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8th February 2024

Dear Mr James

Response to PL/2023/10332 Land South of Potterne Park Farm, nr Potterne, Devizes, Wilts, SN10 5QT

I am a qualified Chartered Surveyor with extensive experience in co-ordinating and writing Environmental Impact Assessments. As an experienced professional, I write to object to the above large scale solar farm proposal based on the likely significant environmental impacts, in addition to non-compliance with National and Local Planning Policy. The application, in addition to any future application for even a smaller scale proposal, should be refused.

By undertaking a review of the evidence submitted and past EIA experience, it appears that the site simply does not have the environmental carrying capacity to support a viable solar farm; even the inadequate assessments of environmental impact provided by the Applicant provide sufficient information to show that the proposal will cause irreversible damage and degradation of the existing environment of the local (and wider) area. It has been acknowledged by the Council that **the development is an electricity-generating installation of a large scale both in terms of ground coverage and the height of the panels and associated works**; it should not be located in this highly visible, environmentally sensitive rural location.

Initially, I must note that the timescale in which I have been given to assess the evidence submitted on the environmental impact of the proposals is ludicrous. It is impossible to survey and collate evidence, analyse this, then ensure that all of the information on potential impacts submitted by the Applicant is accurate. This will be the same scenario for experts from Wiltshire Council. However, even a desk-based evaluation of the evidence provided in support of the application, in addition to personal knowledge of the site from frequent use of the Public Rights of Way (both on foot and by horseback), I have discovered the following:

- major omissions and inaccuracies in the evidence and information about the scheme provided from the Applicant, particularly with reference to the site

boundaries, the construction process, traffic movements and the potential use of batteries to store the electricity on site (identified in the Design and Access Statement and the Flood Risk Assessment);

- major omissions and inaccuracies in baseline data collected, the preliminary/provisional nature of the studies and how the potential impacts been analysed by their consultants (no impact report provides any proof that the proposals have actually been overlayed on the provisional survey data);
- there are missing reports that have apparently been undertaken but are not available on the application portal (the Agricultural Land Classification Survey, a Noise Impact Assessment and a Cable Route Assessment for example);
- a lack of detailed assessments, even when the consultants deem further assessment is required (particularly in regard to the detailed Glint and Glare Assessment and Arboricultural Impact Assessment report, but in my view the ecology/archaeology/landscape/flooding and traffic are also inadequate to assess the full impacts of the proposal);
- the likelihood that the site boundary was altered to avoid obvious significant impacts, specifically landscape and ecology. However, no evidence of an iterative approach has been provided or justified. This is particularly important with the Landscape Impact Assessment, as it fails to address the visibility from the south of the site from areas such as Strawberry Hill/Wessex Ridgeway;
- the omission of areas adjacent to and within the site where there could be significant nature conservation value (therefore jeopardising their future management and nature conservation value);
- the failure to acknowledge research that identifies the significant harmful effects of solar panels; this includes bats and the flora beneath the solar panels;
- no acknowledgement of the potential that once the substation is allowed, the energy generation on this site is permanent and could be potentially expanded;
- the contradictory nature of the reports from different professionals and the lack of communication between them. For example, the Ecological Impact Assessment identifies water-filled drainage ditches that are not in the Flood Risk Assessment. There are also contradictory impact assessments between the Landscape and Visual Assessment and Archaeology in terms of the visual impact on the SAM;
- the use of an inappropriate comparable for the traffic assessment;
- the Flood Risk Assessment is inaccurate and has not identified the potential impacts of the proposals, putting adjoining farmland, land in the vale and residential properties at an unacceptable risk of flooding;
- the claim that the loss of agricultural land to large scale solar generation is in the national interest, whilst also recognising that climate change will actually reduce the amount of arable land available for food production;
- the fact that there are other forms of existing and developing alternative/renewable energies; the justification for the proposal is that Wind and Solar are the only forms of green energy that will meet the Governments 'Net Zero' targets. This may be true in the short term (5 – 10 years), but the next 50 years will see the delivery of wave energy, tidal energy and hydropower projects with reduced environmental impact. Continuing to push agricultural land out of production for solar farms on unsuitable sites is unacceptable;

- the inability to provide the evidence requested by the response to the Screening Opinion, including the lack of detail on Biodiversity Net Gain (BNG) and the omission of photomontages.

I also believe that these inaccuracies and omissions mislead the Screening Response in terms of the need for an Environmental Impact Assessment. Having examined the evidence submitted for the application, it appears that the Screening response from the Council was based on insufficient/inaccurate data supplied by the Applicant's Consultant Team. The proposals are not fully reversible; it will present as a starkly industrial mass of metal; the size of the solar farm is greater than the village of Potterne; there is a totally inaccurate assessment of construction traffic generation; protected species will be adversely affected; the existence of a substation will lend a degree of permanency for energy generation on the site; the details of the substation compound were not made clear, which is particularly important as it will be situated in highly visible rural countryside with industrial features such as a 38m² building/8m high transformers /floodlighting/ 2.4m high galvanized security fence and a 15m high communications tower; furthermore, such a facility could result in future expansion, particularly in light of the fact that the landowner will continue to farm up to 300 acres of adjacent land.

Notwithstanding the need for additional information and the inaccuracies, the evidence provided to date by the Applicant, in addition to my own findings, clearly indicate significant impacts from such a large-scale electricity-generating installation in a traditional rural farming location. It is situated in open countryside that has a distinctive quality that should be protected. Accordingly, the Proposal does not conform with National or Local Policy Guidance. I believe that this proposal could be of National Significance, due to the disproportional size in a rural setting, the presence of a substation and adjacent additional land farmed by the same landowner. Wiltshire has also exceeded its own 'ambitious' target for Solar generation by around 40% with existing and permitted solar developments in the County.

In terms of the 10% requirement for BNG, the proposals are likely to have a negative BNG due to the removal of topsoil, the proposed built development, the construction process, access tracks, the trenching and shading from vast solar panels in areas that have been enhanced by grant aid from the Countryside Stewardship scheme. Furthermore, it is understood that Wiltshire are moving towards a 20% BNG, which makes the suggestion by the developer that even 10% may be required off-site even more significant. Until figures are provided to prove otherwise, it is unlikely that the site will be able to prove a BNG over and above what already exists. The proposal should not have to rely on 'buying in credits' because it has destroyed the current biodiversity. The development should be refused permission and the farmer should be offering credits to other developers, thus securing additional income that enhances the biodiversity on his farm rather than destroying it.

It is important to note that of the 54 operational and currently approved sites in Wiltshire, there is a total of 4.3km of PRoWs that cross the site. This site alone has a further 2km, making the impacts the most significant for PRoW in the 13yr history of Wiltshire dealing with ground solar planning.

In terms of Local Policy Guidance, Policy 42 states that “*proposals for standalone renewable energy schemes will be supported subject to satisfactory resolution of all site specific constraints. In particular, proposals will need to demonstrate how impacts on the following factors have been satisfactorily assessed, including any cumulative effects, and taken into account:*

- i. The landscape, particularly in and around AONBs
- ii. The Western Wiltshire Green Belt
- iii. The New Forest National Park
- iv. Biodiversity
- v. The historic environment including the Stonehenge and Avebury World Heritage Site and its setting
- vi. Use of the local transport network
- vii. Residential amenity, including noise, odour, visual amenity and safety
- viii. Best and most versatile agricultural land”.

The accompanying report identifies how the proposal will have a detrimental impact on this rural landscape, the biodiversity of the site, the use of the local transport network, residential amenity (particularly visual amenity) and potentially the local historic environment.

The report will also demonstrate that the omissions and inaccuracies in the accompanying documentation result in the proposal being contrary to

- Policy 51 Landscape (no assessment from the Salisbury Plain to the south of the site, insufficient photographic data including photomontages, no consideration of the visual amenity of local residents overlooking the site, the need for a detailed glint and glare study as suggested by the developer’s consultant Page Power, poor landscape impact assessment);
- Policy 50 Biodiversity (potential to destroy existing biodiversity created by the Countryside Stewardship scheme, provisional surveys only undertaken, detailed surveys on protected species such as badgers/bat foraging routes and roosts/dormice not undertaken, area of potentially high value existing habitats and wildlife not surveyed yet surrounded by the development, no assessment of BNG when there is a clear risk of a negative impact, no regard to current research and the detrimental impact of solar farms on bats/sward composition beneath the arrays);
- Policy 58 Ensuring the conservation of the historic environment (no trial trenching proposed as requested by the Assistant County Archaeologist, no details on the impact on the listed building that overlook the site, no further investigation of the historic importance highlighted by the landowner in response to a previous application);
- Policy 67 Flood Risk (inadequate and erroneous information provided, particularly in regard to surface water flooding, existing agricultural drainage and lack of acknowledgement of other water features such as ditches) and
- Policy 52 Green Infrastructure (no detailed impact on users of the rights of way, no information on how the bridleway would be impacted during construction and

by the trenching on the site, use of photographs that are not even of the existing footpaths/bridleways on the layout plan).

Personally, I have been dismayed about the conduct of the Applicant in terms of information and communication about the proposals. There was no notice provided about the Public Consultation in November; I was alerted by a friend who lives in Potterne Wick, 3 days before the Consultation was due to be held. The consultation information was misleading and inaccurate; I spoke personally to a consultant from Lighthouse, expressing my concerns about the need for more accurate photographs of the solar arrays proposed and their appearance on the site. I raised concerns about the massing of the arrays depicted on the site layout plan. I also noted that our house would be significantly affected by the proposal, requesting that they make contact and view the proposal from our property. No contact has been made, the application has been submitted and we were finally notified of the proposal on the 8th January 2024.

I respectfully request that the application is refused. The landowner should investigate the possibility of using BNG credits and selling them to other developers, so that the existing bio-diverse environment and future agricultural production on this farm is protected.

Yours sincerely

Jo Darlington BSc (Hons) Rural Land Management, Past Member of the RICS, RPIOL

**EVALUATION OF THE ENVIRONMENTAL
EVIDENCE SUBMITTED ON BEHALF OF
POTTERNE SOLAR PROJECT LIMITED TO
SUPPORT A SOLAR FARM OF APPROXIMATELY
80 HECTARES ON OPEN FARMLAND**

**Land South of Potterne Park Farm,
Potterne Wick, Potterne
Devizes, Wiltshire
SN10 5QT**

Application Reference: PL/2023/10332

**Prepared by Jo Darlington BSc (Hons) Rural Land Management, Past
Member of the RICS, RPIOL**

January 2024

Care has been taken to evidence all assertions in the report. Any non-evidence opinion is
authors own.

Executive Summary

This report has been prepared to evaluate the supporting documentation that assesses the potential environmental impact of a large-scale solar ‘farm’ in a rural location, situated on over 200 acres (80 hectares) of productive farmland. This proposal comprises a permanent electricity-generating installation of a very large scale in terms of ground coverage, the height of the panels and associated works. The land is currently in agricultural use and recently managed to enhance the biodiversity, including areas previously entered into the Countryside Stewardship Scheme.

I am a qualified Chartered Surveyor with extensive experience in co-ordinating and writing Environmental Impact Assessments. This report comprises a desk-based evaluation of the evidence provided in support of the application, in addition to personal knowledge of the site from frequent use of the Public Rights of Way (both on foot and by horseback).

It is clear that this large-scale solar installation proposal is likely to cause significant environmental impacts. The site simply does not have the environmental carrying capacity to support a viable solar farm; even the inadequate assessments of environmental impact, provided by the Applicant, provide sufficient information to show that the proposal will cause irreversible damage and degradation of the existing environment of the local (and wider) area. This is not a ‘temporary permission’. Considerations for assessing magnitude of landscape change note that a duration of more than 40 years is permanent. Furthermore, the proposed substation will exacerbate this permeance. This permanent proposal should not be located in this highly visible, environmentally sensitive rural location.

The supporting documentation for this proposal accentuates the NPPF, and the Wiltshire Core Strategy policies, that suggest the need for solar installations should not be a material consideration. However, Wiltshire has exceeded its ambitious target for solar power generation by around 40%, with existing and permitted solar projects in the County. The NPPF and Core Strategy highlight that the environmental impacts are considerations that must also be balanced in the planning decision. Recent decisions in Cambridge and Alfreton have sort to readdress the overriding need for solar projects; the County Council and The Planning Inspectorate put more appropriate weight on the need to protect agricultural land and the rural environment. Wiltshire Council have the opportunity to protect the existing high environmental quality of this rural site, currently in agricultural use and with biodiversity enhanced by the use of the Countryside Stewardship Scheme.

The supporting documentation for the Application has major flaws, therefore the assertion that there are no potentially significant environmental impacts is incorrect. The following points will be amplified within the main body of the report:

- There are major omissions and inaccuracies in the evidence and information about the scheme provided from the Applicant, particularly with reference to the site boundaries, the ecological impact (especially protected species), construction process, traffic movements, the compound containing a range of structures (including a 15m high communications tower/3.375m high WPD Control Room/2.4m high galvanized security fence/pole mounted CCTV and floodlights/8m transformers, disconnectors, and other electrical structures) and the potential use of batteries to store the electricity on site (identified in the Design and Access Statement and the Flood Risk Assessment).
- The likelihood that the site boundary was altered to avoid obvious significant impacts, specifically landscape, ecology, archaeology and flooding. However, no evidence of an

iterative approach has been provided or justified. This is particularly important with regards to the Ecological Impact Assessment (where an area of woodland within the site is simply red-lined out); the Flood Risk Assessment (an area of land left without solar arrays) and Landscape Impact Assessment (no solar arrays on significant slopes/visibility from the south of the site from areas such as Strawberry Hill/Wessex Ridgeway).

- There is no acknowledgement of the potential that once the substation is allowed, the energy generation on this site could be permanent and potentially expanded. None of the reports appear to assess the impacts of the significant structures associated with this substation. All of this infrastructure is incongruent with this unspoilt rural setting.
- There are major omissions and inaccuracies baseline data collected, the preliminary/provisional nature of the studies and how the potential impacts been analysed by their consultants (no impact report provides any proof that the proposals have actually been overlayed on the provisional survey data).
- There are reports missing from the Wiltshire planning portal that have apparently been undertaken (the Agricultural Land Classification Survey, a Noise Impact Assessment and a Cable Route Assessment for example).
- There is a lack of detailed assessments, even when the consultants deem further assessment is required (particularly in regard to the detailed Glint and Glare Assessment and Arboricultural Impact Assessment report; this report will illustrate how the ecology/archaeology/landscape/flooding and traffic assessments are also inadequate to assess the full impacts of the proposal).
- The fact that the even the Landscape and Visual Impact Assessment does not assess the impact of the Substation or the CCTV cameras on 5m poles around the site. The main assessment criteria are based on the 3.2m solar panels only. Furthermore, the Zone of Theoretical Visibility then lowers this height to 3m for theoretical screening.
- The omission of a detailed assessment of the impact of shade on this site. There are areas of north facing land and an abundance of mature trees; a prudent developer would ensure the full impacts of shade were understood.
- The omission of areas adjacent to the red line boundary, and areas simply left blank within the red line, where there could be significant nature conservation value (therefore jeopardising their future management and existing nature conservation value).
- The failure to acknowledge research that identifies the significant harmful effects of solar panels; this includes bats and the flora beneath the solar panels.
- The contradictory nature of the reports from different professionals and the lack of communication between them. For example, the Ecology report identifies water-filled drainage ditches that are not in the Flood Risk Assessment.
- The Flood Risk Assessment is inaccurate and has not identified the potential impacts of the proposals; putting adjoining farmland, land in the vale and residential properties at an unacceptable risk of flooding.

- The use of an inappropriate comparable for the traffic assessment and significant under-estimation of vehicle movements. The lack of detailed consideration of the weight of the hardcore lorries on a 'small bridge' along the access route.
- The contradictions made within the supporting information submitted, such as the claim that the loss of agricultural land to large scale solar generation is in the national interest, whilst also recognising that climate change will actually reduce the amount of arable land available for food production.
- The fact that there are other forms of existing and developing alternative/renewable energies; the justification for the proposal is that Wind and Solar are the only forms of green energy that will meet the Governments 'Net Zero' targets. This may be true in the short term (5 – 10 years), but the next 50 years will see the delivery of wave energy, tidal energy, hydropower projects and possibly fuels such as 'golden hydrogen' with reduced environmental impact. Continuing to push agricultural land out of production for solar farms on unsuitable sites is unacceptable.
- The inability to provide the evidence requested by the response to the Screening Opinion, including the lack of detail on Biodiversity Net Gain (BNG) and the omission of photomontages.
- The Applicant has failed to demonstrate the proposals would not lead to the irreversible loss of agricultural land; the development will cause an adverse impact to the ecology of the area, in addition to an adverse impact on landscape and countryside character. This proposal will not serve the local community, although it will have major adverse effects on the amenity of this rural area. None of these major impacts will be experienced if the solar panels are on rooftops.
- Solar arrays make no economic sense in the UK, as there are insufficient sunlight hours and the EROEI (energy return on energy invested) is too low. The intermittence of supply from solar necessitates backup electricity generation from nuclear and fossil fuel sources to make the electricity grid resilient.

