power offshore wind projects have used a multiplier of 1.31 for indirect impacts and 1.21 for induced. The use of the ready reckoner from HCA Additionality Guidance Further is reasonable, but justification of the multiplier selected is necessary. Specifically, the assessment of supply chain linkages should be expanded on since it is expected that many components will not be sourced from the local or national economy.

Without justification for these assumptions, the calculations in section 12.8 are clearly unreliable and, by using an inappropriate statistical geography, are irrelevant to the real geography which will be impacted.

An assessment of the impact of the proposal on tourism should be undertaken. The proposal could result in visitors being deterred from seeking the solitude and long-distance views in many parts of the development. This would be to the detriment of both recreational and tourist objectives of the affected local authorities.

The PEIR does not appear to contain any reference to the Bay Farm Anaerobic Digester plant (ADP) and whether the scheme is likely to have any effect on the operation of the plant in terms of the production of feed to serve the plant and the associated traffic movements. It is anticipated that the loss of land areas E24 – E32 will have a direct effect on the ADP operations, which in turn will affect the surrounding villages through the resulting increase in traffic arising from the importation of feed to the ADP from further afield. An assessment of the impact of the scheme on the gas conversion plant located on land parcel E30 and the high-pressure pipeline crossing this area towards Gold Links Road is required

Site allocation policies in the former Forest Heath area Site Allocations Local Plan (SALP) 2019, including allocations of employment land, should be given considerable weight in the EIA process and referred to in the report as appropriate.

Sunnica East Site B is adjacent to existing and allocated employment land at Red Lodge. In addition, the site includes/is adjacent to SHELAA sites WS455 – deferred residential, and WSE04 – included economic.

Evidence to support the West Suffolk local plan review includes the 2020 SHELAA[6] Site WSE04 is shown as an 'included' site in the 2020 SHELAA: 55ha of land for employment uses, land north of Elms Road and A11 northbound exit slip road to Red Lodge.

An Employment Land Review (ELR October 2016), produced to support the former Forest Heath area Local Plan (Single Issue Review of Policy CS8 [SIR] and Site Allocations Local Plan [SALP] 2019) recognises that a wide range of employment sites in the area rely on their proximity to the A11 corridor (and connected A14 Newmarket Bypass) for strategic road access, providing a route down to London in the South and Norwich in the East. It is a long-term aspiration of West Suffolk and adjoining authorities to achieve employment growth in this location.

The suitability of the site for employment uses was recognised at paragraph 6.45 of the ELR which refers to the site 'having excellent strategic road access being located on the A11 and relatively few other identified constraints.' The ELR also recognises at paragraph 8.37 that 'this could provide a good opportunity for a new employment site proposition of a genuinely strategic scale that does not exist elsewhere in the District and could benefit from its location on the A11 to capitalise upon growth corridor opportunities. This could also provide the potential to develop a critical mass of business occupiers and benefit from a greater level of operational flexibility away from incompatible uses such as residential…'. The site was not included in the emerging Site Allocations Local Plan as there was already a sufficient supply of employment sites at Red Lodge. However, the creation of West Suffolk has resulted in a review of the local plan, and the West Suffolk Issues and Options Draft Local Plan was published for consultation on 13 October 2020. Part Three – Settlements, section 3.6 Red Lodge includes a settlement map for Red Lodge showing SHELAA included sites with WSE04 clearly shown in green.

Insufficient consideration has been given as to whether Sunnica East would prejudice the council's long-term cross boundary aspirations for employment growth along the A11 corridor through the review of its Local Plan (West Suffolk Issues and Options Local Plan published for consultation 13 October 2020).

Insufficient or no evidence is provided or has not been addressed adequately in the PIER on the impact on some of the areas set out in EN1 – 5.12.3 (particularly those in ***bold italics***):

- *the creation of jobs and training opportunities;*

[6] See: https://www.westsuffolk.gov.uk/planning/Planning_Policies/shlaa.cfm

• ***the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities***;

• ***effects on tourism***;

• *cumulative effects – if development consent were to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region.*

West Suffolk Council has clear aspirations for infrastructure improvements to support existing communities and future growth. The following are of particular importance:

- A11 Fiveways – Highways England have previously expressed concerns regarding the at grade junctions on the A11 south of Fiveways. Longer term improvements for Fiveways Roundabout (for example at grade separation) and the at grade junctions will be considered for Highways England's RIS3 funding cycle, however there is no guarantee of funding at this stage.
- Improved transport links to the West of Mildenhall.
- Junction 38 - where the A14 meets the A11.
- Ipswich to Cambridge railway line – ability to deliver increased passenger or freight services.

The promoter should consider whether the project would compromise future growth opportunities and improvements to these key infrastructure points.

East Cambridgeshire District Council note that the Grid Connection Corridor goes very close to site allocations FRD6 and FRD7 (see adopted Local Plan 2015) in Fordham and the developer will need to show that its proposal will not damage the ability of these existing business to operate/expand nor would it affect any planning conditions that these land owners are required to comply with. The developer will also need to demonstrate that the proposal does not result in any detrimental impact to the horse racing industry in the local area (as required by Policy EMP6 within the adopted Local Plan 2015). In regards to policy EMP6 the comments in regards to Public Rights of Way (see below) hold greater weight, as any perceived or temporary loss of bridleways may harm the horse racing industry.

Community Impacts
NPS EN-1 highlights the need for equality, community cohesion and well-being to be assessed. Based on the information contained within the PEIR it is unclear whether these matters have been fully considered. In particular, the impact on the local communities affected should be explored further.

There is no reference in the PIER to legacy benefits, i.e. education and training opportunities, or a visitor centre. In addition, there is insufficient evidence that construction and operation jobs will be filled locally or that there will be long-term benefits in the form of skills enhancements. Further assessment of future skills development is required.

Transport and Access

Reference to Suffolk County Council and Cambridgeshire County Council as the relevant local Highway Authorities should be made with section 13.2, together with any associated national or local policy or guidance employed by the authorities.

Assessment Baseline and Impacts

Neither local Highway Authority has received meaningful engagement from the promoter in advance of the consultation period, so many of the details set out are being examined for the first time. Therefore, the highway authorities have not been able to agree in advance the baseline data used in the project's Transport Assessment. As a general point, the councils would advocate that the promoter looks to agree relevant assessment methodologies with the highway authorities prior to submission of the DCO.

Chapter 3: Scheme Description

It is understood that the construction programme will be 24 months; further information is sought as to whether this has impacted on any conclusions based on the 'temporary' nature of construction activities and whether an extended programme would affect these conclusions.

Further details of the connection of the access tracks will need to be provided to show that they are safe to use, with the need for an adequate length of access road that is of a suitable width to allow two vehicles to pass safely and that this is not obstructed by gates preventing vehicles leaving the public highway. The access roads will need to be designed to prevent trafficking of mud and debris or the flow of water onto the public highway.

The promoter states in 3.5.6 that open cut trenching will be the primary method used for crossing the public highways. The councils would prefer trenchless techniques to be used under highways to protect the fabric of the highway and reduce disruption to road users by temporary traffic management, except where this would have an unacceptable impact on archaeology.

We note that there is no preferred route published by DfT for high and heavy loads to travel between local ports and Burwell substation. Therefore, there is no protection against changes to such routes to permit future use for this purpose. Paragraph 3.6.12 sets out that the peak construction workforce is expected to be 1,260 on the average day. This has been assumed to mean the average day at peak construction and information is sought as to what the peak workforce day is, or at least how much variance there is likely to be between the average and the absolute peak.

The promoter states that workers will work 12-hour shifts (3.6.13). The councils request further evidence that this is practical, particularly in winter, and what measures will be in place to monitor and control this behaviour. The promoter places

much reliance on workers trips being outside typical peak travel times and failure of the shift system would result in transport impacts that will not be assessed in the ES.

Table 3-2 sets out the peak traffic figures; however, HGV figures are set out as movements, whilst light vehicle figures are not clarified whether they are movements or vehicles. It is worth noting that apart from the transport of materials, which equates to a peak of 160 HGV movements and average of 88 movements across all of the sites, there are also 61 additional HGV movements on average per month (i.e. 2 per day (plus potential variances) that need to be included in the assessment).

Within the DCO submission further evidence of the size and operation of the temporary construction car parks should be provided as evidence they are suitable for their proposed purpose.

Chapter 13: Transport and Access

Comments on access and HGV routing, including the movement of AILs are included within the response to the Transport Assessment and Access statement below.

Paragraph 13.3.1 of the PINS Scoping Opinion identifies a number of limitations to the assessment method due to the current pandemic, and the highways authorities recognise these limitations; however the promoter sets out that the use of certain traffic sources and the methodology used was agreed with SCC, which is said to be identified in the scoping opinion. SCC are not aware of agreeing this methodology, and on reviewing the scoping opinion the response on traffic data sets out that we *"would expect to be consulted on the scope of the baseline traffic collection";* this was in response to paragraph 13.6.2 of the scoping report that set out that *"the extent of the traffic data and scope of any traffic surveys that may be required will be agreed with the County Highway Authorities, as statutory consultees, where possible".* It is somewhat disconcerting that these limited statements would be taken as acquiescence of the method identified. Therefore, we would state that the methodology has not been agreed, but we are happy to work with the promoter to come to agreement on a reasonable method especially given current limitations and recognise that some of the methodology may be considered reasonable following further discussions.

Some of the minor access roads leading to secondary access points have not been considered in paragraph 13.4.5. The promoter has not demonstrated that trips using these accesses are low enough for them to be scoped out. We are concerned about the absence of data on pedestrian and cycle movement and any conclusion that is drawn from impacts on this basis, especially when concluding that impacts would not occur due to the absence of pedestrians and cycles.

The assessment is based on an assessment of change in development peak hours, rather than network peak hours. These peak hours are identified as 06:00 to 07:00 and 19:00 to 20:00, which is said to reflect construction shift patterns. Little evidence is submitted to confirm that these hours of assessment are reasonable, especially considering that a large number of the conclusions that have been drawn by the promoter are based on impacts occurring during these hours (i.e. not the network peak hours). It is the councils' opinion that the environmental impacts

should be assessed more widely as for example peaks in receptor movements such as walkers or cyclists may not correspond with movements of construction traffic.

A plan showing the links identified for the assessment and the sensitivity of these links should be provided prior to agreement of the extent of the study area and categorisation of each link. The extent of links and the categorisations of links is not considered to be clear.

The proposed dismissal of impacts (paragraphs 13.4.7 and 13.4.8) of A142 / Landwade Road / Snailwell Road or A14 junction 38 are not accepted without further understanding of the development impacts, albeit that the A14 junction is the responsibility of Highways England. Absence of data is not considered a reasonable justification for not undertaking relevant assessment. Junction 38 has been modelled for local plans (e.g. Forest Heath Site Allocations Cumulative Traffic Impact Study) and past projects (e.g. past projects, for example for the Forest Heath Local Plan 2016[7] and for the Hatchfield Farm) development and the councils disagree with the removal this junction from the transport assessment and ES. SCC would accept scoping out of the A142/Landwade Road/ Snailwell Road junction (paragraph 13.4.7), as stated by CCC in their scoping response.

The proposed assessment method is based on a worker vehicle car share factor of 1.5 persons per vehicle. Evidence of this level of car share being achieved at a similar development in a similar location should be submitted. Monitoring, enforcement and controls for achieving this level of car sharing needs to be embedded in relevant management plans, such as travel plan, otherwise the methodology cannot be agreed.

Severance
The existing levels of severance on each linked should be determined, so that a baseline level of severance can be presented.

All areas where a 10% change in traffic flows occur should be identified and those areas that require further assessment on this basis should be agreed with the highways authorities.

Consideration needs to be given to how severance is assessed within Design Manual for Roads and Bridges (DMRB) document LA112. For clarity, the changes between traffic flows that result on a low, medium and high impacts are not agreed, as they are coarse and are assumed figures rather than having been tested.
The methodology fails to assess impacts on different groups (e.g. young, disabled and elderly).

Pedestrian and Cycle Delay
The highways authorities are not certain where the proposed determination for impacts on pedestrian delay originate from; there are limited recommendations within Institute of Environmental Management and Assessment (IEMA) Guidelines for the Assessment of Road Traffic, and therefore the origin of these figures should be submitted.

[7] Forest Heath

The assertion that the PRoWs have generally low pedestrian flows is not agreed. This is also excluding the consideration of cyclists and equestrian users, for example on bridleway 204/5. We would require surveys to be carried out on all PROW impacted by the proposals to quantify the actual amount of usage, so a reasonable assessment of the impact can be made. This would better inform the conclusions in the PEIR Non-Technical Summary which suggests the impact on PROW as being moderate (Pp 44 Paragraph 4.11.7).

There are recommendations that the baseline level of pedestrian and cycle movement be determined. For clarity, the proposed assessment method is not agreed.

Pedestrian and Cycle Amenity
No justification is given for the lack of a proposed method to assess the relative amenity of journeys that are affected by the development. Indeed, we note that The Transport Assessment Paragraph 3.9 notes that the roads surrounding the site are generally lightly trafficed and therefore could encourage cycling. For clarity, the proposed assessment method is not agreed.

Driver Delay
The proposed omission of the assessment of driver delay is not agreed. Statements such as 'it is not anticipated that the delay an Elms Road T-junction will be significant' have not been evidenced.
Further clarification is needed over the potential for and number of Abnormal Indivisible Loads that are expected to be generated by the proposed development.

Fear and Intimidation
Consideration should be given to the baseline characteristics and the existing level of fear and intimidation based on existing flows. LA112 could be used to do this. The method for assessing change is considered to be reasonable, albeit that consideration needs to be given to those locations where impacts could easily change from one level of significance to another based on small changes in impacts.

Accidents and Safety
Paragraphs 13.6.45 and 13.8.17 claim to demonstrate that there are no road safety concerns. This is not agreed. The analysis of links is very subjective and does not consider frequency of use or length of link. Nor are thresholds given to indicate what level of collision rate is considered to constitute an issue. Detailed analysis of causation has not been undertaken. The impact of construction traffic on future collision rates has not been discussed in the PIER.
When assessing links as done at Table 3-10, it is useful to report this in number of incidents per km per miles travelled to then allow assessment against national data.

The councils would not agree that the data presented in the Transport Assessment (3.63 and 3.68) does not show incidents frequently occurring at any particular location. Specifically, there is a cluster at the A14/A142 junction proposed for use for access to the sites. This concern has been raised in past planning applications. At this stage the promoter has not commented on the influence of construction traffic on road safety.

Within the application the councils would expect to see more details regarding the access arrangements (swept path analysis, visibility, access widths and layout) to

show that they can be used safely by the proposed construction traffic. For example, access to the temporary car park east of Elms Road will require a significant number of light vehicles to execute a right-hand turn into the site against local and other construction traffic.

We have raised concerns about the narrow width of many of the access roads e.g. Elms Road. The councils would consider that surveys of the widths are necessary to allow an evidenced position to be made about their suitability and the effectiveness of any proposed mitigation such as passing spaces or widening.

Speeds of vehicles through local communities has yet to be analysed in detail. As the Local Highways Authorities, we have been made aware of local communities concerns that speed limits are not observed by a significant number of drivers.

Combined Impact
Consideration needs to be given to how the combined impacts of these topics interact; whether a number of minor adverse impacts would result in a moderate adverse impact in combination. This should include consideration of impacts on Public Rights of Way.

Link Sensitivity
Although the method of categorisation does not appear to be unreasonable, given the relatively small number of links being assessed, and that an absence of facilities does not necessarily mean an absence of users; the categorisation of each link should be agreed with the relevant highway authority.

Traffic growth
The method for assessing traffic growth is acceptable assuming that confirmation is obtained from the relevant planning authorities over any specific developments that should be considered as committed within the traffic assessment.

Peak Hour factors
Confirmation is sought on the method used for factoring to the assessed development peak hours.

HGV Controls
Limited evidence is submitted to support the assessed number of HGV movements. Further details are sought on how the network peak hours have been determined and what controls and enforcement will be in place to ensure HGV movements do not use the local highway network during the peak hours and stick to the proposed routing. It is expected that some form of GPS or ANPR system is used, as set out in the construction management plan and that this is enshrined in an appropriate legal agreement.

AILs
Further clarification is needed over the potential for and number of Abnormal Indivisible Loads that are expected to be generated by the proposed development. Including by relevant categorisation as follows:

- Category 1
- Category 2
- Category 3

- Special order movements.

It is understood that no AILs will travel to/from the site at present. Confirmation is sought that this is all AILs and not just special-order movements. As above, full details on all AILs should be provided.

More details of the routeing and dimensions of AILs, including overhangs and swept path analysis at junctions and sharp bends should be provided with appropriate topographic details of the existing highway infrastructure. The LHAs is concerned that the trimming of hedges will not be enough to facilitate AIL movements safely within the constraints of the existing highway.

Staff Vehicles
The project makes no attempt to encourage or achieve staff travel by pedestrian, cycle and public transport. The sites are in reasonably close proximity to a number of built up areas, and although may not be considered to be within walking distance are likely to be accessible by cycle. The distribution of workforce has been assessed based on a 30km spread of staff and by population density; on this basis it is reasonable to assume that proportions of staff will be travelling from similar built up urban environments, and given that the development start and end hours are suggested to be the same for all staff, it seems reasonable to assume that buses and mini buses could be used to move reasonable numbers of staff. A minibus should also be provided to/from the nearest railway stations to create the potential for longer distance journeys to be undertaken sustainably.

It is expected that there will be a commitment in a travel plan to achieve the assessed 1.5 persons per vehicle car share, with relevant enforcement and monitoring. It is suggested that this is done by monitoring the total vehicle movements arriving and departing each access. A Travel Plan must be submitted as part of the DCO and relevant commitments made with the Construction Traffic Management Plan.

Further information will be needed on the staff parking permit system and how this will be enforced.

Shift Patterns
No evidence is submitted to support the shift patterns assessed nor relevant proposals on enforcement to ensure that the impacts are commensurate with those assessed. This brings into question the validity of the assessment and all of the conclusions on impacts that are subsequently drawn.

Staff Numbers
Limited evidence is submitted to support the number of workers that is being projected for the sites' construction.

Staff Origins
For the assessment of transport effects, the distribution of population within the immediate MSOA has been used, clarification is needed on how this compares to the socio-economic assessment and use of the Cambridge Travel to Work Area for distributing staff. Further clarification is sought as to whether this workforce is expected to be drawn from the existing population or from in-migrant population.

Trip Generation
Limited evidence base is submitted to support claims about the number of operational staff that is being assessed. It is expected that relevant controls and monitoring is in place to ensure that the development does not exceed those figures has been assessed.

Overall Assessment Methodology
It would be helpful if the method of assessment included a tabular format highlighting the proportional change in traffic flows on each link, the sensitivity of each link and then compare these to the outlined criteria that are being assessed. It is not clear how the impact of vehicle flow changes on links is affecting their categorisation.

However, it is not accepted, as proposed within the assessment, that a change in traffic flows is considered to be reduced from major adverse to minor adverse purely because it brings those traffic flows closer to peak hour flows, without any indication for what this means for users of the network. It may be that significant severance occurs during the peak hour and simply bringing another hour to this level of severance and assuming that this is not considered to be an impact, is not considered to be acceptable.

It is not accepted that changes in flows have a minor adverse impact purely because there are not walking and cycling facilities. Further understanding of users of the network would be needed to reach any conclusion.

No evidence is submitted to support the arrival and departure profiles for HGV movements.

Often the change in flows is not considered to be significant as it occurs outside of the peak hours; however, no evidence is submitted to conclude that this would be the case, and so any conclusions drawn on this basis are not considered acceptable. There appears to be very little consideration of the impact of vehicles on cyclists, with most impacts dismissed due to the absence of pedestrian infrastructure.
No assessment of decommissioning has been undertaken.

Appendix 13A: Transport Assessment

Transport
Evidence will need to be provided to demonstrate the promoter's assessment of the peak hour in paragraph 3.31 is accurate. If development traffic peaks are to be outside background peak times measures in the CTMP must embed this as a mitigation measure. The councils would seek greater comfort that HGV deliveries will be equally split across a 10-hour day as presumed in paragraph 6.14. Experience from other projects suggests that deliveries are focused in the morning.

Paragraph 3.3.1 sets out the staff working hours, as set out above, no evidence is submitted to support these travel times being assessed nor any controls proposed to ensure that this is the case. Therefore, this method of assessment it not currently accepted. The councils seek supporting evidence to support the comments made in paragraph 5.3 that shifts will last for 12 hours particularly in winter months. It also

notes that these shift patterns are generally incompatible with existing public transport timetables, particularly buses.