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Section 1 Introduction

- 1.1 This report has been prepared to evaluate the supporting documentation that assesses the potential environmental impact of a large-scale solar 'farm' in a rural location, situated on over 200 acres (80 hectares) of productive farmland. This proposal comprises an electricity-generating installation that is large scale both in terms of ground coverage, the substation, the height of the panels and associated works. The land is currently in agricultural use and recently managed to enhance the biodiversity, including areas previously entered into the Countryside Stewardship Scheme.
- 1.2 I am a qualified Chartered Surveyor with extensive experience in coordinating and writing Environmental Impact Assessments. I have worked for multidisciplinary planning practices, housing developers and an Arboricultural Consultancy, from initial site assessment through to expert witness evidence at public inquiries. This report comprises a desk-based evaluation of the evidence provided in support of the application, in addition to personal knowledge of the site from frequent use of the Public Rights of Way (both on foot and by horseback).
- 1.3 The timescale for responding to the proposals is wholly inadequate. There are major omissions and inaccuracies that need to be addressed, although in my opinion, these are likely to demonstrate further significant environmental impacts. The identified impacts are based on an insufficient level of survey data, often assumed and under-estimated in the Applicant's favour. The reports either fail to identify or pay insufficient regard to emerging research, including research that identifies significant adverse impacts on protected species (bats) and flora from solar farms. This report highlights why these omissions demonstrate the failure to address the likely significant impacts of the permanent 800,000m² electricity-generating installation.

Section 2 Landscape and Visual Appraisal

- 2.1 The Landscape and Visual Appraisal (LVA) by TIR Consultants 1 December 2023 (ref: TC23137) is not a full Landscape and Visual Impact Appraisal (LVIA). It fails to address the full extent of the potential impacts from the proposed very large-scale electrical installation in an area of open countryside with predominantly agricultural uses. There are very few viewpoints that represent the significant impacts to local residents, users of the public rights of way (on foot and on horseback), in addition to the failure to acknowledge or assess the impact from the Wessex Way to the South west of the site. It is not possible to assess the landscape and visual impacts without the use of photomontages, which were specifically requested by Wiltshire Council's Screening Response (PL-2023-10198):

"....a full LVIA will be required showing how an iterative response has been taken to design that lays out how the LVIA process has informed the master planning and mitigation of the scheme in accordance with LI Technical Note 1/20. This LVIA should also include photomontages from key views that sets out how the mitigation of the scheme will be achieved at 0 / 5 / 15 year stages have been accurately applied."

- 2.2 The whole process of undertaking LVIA's for Solar farms was recently examined in an article published by the Landscape Institute, which questioned the methodology for the assessment the landscape impacts from solar farms. The article (<https://connect.landscapeinstitute.org/index.php?/topic/339-solar-farms-existing-hedgerows-and-the-lvia-process>) questions where in the LVIA process the future and ever changing condition is accounted for. It notes that *"Solar farm applications are now regularly for 'temporary' permission lasting 50 years and in that time the hedgerows being relied upon for visual screening will need all sorts of management approaches. We surely should all understand that hedgerows cannot be held at a static height or condition. They will cyclically need coppicing and/or laying for instance, which would remove any visual screening ability for many years. If they really were 'managed to 3m' every year for 50 years (flailed?) they'd eventually just die off. This would not only increase the visual impact of the development on the wider landscape but also lead to a worrying loss of historically characteristic and ecologically valuable hedgerow networks."* This report therefore highlights the conflict between the management of hedgerows to reduce shading verses management for ecological diversity (see Section 3 on Ecology below).
- 2.3 The article highlights 'temporary'; this is an important point, as considerations for assessing magnitude of landscape change indicate a proposal of more than forty years should be considered permanent (Guidelines for Landscape and Visual Impact Assessment 3rd Edition published by The Landscape Institute and the Institute of Environmental Management & Assessment in April 2013 (GLVIA3)). Indeed, this is noted in the LVA but the emphasis is placed on the 'fully reversible' nature of the proposals. This report will highlight how this permanent proposal is not 'fully reversible' and that substantial harm will result in the longer term.
- 2.4 The article is wholly applicable to the LVA for this Solar Installation at Potterne Park Farm. The Sources of Potential Effects on Landscape and Views (Section 3.1.5) fails to

address the impact of annual hedgerow management during the construction or operational phases. It is clear that managing the hedgerows on this site to allow the operation of this large-scale electrical installation will result in substantial impacts that have not been addressed. The hedges appear to have been managed to a height of 1.5 – 2m previously, although have been allowed to extend up to around 3m recently. It could be argued that preparation for the proposal is forcing the existing hedgerows to grow beyond the previous management regime (or possibly managed under the Countryside Stewardship Scheme as noted in Section 4).

- 2.5 It is uncontested that the hedgerows form a vital part of the local landscape character. If these features are managed as required to avoid shading and maximise the output of the solar panels, there will be a major landscape impact. It is rather unrealistic to maintain the argument for 3m hedges when the majority around the site have been allowed to outgrow their usual management regime; the reduction of shade and potential need to prevent the hedgerows ‘gapping’ are going to be significant drivers to reduce the proposed 3m landscape impact buffer. Also of major concern is the fact that some of the boundary hedgerows and trees are not under the Applicant’s control. Therefore, they cannot guarantee that the site will be screened in the longer term. Possibly the most important point is that these are large agricultural fields, which will be covered in 3.2m high solar arrays that are around 6.7m wide. The topography is varied, not only considering the location of the site in a valley, but also the site itself which rises up towards the southern boundaries. Therefore, the reliance on field boundary hedgerows to screen this industrial scale development is ludicrous.
- 2.6 The proposal is not in accordance with Core Policy 51. It will not protect, conserve and where possible enhance landscape character. The proposed hedgerow management alone will have a potentially harmful impact upon landscape character, without the more subjective assessment of the proposed industrialization of at least 200 acres of farmland. It is hard to understand how the impact of rows of 3.2m high solar panels, a new substation and CCTV cameras can be considered acceptable, when these structures are highly visible from public rights of way, local dwellings and areas of historic value (including ancient woodland and an adjacent Scheduled Ancient Monument).
- 2.7 There has been insufficient evidence to show how the proposals have been informed by the relevant Landscape Character Assessment(s) and any other relevant assessments and studies. There is no evidence of an iterative approach to the design. The layout and the associated infrastructure have been driven by economics and the viability of a solar installation in on this site. It has also failed to address visually sensitive skylines to the south/southwest of the site (Strawberry Hill). The landscape function of the proposed site and immediate surroundings, as a place to live, work, relax and recreate has been virtually ignored. It inadequately addresses the users of the existing rights of way, which is dealt with in Section 6 due to the significance of these impacts.
- 2.8 The Government’s Planning Practice Guidance emphasizes that the need for renewable or low carbon energy does not automatically override environmental protections. It also requires particular attention to be paid to cumulative impacts, especially the incremental impact large-scale solar farms can have on landscape and local amenity as the number solar arrays in an area increases. The cumulative impacts of a large-scale solar

development in this area will be major adverse. The accumulation of effects over time from any more individual developments in Wiltshire will generate a sense of "industrialization" alien to the character of the surrounding countryside.

- 2.9 It is clear that there are additional factors that make the LVA for the proposals insufficient to allow the full impact of the proposals to be assessed. The extracts from the LVA below illustrate how the visual amenity of local residential properties have been ignored; how the higher ground to the south of the site was clearly visible in the landscape assessment photos (Strawberry Hill for example); how alterations to the site boundary in this area of the south kept this area out of the 'zone of visibility' and how the impact of users of the rights of way (both on foot and on horseback) have not been sufficiently addressed.

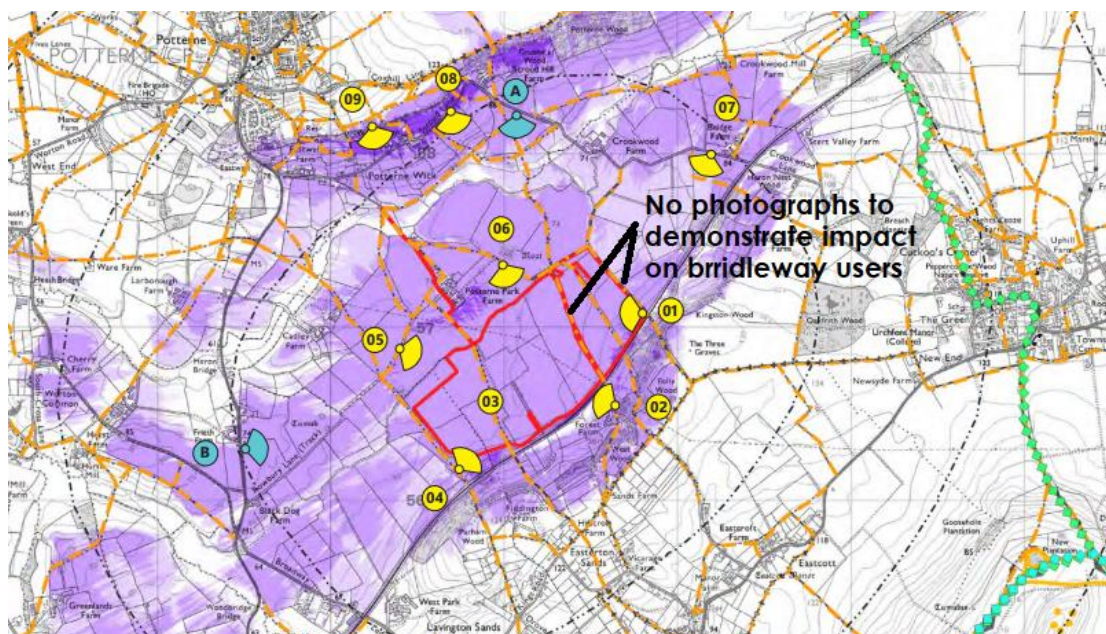


L1: Visibility from the Wessex Way to the South West of the site needs to be addressed.



L2 and L3 below: Dwellings where impact has not been addressed





L4: Lack of photograph evidence/photomontages for users of the PRow



L5: Viewpoint 01 which appears on the map above but not in the report

- 2.10 The statement that the construction activities would be perceived within the context of largescale agricultural use is inaccurate and misleading. The clearing of areas of topsoil for compounds/the substation, the access tracks and the construction activities will be industrial activities in a rural setting. Once this electricity generating proposal is completed, the magnitude of change for many residential properties (including listed buildings), users of the PRow, recreational airspace users such as microlights and the passengers on the trains will perceive this development as a major change, therefore a significant impact. Longer distance views are also relevant in terms of the magnitude of change, some of which have not been assessed to the south/south west of the site.
- 2.11 The following extracts illustrate how the assessment criteria has not been applied correctly for this site. The assessment criteria require an installation of over 50 years to be considered 'permanent'. The proposal at Potterne Park Farm has been presented as a 'temporary' and 'reversible' development. This inaccurate in terms of the Landscape Impact Assessment Criteria, the permanence of future electricity generation that the

proposed substation provides, and also the potential to physically damage the soils on the site and render future agricultural use at significant risk. The magnitude of change is therefore **Great**.

- 2.12 The LVA assesses impacts from all the viewpoints. However, there are no viewpoints from some of the most adversely affected dwellings to the south of the site (see L2 and L3 above) or others to the north of the site. The assessment criteria below acknowledges that the proposal will have a **major, adverse** effect that cannot be mitigated. Without these viewpoints, major adverse impacts of the proposals have not been acknowledged. Furthermore, there are no viewpoints from Bridleway EAST12, which will clearly be **major adverse impacts**. In accordance with all of the above findings, it is proposed that the cumulative effect of this proposal is in fact **major**, not minor-neutral.

Table A2-10 Considerations for assessing magnitude of visual change.

Consideration	Indicative criteria
Size or scale of change	<p>Categorised on a scale of large, medium, small or none, based upon:</p> <p>The degree of the loss or addition of features in the view;</p> <p>The extent of changes in the composition of the view, including the proportion of the view occupied by the proposed development;</p> <p><u>The degree of contrast or integration of the changes with the existing or remaining landscape elements and characteristics;</u></p> <p><u>The nature of the view of the proposed development, whether full, partial or glimpsed, or the relative amount of time over which it will be experienced.</u></p>
Geographical area over which the changes would be experienced	<p>The geographic extent reflects:</p> <p>The extent of the area over which the changes would be visible;</p> <p>The angle of view in relation to the main activity of the receptor;</p> <p>The distance of the viewpoint from the proposed development.</p>
The duration of the changes	<p>Categorised as:</p> <p>Short term: zero to three years;</p> <p>Medium term: three to twenty years;</p> <p>Long term: twenty to forty years;</p> <p>Permanent: more than forty years.</p>
Reversibility	The prospect and the practicality of the effect being reversed.

Table A2-11 Indicative criteria for assessing magnitude of visual change.

Magnitude of Change	Visual Change
Great change	Major size or scale of change, affecting a large proportion of the angle of the view, or affecting views from a wide area; continuing into the longer term or permanently, with low prospect of reversibility.
Medium change	Intermediate size or scale of change, affecting part of the angle of the view, or affecting some views from the wider area, or larger scale of change in views
Small change	from within the immediate context of the site; continuing into the medium term, with good prospect of reversibility.
Negligible	A minor proportion of the angle of view is affected or the contribution of the changed elements or characteristics to the composition of the view is not important; the changes are viewed from longer distances, are short term and reversible.
	Barely perceptible change or the change is difficult to discern;
	No change in the view or the changes due to the development are out of view.

Table A2-12 Indicative criteria for assessing visual effects.

Visual effect	Indicative criteria
Major	<p>Great change or visual intrusion experienced by highly sensitive viewers or from highly sensitive public viewpoints;</p> <p>The proposal would cause a great deterioration in the existing view available to highly sensitive viewers;</p> <p>Great improvement in the view, sufficient to upgrade overall visual amenity.</p> <p><u>Large scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view, especially where affecting people who are particularly sensitive to changes in views and visual amenity or people at recognised and important viewpoints or from recognised scenic routes.</u></p>
Moderate	<p>Medium change or visual intrusion experienced by moderately sensitive viewers;</p> <p>Smaller change to higher sensitivity viewers or greater change to less sensitive viewers.</p>
Minor	<p>Small or localised visual intrusion in the existing view, especially for less sensitive viewers.</p> <p>Small or localised reduction in visual intrusion, or improvement in the view.</p> <p>Reversible short-term changes, in views available to people for whom the view of the landscape is not the principal focus of interest.</p>
Negligible	Negligible change in the view or the change is difficult to discern even for a highly sensitive viewer.

Table A2-13 Indicative criteria for assessing cumulative landscape effects.