Confirmation is required that minibus trips are included in the trip assessment or scoped out by not using the local highway network.

Paragraph 3.3.4 identifies that it was agreed at scoping that the traffic flows within the Forest Heath District Council Site Allocation Cumulative Impact Study would be utilised. The document was actually highlighted to draw attention to capacity issues that have already been identified in the area – it was not agreed that these traffic flows could form a sufficient baseline dataset. Therefore there are limitations for this assessment which should be discussed with SCC. SCC do recognise the current limitations on the availability of data; however, for clarity, absence of data is not considered a reason for absence of assessment.

Confirmation is sought over the treatment of committed development sites as background growth. The potential exists that a number of sites should be treated as committed development and assessed accordingly. Further discussion is needed on this and clarification form relevant planning authorities on what should be included in the assessment.

Further detail is needed over the assessment method use for factoring to the assessed development peak hours, albeit noting above our concerns regarding the use of these hours for the assessment.

As above, paragraph 5.1 sets out the determined number of full-time staff during operation, no evidence is submitted to support this conclusion.

Paragraph 5.2 of the Transport Assessment sets out the assessment of trips for the operational and decommissioning phase has not been undertaken, as agreed at scoping; further clarity is needed on this, as scoping comments suggest that the application should include the assessment of decommissioning.

Further discussion is needed over the HGV numbers set out at Appendix G, it is understood that the busiest months are months 3 and 4 where there are 793 total HGVs, equating to on average 40 HGV movements per day. Further detail is needed on:

- the determination of these numbers
- the potential that other activities that have not started in Month 3 and 4 (such as Panels) could being with this work still ongoing
- the potential day to day variation in HGV numbers
- What size of vehicles this includes (e.g. does it include LGVs)?

Paragraph 5.28 sets out details on how the origin/destination of staff has been determined; further information is sought on this, as well as the estimated proportions from each MSOA.

Paragraph 6.9 outlines the distribution of HGVs, whilst the absence of information on HGV origin is appreciated there are some concerns that it may result in an under assessment of impacts (particularly within the ES) on certain corridors. Further understanding of the potential implications of different splits in origins is sought. It is noted that the impacts on local roads are not included.

Further information is sought on Table 6-3 where the 'base + construction movements HGV' movements at the B1085 should be reviewed.
Justification of impacts is based on a comparison of traffic flows with those set out in the Forest Heath Local Plan; this is not currently accepted as a reasonable method without further understanding of the impacts and appropriate controls.

On reviewing the traffic flow changes at Appendix I, further understanding is needed on the impacts at the following junctions (depending on the absence of controls as well as other factors, this might include junction modelling), these include:

- B1102/ B1085 junction
- B1102 / Elms Road junction
- A11 Slip / Elms Road
- B1085 / Warren Road dumbbell roundabouts
- B1085 / A11 slip roundabout
- A14 / A142 junction
- B1506 Station Road junction
- B1506 / Herringswell Road junction
- A14 / A11 junction

Based on the above, the councils dispute the conclusions drawn at paragraph 6.13 and further understanding is needed.

Public Rights of Way
The councils' position is that PRoW should only be closed when absolutely necessary for safety reasons. Commonly on similar sites (EA1) rights have way have remained open except for when construction work is being undertaken across the route. Where closure is unavoidable suitable temporary diversions should be agreed with the relevant authority.

The councils note a reference in Fig 4.3 of potential permissive routes. As such routes can be removed at any time should not be considered to constitute mitigation.

The list of PROW closures during construction, (Pp24 of the Transport Assessment) includes footpath 204/1, assumed for the purpose of being crossed by secondary access F to West Site B W02, (as shown in the Transport Assessment, Fig 5-1, Pp28). Clarity is needed as to the exact alignment, to confirm if this impacts footpath 49/1. Provisions should be made either to enable safe crossing of either footpath throughout the works or if this is not possible, for the construction work to be scheduled to close this route for the shortest possible period. Secondary Access F to Sunnica West site B (as shown in the Transport Assessment, Fig 5-1, Pp28) is referred to elsewhere as G, and shown in various figures as not extending to connect to Chippenham Road.

Other Public Rights of Way comments are included on Page 34 of this response, under Landscape and Visual Amenity.

Access
The councils have concerns about the widths of the public highways being proposed as access routes by HGVs in paragraph 5.7 for both construction and operation of the project.

While access may have been used by agricultural vehicles, the intensification of use is likely to require improvements to make them acceptable. Improvements to the operational accesses shall be permanent whereas temporary access may require reinstatement. The promoter's attention is drawn to the requirement to prevent water and debris being brought or allowed to flow onto the public highway.
It is presumed that the HGVs for fuel and waste mentioned in paragraph 5.18 will be to the primary access and that more details will be supplied in the application.

Construction Transport Management Plan
Paragraph 5.19 provides additional detail on this suggesting 101 HGV deliveries per day and further understanding is needed as to whether this figure should be assessed within the Environmental Statement. It implies that the peak deliveries across Sunnica West, Sunnica East, Cable Routes and Substation will be staggered. Further details of the vehicle movements during the construction of the project will be required to demonstrate this and to aid selection of appropriate controls in the CTMP
As above, further evidence or controls and monitoring is needed for the figures associated with the following:

- Construction workforce
- Workforce car share
- Workforce shift patterns
- Minibus proposals

The CMTP should cap HGVs to 10 per hour as assessed (7.2) and staff vehicle trips (7.3) should similarly be controlled.

Parking
Some information is provided at the on the provision of car parking at paragraphs 5.30. Further details are required on the proposed provision and facilities.

At 7.5 a profile of access to / from car parks should be provided – 434 in and out in an hour, 7 / min on a single track road.

Transport Assessment: Appendix G

Does not appear to include workers and vehicle movement for Burwell Substation only internal substations. Not clear if civil engineering and / or electrical work refer to this or to the cable corridors.

Transport Assessment: Appendix H Access Strategy

Accesses
It is noted as part of the boundary changes there is an additional access near to the Burwell substation entrance described as Weirs Drove. It needs to be made clear the routing of construction traffic for this additional access. It is worth noting the nearest adopted highway to the access is via Anchor Lane which is in a residential area. Alternatively it could be via Weirs Drove and Byway (35/7b). This route passes residential properties as well as Burwell Recreation Ground. The impact on Weirs Drove and the Byway and/or routing to Anchor Lane will need to be assessed for their suitability.

As they relate specifically to accesses in Suffolk, SCC makes the following comments:

- U6003/6004 Elms Road is used to travel from the A11 to access points A, B and C is signed as unsuitable for heavy goods vehicles due to its narrow width. Evidence of vehicle over-run is present. In the LHA's opinion, the provision of passing places alone will not be sufficient to allow safe passage of vehicles along Elm's Road particularly during peak periods and that significant lengths of this road will need to be widened, which may in turn require removal of hedgerows. Fig J1 and J2 show workers trip using the access to the west of Elms Road (B) while all other documents show the car park is to the east (A). Due to the proximity of the temporary construction area adjacent to Sunnica East access B and the temporary car park at access A, the option of walking between sites appears practical provided safe access can be provided across Elms Road.
- C610 Newmarket Road to Sunnica East accesses D and H narrows travelling north away from the A11 and also shows signs of vehicles overrunning the verge, but is generally wide enough for most vehicles to pass each other. Removal of vegetation is likely to provide visibility for safe use of the access.
- C613 Golf Links Road leading to Sunnica East access I is also narrow with a relatively tight junction onto Newmarket Road.
- The C603 leading off the B1102 to Sunnica East access E is also a narrow single-track road, while the width of the C608 leading to accesses F and G allows two cars to pass but not HGVs.
- The C753 Snailwell Short Road reduces in width travelling north from the A142 towards Sunnica West access B and F with significant traffic calming adjacent to Plantation Stud and a hump backed bridge over the rail line. While widths are adequate for two cars to pass it would not allow two HGVs to pass.

In many cases the roads proposed to be used for access do not allow two cars to pass safely and certainly not HGVs. Significant improvements may be required to provide safe access for the construction and operational phases.

The majority of the local roads are bounded by hedgerows. The creatation and amendment of accesses might required removal of significant trees and hegerows to provide adequate visibility for example. These will need to be assessed within the Landscape & Ecology chapters

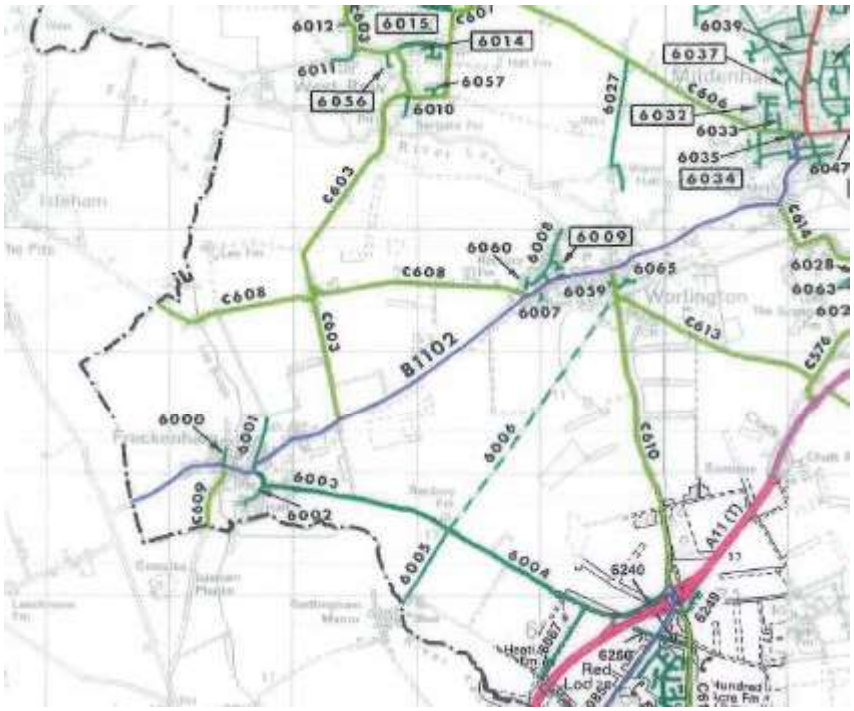

Figure 3 does not clearly show how HGV traffic from the A14 East accesses Sunnica West accesses A, C, D and E, but it is clear that many HGV routes use the A14 / A142 junction 37 at Newmarket. Understanding traffic movements at this junction are important not just in capacity terms, but also the impacts on road safety as there have been a number of accidents recorded at this location.

Road Safety
Areas where collisions have been recorded are:

- A11NB slip onto B1085/U6004 Elms Road (cluster at junction)
- B1102 Freckenham Road (number west of Worlington)
- A11 slip to C576 Newmarket Road
- A11 C623 Herringswell Road crossover
- A11 / A1101 roundabout Mildenhall and A11 south of this location
- A14 / A142 J37 Newmarket.

The scope for investigation should be agreed with the LHAs. While it is accepted that there are few alternatives to traffic U-turning at the A14/A142 junction this shows the importance of assessing impacts of the project at this location.

Abnormal Loads
With regards to Burwell Substation, the councils note that while special order AIL movements have been made between the Port of Ipswich and Burwell there is no preferred DfT route to this site. Therefore, this route has no protection for long term availability for this purpose.

Construction Traffic Management Plan

Some of the points below are repeats of points made on the documents above, but have been included for completeness.

The construction traffic management plan does not include any objectives for staff vehicle traffic; but does contain information on the assessment and number of staff vehicle movement. It is assumed that this would be covered by a staff travel plan; however, either way, it is expected that efforts will be made to reduce single occupancy vehicle movements by staff either through the Construction Traffic Management Plan or through a Travel Plan.

Paragraph 2.2.16 sets out a maximum number of HGV movements associated with the site. It is expected that monitoring and controls will be in place to ensure that these figures are not exceeded. This will be required to be enshrined through a relevant legal agreement within the DCO.

Paragraph 2.2.21 sets out the total staff employees and vehicle movements. It is expected that monitoring and controls will be in place to ensure that these figures are not exceeded. This will be required to be enshrined through a relevant legal agreement within the DCO.

Paragraph 2.2.22 sets out the assumed staff car share. As previously stated, information is sought on how this will be achieved, including what monitoring will be in place.

Paragraph 2.2.24 sets out the staff shift patterns. It is expected that monitoring and controls will be in place to ensure that these shift patterns are used. This will be required to be enshrined through a relevant legal agreement within the DCO.

Paragraph 3.2.2 and 3.2.3 provides details of the Delivery Management System; the mechanism for ensuring HGV numbers, timing restrictions, identification, emissions standards and routes will need to be enshrined in an appropriate legal agreement within the DCO, including relevant enforcement measures.

Paragraph 3.2.7 sets out timing restrictions so that HGVs avoid peak traffic hours, but does not state what the earliest and latest time an HGV can access the site on weekdays would be. This information should be provided.

Paragraph 3.2.9 sets out details of monitoring system with information on management provided at paragraphs 3.3.1 and 3.3.2. It is expected that all monitoring data will be recorded and reported quarterly to the relevant authorities, including any breaches that occur. Paragraph 3.2.14 states an average car occupancy is assumed to be 1.5 people per car. Monitoring of this will be required to ensure that this assumption is valid and thus car trips do not exceed those forecast. With regard to the parking permit system set out at Paragraph 3.2.19, thought will need to be given on the working of the permit system to avoid drivers not in possession of a permit parking inappropriately in nearby communities. This may require monitoring.

An estimate of the minibus movements on the public highway should be included within the transport assessment.

Details are sort on how HGV traffic will be managed in the event of an incident; including communication with contractors and the potential for rerouting movements to/from the site.

Aside from applying a generic car share factor, no consideration is given to minimising staff vehicle movements on the local highway network. It is expected that consideration be given to facilitating:

- Staff cycle movements to/from site.
- Potential bus/minibus pick up/drop off from key employment locations
- Potential bus/minibus pick up/drop off from relevant public transport hubs.

Further information is needed on expected AIL movements.

No details have been provided to show which access points will also be used as crossing points between work areas. The same level of detail will be required for these crossing points, as for the main access points off the public highway. This is necessary as different methods of traffic management may be required to make this manoeuvre safe.

Other Highways issues

Highway condition surveys should be undertaken before, during and after construction work that will include the construction traffic route from the strategic road network to the various development sites. The survey should include main carriageway surfaces, footways, verges, and any adjoining access points. Any areas identified to be in poor condition, especially those near to residential properties, should be improved prior to the commencement of the development. During construction routes should be monitored and remedial works undertaken where necessary.

All access points off the highway need to be appropriately designed and constructed to the relevant highways authority standards. Early engagement with highway engineers is encouraged.

Where existing accesses are to be utilised, further detail in respect of any upgrades or improvements required should be included in the DCO submission.

Golf Links Road is a narrow road, used by recreational walkers and cyclists and is, therefore, not suitable for HGVs. The road has hedgerows tight to the carriageway in many places which limits the ability to mitigate highway impacts through increased width or passing places for example. This road should not, therefore, form any part of a routing plan for HGVs.

The Councils question why existing farm tracks and accesses are not being utilised, for example, the internal road network in and around Bay Farm could be utilised instead of Golf Links Road. The suitability of an access point at E33 is also questioned, with access via E10 appearing more logical.

The proposal is close to Mildenhall which has considerable growth planned. For example, works are already underway for the Mildenhall Hub. There remains concern about constraints at key junctions within Mildenhall which will be difficult to mitigate. Cumulative traffic impacts need to be taken into account, not just for projects with planning permission but also allocated in local plans. Evidence is available through

the cumulative impact transport study produced by AECOM for the former Forest Heath area Local Plan[8].

In the long term, constraints at key junctions within Mildenhall will become more difficult to mitigate without further modal shift and the potential for some form additional road capacity has been raised, including a relief road at paragraph 8.4.89 of the Transport Study. The Sunnica proposal should not compromise this longer-term aspiration or longer-term development potential of Mildenhall that might be brought forward through the emerging West Suffolk Plan.

Air Quality

The various legislation and guidance that is referred to within the report is acceptable. The report considered the construction phase road traffic emissions but does not consider the impacts from operational road traffic as the scheme will create little traffic once operational. We agree with this approach.

The application of Institute of Air Quality Management (IAQM) guidance to the assessment of construction dust is appropriate and the approach to mitigation, in which IAQM guidance is embedded in the CEMP, is also appropriate.

The report confirms that the maximum number of construction vehicles (including Light Duty Vehicles (LDVs) and Heavy Goods Vehicles (HGVs)) during the peak of construction will exceed 200 vehicles per day (anticipated to be over 200 HGV movements and over 500 LDV movements per day). The existing road network in the proposal is relatively low and the anticipated number of HGV and LDV movements will significantly increase traffic.

A detailed dispersion modelling exercise will take place to assess the impact of this change in traffic movements. Discrete receptors will be identified for the dispersion modelling. A scheme-specific nitrogen dioxide monitoring survey will take place for verification of the dispersion model, which was due to start in September 2020. It should be noted that the traffic flows for a monitoring survey starting in September 2020 may not reflect the long-term traffic flows and therefore levels of air pollution in the area and this should be considered during any subsequent assessment.

At this stage no assessment of the impact on local air quality from construction traffic has been carried out, however, it is acknowledged that an impact is possible, and an appropriate assessment based on site specific information is proposed. We accept this methodology, but we would recommend caution with the use of baseline data collected during 2020 and early engagement on the selection of sensitive receptor locations.

Human health

[8] See: https://www.westsuffolk.gov.uk/planning/Planning_Policies/local_plans/upload/AECOM-Cumulative-Impact-Study-with-appendices.pdf

Battery Safety

The promoter will need to demonstrate that safety and security risks associated with the development have been thoroughly assessed. The councils are concerned that the risks associated with battery storage fires have not been fully explored and it is imperative that an outline Battery Fire Safety Management Plan is submitted with the DCO application.

Suffolk Fire and Rescue Service (SFRS) will work and engage with the developer as this project develops to ensure it complies with the statutory responsibilities that we enforce.

Sunnica should produce a risk reduction strategy as the responsible person for the scheme as stated in the Regulatory Reform (Fire Safety) Order 2005. It is expected that safety measures and risk mitigation is developed in collaboration with services across both counties.

The strategy should cover the construction, operational and decommissioning phases of the project.

During the construction phase the number of daily vehicle movements in the local area will significantly increase. The services will want to view the transport strategy to minimise this impact and prevent an increase in the number of road traffic incidents. Any development should not negatively impact on the services' ability to respond to an incident in the local area.

The use of batteries (including lithium-ion) as Energy Storage Systems (ESS) is a relatively new practice in the global renewable energy sector. As with all new and emerging practices within UK industry, the SFRS would like to work with the developers to better understand any risks that may be posed and develop strategies and procedures to mitigate these risks.

The promoter must ensure the risk of fire is minimised by:

- Procuring components and using construction techniques which comply with all relevant legislation.
- Developing an emergency response plan with both counties fire services to minimise the impact of an incident during construction, operation and decommissioning of the facility.
- Ensuring the BESS is located away from residential areas. Prevailing wind directions should be factored into the location of the BESS to minimise the impact of a fire involving lithium-ion batteries due to the toxic fumes produced.
- The emergency response plan should include details of the hazards associated with lithium-ion batteries, isolation of electrical sources to enable firefighting activities, measures to extinguish or cool batteries involved in fire, management of toxic or flammable gases, minimise the environmental impact of an incident, containment of fire water run-off, handling and responsibility for disposal of damaged batteries, establishment of regular onsite training exercises.
- The emergency response plan should be maintained and regularly reviewed by Sunnica and any material changes notified to SFRS and CFRS.

- Environmental impact should include the prevention of ground contamination, water course pollution, and the release of toxic gases.