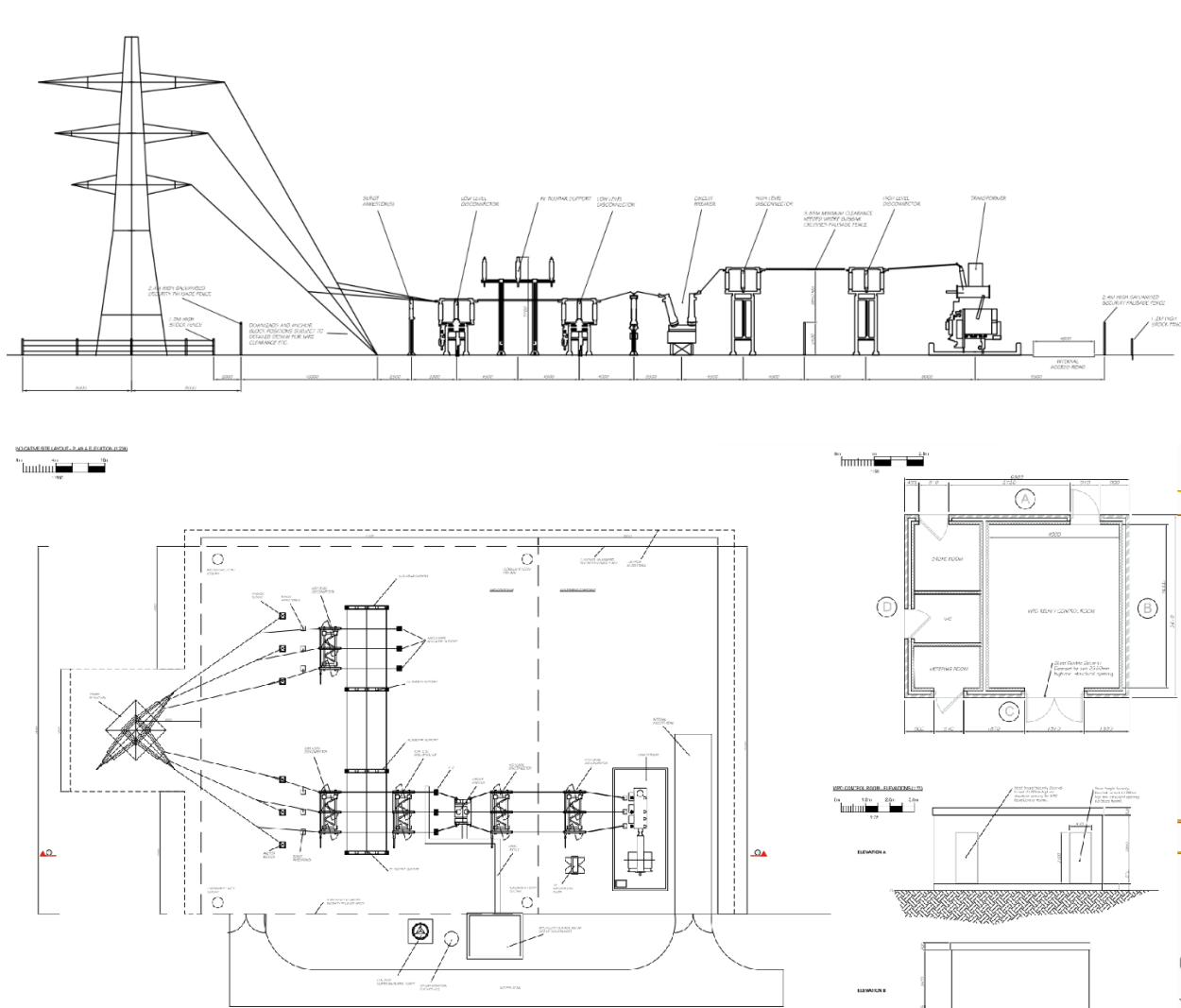
Cumulative landscape effect	Indicative criteria
Major	<p>Large irreversible effects, over an extensive area, on elements and/or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes.</p> <p><u>Cumulatively, the solar farms are a key characteristic of the landscape, defining a new landscape character type or area.</u></p>
Moderate	Cumulatively, the solar farms are becoming a characteristic of the landscape, but not of sufficient dominance to be a defining characteristic of the area.
Minor	<p>Cumulatively, the solar farms are not an important or key characteristic of the landscape and have little effect on the values and experiences associated with the landscape e.g., wildness, sense of history;</p> <p>Reversible effects of short duration, over a restricted area, on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of the character of the landscape.</p>
Negligible	The solar farms have little effect on the landscape character cumulatively.

Table A2-14 Indicative criteria for assessing cumulative visual effects.

Cumulative landscape effect	Indicative criteria
Major	<p>Cumulatively, the solar farms dominate the view, seeming to define a new visual aesthetic.</p> <p>Large scale effects arising from new, non-characteristic or discordant or intrusive elements into the view of highly sensitive receptors, or at recognised and important viewpoints, or from recognised scenic routes.</p>
Moderate	Cumulatively, the solar farms are seen as a characteristic of the landscape in the view, but not of sufficient dominance to be a defining characteristic of the visual amenity.
Minor	<p>Cumulatively, the solar farms are separate isolated elements of the landscape in the view, too infrequent and of insufficient importance to be perceived as a characteristic of the area;</p> <p>Cumulatively, the effects on visual amenity are reversible, of short duration, or occur over a restricted area.</p>
Negligible	The solar farms have little effect on the visual amenity cumulatively.

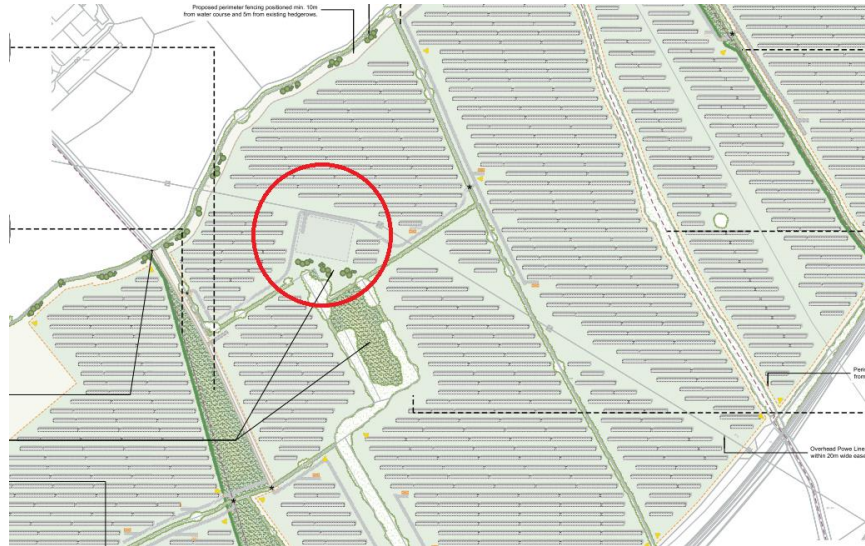
L6: Assessment Criteria that have been inaccurately applied

- 2.13 Another unreliable and erroneous aspect of this Landscape and Visual Appraisal is the total disregard to the height of the structures in the proposed substation, in addition to the height of the CCTV cameras. The substation includes a 15m high radio mast, a 3.4m high building, 2.4m high galvanised security fence, floodlights, transformers, disconnectors, and other electrical structures (between 7.2m and 8.8m high) and floodlights or the CCTV cameras on 5m poles around the site. The main assessment criteria are based on the 3.2m solar panels only. Furthermore, the Zone of Theoretical Visibility then lowers this height to 3m for theoretical screening. It is totally unrepresentative and misleading to use a lower screening value than the height of the solar panels, let alone neglecting to assess the impact of this industrial compound in open countryside.

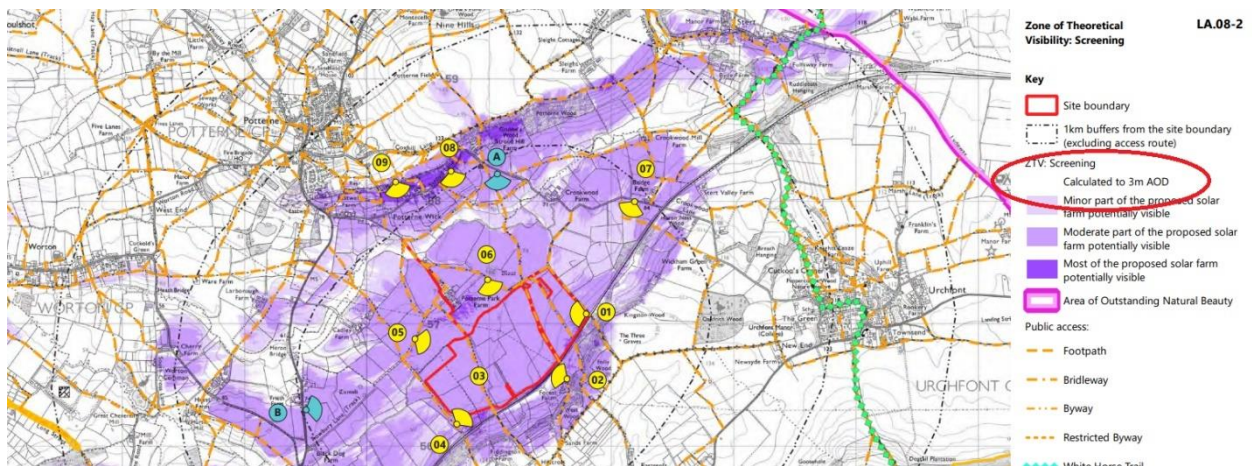
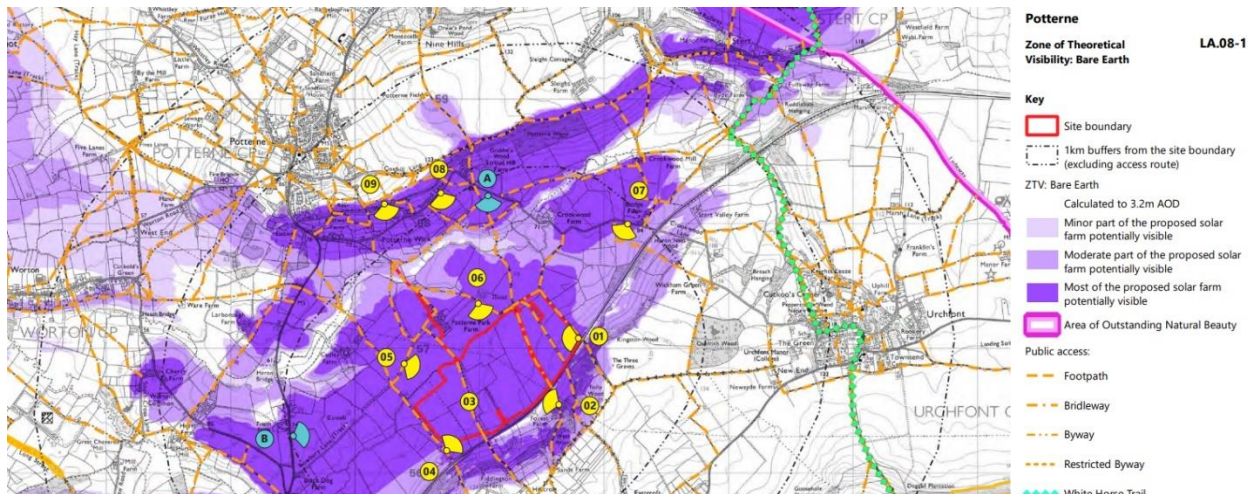


L7: Extracts from Plan LH22-067 DW3 (Proposed Substation Layout and Details)

- 2.14 These plans suggest the overall area for the electrical structures is 45m x 61.8m (2,781m²), with an additional 38.6m² of control room, with further agricultural land taken for the access road, 15m control tower and cess pit. **This will clearly have a significant and major adverse landscape impact.**



L8: Location of the Compound (Block Plan Extract)



L9 & L10: The lowering of the ZTV from 3.2m to 3m

Section 3 Ecology

- 3.1 The most significant fact to note is that the ecological impacts of large-scale solar installations are not fully understood. In 2017, Natural England (NE) published its Evidence review of the impact of solar farms on birds, bats and general ecology (NEER012). In this document, it is noted that:

Governmental and non-governmental organisations that provide advice and guidance that may have ecological implications have a duty to contribute to evidence towards their guidance, especially where evidence is lacking. In the case of solar farms, there is almost no evidence and research into their ecological impacts is urgently needed.

- 3.2 The body of emerging evidence is lagging behind the rapid expansion of solar installations in the UK. Accordingly, their full ecological impact is still not understood. What is concerning is the emerging evidence is highlighting significant impacts on flora, protected species and other fauna. There is a body of evidence that is highlighting how EMF radiation should be considered seriously as a complementary driver for the dramatic decline in insects, acting in synergy with agricultural intensification, pesticides, invasive species and climate change.
- 3.3 The Ecological Impact Assessment by GE Consulting (Report Reference 1912-EcIA-VB) has major omissions and does not accurately measure the potential impacts of any scale of solar farm on this site. The survey data is not detailed enough, as it is only a Preliminary Ecological Appraisal. A walkover survey with minor additional survey evidence (e.g. Great Crested Newts) is not sufficient to assess the full impact of this very large electrical installation on agricultural land. Table 3 on page 19 of this assessment is grossly misleading; there is not enough evidence to prove that there are 'positive residual effects' from this industrial proposal. To illustrate this point, the baseline habitat survey labels all established grassland areas as 'Modified Grassland'. It does not separate these areas to identify the more species rich margins noted in the text, nor does it identify the grassland margins around the arable areas. A Biodiversity Net Gain figure based on this baseline data is going to be inaccurate in terms of the actual value of the margins (see Photograph E1 below). Furthermore, F2 has ignored an area of diverse grassland in the south west corner of the site, which is then excluded from the site area. Two areas of woodland have also been omitted from the survey (see E3 and E4 below).



E1: Photograph Illustrating the Biodiversity of the grassland on site



E2: Baseline Ecological Survey Data



E3: Areas left out of the survey yet within the site or adjacent to the site boundary.

Plate 1: Habitats of Principal Importance within proximity to Site



Some areas mapped as Habitats of Principal Importance (HPIs) are present within and adjacent to the Site (**Plate 1** refers). This includes several parcels of Deciduous Woodland in the northern part of the Site, and to the south, across the railway line to the south and east.

E4: Evidence that the areas left out have ecological importance

- 3.4 Under section 3.2 of the Ecological Impact Assessment (habitats and flora), the report notes:

“The Site provides opportunities for a range of protected and notable species which together with their supporting habitats add to the intrinsic value of the site. Some of the habitats present within the Site are listed on Section 41 of the NERC Act as being ‘habitats of principal importance for nature conservation’ (i.e., the hedgerows and deciduous woodland). Overall, however, the Site is considered to be of no more than Local importance”.

There are a number of non-statutory designated sites within 2km of the Site. These Local Wildlife Sites (LWS). A number of the sites are in relatively close proximity comprising a largely contiguous band of woodland to the south of the railway which is adjacent to the Site’s southern boundary. While no direct impacts are anticipated there is the potential for some indirect impacts as a result of construction activities via dust, noise etc. with mitigatory measures to be detailed within a Construction Environmental Management Plan. The remainder of non-statutory sites identified are considered to be such a distance away that indirect impacts are not anticipated.

- 3.5 This statement is difficult to defend without detailed survey data of the whole site. The yellow circled areas of woodland (see E3 above) have not been surveyed. The potential impact on the flora is unknown, particularly due to the omission of areas with potential importance, the lack of detailed surveys and the fact that the bat detectors were not positioned to assess the importance of these two woodland areas (see later). The overall impact assessment on flora is misleading. In Section 5.2, the report notes the following:

“5.2 Solar arrays will be installed with significant clearance between rows and the arrays themselves are partially transparent, which will permit vegetation growth beneath. Shading effects may have influence on micro-climates under solar arrays which may in turn affect vegetation growth rates in the shaded areas, species composition may change to species favouring those conditions e.g. yarrow (Armstrong et al, 2016). This is the result of one study and there is a need for more research into this area. While acknowledging the species composition may change during operation in areas of solar array fields, the species composition of the existing grassland is not particularly diverse. Therefore, it is predicted that the effects will not be significantly adverse.”

- 3.6 There needs to be further investigation to determine how the site links to other areas of nature conservation interest. The Folly may have sufficient flora, fauna, geological, geomorphological or physiographical features to be designated as an SSSI, which must be investigated. The Ecology report does recognise that the Folly does have ecological significance as ancient semi-natural broadleaved woodland on a very steep north and west facing greensand slope. The designation includes areas of grassland above and below the slope (see Photographs E5 & E6 below). The Ecology report suggests this area is around 75m from the site boundary, whereas the Landscape Visual Assessment notes 24m. This is a minimal distance, particularly when it will be impossible to mitigate against the noise, EMF generation and glint/glare of the proposal.



Photograph E5 and E6 of the Folly, which lies within 24m of the site.

- 3.7 It is not possible to predict the effects will not be 'significantly adverse' if more research is required in this area. Due to the proposed size of the solar arrays for the Potterne Park proposal (3.2m high by 6.68m wide in rows across whole fields), micro-climates caused by shading effects will clearly affect the vegetation growth, favouring more aggressive, shade-loving species such as yarrow. It is not possible to rely on impacts that clearly state more research is required to assess the full impact.
- 3.8 The assessment goes on to note that "*There will be some residual benefits from increased grassland plant diversity and structure at the edges of each field, in particular the arable fields which dominate the Site and where field margins are currently narrow to non-existent. Larger buffers have been incorporated along selected field margins to provide forage and cover for ground nesting birds which will also benefit a range of faunal species.* The farmer has ploughed some of the grassland margins around the fields that are off-site, which seems contrary to the aims of the Countryside Stewardship Scheme that was used to enhance the biodiversity of the areas. On-site, the grassland margins appear to have been left undamaged, ensuring that the legacy of the Stewardship biodiversity enhancement is retained. Scraping off the top soil in large areas of the site for the substation, compounds, access roads and cable trenches, installing 3.2 meter tall 6.68m long solar panels in long lines is going to destroy any natural habitat and seed bank or shade the existing bio-diverse areas. The impact is significant and adverse, not a biodiversity net gain.

- 3.9 The following paragraph in 5.2 reinforces this, but it contradicts the impact assessment previously made. Only some of the land is in arable, some of which is in set-aside already. The arable land could be restored with much greater ecological diversity without the proposal. Without the shading effects of these enormous solar panels, the sward diversity would be significantly better in the longer term. There should be a BNG comparison between what has already been enhanced under the Stewardship Scheme, building the solar farm or leaving the existing grassland/arable land to increase biodiversity naturally and organically.

“During operation effects on grassland in terms of species composition under solar arrays are considered to be adverse for the lifetime of the project, but reversible. However, there are also predicted to be positive benefits in terms of reduced grazing levels, fertilizer/pesticide inputs, and a decrease in disturbance activities (solar parks require minimal ongoing maintenance) with an overall increase in areas of this habitat through creation of buffers which would otherwise continue to be subject to intensive arable management practices.”

To prevent shading of the solar panels, the hedgerows will be cut annually to maintain a suitable height. Hedgerows throughout the Site are variable in condition. Sensitive management practices can improve the vigor of hedgerows (by encouraging growth) and prolong their functional life. Where mature standard trees are present in hedgerows, these will be retained and protected from potentially damaging management practices.

- 3.10 The annual management of the hedges will be an adverse impact. The existing hedgerows are not cut on an annual basis; in fact, they appear to have been left to grow up to 3m, rather than the approximate height of 1.5 - 2m the older hedge growth indicates. Clearly there has already been some biodiversity benefits from this management. To increase biodiversity and habitat creation, these hedges should ideally be cut on a three year rotation. This will create a mosaic of hedgerow sizes across the farm, rather than uniform heights to reduce shading on the solar panels. Furthermore, it has been noted above that management of hedgerows to reduce the height annually also reduces the vigor of the hedges, eventually leading to the decline and degradation.
- 3.11 The Landscape and Environmental Management Plan (LEMP) submitted in support of the proposal prescribes different and more appropriate hedgerow management to maintain biodiversity. The two documents are in conflict.

Management Prescriptions

- 5.1.17 The hedgerows will be managed to promote the structural diversity and the fruiting of flowers and berries. Hedgerows will be trimmed on a two to three year rotation in January – February using a flail trimmer, to allow berries to fruit and provide foraging opportunities to wildlife. They will be maintained at a minimum height of 3m. Not all the hedgerows on site will be trimmed in the same year so as to retain a variety of habitat. Trimming in winter will also avoid disturbing nesting birds, reptiles and dormice which potentially use the site.
- 3.12 The assessment of the impacts on the fauna of the site is also wholly inadequate. The report notes that the site was found to have evidence of a range of protected and notable species, including a modest assemblage of commuting/foraging bat species, breeding birds, great crested newts (in an offsite pond) and common reptiles. European

protected species (EPS) have full protection under The Conservation of Habitats and Species Regulations 2017. It's an offence to deliberately capture, injure or kill, or deliberately disturb EPS. Further legislative reinforcement for protected species is provided in The Wildlife & Countryside Act 1981.

- 3.13 The lack of detailed surveys ensures that this statement is unsubstantiated and unrepresentative of what could actually be on site. There are badger setts within the site boundary and there is evidence of runs/paths leading into the site (see photographs E7, E8 and E9 below). Clearly additional survey work is required to determine the full extent of badger activity across the site. This also applies for other protected species such as dormice. There will be areas of hedgerow that will experience considerable disturbance whilst the cables are bored below them. It is vital that further survey work is undertaken to determine the presence or absence of these protected species.



Photographs E7, E8 and E9 Illustrating Badger Activity leading onto the site and potential bat roost within the site.

- 3.14 Potentially the most significant omission of the report is insufficient survey work to determine the full impact on bats. The Ecology report confirms that the boundary habitats (hedgerows, treelines and adjacent woodland/ scrub areas) provide high-quality habitat for bats that is connected to the wider landscape; also that there are internal hedges/treelines and other bat habitats. The report then claims that due to the nature of the proposals (Solar PV) and modest scale of predicted impacts, it was considered that traditional bat activity surveys, i.e. walked transects, were not necessary, and that adequate survey data could be collected via deployment of automated detectors.
- 3.15 This has totally ignored the current research that indicated bats are adversely affected by solar arrays (Renewable energies and biodiversity: impact of ground-mounted solar photovoltaic sites on bat activity' by Lizzy Tinsley et al in Journal of Applied Ecology). According to the scientists, the panels may be causing some bats to alter their flight paths, potentially resulting in further fragmentation of the ecological landscape. Four automated detectors cannot fully ascertain the use of the whole area by commuting and/or foraging bats. It is clear that walked transects are required. This is the detailed required, particularly in the light of emerging research evidence. Table 3 in the Ecology

Report grossly misrepresents the actual impact on bats from this proposal; there will not be positive impacts. Solar panels should be placed on buildings or in areas that are rarely visited by bats.

- 3.16 Furthermore, local residents have bat survey evidence that weakens the findings of the Applicant's Ecological consultants. This evidence includes radio tracking, emergence observations and surveys that have been carried out since 2014 to present day by licensed ecologists (Stern Devizes Bat Project and other studies, which can be found at the Wiltshire and Swindon Biological Records Centre, Devizes). This evidence illustrates how important the 200 acre application site within this valley and surrounding ancient woodland is to the local bat colonies. There are 11 out of the 18 UK bat species in this area, including evidence that the 5 Annex II rare bats breeding, roosting and foraging in this valley. They work in different patterns across a rich, biodiverse farmland that can sustain the invertebrate and food chain systems needed. The size and width of the proposed solar site cuts the valley wildlife corridors in half, reducing the habitat and movements of all fauna on ground or in the air. This local evidence just emphasizes the need for further detailed survey on the site; it may be material enough to refuse the application on the grounds of the need to preserve the habitat, roosts and breeding areas of these protected species.
- 3.17 The report provides some confusion about whether or not the whole site area is to be cleared of topsoil. It suggests that there will be "*sensitively timed site clearance to protect any nesting birds*". Even if site clearance is kept to the minimum (e.g. for compounds, the substation, access tracks and trenching), this preliminary survey confirms that this will destroy habitat, some of which is considered of 'local importance'. – destroying existing grassland/margins used by ground nesting birds in a priority area.
- 3.18 The survey confirms that records species of conservation concern within the locality of the site such as starling, redwing, fieldfare, yellowhammer, cuckoo, red kite and barn owl. Local knowledge can confirm that there are starlings which were recently in a murmuration within the site boundaries. There are records from the last 10 years of redwing, reed bunting and cuckoo all within the site boundary. The hedgerows and blocks of woodland surrounding the site all provide suitable nesting sites for bird species, with the field margins and less managed areas of grassland providing suitable foraging habitats. However, there is no mention of the MAGIC designation where area is identified as important for lapwing and corn bunting; in addition, there is no mention of integration with the Salisbury Plain SPA.
- 3.19 Para 3.3.4 of the Ecological Impact Assessment highlights that a number of notable bird species are probably breeding on site and it is considered to be of Local importance for breeding birds. However, the MAGIC designation highlighting the BCTP suggests that the site has wider existing importance or the potential to be of wider importance. The Bird Conservation Targeting Project (BCTP) produces breeding distribution maps for a suite of rare and declining farmland and/or woodland birds. The maps can be used to guide the prescription of land management advice based on the species already breeding in an area, or for allocating funding towards sites known to be important for birds. This extract from the MAGIC database indicated that the site is important for Corn Bunting and Lapwing.

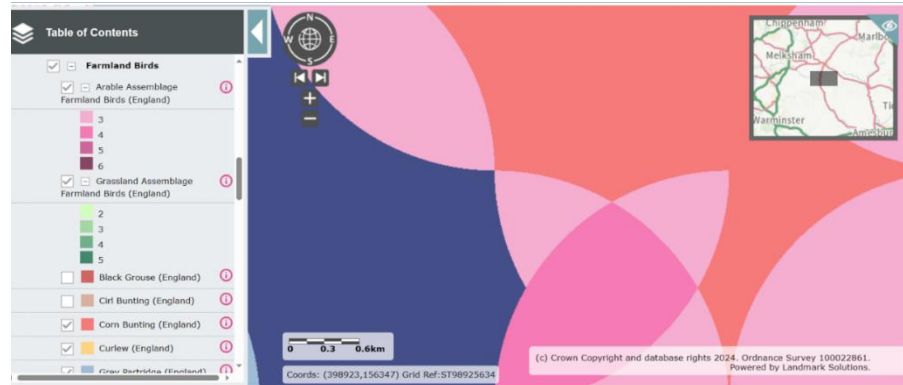


Figure E4 – Extract from the MAGIC Map

- 3.20 There is also recent research the highlights that America's solar farms have a bird problem (<https://www.wired.com/story/why-do-solar-farms-kill-birds-call-in-the-ai-bird-watcher>). The article notes that utility companies have been finding bird carcasses littering the ground at their facilities for years, a strange and unexpected consequence of the national solar boom. The large-scale proposal at this site could have detrimental effects on the surveyed birds; the proposal is in conflict with the aims and objectives of this site as part of the Bird Conservation Targeting Project (BCTP).
- 3.21 The level of detail on reptiles is very poor. The report notes that the site includes some areas of suitable habitat (i.e. grassland and edge habitat at hedgerow bases) for common and widespread reptile species, whilst also recognizing that there are slow worm records in the area. The provision of 4 hibernacula is not enough survey work to determine that this site is only of 'local' importance. There is a pile of deadwood on the site that has not even been identified. Further survey work is required to demonstrate that there are no protected species of reptile on the site.
- 3.22 With this level of baseline survey, the impacts have to be largely assumed and underestimated in the Applicant's favour. Table 3 in the assessment is inaccurate. The assessment also fails to identify existing research that identifies significant adverse impacts on protected species (bats) and flora. There is insufficient baseline evidence from which to assess existing biodiversity, from which any proposed net gain can be assessed against. With the requirement for 20% BNG in Wiltshire, it is not appropriate that The Biodiversity Gain Plan should be submitted no earlier than the day after planning permission has been granted. It is acknowledged that the full ecological impact of field scale solar just is not fully known or understood, therefore it cannot be assumed to be minimal. Indeed, much of the emerging evidence is to the contrary. The site is not all arable and already includes areas of biodiverse grassland. The baseline biodiversity must be established as it is extremely difficult to contemplate that land enhanced for biodiversity under the Countryside Stewardship Scheme can achieve a 10% uplift, let alone the required 20%. If the proposals did not cause harm and destroy the existing biodiversity, there would not be a need to purchase any credits or provide off-site habitat creation.

Section 4 Agriculture

- 4.1 It is an uncontested fact that the land proposed for the proposed solar installation comprises over 80 hectares (200 acres) of farmland. The biodiversity of the area and the previous entry of the farm into Higher Level Countryside Stewardship Scheme was confirmed by the farmer, when responding to another planning application in the area for a Motocross Venue:

Philip Abbatt's Objection Letter to the Motocross

I have farmed the land immediately to the west of the proposed development site for the last 24 years, and I wish to object in the strongest possible terms to the proposed (and partially completed) earthworks and associated use as a Motocross venue. Our farm is all within a Higher Level Stewardship Scheme, such is the value that Natural England have placed on the farmed landscape here. The area was once a 13th/14th century hunting parkland and testament to this there is a Scheduled Ancient Monument (known as 'The Moat') within 700 metres of the proposed site. I understand that the applicant intends to

2. Environmental Degradation

- a) The proposed works and resultant activities would cause significant environmental damage in an area of habitat renowned for a rich diversity of plants, trees and animals. There are several protected species to be found here, including 2 very rare species of bat (and 9 other bat species), breeding barn owls, hobbies, dormice, hares, lapwing and kingfishers to name but a few. These animals are here because the valley is quiet and relatively undisturbed, with plenty of trees, hedges,

- 4.2 The farmland within the boundary of the site should therefore have many features that have been funded by Natural England's Countryside Stewardship scheme (CSS). The hedgerows appear to have been left uncut to allow new growth to extend their height from approximately 2m to around 3m (BE3: Management of hedgerows), which coincidentally also allowed the landscape impact baseline of 3m. It is reassuring to see that the farm also has a rich diversity of flora and fauna, some of which was not detailed in the ecological survey (see section 3 above). Even at this time of year, the site is festooned with evidence of deer, badger & fox runs.
- 4.3 Under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021), the proposals will need to achieve a minimum 10% biodiversity net gain (BNG) order for this 80 hectare/200 acre solar installation to receive planning permission. Wiltshire County Council have actually set a target of 20% for BNG. There is no evidence submitted to date that the proposals will meet this minimum requirement. It is imperative that this further ecological survey data is provided; the entry of the land into the CSS would infer that significant biodiversity gains had already occurred on the area. It is difficult to see how this baseline diversity can be exceeded by the proposed solar installation, particularly when the impacts of the proposal are significant. The new off-site market in biodiversity units is where this farmer should look to supplement the farm income, not rent from an industrial sized solar installation. There could be numerous opportunities on Potterne Park Farm to generate

biodiversity units, which in turn can be sold to developers. This landowner has past experience of creating/enhancing habitats under the Higher Tier of the Countryside Stewardship Scheme. Furthermore, there is potential for more habitats to be created or improved in advance of selling to a developer, to generate more 'biodiversity units'.

- 4.4 As noted above, the Ecological Biodiversity units can be lost through development or generated through work to create and enhance habitats. If the topsoil and existing habitat created under the Stewardship Scheme literally 'scraped off' and destroyed, this has to be calculated as a Biodiversity Loss. Furthermore, using the current research that suggests that the solar panel shading and microclimate creation will favour a narrow variety of species, any calculation based on a diverse habitat creation under the panels is flawed. More detail is required, although in principle it would seem impossible to have a net gain when destroying habitats created under an environmental enhancement scheme. The developer should not be allowed to destroy these habitats and then deliver BNG off-site. Removing all the benefits the CSS created and changing the land use to an industrial scale solar park is not the custodial practice this area requires. The farmer is simply maximising profits over protecting the rural environment.
- 4.5 This is a relatively wet, Gault Clay farm. The farmer to date has grazed cattle on the land, not sheep. Whilst there are companies that can locate local farmers who would graze their sheep on a solar installation, the grazing period will be extremely limited on wet ground. Furthermore, there are welfare concerns for the sheep, who cannot be gathered easily or monitored (dead sheep are difficult to locate among the solar arrays). These solar panels will only be 0.8m at their lowest edge, which will prevent the sheep from moving through the site efficiently; it is also hard to understand how an electrical installation, that has so many identified risks to the human maintenance team, would be suitable for sheep. The grazing would be further limited by the need to protect ground nesting birds. It is therefore unrealistic to expect the land within the application area to be grazed by sheep.
- 4.6 The D&A Statement uses information from this document: <https://www.carbonbrief.org/factcheck-is-solar-power-a-threat-to-uk-farmland/>. On the one hand this document claims that there is a minimal impact from solar installations on farmland, either currently or in the future, from the loss of productive agricultural land. It basis this on an 'extreme' example where all proposed 700km² of solar farms was on Best and Most Versatile land, using an average wheat production in the UK (*one hectare of land produces around eight tonnes of wheat in a year. This means that 700km² – or 70,000 hectares – could, theoretically, be used to grow 560,000 tonnes of wheat per year. Based on 2021 data, this would account for just 4% of the UK's annual wheat yield – even in this extreme example*).
- 4.7 Using these figures to justify the current proposal is misleading and inaccurate. Figures from DEFRA (Department of Food, Farming and Rural Affairs) for the 2023 wheat harvest contradict much of the information provided in support of removing a further 80 hectares of farmland from production for half a century (<https://www.gov.uk/government/statistics/cereal-and-oilseed-rape-production/provisional-cereal-and-oilseed-production-estimates-for-england-2023#Section%201:%20Area,%20yield%20and%20production>).