The BESS facilities should be designed to provide:

- Automatic fire detection and suppression systems. Various types of suppression systems are available, but the Service's preferred system would be a water drenching system as fires involving Lithium-ion batteries have the potential for thermal runaway. Other systems, such as inert gas, would be less effective in preventing reignition.
- Redundancy in the design to provide multiple layers of protection.
- Design measures to contain and restrict the spread of fire through the use of fire-resistant materials, and adequate separation between elements of the BESS.
- Provide adequate thermal barriers between switch gear and batteries,
- Install adequate ventilation or an air conditioning system to control the temperature. Ventilation is important since batteries will continue to generate flammable gas as long as they are hot. Also, carbon monoxide will be generated until the batteries are completely cooled through to their core.
- Install a very early warning fire detection system, such as aspirating smoke detection.
- Install carbon monoxide (CO) detection within the BESS containers.
- Install sprinkler protection within BESS containers. The sprinkler system should be designed to adequately contain and extinguish a fire.
- Ensure that sufficient water is available for manual firefighting. An external fire hydrant should be located in close proximity of the BESS containers. The water supply should be able to provide a minimum of 1,900 l/min for at least 2 hours. Further hydrants should be strategically located across the development. These should be tested and regularly serviced by the operator.
- A safe access route for fire appliances to manoeuvre within the site (including turning circles). An alternative access point and approach route should be provided and maintained to enable appliances to approach from an up wind direction. Please note that SFRS requires a minimum carrying capacity for hardstanding for pumping/high reach appliances of 15/26 tonnes, not 12.5 tonnes as detailed in the Building Regulations 2000 Approved Document B, 2006 Edition, due to the specification of our appliances.

Electromagnetic effects

The PEIR states that the scheme is unlikely to interfere with telecommunications and television reception but does not explain how this conclusion has been reached.

The promoter should consider the issue of electromagnetic fields in relation to human health, in consultation with Public Health England. The National Policy Statement for Electricity Networks Infrastructure (EN-5) highlights that whilst putting cables underground eliminates the electric field, they still produce magnetic fields, which are highest directly above the cable and can have both direct and indirect effects on human health.

Other health and wellbeing impacts

The Councils, as Public Health Authorities, have not had the opportunity to review the documents at this stage but reserve the right to make comments in due course.

Sunnica Ltd. is required to satisfy the EqIA requirements when they submit their application to the Secretary of State. This assessment must account for people with protected characteristics and, in particular, must consider whether impacts of the scheme such as glint & glare or noise might affect people with physical or mental health conditions.

The PEIR does not seek to address the impacts of the scheme on the mental health and well-being of the affected populations. This is especially relevant in respect of the elderly and those residents that are vulnerable. In particular the construction and decommissioning phases will result in significant amounts of disruption to existing communities and this needs to be considered in relation to mental health and well-being.

Waste Management

The amount of waste requiring managed disposal following decommissioning is substantial. Reusing or recycling old panels would be required before material is disposed through landfill. While the PEIR refers to the possibility of components being recycled it is unclear on current and likely future techniques and whether these would be more costs effective than disposal.

The PEIR proposes a Construction Resource Management Plan (CRMP) to form part of a Construction Environmental Management Plan (CEMP) to deal with the management of waste. Suffolk County Council, as the waste planning authority for Suffolk, consider that this is an acceptable approach and does not expect the quantities of waste to warrant objection. The Councils would appreciate sight of the relevant management plans in advance of submission as the framework CEMP deals with waste very briefly.

Other Environmental Topics

The Councils do not feel that the Considerate Constructors Scheme is a robust enough standard to ensure that a project of this size and national significance is appropriate for managing and reducing the environmental impacts arising – especially in relation to the operational impacts from energy and waste, water.

The project should be setting out an approach that will have clear targets to meet for reducing emissions in relation to those set out and then the monitoring, management and verification systems in place to ensure that the project does deliver a net zero emissions development.

The Councils' main concerns are related to fuel use on site; in relation to vehicle journeys to and from site; waste volume arising, and recycling rate set out. This project should be setting an exemplary approach to waste management and recycling and this should be made clear as a target to be achieved.

Contaminated land is dealt with in Chapter 16 of the PEIR, and refers to a Preliminary Environmental Risk Assessment undertaken by AECOM dated December 2019, that is included as Appendix 16B.

The assessment includes the findings of a site walkover and a desktop review of pertinent geo-environmental information. The walk over identifies a number of minor potential sources of contamination on the site and in the surrounding area. The historical map review also identifies a small number of historical uses that are potentially contaminative, although the majority of the site has remained undeveloped throughout the historical period studied. Areas of note included a number of tanks; potentially infilled land; former agricultural structures with potential asbestos containing material and a generator with evidence of oil contamination surrounding.

The assessment recommends that there are intrusive investigations at post consent stage to further assess the contamination status of the ground. Predominantly this would be to assess the potential of impact on the controlled waters (underlying principal aquifer and surface waters). We are in general agreement that the risks have been appropriately identified and that it would be appropriate to undertake the intrusive investigations following consent (should consent be granted) to assess the identified risks.

Effect Interactions

Summary of Environmental Effects

In relation to Table 18-1, the Climate Change section of the table states "No significant residual effects on climate change are predicted during construction of the Scheme." We would like to see some information that quantified what the land use change impacts may be on soil carbon and carbon sequestration from vegetation as this could be significant locally. Similarly, the same point is made in respect of the Ecology Section and the water environment particularly soil run off during construction and its impacts on the water environment.

Other matters/General

Given the importance of The Brecks and the ecological interests found within them West Suffolk Council expected that specific reference to Natural England and the RSPB would be more frequent within the PEIR. The absence of such reference casts doubts over the involvement of these organisations in the development of the scheme and it is expected that the ES will address this.

The promoter should undertake an Equality Impact Assessment.

Where outline management plans are to be presented with the DCO application the promoter should ensure that, where relevant, interactions between the plans are considered. Where mitigation measures in one plan are reliant on measures in another plan this should be clearly referenced, and appropriate mechanisms put in place to secure delivery of such measures.

To date the promoter has offered very little detail with respect to community benefits.

The joint response of West Suffolk Council and Suffolk County Council to the non-statutory consultation (dated July 2019) contained reference to future growth in Mildenhall. These comments do not appear to have been addressed and the promoter's attention is again drawn to this matter. It is imperative that the proposed scheme would not prejudice future growth in and around Mildenhall.

Similarly, it should be demonstrated that the promoter has engaged with the Cambridgeshire and Peterborough Combined Authority in respect of the Cambridge Autonomous Metro.

Freckenham Parish Council are in the early stages of preparing a Neighbourhood Plan, with the neighbourhood area designated on 2 November 2018. Isleham is also in the early stages of preparing a Neighbourhood Plan, with its area being designated on the 21 February 2019 that includes some of the Sunnica site.

Effects on mineral resources were scoped out of the EIA by PINS, and Worlington Quarry has been removed from the red-line boundary. The promoter may wish to consider the effects of dust on the panels from Worlington Quarry.

Throughout this response the Councils have detailed where further information and/or assessment is required. The following is a brief summary of a number of requests for further information and should be read in conjunction with the remainder of this response:

- The need for local and regional perspective on GHG emissions evaluation to be undertaken – not just in relation to the national carbon budgets.
- The Net Zero Emissions trajectory for the UK and the need to balance energy generation alongside other issues such as soil carbon storage.
- The calculations in relation to soil carbon storage and sequestration that were used to determine the professional judgement as to the baseline GHG emissions.
- The details of the energy generation peak capacity, the battery energy storage system (BESS), its location and operation.
- A review of the stated energy generation and operational GHG benefits to ensure Completeness, Accuracy, Consistency, Relevance, and Transparency.
- Comparison to alternative technologies and how these achieve the development objectives and to aid our understand for diversification in energy generation in the Eastern Region.
- An improved management on the stated Considerate Construction Scheme (CCS) of the operational impacts of the development to ensure it delivers Best Practice and a demonstrable ambition for Net Zero Emissions from the development.
- A more detailed breakdown of the vehicle journeys for staff in relation to the development areas.
- A Travel Plan that will actually lead to a reduction in the proposed vehicle journeys.
- Confirmation as to whether the applicant intends to make provision for any temporary living accommodation on site for staff and/or make land available for privately owned accommodation to be sited?
- Targets for fuel, waste, water and energy consumption reduction for the construction and operation phase.
- A reporting mechanism that will demonstrate the progress against the targets.

- Details of how topsoil will be managed, retained, and reused onsite to enable local biodiversity improvements during the operation phase.
- How was the search radius of 15km from the Burwell substation arrived at?
- That the cumulative impact of other planned and existing solar development in the vicinity of Burwell substation has been taken into account.
- How have the geographical location, local weather patterns, pollution levels and damage or failure of the key components been considered in relation to the overall effectiveness of the scheme?
- The necessary corrections and/or additional assessment information should be included in the Cultural Heritage chapter.
- Further ecological assessment is required together with additional detail on the mitigation measures.
- Further detail and assessment work are required in respect of the socio-economic and land use chapter. In particular, the impact of the scheme on agricultural land should not be limited to its classification and consideration should be given as to how the scheme will impact upon future growth opportunities and the delivery of infrastructure improvements in the effected authorities.
- It is strongly advised that block plans at a scale of 1:500 are also submitted to allow for more detailed assessment of the proposal.
- Details of the decommissioning process are required prior to the submission of the DCO application and it should be demonstrated how this process will be financed and managed.

Appendix 6

Statutory consultation response submitted to Sunnica Ltd by the Suffolk Preservation Society

SUFFOLK PRESERVATION SOCIETY
Respecting the past, shaping the future

Little Hall Market Place
Lavenham Suffolk CO10 9QZ
[redacted]

26 November 2020

info@sunnica.co.uk

Sunnica Ltd
FREEPOST reference
RTRB-LUUJ-AGBY
C/o Newgate Communications
50 Basinghall Street
London, EC2V 5DE

Dear Sirs,

Sunnica East and West 500MW Solar Energy Farm – statutory consultation response including the Preliminary Environmental Information Report

Introduction

I write on behalf of the Suffolk Preservation Society (SPS) in response to the statutory consultation on the above proposals for a 500MW Solar Energy Farm on up to 2800 acres of agricultural land across West Suffolk and East Cambs.

SPS is a non-political, independent, self-funding charity with charitable aims to "*promote the conservation, protection and improvement of Suffolk's physical and natural environment for the public benefit by ensuring any change is undertaken sympathetically and to the highest level of design and sustainability possible*". The Society also represents the Campaign to Protect Rural England (CPRE) in Suffolk.