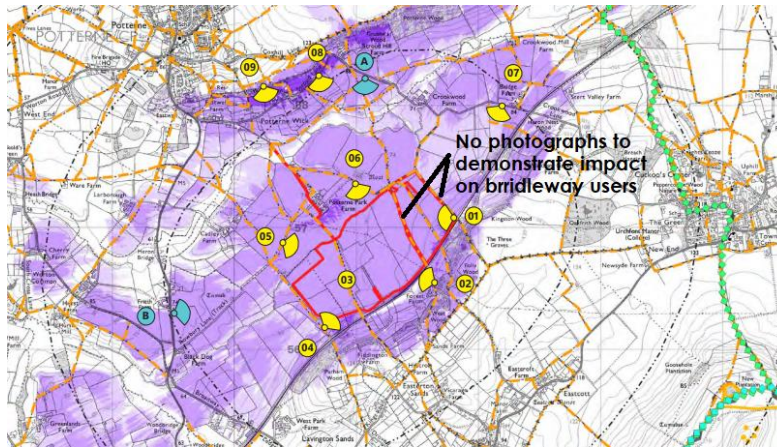
- 4.8 DEFRA's provisional figures note that the English wheat harvest was 12.8 million tonnes, which represents a decrease of 10% on 2022. This is apparently due to decreases in both yield and area in all regions. The statistics also highlight a yield decrease of 5.2% and an area decrease of 5.3% nationally. However, the statistics for the south west region show a much more concerning scenario, with the largest production decrease at 15% from the 2022 harvest.
- 4.9 The Carbon Brief document then totally contradicts itself and actually add weight to protecting all farmland. It states that Government research suggests climate impacts under a medium-emissions scenario could cut the proportion of best and most versatile arable farmland from a baseline of 38% to 11% by 2050. Farmers are already facing crop failures year on year due to extremes in rainfall, late frosts, heat and drought. This figure also uses yields based on nitrogen fertilisers, generally manufactured from the petrochemical industry. Agriculture will have to move away from the use of these to an organic system, reducing yields further. All agricultural land that can grow crops should be retained in agricultural use, to future-proof food production in the UK.
- 4.10 A mixed farming system such as the one at Potterne Park Farm has an even greater potential to move an organic and sustainable future farming system. The organic manures will play a vital part in securing some form of production and soil protection from these extreme weather events. The reduced yields from removing inorganic fertilisers and climate change must be considered with high importance when assessing an application to remove around 200 acres from agricultural production until 2074 (well beyond the proposed cut in the proportion of best and most versatile land through climate change).
- 4.11 Putting solar panels on buildings is the only way forward to provide the sustainable energy required nationally and future proof food supplies for our vulnerable island. A recent report by University College London (UCL) for the charity CPRE (Rooftop solar report 2023) shows the true potential of rooftop solar in helping to meet net zero targets, protect the countryside and tackle the climate emergency. No additional farmland is therefore required to meet the Government's net zero targets.

Section 5 Glint and Glare Assessment

- 5.1 There is a Preliminary Glint and Glare Assessment (High-Level Glint and Glare Statement by Pager Power November 2023), which indicates more detailed assessment is required for 5 dwellings, the railway and Lydeway airfield. The Statement highlights that the potential impacts upon the five dwellings cannot be accurately determined without detailed modelling, as the proposed development is deemed visible with unobstructed views. This detailed modelling is not available on the Planning Portal. In addition, they have not addressed the paragliders or the MoD military aircraft. There is a low flying route for all military aircraft from Keevil to Salisbury Plain. The MoD must be consulted about the impact on their aircraft, which fly low over the proposed site.
- 5.2 The Glint and Glare statement concludes that potential impacts cannot be reliably determined for residential amenity, railway operations and infrastructure, and aviation activity at Lydeway Field Airfield. Detailed modelling is recommended and the Statement notes that this will be conducted as part of the final glint and glare assessment. There is no evidence of a final glint and glare assessment; furthermore, other supporting evidence suggests that there are no significant impacts.

Section 6 Access

- 6.1 Despite appearing with displays at the Public Consultation (November 2023), that suggested there were no rights of way across the site, it is now well established that the site is crossed by three and virtually surrounded on all sides by either footpaths or bridleways. It is important to note that of the 54 operational and currently approved sites in Wiltshire, there is a total of 4.3km of PRowWs that cross these sites. The application site alone has a further 2km, making the impacts the most significant for PRowW in the 13yr history of Wiltshire dealing with ground solar planning. All of these PRowW routes are in regular use, not only from local residents/horse riders/cyclists and visitors to the area, but also groups of students doing their Expedition for their Duke of Edinburgh Awards and local scouts.
- 6.2 The main impacts on users of the rights of way in and around the site are dealt with in the LVA (see Section 2 above). The significance of the impacts on the users of footpaths and bridleways have been completely under estimated. It is questionable how the impacts can be assessed with no photographs/viewpoints along some routes, photographs of other sites used on the layout plan and the lack of photomontages. The proposals will lead to the industrialization of an area that is enjoyed for the open views across farmland, up to the ridges and higher ground in the surrounding area.
- 6.3 There is no other way to describe the proposals other than an industrial mass of panels, with intrusive fencing that is out of character with the area. The CCTV cameras mounted on 5m poles, in addition to the substation and all of the infrastructure, will add to the urbanization. The 3.2m high solar arrays in strings will end/start adjacent to the paths that cross the site, with every path that adjoins the site also near the end/start of a string. Accordingly there will be noise from the inverters, in addition to the total obstruction of existing views along the paths that cross the site. The LVA does not even assess the impacts from Bridleway East12, in addition to suggesting that users will have 'moderate sensitivity' to what is categorized as a permanent development proposal. The users of these paths would have high susceptibility and high sensitivity. What is important to note that even as moderately sensitive, the LVA suggest the effects would be moderate-major adverse from viewpoint 03, due to the great change for moderately sensitive receptors. If the users of the paths that bisect the site are considered as highly susceptible and highly sensitive, there would be a major adverse impact due to the facts that:
- great change or visual intrusion will be experienced by highly sensitive viewers;
 - the proposal would cause a great deterioration in the existing view available to highly sensitive viewers;
 - there would be large scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view, especially where affecting people who are particularly sensitive to changes in views.
- 6.4 The LVA does not reflect the magnitude of the impact to these paths, nor does it adequately address the overall impact to all users of PRowW that will be affected by these permanent proposals. This proposal would not constitute a minor-neutral effect from any of the PRowW that adjoin the site on the boundaries or just beyond the railway, as suggested.



A1 - Extract from LVA illustrating the lack of viewpoints along East15 and location of 03.



A2 – The site block plan showing the array string layout.

- 6.5 The documents submitted fail to address the specific needs of equestrians. The BHS Guidance 'Advice on Solar farms near routes used by equestrians' January 2023 is a fair and non-subjective document. It highlights that where solar farms are proposed, the potential impact on horses should be considered on any route used by them (including byways, bridleways, roads and permissive routes) which may be affected, and on equestrian businesses where horses are kept or trained. It does not go into the detail of how some horses/ponies would find 3.2m high solar panels alien and cause stress to the animals. This is likely to be the case. The guidance does note:

‘... Bridleways, byways and unsurfaced roads should not be used for site access. If it is unavoidable, every effort should be made to ensure that the surface will be maintained and restored to a surface material suitable for horses after construction of the solar farm. An alternative route for equestrians should be provided during construction to minimise disruption and to ensure users’ safety, which includes not forcing them to use roads as the only alternative.

Trenches for cables should not cross or be laid along rights of way. If it is unavoidable, authorisation will be required from the Highway Authority to disturb the surface of the right of way. The surface must be reinstated to a firm and safe condition within a set period, which should be as short as possible to minimise inconvenience to users. If the surface is not reinstated, the Authority can restore it and charge the cost to the landholder. The finish must be one that is suitable for horse use. When responding to a planning application for a solar farm, always consider the cable routing and its impact on bridleways and byways, it is often missed and the damage to surfaces can be very disadvantageous to equestrians, especially where not reinstated or where replaced by a sealed surface.

Drainage provision for the radically changed surface of a solar farm compared with greenfield land must be taken into account to prevent potentially serious detrimental effects on equestrian routes on and immediately adjacent to the site and for some distance away, depending on drainage patterns, outflow and the terrain.’

- 6.6 This guidance should have been incorporated and acknowledged in the Design and Access Statement for the proposal. No reference is made to the needs of the users of the bridleways, or the provision for mitigation during construction of cable trenches/provision for site access. This should be addressed. Furthermore, the supporting documentation should have considered the impact on the local livery yards, including Sands Farm. The bridleways in and adjacent to the site are used by the ‘liveries’ at the yard, who will be impacted by the construction and operation of the proposed solar installation.

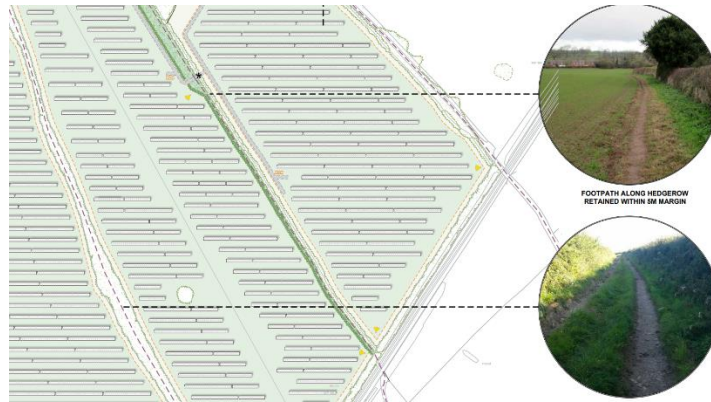
- 6.7 The BHS guidance goes on to highlight other potential impacts of solar farm proposals, which have not been considered by this proposal:

Hard surfaces create a very different drainage situation from an open field as run-off is immediate and much higher in volume. The extensive surface area of the panels could significantly change the nature of the drainage. Existing drainage may not be adequate to cope with the changed run-off and a holding pond may be required. New drainage to protect equestrian routes is essential to ensure they are not affected. This must be considered well beyond the site itself so that flash flood damage does not occur.

The effect of the construction process and vehicular access should also be considered. Levelling a site, soil stripping, trenching for cables, compaction and creating access tracks will all affect the drainage of the site and should be carefully provided for in the construction phase so that there is no adverse effect on equestrian routes. Hard surfacing routes which currently have an adequate natural surface should not be the automatic answer; it is usually better to preserve the existing surface by attention to drainage. However, the existing surface and potential future use should be taken into

account and the opportunity for upgrading the surface with a finish suitable for horse use should be taken if appropriate.

- 6.8 The photographs used on the site block plan should be of this site, especially when they relate to the impact and proposed mitigation. These two photographs are of a different footpath and bridleway from another site(s).



A3 Illustrating the two photos that are not of the site PRowWs

- 6.9 The inverters that convert solar energy into electricity, or storage systems make a low humming noise while they operate, which is considered noise pollution which has not been addressed. These are also another industrial element visible from both foot and horseback that has not been assessed. The substation and CCTV cameras on 5m high poles around the development would be seriously inharmonious and intrusive in this rural landscape.
- 6.10 It is concluded that there will be **major adverse impacts** to users of the right of way within, adjoining and overlooking the site to enjoy the more distant views of this vale. This proposal is in effect a permanent and incongruent industrial installation on highly visible farmland that is bisected by numerous public rights of way.

Section 7 Design and Access Statement

7.1 The Design and Access Statement by Lighthouse Development Consulting (LH22-67) is considered inadequate and erroneous for the following reasons:

- An accurate site boundary must be established. It is not feasible to fully assess the impacts unless whole fields are included and all areas within the site are surveyed to a detailed level. The Design and Access Statement has three boundaries within the first 10 pages.
- There is no guarantee is there that the panels will be removed in 50 years. The inshore wind turbines are being left as the cost of taking them down is prohibitive. Furthermore, the 50 year operational period is considered permanent in terms of landscape impact.
- There is no clear impact assessment of maintenance, particularly when these solar panels will become obsolete and require replacement within the 50 year period. Furthermore, there are developments in solar technology that could make these panels obsolete within the very near future. This should be considered in the balance when permitting a development to remove a further 200 acres from agricultural production. (<https://greenerideal.com/guides/renewable-energy/latest-developments-and-breakthroughs-in-solar>);
- Solar power represented a minuscule part of energy production in the UK until the 2010's when it began to increase rapidly. In 2006, the UK had about 12 Mega Watts (MW) of solar capacity. As of January 2019, this figure skyrocketed to 13,123 MW installed UK solar capacity across 979,983 installations. A massive increase of 110,000%. This figure has continued to rise. Wiltshire has already exceeded the 2030 target set by 39% with existing and permitted developments elsewhere in the County.
- There are certainly a huge amount of solar installations, but according to reports, solar energy production only makes up 3.9% of energy generated in the UK, which is slightly less than coal production, currently standing at 5.1%. This is primarily down to a) solar panels not being able to gather solar energy during the night, and b) the weather in the UK not being as sunny as other countries, which means efficiency drops significantly. While weather predictions are becoming more and more accurate, we cannot do anything to increase the amount of sunshine in the UK. The International Renewable Energy Agency (IRENA) data that shows that given the UK's climate, Solar energy is within the worst 5% areas in the world to develop solar electricity, as only 10%-11% of the capacity of Solar Farms will ever be generated annually.
- The promotion of solar in the UK Solar makes no economic sense, as there are insufficient sunlight hours and the EROEI (energy return on energy invested) is too low. The intermittence of supply from solar necessitates backup electricity generation from nuclear and fossil fuel sources to make the electricity grid resilient. Other alternative fuels are on the horizon too, with 'golden hydrogen' and synthetic fuels.
- Recent research suggests that the UK Government has vastly underestimated the increasing costs to develop solar farms, where their assumptions suggest the UK can develop Solar Energy cheaper than anywhere else in the world:

<https://envirotecmagazine.com/2024/01/09/uk-solar-targets-for-2035-under-threat-as-projects-stall/>

- Portugal's renewable energy sources generated nearly two-thirds more energy than the entire country needed, keeping them on track to become carbon neutral by 2045. Since the beginning of the year, renewables have satisfied 56 per cent of the country's energy requirements. Wind made up 24 per cent of that, hydropower 18 per cent, solar power 8 per cent and biomass 6 per cent. Portugal is in a much better geographical location for solar, although other renewables are keeping the country on track for their carbon-neutral targets. The current obsession with solar on farmland in the UK is short sighted, when other renewables such as hydropower and biomass should be promoted alongside wind:
(<https://www.euronews.com/green/2023/11/09/portugal-sets-important-new-renewable-energy-record-as-production-outstrips-demand>)
- The Executive Summary is very poor – none of the potential impacts are comprehensively identified but they state: *The proposals have been assessed against the relevant policies and it is concluded that the proposed development is compliant with the Development Plan when taken as a whole. The public benefits of the proposal should weigh substantially in favour of granting permission. The economic and biodiversity benefits should also attract weight in favour of granting planning permission. In conclusion, the planning balance tilts overwhelmingly in favour of granting planning permission.* There is no local community benefit from this proposal, just electricity that will be shipped out of the County causing significant impacts to amenity and biodiversity.
- On Page 8 in Table 1 Site Selection Criteria. it is noted that: Sites should **avoid north-facing topography**; *Sites closely related to residential development can be problematic; sites are usually selected that retain a buffer from residential development or other developments which might be affected by specific aspects of the development E.g. Airports can sometimes be affected by glint and glare impacts.* This site includes north facing topography and significant shading. There is no buffer proposed to the significantly affected residential properties. Furthermore, the Glint and Glare Assessment submitted with this application specifically states that additional impact assessment is required.
- Table 1 also identifies that *The identification of sensitive receptors and other features within the landscape is also highly important. For this reason, the search takes account of the relative proximity of **Public Rights of Way (PROWs)** and key features of the Historic Environment including listed buildings and registered parks and gardens in order to minimise prospective impacts brought about by a **change in the character of the landscape**.* This is certainly not the case, with over 2km of PROW detrimentally affected and little account has been taken to assess the impact on the setting of the SAM or listed buildings that overlook the site from the adjoining ridges.
- *Page 9: Importantly where potential sites contain physical obstructions that cannot be removed (such as public footpaths, historical field boundaries, woodland, rivers, streams, highways etc.) the site area requirements can be significantly increased. Additionally, a site positioned on a north-facing slope would require a greater development footprint. All of these negative factors apply to the proposed site at Potterne Park Farm.*

- This is wholly inaccurate in accordance with the above:
 3. *Is of an adequate scale and is physically suitable to accommodate the development, being relatively flat and unshaded by nearby topography of vertical features (it is north facing and larger than required to compensate for all the features and shading from trees. Furthermore, without comprehensive shade modelling the actual viability of this site is in question).*
 4. *Is available for the planned 40 year duration of the scheme (it is 50 years therefore considered permanent).*
 5. *Avoids any 'Best and Most Versatile Agricultural' (BMV) Land (no ALC report has been provided) and the current agricultural use could also continue, albeit with a reduced stocking density, alongside the proposed development (the farmer does not have sheep currently, there is a limited opportunity to graze the site due to the wet nature of the land and the need to protect ground nesting birds, in addition to the welfare concerns raised by the inability to see or gather the sheep in effectively within the strings of solar arrays).*
 6. *Is distanced from nearby Public Rights of Way (PRoWs run right through the site and are situated on most site boundaries) and Historic Environment features (no detailed impact assessment on setting of listed building outside the site boundary and has a significant impact on the SAM).*
 7. *Is distanced from nearby residential properties or other potentially incompatible neighbouring land uses (bridleways and there are residential properties that are significantly affected).*
 9. *Benefits from relatively high levels of solar irradiation, being located in the south of the UK and not overshadowed (this is a partly north facing site with significant shading from trees on and off the site; photoelectric arrays make no economic sense in the UK, since the sun does not shine for long enough and that the EROEI (energy return on energy invested) is too low. The intermittence of supply means that to make the electricity grid resilient, backup electricity generation from nuclear and fossil fuel sources is required).*
- *The solar panels are entirely inert and once established on site – the panels emit EMF radiation and contain toxic chemicals. This EMF radiation may be a factor in the disturbance to bats and may also have an impact on the insects and birds.* There is concern that there will be a cumulative impact with the EMF from solar arrays and 5G. There is no guarantee they will last 50 years and are worse to recycle than nuclear waste.
- **We need to know more about the batteries** – *“The batteries would be housed in proprietary units formed from standard containers measuring 40ft in length. With battery technology progressing at such a pace, it is sensible that the precise specification of the battery unit would be agreed at the point of installation”.* Based on the requirements of other large scale solar installations in the County (e.g. The Forest Farm proposal in Chippenham (PL/2021/06112) which had 18 battery storage containers each 16.15m x 2.44m and 3.0m high.) **it is highly likely that batteries will be added in the future.** This will provide additional noise disturbance in this tranquil rural setting. It is important that the scheme is upfront about this requirement, indicating how many there going to be and their location.
- **4.4.8 Ecological enhancements are achieved through resting the ground from intensive farming, creating a quiet 'haven' for a variety of wildlife and biodiversity,**

using large buffer strips to create wildflower mixes and retaining and strengthening native hedgerows. A biodiversity net gain is achieved. As noted in Section 4 above, the landowner has confirmed that the site has been entered into Higher Tier Countryside Stewardship. The Applicant should provide detailed surveys to establish the baseline biodiversity, as this has not been assessed. The proposals cannot ignore the BNG impact of the Countryside Stewardship Scheme, which is funded and managed in partnership with Natural England.

- *4.9.1 The development has been sited on a continuous piece of land which has strong existing levels of enclosure through existing trees and landscape features. The land is also low lying and will not appear prominently in the wider landscape. The land is 'low lying' because it is situated in a valley, which is highly visible from the scarp and slopes associated with the valley bottom where the site is situated. The impacts are virtually all assessed from the valley floor not the immediately adjacent scarps and slopes which form part of this rural landscape. Furthermore, this statement ignores the views from the Strawberry Hill area and Etchilhampton AONB.*
- *Section 6 – no mention of hydropower, wave or tidal as an alternative green energy sources. There have been recent developments to provide less environmentally damaging turbine blades on hydropower installations, in addition to advances in harnessing the power generating capacity of waves.*
- *Section 6.7 – Wiltshire has already exceeded its ambitious solar energy target by around 40%, achievable by 2026 with existing permitted solar farms in the County. No further solar installations are required.*
- *7.1.2 the D&S confirms that "Agriculture is one of the UK sectors expected to be most impacted by climate change. The reduction of arable land as regions become drier is projected to halve its total contribution to UK GDP by 2100." Then large swathes of agricultural land should not be taken out of production for a solar installations, particularly where a substation is proposed adding another degree of permanence to future electricity energy generating projects on the site. With additional farmland in the vicinity, the future use of the land is more likely to be industrial solar or other energy production.*
- *7.1.3 Therefore, renewable energy generation, even where located on farmland, will actually help to reduce the adverse impact on agriculture expected to occur. In simple terms, to fail to deliver renewable energy is to fail to protect agricultural land. To fail to address climate change rapidly will result in agricultural yield (food production) by 50%. Setting aside a relatively small area of UK land to deliver decentralised renewable energy will help safeguard agriculture by warding off the worst effects of climate change that are projected to damage farming in the future if left unaddressed. This statement is misleading when considering the impact of climate change on best and most versatile agricultural land. It must also be viewed in terms of the risk to adjacent farmland if this proposal is allowed with a substation.*

- 7.2 The D&A Statement provides numerous 'illustrative images' which are misleading; it also fails to provide representative images, nor photomontages. During the Public Exhibition, it was agreed with a Lighthouse Expert that even the images provided there were unrepresentative. A specific request was made for future images that show the actually

massing of the solar arrays. This development has 3.2 meter high solar panels around 6.7 meters wide in arrays that stretch across the length of large fields, often on rising land. It is important to note that the maximum size of a mobile home is 20 meters x 6.7 meters and 3.048 meters internal ceiling height, a typical Portakabin is 3.13m high and around 2.8m wide, with bungalows having an average ridge height of between 3 – 4.5 meters. In the absence of photomontages, these measurements provide an indication of just how massive the solar panels for this are. The pictures provided by the D&A are wholly unrepresentative and misleading, as shown below.

4.4.2 There would be a stock proof fence around the perimeter of the solar farm development. The fence is agricultural in nature and can be provided under permitted development up to 2m. The fence would be used for security purposes and to guard against potential damage by livestock and wildlife; however, it will be screened by the existing trees and hedges, and by additional planting. The fence will also allow for the passage of small mammals through and underneath.



Figure 10 Photograph showing the typical specification of a stock proof security fence and security cameras

INDICATIVE IMAGE - TYPICAL STOCK FENCING



Figure 13 Photograph showing co-location of sheep farming and energy production

D&A1, 2 and 3 illustrating misleading images used

- 7.3 Full photomontages required, including views from public rights of way and how the site will be viewed from horseback along the bridleways (see Section 6). As with the Landscape and Visual Assessment, the D&S also fails to address the full impact of the proposed substation (a 15m high communications tower/3.375m high WPD Control Room/2.4m high galvanized security fence/pole mounted CCTV and floodlights/transformers, disconnectors, and other electrical structures over 8m high).

- 7.4 The site block plan suggests that there will be areas of abandoned land once the proposal is constructed. This is not acceptable and further proves just how inappropriate this site is for solar power generation, as these have been created by site constraints:



D&A 4 Illustrating areas simply left with no future management

- 7.5 The screening opinion appears to suggest that there may be another potential solar farm or large development at that needs further information on. The Wiltshire Council Screening report provides this map. Information is available for the Blounts Court Farm proposal, although there also appear to be at least 2 other proposals in the area (see orange circles).



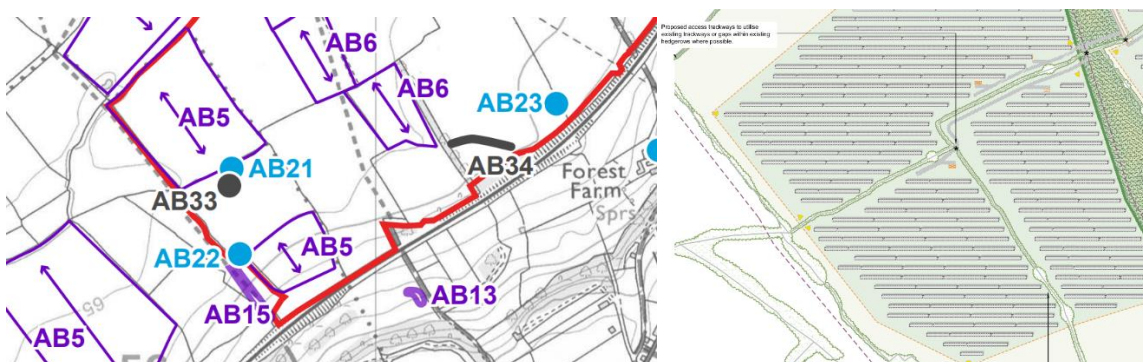
D&A 5: Other potential solar farms in the area

Section 8 Archaeology and Cultural Heritage

- 8.1 The potential impact on Archaeology and cultural heritage of the proposed large scale solar installation is discussed in the Desk Based Assessment & Heritage Statement by Barton Hyett Associates Ltd, produced in December 2023. The assessment was only commissioned in November; it notes that there has been very limited modern archaeological work conducted in the study area, yet fails to address the request for trial trenches by the Assistant Country Archeologist, Mr Neil Adam:

“While this preliminary work is very helpful, it does not offer definitive evidence on the archaeological potential of the site and so (as I mentioned in my response of 27/11/2023) what is required at this stage is for a trial trench evaluation of the site to be carried out prior to the determination of this application. This evaluation is to sample 4% of the total area of the proposed development, with individual trenches no longer more than 30 meters in length in order to provide suitable frequency of cover across the proposed development area.

- 8.2 The assessment references a Geophysical survey, that identified a cluster of linear features in the NW corner of the site, which were apparently consequently removed from the application designs (AB33). There is no evidence of this mitigation, as the extract from Figure 2: Cultural Heritage Features Map and the Site Block Plan illustrate:



A1: Extract From Figure 2: Cultural Heritage Features Map and Site Block Plan

- 8.3 It is important to note that the report states at 4.1 “...There is no recorded ancient woodland in or adjoining the site.” There are adjoining ancient woodland areas which are recorded as Local Conservation Areas within 75m and some ancient woodland indicators throughout the site in hedgerows. This needs protection from the scheme during construction and operation, particularly invasive elements such as trenching and access roads.
- 8.4 In previous planning applications, the farmer of the land has noted its historic significance (see below). Further investigation is required, as it is understood that the existing railway construction may have removed surface archaeology, in addition to a Gault Clay landslip that has occurred in the past. This emphasizes the need for more

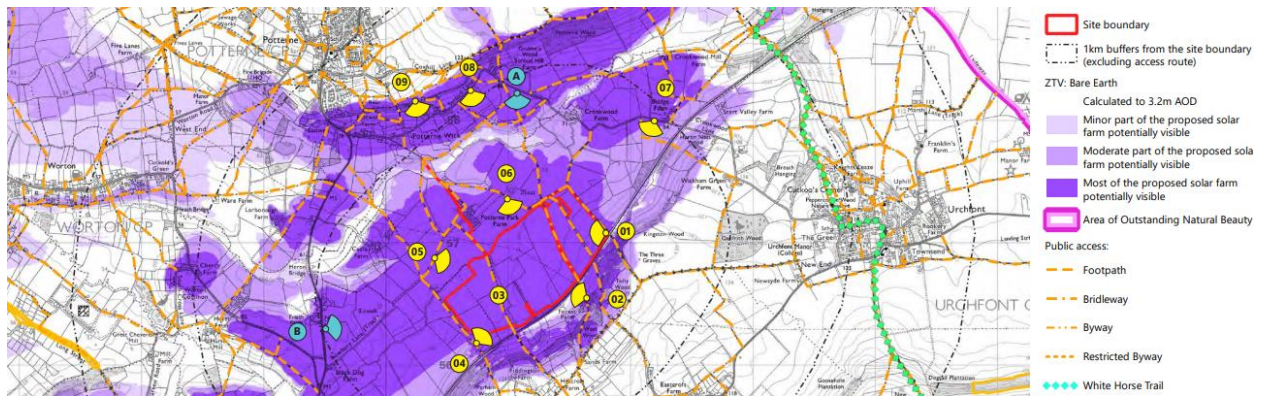
detailed evaluation.

I have farmed the land immediately to the west of the proposed development site for the last 24 years, and I wish to object in the strongest possible terms to the proposed (and partially completed) earthworks and associated use as a Motocross venue. Our farm is all within a Higher Level Stewardship Scheme, such is the value that Natural England have placed on the farmed landscape here. The area was once a 13th/14th century hunting parkland and testament to this there is a Scheduled Ancient Monument (known as 'The Moat') within 700 metres of the proposed site. I understand that the applicant intends to

- 8.5 The archaeological impact assessment of this development is seriously flawed: this is a large-scale electricity generating development which will not form part of this agricultural landscape. The assessment confirms that land has been traditionally farmed for centuries and is connected with a Scheduled Ancient Monument (SAM); the SAM is noted to be of "Very High Significance". An industrial scale solar farm, comprising 3.2m high panels with infrastructure that includes a substation/inverters/trenching/new access routes/new fencing/CCTV cameras cannot in any way be considered traditional farming. Whilst these works will potentially destroy or irreparably damage currently unidentified archeological remains, the impact on the SAM has been vastly underestimated. This ancient moat is literally just a field away from the solar arrays (circa 200 meters), and within 500 meters of the proposed substation. Whilst photomontages would prove this, it is clear that the industrial grey mass of solar panels and a substation will be of high adverse impact, especially as the ground rises up and away from the SAM. The Landscape and Visual Appraisal confirms this (see A2 and A3 below):

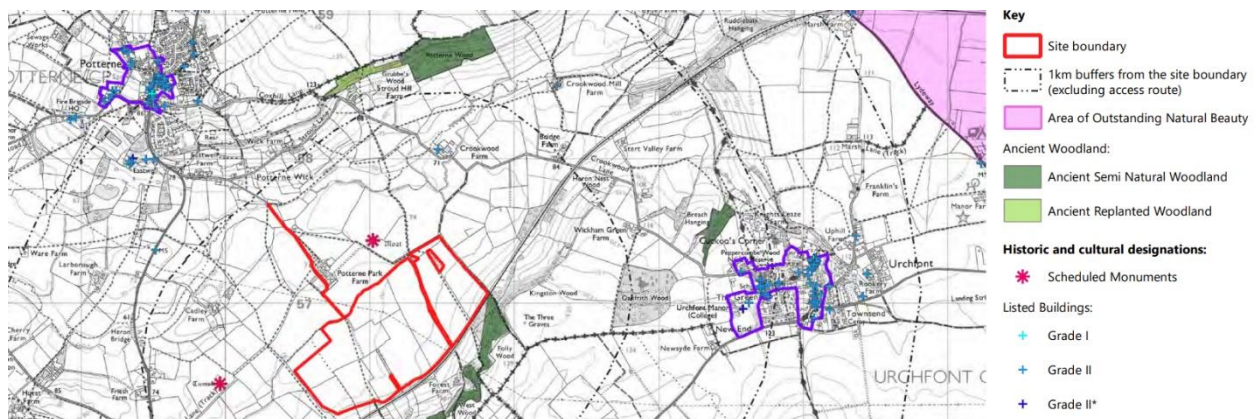


A2: Viewpoint 06 from the Landscape and Visual Appraisal – taken from the footpath that runs alongside the SAM.



A3: Extract from the Zone of Theoretical Visibility from the Landscape and Visual Appraisal (note there is no assessment of the substation in this Appraisal)

- 8.6 There is also a potential risk to the SAM not only through the industrialization of the surrounding farmland, but also through changes in surface water/hydrology of the area (see Section 12 below). The impact on the setting of listed buildings beyond the 1km radius is also important. This large-scale development will significantly affect the setting of the surrounding listed buildings with views across the site; especially as the full impact of the proposed substation has not been assessed.



A4: Listed Buildings in the Surrounding Area

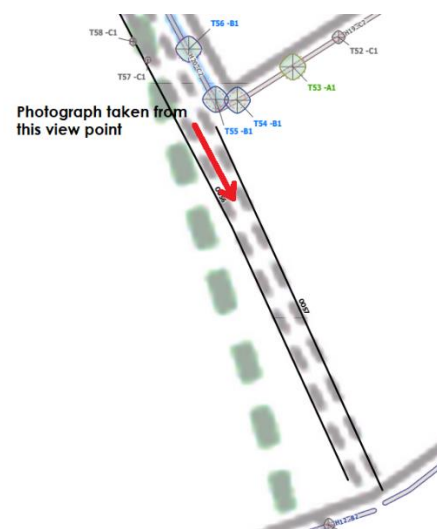
Section 9 Arboriculture

- 9.1 As acknowledged by the Consultants Barton Hyett Associates Ltd, the Tree Survey submitted does not comprise an arboricultural impact assessment. This is recognized within the tree survey report in section 6. Conclusion and Recommendations, which states:

6.1. The information contained within this report should be used in the preparation of design proposals for the site, in order to minimise negative arboricultural impacts.