Whilst acknowledging the imperative for the transition to a low carbon economy and the need to provide renewable energy, SPS campaigns for this to be carefully balanced against the necessary environmental considerations. We work constructively with the county and local planning authorities, local communities and other relevant bodies to help achieve better outcomes in planning and in particular the management of the historic natural and built environment of Suffolk. As such our comments will be restricted to the impacts of Sunnica East on Suffolk

Summary

Since SPS responded to the first round of public consultation in July 2019, we note the amendment to the Sunnica East site boundary which is welcome as it mitigates the impact upon the setting of the Freckenham Conservation Area. However, a number of concerns remain, primarily:

- Failure to select a sequentially preferable, brownfield site in favour of a greenfield site
- Significant harm to the pattern of historic landscape
- Adverse impact upon the public right of way network
- Adverse impact upon residential amenity and visual amenity
- A lack of detail throughout the Preliminary Environmental Information Report (PEIR), namely:
    - Insufficient information on size, scale and detail of the proposals
    - Insufficient information on site selection
    - Insufficient information on landscape and visual impact
    - Inadequate use of embedded mitigation through good design
    - Insufficient archaeological information
    - Inaccurate or incomplete maps, visualisations and photomontages
    - No information regarding legacy benefits/environmental fund

Insufficient information on size, scale and detail of the proposals

The PEIR does not state the electrical generation capacity in the scheme description and this is of fundamental importance and it must be clearly stated. There is also a lack of clarity around whether the Battery Electrical Storage Systems (BESS) are indicative or form a definitive part of the scheme.

There is a lack of clarity around whether the height of the fencing is 2.5m or 3m and insufficient information around the proposed fencing of the BESS. Due to the inappropriate scale of maps included within the PEIR, there is also a lack of clarity around the width of the proposed tree belts and it is unclear whether they are 5m, 15m or 30m. There is also uncertainty around the depth of the proposed buffers between the external boundaries of the site and the PV arrays. The scale of plans at 1:18,000 or 1:32,000 is far too small and makes it very difficult to interpret the portion of existing hedgerows and fully understand the areas of hedgerow mitigation that are to be introduced. There is also a lack of clarity around the proposed ground levelling and where the spoil heaps from the cable routes will be located and how high they will be.

Some of the photomontages are inaccurate and some views are cut in half. There are inadequate locations maps and the many of the maps are unclear and are very hard to read. Although we note that the viewpoints have been agreed with the local authorities, there are some important omissions such as from Freckenham towards the East B site. The annotated photos are not clear or lack detail

and the photomontages incorporating 15-year foliage growth show summer views rather than the worst-case scenario of visibility in winter.

Insufficient information on site selection

We strongly object to the selection of unallocated greenfield land over brownfield sites for energy production. We call for the site selection process to clearly and openly demonstrate that brownfield sites have been identified and fully explain the reasons for not pursuing this as the preferred option. We are concerned by the adhoc approach to site selection resulting in a series of poorly related greenfield sites of approximately 2700 acres which has a sprawling site perimeter that fails to relate successfully within the existing landscape fabric. Furthermore, we are concerned not only by the loss of productive agricultural land which is currently used for food production but also results in a site which comes unacceptably close to domestic dwellings and will result in material harm to residential amenity.

The meandering and eccentric boundary of the selected site, gives rise to significant landscape, visual and residential amenity impacts, and is a matter that must be fully assessed in the PEIR. Accordingly, the SPS is of the opinion that it is not acceptable that the Alternative Sites Assessment report will only be submitted at the DCO stage. The SPS does not support the principle of losing productive agricultural land on such a vast scale and advocates a brownfield first principle. Therefore it is important that the applicant clearly explains the reasons for selecting this site as the preferred option.

Insufficient information on landscape and visual impact

The proposed solar installation would result in the industrialization of a large swathe of landscape on an unprecedented scale and would fundamentally alter the landscape character spanning and encroaching upon a number of rural settlements. This is an historic landscape of Rolling Estate Chalklands typology and the visual experience is one of open spaces with long views emphasised by straight roads and a regimented pattern of tree belts and hedges and resulting from Acts of Enclosure in the 18th century. Crop production is focused on field vegetables which has a significant impact on the landscape character whilst straight rows of hawthorn hedges or narrow belts of trees divide large fields. The SPS considers that the PEIR includes insufficient information on the landscape and visual effects and consistently underestimates the impacts upon landscape character and visual receptors. The use of "very low" and "low" categories of landscape sensitivity suppresses the values of some categories giving an artificially low score to the landscape and visual impacts.

Whilst there is assurance that **Public Rights of Way** (PRoWs) will be retained during the operational period, a significant loss of five PRoWs is proposed during the two-year construction phase. Moreover, the PEIR contains inadequate information on the impact on visual amenity for those using the PRoW network once construction is complete. The PEIR does not analyse the kinetic views of moving through the installation, by car, by foot or by horse and how the visual impacts will be

experienced. The proper assessment of intra-cumulative effects is very important given that there are effectively four sites which must be assessed both independently and collectively. The PEIR does not provide this level of analysis which is essential to a proper assessment of the landscape and visual impacts of the proposals.

Inadequate use of embedded mitigation through good design

The SPS objects to the monotonous layout of serried ranks of panels which pay no regard to the landscape and visual impacts of the industrialising effects of this layout. It is understood that this scheme will be the largest solar farm in Europe and accordingly every effort should be made to deliver an exemplary scheme that delivers a creative approach to renewable energy delivery in the English countryside.

National policy for energy infrastructure is set out in the Government's Overarching National Policy Statement (NPS) for Energy (EN-1). It emphasises the importance of good design, which includes siting and being sensitive to place, as the key means of minimising the harmful impacts of energy infrastructure on the landscape. A bespoke approach, identifying the features of each landscape area should be the starting point, responding to the characteristics of each area. The failure to adopt the principles of embedded design is a major flaw which is exposed by the inadequate nature of the PEIR. The scheme fails to respect, respond or reinforce existing landscape features. The opportunity to create vistas or eye-catching patterns has not been taken. A comprehensive review of the layout should be sought before the Environmental Statement stage is reached.

Insufficient archaeological information

The site y has significant archaeological potential throughout the redline area, with Sunnica East A having the highest potential. The PEIR shows that large areas of the site have not been surveyed (217 hectares) and the areas that have been surveyed have not been ground truthed. Given the level of archaeological sensitivity, the SPS is of the opinion that much greater levels of ground truthing survey work must be carried out before the Environmental Statement stage is reached. Furthermore, we note that the PEIR refers to documents from the HER which are not up to date.

No information regarding legacy benefits/environmental fund

The SPS continues to lobby for an appropriate legacy fund or environmental fund to compensate (in part) those that will undoubtedly be impacted upon and disrupted during the life of this project. The SPS consider that the applicant should be encouraged to recognise the negative impacts of such significant infrastructure provision upon small rural communities. The price paid by those communities for the benefit of the nation as a whole is inequitable and SPS considers that this should be compensated in the form of an appropriate environmental and community fund.

Yours faithfully,

[redacted]

Fiona Cairns BA(Hons) DipTP DipBldgCons(RICS) MRTPI IHBC
Director

Ccs:
Chairman Suffolk Preservation Society, Andrew Fane
Rt Hon. Mat Hancock MP
Suffolk County Councillors
Phil Watson - Suffolk County Council Landscape Officer
Portfolio Holder for Planning, WSC
Boyd Nicholas, Principal Planner (Conservation and Design), West Suffolk
CPRE Cambridgeshire
Parish Councils – Worlington, Freckenham, Isleham, West Row

Appendix I

SNTS Comments on Deadline 4 and Deadline 5 Submissions on Socio-Economic Impacts:

SNTS comments on "8.62 Applicant's Response to Say No To Sunnica Action Group Ltd Deadline 2, 3 and 3A Submissions" (REP4-036)

Topic 2.14 Socio-economic

1. SNTS has set out its views on the socio-economic impacts of this scheme and does not seek to reiterate these here. Broadly, SNTS agrees with the position of the councils and Fordham (Cambs) Walking Group (FCWG) on public rights of way and the inadequacy of the provision, and on the lack of mitigation, particularly for a scheme of this size and scale. This includes a shared disagreement with the Applicant's view that the permissive routes offered would encourage active travel during operation (there are only 4 permissive routes suggested, they are short in length and either do not link to other footpaths or directly to a village/town).

2. Additionally, SNTS notes that there has been no adequate assessment of the negative impacts on these routes for e.g. recreational horse riders, in spite of reports regarding horses being 'spooked' by solar infrastructure (REP2-097d), and despite the long term visual impacts on these users at 'horse height' being potentially worse. We consider this a 'blind spot' on the part of the Applicant. Safe alternative provision for recreational riders during construction and closures also require additional assessment.

3. SNTS strongly disagrees that the scheme will have a positive health impact during operation in terms of access to recreation and PROW. As highlighted previously by us, and by the many representations from local residents, the scheme will have a detrimental impact on the quality of the footpaths and their countryside feel and appeal. SNTS shares Cambridgeshire County Council's view at ISH3 (and as outlined in their public rights of way improvement plan, REP1-024h) that developments should mitigate against the negative impacts on public rights of way and that the Applicant has failed to do this.

4. SNTS notes the failure of the Applicant to understand how locals (and visitors) use the PROW in this area. The negative impacts arising from the change in setting from agricultural to semi-industrial are acknowledged by the Applicant and SNTS does not consider these 'transient,' as stated by the Applicant. These valued routes are used for multiple purposes including socialising and meeting up with friends/ family members, bird/ wildlife spotting, fishing (along the riverbanks of the Lark), watching farming activity in the fields, etc., as expressed during the hearings and in the surveys undertaken by SNTS and the councils (e.g. Suffolk County Council's ROWIP REP1-024g)

and parish councils (e.g. Isleham Parish Council REP2-148, Chippenham Parish Council REP2-115), as well as in many other written submissions.

5. It should not be forgotten that people travelling through this area along the roads will see and feel the presence of this scheme (noting that over 9 kilometres of solar infrastructure is adjacent to the roads, as outlined in SNTS's response to the 2nd ExA Qs in REP5-098) but if those users move off the road and onto the PROW, they will see and feel even more of the scheme from these routes. This will not, in any way, have a positive health impact on local residents or even visitors to the area. As outlined previously in representations by multiple parties, there is a strong risk that people would resort to travelling elsewhere to use other rural routes/ experience the countryside. Per Cambridgeshire County Council's rights of way improvement plan (REP1-024h), *"If being in the countryside is not a pleasant experience, then countryside access is unlikely to be popular."* The Sunnica scheme would alter the countryside setting and hence the pleasure and enjoyment of this area.

6. As indicated by the councils and FCWG, the sparse provision of PROW in this area makes it even more important to preserve the quality of existing routes and seek to further enhance these. SNTS agrees with this and cites as an example the few PROW surrounding Isleham – there are only two on the eastern outskirts of the village. One to the north/northeast (along the River Lark, W-398/030/0); one to the southeast (leading to Freckenham, W-257/007/0). The current rural, open character of both of these would be negatively affected by the scheme in terms of visual appeal and likely also noise.

7. Figure 1 contains an extract from Technical Note (REP2-038) referred to from REP4-036. SNTS has already set out it's disagreement with the Applicant's Landscape and Visual Impact on Isleham, as outlined in our written representations REP2-240b (and also in the post hearing submission REP4-121). We do not repeat this here. SNTS rejects the notion (explained in Figure 1) that the lower ground of E05 in relation to the higher ground of Isleham village makes it less visible. On the contrary, the open character of the area, combined with the elevated position of the village makes parcel E05 (and beyond) even more visible from the village. The justification in section 2.1.17 of the Technical Note (Figure 1) describes preserving views to the southeast of Isleham towards Freckenham but fails to acknowledge the severing of views to the east/northeast towards Worlington, West Row and Mildenhall (including its church). The woodland mitigation mentioned in 2.1.18 would not only take a long time to establish to 'screen the views along the western edge' of the scheme but would in itself alter the characteristic open, Fen landscape and would block the attractive and valued far-reaching views in that direction.

omitted. The Alternatives Chapter (Chapter 4) **[APP-036]** explains the changes as follows:

1. *"Further reduction in land occurred in the eastern area of Sunnica East to remove sites proposed for extensions to Worlington Quarry following discussions with the mineral operator regarding the programme for mineral extraction and thus impact on its mineral operations.*
   1.a.1 *Land for Solar PV in the western area of Sunnica East was removed as a result of landowner discussions. Land was retained to accommodate a cable route crossing linking Sunnica East Site A and Sunnica East Site B. Additional land was included to the north west of Sunnica East (now Sunnica East A) within the land holding already within the proposed DCO Site. These changes were to accommodate environmental mitigation areas particularly for stone curlew and deliver electricity generation capacity." Solar panel arrays have been introduced in Parcel E05, which lies to the east of Sheldrick's Road. This parcel was chosen because the land here is within in the lower lying land defined by the valley of Lee Brook, which flows north to meet the River Lark. It is approximately 5m lower than Isleham, which is located on an island of higher ground above the Fens. This higher ground falls gently towards Sheldrick's Road, reducing visibility of the closest parts of Parcel E05 from the edge of the village. This is illustrated in Section 1, presented in Figure 8 of the OLEMP [**APP-108**]. Woodland and hedgerows are proposed along the western edge of this parcel and will be effective in screening views when this vegetation has established.*

2.1.17 As with the mitigation design for Freckenham described above, the solar panel arrays have been sited away from Isleham to avoid the Scheme resulting in the physical coalescence of settlements. This assists in retaining the open character to the south of Beck Road, between Isleham and Freckenham, including the enhancement of the character and quality of the landscape through the introduction of ECO1 and ECO2, which are areas of proposed native grassland.

2.1.18 Solar panels in parcel E05 have been offset from Beck Road via a landscape buffer of native grassland and woodland as illustrated in Section 2, presented in Figure 9 of the OLEMP [**APP-108**]. This reduces the proximity of the panels to road users and retains views along the road corridor of churches in Isleham and Freckenham to retain the perception of travelling through the landscape that separates the settlements[8]. The proposed woodland planting, which has also been set back from the road, will provide a more vegetated setting to the southern part of the village, reflecting the pattern of woodland to the south of Isleham, adjacent to the B1104 (Station Road).

Figure 1. Extract from REP2-038

8. Regarding the theme "Horses" and the impact on riders from bridleways, SNTS notes that the Applicant makes reference to the Horseracing Industry Impact Assessment (incorrectly stated as REP2-040, but is actually REP2-039). As outlined above in 2), there are multiple strands to impacts on horses/ riders in this scheme. The HRI is a distinct issue to recreational horse riding. From a PROW perspective, it is this recreational horse riding which is important to consider, and which the Applicant's assessments to date have not adequately reviewed.

9. Further to the above, SNTS notes that the Applicant's assessments on the theme "Tourism" are similarly flawed, having focused on tourism relating to the horseracing industry. There are, of course, a variety of reasons why visitors come to this area – to use the waterways, to enjoy the countryside setting, visiting various (non-horseracing related) attractions in the area, visiting family and friends, etc. This is a further 'gap' in the Applicant's assessments

of socio-economic impacts, as well as the lack of recognition that the harms arising from these impacts are not necessarily 'temporary,' as we have highlighted in our previous submissions and in the submissions of other parties.

SNTS comments on Cambridgeshire County Council (CCC) and Suffolk County Council (SCC) Response to 2nd ExA Questions (REP5-079 and REP5-084)

10. Broadly, SNTS agrees with the position of the councils with respect to PROW. We remain firmly aligned that parcels E05, E12, E13 and W03-12 should be removed from the scheme due to the combined harm to these areas from a significant alteration of the landscape point of view, the heritage damage as a result of potential development over an historic and highly valued military plane crash site and severance of the connection between the Limekilns and the historic Chippenham park, in addition to some of these parcels also being notable areas for wildlife and farmland birds, including stone curlew.

11. SNTS also agrees with CCC's position that consultation on PROW networks should involve input from both the local parish councils and also Fordham (Cambs) Walking Group to ensure that the views and needs of local communities and pedestrians are taken into account.

SNTS comments on "8.73 Applicant's Response to Other Parties' Deadline 4 Submissions" (REP5-058) and "Public Rights of Way Closure Note" (REP5-068)

12. SNTS requests clarification of the closure of U6006 and the use of asphalt. In response to John Leitch's question (REP5-058) the Applicant suggests the closure of U6006 will be a maximum of 21 days. Mention is made of breaking open asphalt, but asphalt is not a feature of the U6006. In contrast, a closure of 'up to a maximum of 1 week' is indicated in Table 1.1, section 2.3.1 of REP5-068.

SNTS comments on "8.71 Applicant's Response to the Second Written Questions (REP5-056)

13. In Section 2.9.9 the Applicant states that "NMUs along PROW are not considered noise sensitive receptors within the assessment undertaken within the Environmental Statement, as by their nature they are transient and their exposure to noise will only be temporary; therefore, there are unlikely to be effects on health or quality of life". SNTS disagrees with this view, for the reasons outlined in comments on socio-economic impacts above; people use the PROW in this area for a number of reasons and their experiences cannot be assumed to be transient. Public routes such as the U6006 are over 2 Km in length, so even a user moving along this route would be exposed to the noise and visual impacts for a prolonged period.

Appendix J

Review of Deadline 4 and 5 Submissions Concerning Battery Safety and Unplanned Emissions

Part A – Deadline 4 Submissions

SNTS Comments on "8.62 Applicant's Response to Say No To Sunnica Action Group Ltd Deadline 2, 3 and 3A Submissions" (REP4-036)

Section 2.12 – Topic Fire Safety

1. SNTS has outlined its views on BESS and fire safety in detail in our Written Representations, including REP2-240m and REP4-121. The expert review of the Applicant's OBFSMP by Professor Paul Christensen has concluded that it does not meet its stated purpose and scope and that it fails to adequately consider all hazards. Such failures make it impossible to review the hazards/ safety impacts and prevention/ mitigation measures to any suitable degree. SNTS has noted the concerns of the Councils in this regard in their previous submissions. (e.g. REP3A-049)

2. SNTS does not consider it appropriate to justify the OBFSMP on the basis that it has "in excess of the information provided in some other DCO applications," which may well have had their own limitations / deficiencies. The sheer size and scale of the Sunnica BESS application (amongst the largest in the world) means that the OBFSMP needs to be robust and fit for its stated purpose (as outlined in our previous submissions).

3. It should not be forgotten that the BESS compounds in the Sunnica application are, in places, very close to residents' properties and businesses and the likelihood of cell failure is high (as referenced by Professor Christensen REP2-240m and by Dr Edmund Fordham REP3A-046). The safety appraisal must therefore be as complete and as rigorous as possible.

4. Given the Applicant's knowledge of BESS container trends, current and pending regulations, and the wealth of publicly available information on toxic emissions, explosion hazards, firefighting procedures, etc. (some examples of which can be seen in the Annexes of the Applicant's REP4-044), it should be expected that a credible reasonable worst-case assessment covering these hazards is presented by the Applicant, as noted by Professor Christensen. There is no reason why this must wait until detailed design stage.

5. SNTS supports the concerns of Dr Edmund Fordham outlined at ISH3 and his written submissions relating to this (e.g. REP4-089) that omissions regarding NMC cell types (one of the two options proposed by the Applicant) mean that a worst-case scenario has not been assessed. SNTS notes that a number of oral submissions were also made

on the inadequacy of the BESS safety appraisals during the hearings between 6-9th Dec 2022, including from parish, district and county councillors, as well as local MPs.

6. This point also extends to considerations for water requirements needed to deal with a thermal runaway event and the containment of firewater. We have outlined in detail the concerns of Professor Christensen that this has been inadequately assessed and note that these concerns are shared by Dr Fordham (REP4-089) and the Councils (REP1-024). A realistic assessment is necessary at the planning stage as this is likely to have a bearing on the location, spatial arrangement etc., of the BESS compounds.

7. SNTS's battery safety expert, along with a number of other Interested Parties (including Dr Edmund Fordham) have all stressed the need for the Health and Safety Executive (HSE) to be fully consulted on matters of BESS safety during the DCO application process. As noted by the Applicant, regulations evolve, which adds a further reason why the HSE must be fully engaged at this stage.

8. In addition, SNTS fully supports the position of Dr Edmund Fordham that Hazardous Substances Consent is almost certainly required for the BESS proposed in this case.

Section 2.16 – Topic Air Quality

9. For reasons set out in our previous submissions (REP2-240m and REP4-121) SNTS disagrees that the Unplanned Emissions document Appendix 16D provides a "realistic worst-case assessment" of the potential emissions arising out of a thermal runaway event. Emissions from all technology types being proposed have not been assessed; other likely (and well-documented) emissions have not been adequately considered.