6.2. Once the design proposal has been agreed upon, an Arboricultural Impact Assessment report should be prepared for submission to the LPA. This report will follow shortly.

- 9.2 Due to the landscape value of the trees and the number of trees on the site, there should be full assessment on the potential Root Protection Area (RPA) impact from the trenches, cabling and other infrastructure. The proposals must be overlaid onto the Arboricultural Survey with the RPAs indicated to allow a full arboricultural impact assessment. The assessment is over a number of maps rather than one base map, therefore the impact assessment of proposed access roads, trenches and the substation cannot be assessed. Information will also be required to address the compounds, as their location is unknown. This is a significant omission when the compounds will be 40m x 30m (1200 m²).
- 9.3 The Tree Survey appears to have excluded an avenue of mainly young oak trees, which are all over 75mm therefore should be surveyed in accordance with the recommendations of British Standard 5837:2012 'Trees in relation to design, demolition and construction-recommendations'. These young oak trees will be significant landscape features in the future, therefore should be surveyed.



Photograph A1 Illustrating Avenue of Oak Trees that have been excluded from the Tree Survey

- 9.4 If the survey had been overlayed onto a topographical survey, it is unlikely these trees would have been missed. A tree survey with a topographical survey as a base is much more accurate, especially when considering 'groups' of trees. For example, it is difficult to see how G18 can be classified as a 'group'. The photograph in the Tree Survey is misleading (see below) as there are a number of trees with considerable landscape value, which should have been identified individually.



Photograph A2 (Extracted from Tree Survey)

- 9.5 The extracts from the Tree Survey and the D&S Statement below illustrate how informative the exact location of the surveyed trees and their Root Protection Areas would be. Taking into account the fact that a topographical survey would provide the detail required on the location individual trees, built development such as the substation may have a significant impact on the RPA of adjacent trees. A full arboricultural impact assessment will ensure that the RPAs are protected during the construction of built structures, access roads and trenching.



considering the viability of a solar energy generating proposal. The photographs below indicate just how significant shading will be in this site:



Photographs A5 and A6 Illustrating need for a shade Assessment

Section 10 Landscape and Ecology Management Plan (LEMP)

- 10.1 The Landscape and Ecology Management Plan (LEMP) was prepared by TIR Collective, with input from GE Consulting on ecology, dated 5th December 2023. As with all of the reports and assessments, this document also contains a number of misleading errors and omissions. It is too generic and therefore will lead to future degradation of the current biodiversity on the site. This biodiversity baseline is vital, as it is important to measure what is already on the site before you consider the creation of future ecologically valuable habitats (para 2.1.3). Bearing in mind that this site has been in Higher Tier Countryside Stewardship, this baseline should reflect the management under this scheme. The invasive nature of the infrastructure for this industrial scale electrical installation will destroy some of these grant-aided biodiversity improvements. Any Biodiversity Net Gain Metric calculations must illustrate BNG over and above what already exists.
- 10.2 As noted earlier in this Evaluation, there is simply not enough research to assess the full impact of large-scale solar farms on farmland; the latest papers are identifying more adverse impacts than potential benefits to biodiversity¹. For example, it has been determined that the different microclimate under solar panels strongly affected the plant species composition and reduced the abundance of soil mesofauna and biomass of fungi and gram-negative bacteria. Solar panels therefore reduce the plant and soil biodiversity of semi-natural grasslands and disrupt ecosystem functions. The papers are acknowledging negative impacts, which must be considered when assessing the impact of the proposals at Potterne Park Farm.
- 10.3 Removing weeds, as noted in 5.1.3, will be quite challenging when these existing studies suggest that the shading will favour shade loving, aggressive species such as couch grass. The impact of using glyphosate to control this species has not been considered in any ecological impact assessment. The large solar panels proposed will create their own microclimates by casting significant shade and changing the pattern of rainfall landing on the ground, which is already adversely affected by surface water flooding (see section 12 below). Evidence from the U.K. indicates lower ground temperatures, light and moisture are found beneath panels compared with adjacent farm fields. Furthermore, there is no evidence of any soil samples/testing to establish which shade-tolerant seeds will work on this land.
- 10.4 Another major omission is the impact of potentially destroying the agricultural drainage system and the soil compaction risk during the construction of the site. This could have a major impact on the biodiversity, the future management of the site and the type of restoration work that can be done. Additionally, there is no assessment of what would happen to the watercourses in the area if the agricultural drainage system is disrupted.

¹ Photovoltaic power stations: an opportunity to promote European semi-natural grasslands? Front. Environ. Sci., 22 June 2023 Sec. Conservation and Restoration Ecology Volume 11 - 2023 | <https://doi.org/10.3389/fenvs.2023.1137845>

With the clear risk of extreme weather events and flooding, this is another major omission.

- 10.5 There is no clear indication of when the solar panels will need to be renewed and how the site will be protected. The LEMP vaguely refers to this as follows:

6.0 Species Protection Measures

- 6.1.1 Management of habitats will take place during Autumn and Winter to avoid the active period for most wildlife, including the breeding bird season. For hedgerows and scrub, cutting in late winter, after most of the berries have gone, will allow the hedgerow and scrub to provide food for birds over winter. Should any management be required within the breeding bird period, checks for nesting birds by a suitably trained ecologist/Ecological Clerk of Works (ECOW) will take place prior to any works commencing to ensure that no breeding birds are present. If any are present, no works will take place in that area until the young have fledged the nest.
- 6.1.2 Management of grassland to no lower than 150mm will additionally minimise potential impacts to reptiles, water vole and amphibians. Cutting no more than one bank of any ditch at one time also minimises impacts on these species.

- 10.6 The LEMP suggests sheep can be grazed all year round, only removing them during April and July in some areas for the ground nesting birds. As noted in Section 4, sheep grazing on this industrial sized solar installation is unrealistic.

Table 8-1 Timetable for Implementation and Habitat Management

Action	January	February	March	April	May	June	July	August	September	October	November	December	Notes
Pre-construction													
Toolbox talk													To all construction staff prior to any works commencing
Erection of tree/hedgerow protective fencing													Prior to any works commencing
Construction and Operation													
Hedgerow trimming													On two to three year rotation to maintain height and shape
Prune native shrub planting													
Rotational grazing of sheep in grassland beneath solar arrays													With some areas left ungrazed between April - July

- 10.7 There have to be major concerns raised about the proposed restoration of the site in 50 years time. Notwithstanding the fact that the proposal should not go ahead, in the light of the environmental impacts identified in this report, the prospect of any restoration works is highly questionable. This assertion is based on the fact that the Applicant, Potterne Solar Limited, has no long-term interest in the site.

Section 11 Construction Access Management Plan

- 11.1 The Construction Access Management Plan (CAMP) produced by Hydrock Consultants Limited (4 December 2023) is inaccurate and misleading, with technical omissions that result in the true impact of the traffic generation from this project being grossly underestimated. The first point to note is this Management Plan is based on a solar farm that is almost half the size of the Potterne Wick site (45 hectare) and below half of the potential electricity generation (20MW). The Access Management plan is therefore founded on a very poor comparative, which would lead to a significant level of inaccuracy. Without clear peak traffic figures and the use of a potentially flawed comparable, it is not possible to conclude that an operational capacity statement is not required.

5.5 Summary

- 5.5.1 The level of traffic during the temporary construction phase is not considered to be material and it is considered unwarranted for an operational capacity assessment to be undertaken. It is expected that the maximum number of vehicles entering the site will not have an impact on the safety or operation of the local highway network.

5.3 HGV Vehicle Trip Generation Justification

- 5.3.1 The justification for Hydrock's total construction traffic vehicle movements was extracted from a similar Solar Farm development in Uttoxeter Aston House Farm, Derbyshire Dales (Planning Ref: 14/00450/FUL) which was granted planning permission in November 2014. This solar farm development was on a 45-hectare site and had a 20MW size.
- 5.3.2 While Hydrock understand that any type of disruption to the local highway network would be unwelcomed, it is felt that a balance between a modest increase in traffic for a short construction period to facilitate 50 years of renewable energy, is a reasonable trade-off.

- 11.2 The management plan notes:

4.8 Route Improvements

- 4.8.1 In general, due to width of the carriageway, vehicles are likely to overrun the edge of the carriageway in certain sections for both vehicle types. However, this can be mitigated through the use of 'Ground Protection Mats' that can be used to support the movement of heavy vehicles and equipment across soft or muddy ground and can also be used to protect the existing carriageway from further damage.
- 4.8.2 A small bridge is present along the route however there are no obvious weight restrictions along the unclassified road therefore this will need to be reviewed. The existing small bridge will be subject to a pre-commencement survey to establish if it will be fit for HGV movements, if there are no constraints identified, then the existing bridge will be used. If there are constraints identified then temporary bridging solutions are available such as 'Short Span Vehicle Bridges (SSVBs)' that are designed for use on site and within private locations. Further information can be found here: <https://beaverbridgehire.co.uk/vehicle-bridges/short-span-vehicle-bridges/>.

- 11.3 The CAMP figures cannot be relied on to provide an accurate assessment of the potential impact. Logistics experts have suggested that a more realist figure is at 1726 round trips, which is 3.5 times more than provided by the CAMP. Furthermore, the

amount of hardcore has been underestimated and the storage compound illustrated will require more than 2 movements; 40ft containers will require more than a 12m ridged vehicle. The 15m³ of hardcore carried by the 10m ridged lorries will weigh 26 tonnes, making the weight of the lorry and hardcore potentially greater than 40 tonnes. This seems excessive for a narrow country land and small bridge. A pre-commencement survey should be submitted to determine the capacity of this bridge before planning permission is granted.

Table 5.1: Construction Traffic Vehicle Movements – Construction Period

Activity	Type of Vehicle	Total Number of Deliveries
Solar Modules & Mounting Structures	16.5m Articulated	115 (230 two-way movements)
Inverters	10m Rigid	10 (20 two-way movements)
DNO Cabinet	12m Rigid	1 (2 two-way movements)
Customer Switchgear	10m Rigid	1 (2 two-way movements)
Access Tracks - Temporary Ground Re-Enforcement Works	10m Rigid / Tipper Truck	67 (134 two-way movements)
Storage Compound	10m Rigid	1 (2 two-way movements)
Other (Cabling, Construction Material, Waste)	12m Rigid	45 (90 two-way movements)
General	Front End JCB by low loader	1 (2 two-way movements)
Erection of the Substation	16.5m Articulated	4 (8 two-way movements)
TOTAL		245 deliveries (average of 8 per day)

- 11.4 Section 4.10.5 reveals some potentially significant impacts from trenching and cabling. It is imperative that more information is provided to assess the impact on hydrology from the construction of the 120cm trenches between the inverters and switch enclosures, in addition to the construction of the secondary trenches between each row over an area of approximately 200 acres. Information on where these trenches will be, particularly where they relate to the PRow is essential in order to properly assess the impact during the construction of the proposals.

4.10 Commissioning Construction Methodology

4.10.1.1 Ground Anchoring

- 4.10.2 The arrays will be supported on metal posts driven into the ground at a depth to be determined by soil penetration tests. Concrete footings will be required for the private and District Network Operator (DNO) switch gear enclosures.

4.10.2.1 Ground Re-Profiling

- 4.10.3 There is no requirement for any re-profiling of the ground as the arrays can be constructed over the existing landform.
- 4.10.4 Maps showing topsoil and subsoil types shall be made available base on geotechnical studies performed before construction. Areas of soil to be protected from construction activities shall be clearly marked and unnecessary vehicle movements across soil will be avoided.

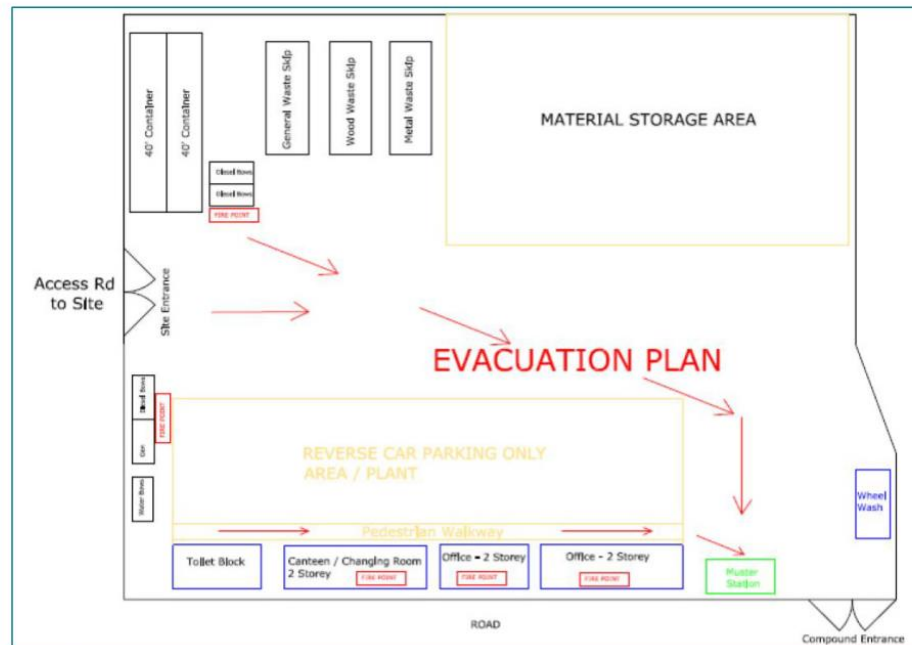
4.10.4.1 Site Trenching and Cabling

- 4.10.5 Trenching comprises a layout of main trenches between inverters and switch enclosures circa 120.00cm deep with secondary trenches from each panel row and other isolated areas circa 60.0cm deep.

11.5 More information is required about the location of the 40 x 30 m compounds:

4.12.5 **Figure 4.7** below illustrates an indicative compound layout including all necessary components and resources.

Figure 4.7: Typical Solar Farm Compound Layout



11.6 Section 4.13.2 clearly identifies the potential for 'significant disturbance' to the land when the site is decommissioned. The meadow mix suggested is incongruent with the rest of the recommendations made in other reports and the net increase suggested in BNG. In fact, the Applicant needs to be able to prove that any net gains in biodiversity are not destroyed in the decommissioning, which seems highly feasible. It also needs to consider the need to reinstate agricultural drainage systems.

11.7 There is a significant amount of crushed stone being delivered on site for the internal access tracks (2500 tonnes). This calculation does not include the stone for the compounds or any other fixed structure such as the sub-station compound.

5.1.11 The internal access tracks will be constructed using a geogrid matting to stabilise crushed stone. The stone will arrive on 10m long tipper trucks. The precise number will depend on the amount of stone required but based on around 1800m length of internal access tracks, around 1000 cubic metres of stone will be required.

11.8 The calculation of Construction Traffic Movements is flawed, not only in the under-estimation of the delivery of stone, but also for the equipment/structures in the compound(s). The indicative plan of a compound includes a range of equipment and structures such as 2 x 40ft containers, skips, canteen, toilet, offices. No traffic movements have been included for the compounds. More accurate figures are required.

- 11.9 The whole Construction Management Plan needs reviewing by an independent professional, as there are so many inaccuracies and misleading statements. For example, the Traffic Movements are based on a 6 week construction period; the 200 acre solar farm will take longer than 6 weeks to construct, with figures given in the D&A Statement suggesting 56 weeks. Furthermore, it is the peak traffic movements that should be identified, not an average. An Operational Capacity Statement is required, especially in regard to the narrow nature of the rural roads in Potterne Wick, in addition to the bridge.
- 11.10 The CAMP contains no reference to the maintenance traffic generation when the solar panels need replacing. The CAMP should also refer to the potential for a cumulative impact with other proposed solar sites. Appendix A indicates the information that was provided to the Highways Development Control Officer was insufficient to allow the full scope of the proposal to be considered.
- 11.11 As with other reports submitted on behalf of the Applicant, further clarification is required as to how much topsoil is to be removed and where. It is unclear whether topsoil clearance is required for the solar arrays or not, due to the inconsistencies between all the reports. The Design and Access Statement suggests the solar panels will be pile driven through the existing cover, although the CAMP infers all of the topsoil will be removed:



Figure 9 Photograph showing the framework system prior to bolting on the panels.

- 11.12 The addition of paragraph 7.5 provides a good example of the errors made, as there is no Noise Impact Assessment on the Wiltshire Planning website.

7.5 Noise Control

- 7.5.1 The noise control provision will be encompassed within the accompanying Noise Impact Assessment submitted as part of the planning application.