10. SNTS supports the views of Dr Edmund Fordham on this matter (as presented at ISH3 and in his written submissions to date e.g., REP2-129) and considers that there is sufficient publicly available data on emissions that can be used to prepare a credible reasonable worst-case assessment of unplanned emissions.

11. SNTS also notes that the Councils refer (in their LIR) to the lack of consideration of other toxic emissions that may arise. This defect must be addressed during the planning stage in order that all parties may review and assess the likely risks.

SNTS Comments on "8.69 Applicant's Response to BESS Safety Issues Raised During ISH3" (REP4-044)

12. SNTS has set out it's concerns relating to the Applicant's battery safety and hazard assessments and the inadequacy of the Applicant's OBFSMP in our Written Representations (including REP2-240m and REP4-121). We maintain these concerns and do not wish to repeat these here.

13. The Applicant's 563-page submission (REP4-044) comprises a summary on pages 2-6 (Sections 2.1.1 – 2.1.13), followed by a range of general literature reports (pages 7 – 563) on subjects including standards, firefighting strategies adopted by other agencies, glossary of terms, safety roadmaps, etc. The utility of these documents is not explained with any precision.

14. The annexes provided are a useful demonstration of the extensive range of literature that is publicly available on BESS systems, their hazards, potential emissions, mitigation strategies, etc., but it is not clear what is meant by the statement, *"These materials showcase how BESS system hazards can be accurately quantified and effectively mitigated."* It is not obvious what is being said here. Insofar as it is being said that the materials make it possible to undertake a reasonable worst-case assessment of the proposals, considering that the *Rochdale* envelope approach provides for specification of the outer limits of a proposal (which can be defined), SNTS agrees. Indeed, this is precisely SNTS's point; the Applicant is in a position to accurately quantify and explain effective mitigation of its proposal. That it is not the detailed design of the proposal that will eventually be put in place is no response to this; the Applicant must properly assess the reasonable worst case. The reasonable worst case will necessarily encompass the detailed design (if one is eventually produced). It is only with this assessment that the Examining Authority can properly examine the application now.

15. On a related note, it is stated (in 2.1.6) that "new or upcoming revisions to BESS standards and codes are included (Annex 2). These standards will be reviewed and integrated into the OBFSMP." Please can the Applicant clarify at which deadline the new OBFSMP including these standards and codes is likely to be submitted, with the key safety points a-g?

16. SNTS notes that in Summary section 2.1.1 that the Applicant comments that the OBFSMP "is not a standard document that is produced for most BESS projects". In part this is because pure BESS developments do not fall within the Planning Act 2008. For those BESS found to be associated development as part of an NSIP scheme over the past 3-4 years, OBFSMPs have been produced (e.g. Longfield, Little Crow, Cleve Hill). Given the not insignificant number of Lithium-ion BESS thermal runaway incidents that have occurred in the same time period (over 30 incidents since 2019), SNTS would expect to see a thorough OBFSMP based on the reasonable worst-case scenario presented during the planning stage for such a large BESS proposal as proposed by Sunnica. The OBFSMP would be specific to each project (since differing technologies and hazards would be likely).

17. SNTS does not consider the OBFSMP to be a "preliminary analysis of safety issues" but rather should present a suitable and robust response to the likely hazards expected of a reasonable worst case scenario. This is necessary if it is to meet its stated purpose and scope (as outlined in Section 3 of the OBFSMP). The 'knock-on' effect of the current inadequate safety and hazard appraisal of the BESS (as previously submitted) is that the OBFSMP cannot

be considered fit for purpose. It must be remembered that the OBFSMP is outline not because it is preliminary but because there is not yet a detailed design; this does not remove the obligation to produce an OBFSMP which is suitable and robust to respond to a reasonable worst-case scenario assessed using the *Rochdale* envelope approach.

18. SNTS welcomes the commitment to develop an Emergency Response Plan (ERP) but maintains the view outlined by Professor Christensen that on a BESS system of this size and scale an outline ERP should be developed alongside the OBFSMP during the planning stage since these documents can support one another and ensure that safety features are designed in.

19. In section 2.1.9 it is not clear which of the 'variety of issues' raised in representations are addressed by the materials provided in Annex 4 (which contains a selection of BESS incident response practices, amongst other reports) nor how these relate specifically to the Sunnica proposal. Since the Applicant has reviewed a number of response practices, if there are any practices that are likely to be used for the Sunnica BESS, SNTS would consider these better included in an outline Emergency Response Plan, which would complement the OBFSMP. This should be submitted as part of the DCO application, as recommended by Professor Christensen.

20. SNTS has previously commented on the inadequacy of the modelling of emissions (which, given the Applicant's knowledge of the extensive literature reports to inform these assessments, should enable a credible reasonable worst-case scenario to be presented). We disagree with the comment that such risk assessments are not possible (as indicated by the Applicant in section 2.1.10) and we support the views of Dr Fordham on this matter (e.g. REP2-129).

Part B – Deadline 5 Submissions

SNTS Comments on CCC and SCC "Responses to the Examining Authority's Second Written Questions" (CCC REP5-079 and SCC REP5-084)

21. SNTS agree with the Councils' response to Q2.1.13 that it is not possible to determine the impacts on receptors based on the Applicant's Unplanned Emissions assessments and we agree with their view that the modelling provided is flawed. This position is in accord with the views of our own expert, Professor Christensen (REP2-240m and REP4-121), as well as the submissions made by Dr Edmund Fordham at ISH3, which we support.

SNTS Comments on ECDC and WSC "Responses to the Examining Authority's Second Written Questions" (ECDC REP5-081 and WSC REP5-085) and also on West Suffolk Council (WSC) Deadline 5 Submission – "Comments on draft DCO, draft Statement of Common Ground" (REP5-101)

22. SNTS fully supports the position of East Cambridgeshire District Council (ECDC) that Hazardous Substances Consent is almost certainly required for the BESS (REP5-081). We note that this is aligns with the position of Dr Edmund Fordham (REP5-093), which is also supported by SNTS.

23. We share ECDC's (and Dr Fordham's) position that this is a matter that must be resolved during the consenting stage and not post consent, should consent be granted. It is noted that this view is also maintained by WSC (REP5-101).

24. SNTS, in accordance with WSC, ECDC and Dr Fordham, is not aware of any legal exclusion of BESS from the scope of the COMAH and P(HS) Regulations 2015.

SNTS Comments on D5 submission by Dr Fordham "Comments on Applicant Submissions by Deadline 4 (REP5-093)"

25. As outlined previously, SNTS fully supports Dr Fordham's position that HSC requirement is virtually certain and that a finalised design is not needed to determine the obligations for HSC and COMAH (REP5-093).

26. We agree that this cannot be left to consideration post consent (a view also shared by the Councils); this is not least because of the requirements for information in respect of HSC set out in NPS EN-1.

27. We share the view of Dr Fordham that sufficient information on the risks posed by the technology types that are being proposed, has not been provided.

28. Like Dr Fordham, SNTS would urge caution in the use of data accepted as part of the Cleve Hill NSIP application. As the Applicant has previously acknowledged, the understanding and evaluation of BESS thermal runaway incidents is dynamic. As such, lessons learnt when the Cleve Hill DCO application was consented in May 2020 will be different to considerations today (noting that there have been over 20 further BESS incidents since that time. (*Source: BESS Failure Event Database - EPRI Storage Wiki,* [redacted]

SNTS comments on Sunnica Ltd Deadline 5 Submission "7.6 Outline Battery Fire Safety Management Plan (Tracked) - Rev: 02" (REP5-051)

29. SNTS welcomes the submission of a further revised Outline Battery Fire Safety Management Plan (OBFSMP rev02) at Deadline 5. We note that the changes largely involve a commitment to provide an Emergency Response Plan (ERP) and what such a plan might entail. Previous submissions by lithium-ion BESS safety expert Professor Christensen have commented on this point, and we maintain our position on this.

30. Given the Applicant's knowledge of BESS firefighting strategies adopted by other agencies (as outlined in their REP4-044), and the readily available templates highlighted by Professor Christensen, SNTS would welcome the Applicant preparing and submitting an outline ERP during the DCO application stage to enable fair appraisal by registered parties.

31. Professor Christensen's comments on rev02 of the OBFSMP (REP5-051, submitted at Deadline 5) are submitted here in Appendix 1. His overall opinion remains unchanged from his previous submissions – that the OBFSMP is still inadequate.

SNTS comments on "8.71 Applicant's Response to the Second Written Questions" (REP5-056)

32. In response to Q2.1.16 and Q2.1.17 Professor Christensen reiterates his concerns regarding leaving testing until the design stage: he believes that studies into potential toxic gas release and the understanding of its consequences should be done now (i.e. at the planning stage).

33. Regarding Ingress Protection (IP) he clarifies that although this is not part of the UL 9540A testing, it is considered good practice (particularly given the experience of South Korean BESS incidents which had considerable issues with ingress of water, dust, etc.).

Appendix 1 – Comments on Sunnica's latest revision (rev 02) of the Outline Battery Fire Safety Management Plan (REP5-051) by Professor Paul Christensen

RE: Sunnica - Outline Battery Safety Plan rev2

From: [redacted]

To: [redacted]

Date: Saturday, 21 January 2023 at 10:19 GMT

Dear Catherine

I have seen the latest revision of the Outline Battery Fire Safety Management Plan and, whilst the addition of an independent review of test results and a commitment to developing an Emergency Response Plan are welcome, in my view, the OBFSMP is still inadequate and incomplete in terms of the key information required.

The deficiencies highlighted in my previous two reports have still not been addressed in terms of sufficient consideration of the risks and hazards and the appropriateness of the suggested safety measures, and I do not consider that this document is an adequate safety appraisal of the proposed BESS system.

Kind regards

Paul

Dr. Paul Christensen

Lithiumionsafety Ltd [redacted]

Recipient of the 2022 Motorola Foundation-funded AFAC Knowledge Event Series lecture tour of Australia, New Zealand and Tasmania (Oct 2022).

Senior Advisor to the National Fire Chiefs Council

Subject Matter Expert, DSTL

Cross-government Technical Steering Group for EV fire safety

BEIS Energy Storage Health and Safety Governance Group

BEIS Fire Safety Working Group

BSI FSH/2/-/20 group and the BSI steering Groups for the development of PAS 63100 (Residential battery energy storage systems) and Storage of LiBs.

Derbyshire Police Electic Vehicle Safety Group

UK Chamber of Shipping EV Working Group.