Section 12 Flood Risk Assessment

- 12.1 The Flood Risk Assessment undertaken by Hydrock Consultants Limited (1st December 2023) is not sufficient to ensure that all potential flood risks (specifically that of increased flood risk through changes in surface water drainage patterns) have been explored and addressed. The overall impermeable area on the site will be significantly altered by the addition of such an expansive area of large solar panels. There is emerging evidence that such structures do alter the kinetic energy of the rainwater falling on them, thus increasing the flow rate of the water and the potential for erosion. Without evidence to the contrary, it is highly likely that the panels will alter the drainage patterns on site, such that preferential flow paths are created, resulting in increased or altered flood risks off-site.
- 12.2 There are many simple inaccuracies in the assessment. At Paragraph 2.1, the site is described as entirely arable land, however it is a mix of arable and pasture land. No reference is made to the existing agricultural land drainage system, with the main running parallel with all the hedge lines. There are a number of watercourses that have been omitted from the assessment (see Figure 1 below), yet can be found marked on in the Ecological Impact Assessment. Some of these may be fed by the agricultural drainage system, but as such are equally relevant to the assessment. The drainage system will be damaged/destroyed by trenching to 1.2m deep, the proposal to bore some of the cables under the hedges/trees, in addition to piling the solar panels 1.2m into the soils.

The site location is shown in Figure 1.

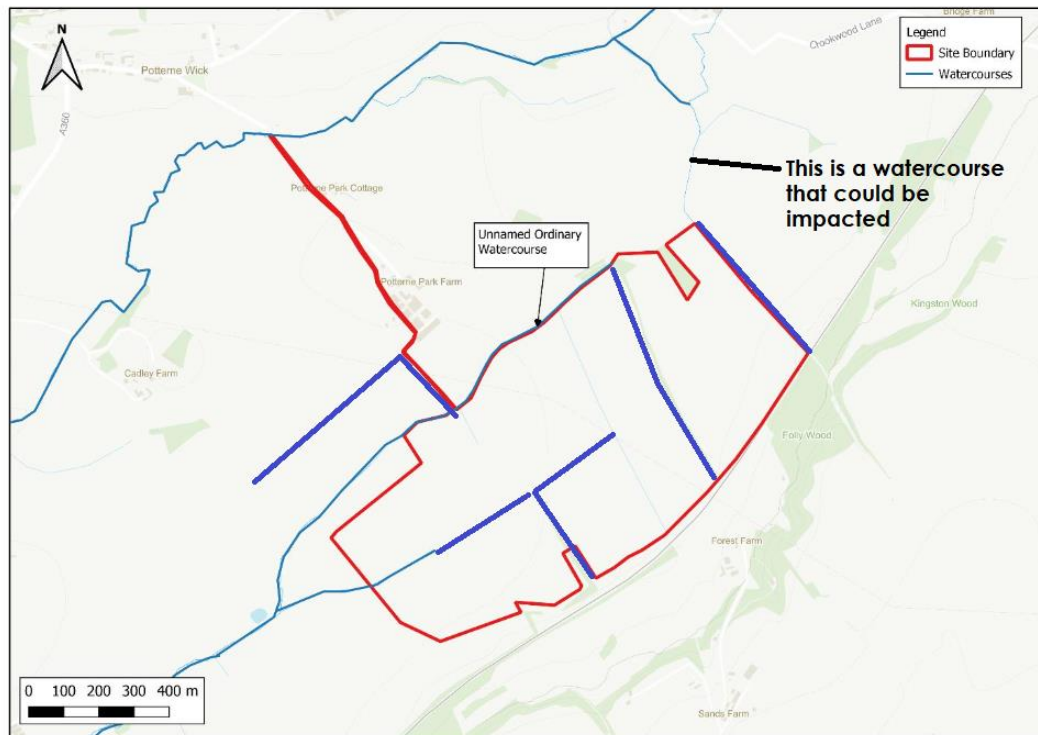


Figure 1: Site location plan.

- 12.3 This FRA appears to be a desk-based assessment which is underestimating the flood risk. There is no acknowledgement that the field capacity of the site is limited, as illustrated by the prolonged periods that the site has surface water flooding. Climate change will cause more extreme weather events and there is no evidence to prove that the proposed large scale solar farm will not exacerbate this. Indeed, the on-site evidence suggest that it will exacerbate future on and off-site flooding.

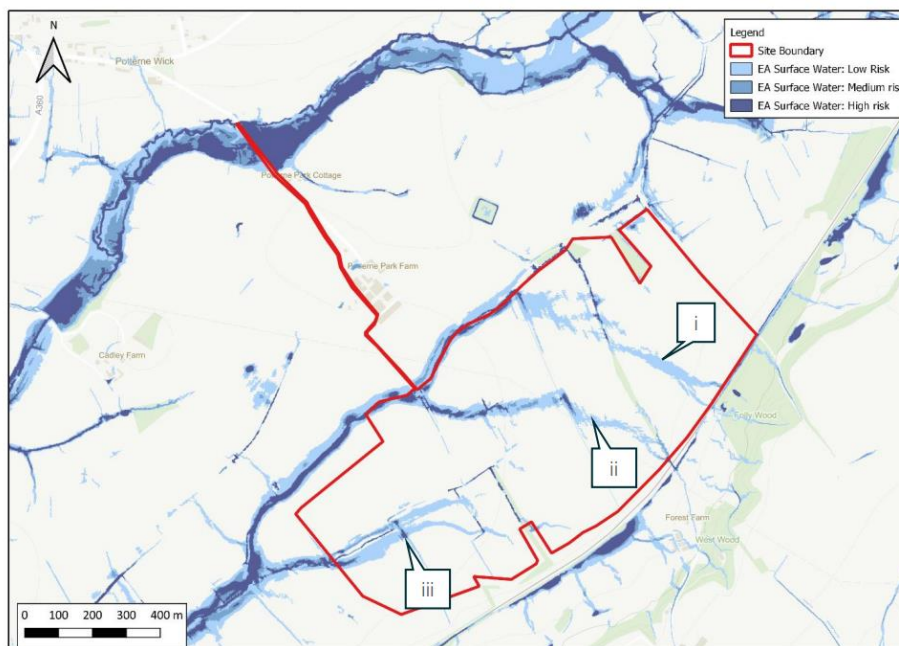


Figure 4: EA Surface Water Flood Risk Mapping

- 12.4 At paragraph 2.3 the FRA report identifies published data that suggests the drainage is impeded; as noted above the site has been land-drained for agricultural use, clearly an important factor when assessing flood risk. If the surveyor had walked the footpath to the south of the site (MLAV1C), then they would have seen how wet the unimproved grassland adjacent to the site is. This assessment should have included site observations, as the fields in the northern corner of the site are regularly at field capacity. Furthermore, it is possible that the woodland excluded from this northern part of the site is actually lowland wetland.

3.4 Groundwater Flooding

Groundwater flooding is most likely to occur in low-lying areas with porous sub-surface geology. This flooding occurs when water emerges through the ground due to a high-water table following prolonged periods of heavy rainfall.

Therefore, the generally low permeability of the geology at the site (see 2.3) is unlikely to be conducive to groundwater emergence. The topographic position of the site also means that any subsurface groundwater flows are likely to be directed downhill and away from the site.

The Wiltshire Level 1 SFRA GeoViewer also concludes that there is no risk of groundwater flooding at the site based on geological factors.

Based on the above, the overall groundwater flood risk to the site is considered to be low.

- 12.5 Site specific assessments must be carried out as Section 3.4 is incorrect. There is a high risk of groundwater flooding, as demonstrated by the amount of surface water still on the ground after the recent rain. The site is regularly continually flooded in the winter months, despite the agricultural improvement through drainage. The bridleway EAST12 is regularly flooded with ground water, with land around other footpaths also showing evidence of surface water.
- 12.6 Paragraph 5.1 is inaccurate as there is a positive surface water drainage system with associated ditches. Some of these ditches have been cleared recently (see Photograph D1 below).



Photograph F1 – Drainage Ditch recently cleared

- 12.7 The grassland and arable area proposed for the solar panels is mainly gault clay. It is very susceptible to compaction, thus requires careful management including subsoiling, avoiding excess vehicle movements, avoiding working on it in wet weather and limiting stock grazing densities/grazing seasons. Photographs F2 and F3 below illustrate how susceptible these soils are in wet weather:



Photographs F2 (SAM to the left of the Photograph) and F3 (northern corner of the site) illustrating current soil damage on and around the site

- 12.8 Photograph F2 illustrates the fact that the land around the Scheduled Ancient Monument just outside the application site boundary (see Section 8 of this report) is at field capacity and damaged through trafficking. The construction and decommissioning process is likely to lead to considerable soil damage and compromise the ability of the land to be used for productive agriculture in the future. As noted above, the piling, trenching and boring the cabling beneath the hedgerows will be carried out as part of the proposals; these activities have a high risk of soil compaction, particularly due to the size of the proposal and the duration of construction/decommissioning. Compaction in turn causes significant run-off, which will compound the flood risk both on and off-site.
- 12.9 The proposal will also require areas of topsoil to be removed/stored and replaced. This is not a straight forward operation on these soils and carries a significant risk of the thin, fertile top soils being mixed irreversibly with the clay subsoils. The overall risk from the proposal to the soils on this farm, particularly due to their clayey nature, is significant. The future ability to farm the land would be compromised, as there would be a high likelihood of irreversible damage.
- 12.10 Also of particular concern is the impact any change in water levels/flood risk will have on the Scheduled Ancient Monument (SAM). It is only 200m from the site and the drainage ditches appear to be connected to those on/adjacent the site. If, as expected, the proposals have a detrimental effect on surface water run-off/the existing drainage system and change the hydrology in the local area, the impact on this SAM of 'Very High Significance' could be major adverse (notwithstanding the fact that the impact on the setting of this SAM of this large scale 'industrial' proposal is considered major adverse in Section 8).
- 12.11 At Section 5.2.2, the FRA identifies the need for additional gravel, which is not accounted for in the Traffic Impact Assessment (produced by the same company as separate documents). The potential impacts and mitigation have not even been shared 'in-house'. Once more, the question of battery storage units on site is raised, this time by Figure 6 in the FRA.

5.2.2 Proposed Associated Infrastructure (Transformer and Inverter Cabins)

It is recommended that the proposed associated infrastructure at the site should be mounted on plinths above a new permeable gravel base, such as that shown in Figure 6.



Figure 6: Battery Storage Unit - Example

- 12.12 There is a clear flooding issue on the site, as a significant area has been excluded from the solar arrays:



Figure F4 – Area Excluded due to Likely Flood Constraints

- 12.13 The conclusion of the report is weak. There is no cumulative assessment. The hydrology of the site is likely to be far more complex than this study suggests, particularly in relation to the wet areas to the north of the site, in addition to other important habitats including the adjacent ancient woodland and areas that could support protected species such as Great Crested Newts. There are already areas of surface water, indicating saturated soils despite the agricultural drainage. It is imperative that all geotechnical studies are done before construction, in addition to cross-referencing with Company's own CAMP. If you combine the lack of geotechnical and hydrological information with the damage to the soil/existing agricultural drains, the construction and operational impacts could be major and significant. This could be not only on a site specific basis, but on adjacent land. The potential impact on neighbouring landowners and water courses must be considered in detail.

Section 13 Planning Framework

13.1 The National Planning Policy Framework (December 2023) (NPPF) sets out the Governments planning policies for England and how local planning authorities should incorporate them into their own policies and plans. Paragraph 7 of the NPPF states: “The purpose of the planning system is to contribute to the achievement of sustainable development” and paragraph 8 makes it clear that mitigating and adapting to climate change is a core planning objective. Paragraph 8 also notes an Environmental core objective of that protecting and enhancing our natural, built and historic environment. This includes making effective use of land, improving biodiversity and using natural resources prudently.

13.2 Paragraph 163 is clear that when determining planning applications for renewable energy local authorities should:

- Not require the overall need to be demonstrated; and
- Approve if impacts are (or can be made) acceptable.

13.3 Chapter 15 of the NPPF contains several policies targeted at enhancing the natural environment and requires local authorities to consider how impacts on biodiversity can be minimised and provide net gains in biodiversity. Paragraph 180 states that:

Planning policies and decisions should contribute to and enhance the natural and local environment by:

- 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);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

13.2 In addition, paragraph 185 ensures that to protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally

designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

- 13.3 Part (a) of paragraph 185 is important to this application. Strategies protecting Wiltshire's natural environment appear to have had relatively low priority compared with those promoting renewable energy, yet nature has a vital role to play in carbon sequestration and there is clear evidence of biodiversity decline. The Biodiversity Action Plan for Wiltshire was last reviewed in 2008. Wiltshire is also slow to deliver any form of Local Nature Recovery Strategy (LNRS) introduced under the Environment Act 2021 - Local nature recovery strategies Section 106. It is understood that when available, the Wiltshire and Swindon Local Nature Recovery Strategy will consist of a document containing biodiversity priorities and a habitat map which will inform and guide nature recovery across Wiltshire. It is suggested that this strategy should look in detail at the current application site and surrounding areas, as even the existing preliminary survey data has identified protected species.
- 13.4 It is important to note that the UK is one of the most nature depleted countries in the world with nearly one in six species threatened with extinction. Much of this decline is due to the intensification of human land use. This has led to natural and semi-natural habitats being degraded and fragmented which, alongside climate change is resulting in a loss of biodiversity. Allowing a large-scale electricity generating installation on land South of Potterne Park Farm will lead to further degradation and fragmentation of valuable natural habitats, including ancient woodland.
- 13.5 The National Planning Policy Framework provides weight to rejecting the proposal for 80 hectares of permanent electricity-generating installation in an area rich in biodiversity, protected species and adjacent habitats of recorded importance. The site offers significant opportunities for reducing biodiversity decline, with the existing baseline biodiversity enhanced with payments from the Countryside Stewardship Scheme. The true value of this site has been totally underestimated by the evidence provided by the Applicant. Where there was clear potential from the preliminary surveys, the Applicant simply put a red line around the problem. The supporting information masks unacceptable levels of soil damage, noise pollution and land instability. Wiltshire Council must recognise the intrinsic character and beauty of the countryside that will be destroyed by this proposal, and request further information regarding best and most versatile agricultural land.
- 13.6 In terms of Local Policy Guidance for Wiltshire, Policy 42 states that *"proposals for standalone renewable energy schemes will be supported subject to satisfactory resolution of all site specific constraints. In particular, proposals will need to demonstrate how impacts on the following factors have been satisfactorily assessed, including any cumulative effects, and taken into account:*
- i. The landscape, particularly in and around AONBs
 - ii. The Western Wiltshire Green Belt
 - iii. The New Forest National Park

- iv. Biodiversity
 - v. The historic environment including the Stonehenge and Avebury World Heritage Site and its setting
 - vi. Use of the local transport network
 - vii. Residential amenity, including noise, odour, visual amenity and safety
 - viii. Best and most versatile agricultural land”.
- 13.7 This report identifies how even the desk-based/erroneous information submitted in ‘support’ of the proposal reveal the detrimental impact of the permanent electrical installation will have on this rural landscape, the biodiversity of the site, the use of the local transport network, residential amenity (particularly visual amenity) and flooding on and off-site. At the time of writing, it is impossible to determine whether there will be an impact on best and most versatile land, as the Applicant has not supplied the Agricultural Land Classification report they have commissioned.
- 13.8 It has also been possible to demonstrate that the omissions and inaccuracies in the accompanying documentation result in the proposal being contrary to
- Policy 51 Landscape (no assessment from the Salisbury Plain to the south of the site, insufficient photographic data including photomontages, no consideration of the visual amenity of local residents overlooking the site, the need for a detailed glint and glare study as suggested by the Applicant’s consultant Page Power, poor landscape impact assessment with significant errors and omissions – including no assessment of the substation. The solar panels alone have the height and massing of portakabins);
 - Policy 50 Biodiversity (potential to destroy existing biodiversity created by the Countryside Stewardship scheme, provisional surveys only undertaken, detailed surveys on protected species such as badgers/bat foraging routes and roosts/dormice/slow worms/adders not undertaken, area of potentially high value existing habitats and wildlife not surveyed yet surrounded by the development, no assessment of BNG when there is a clear risk of a negative impact, no regard to current research and the detrimental impact of solar farms on bats/sward composition beneath the arrays);
 - Policy 58 Ensuring the conservation of the historic environment (no trial trenching proposed as requested by the Assistant County Archaeologist, no details on the impact on the listed building that overlook the site, no further investigation of the historic importance highlighted by the landowner in response to a previous application);
 - Policy 67 Flood Risk (inadequate and erroneous information provided, particularly in regard to surface water flooding, existing agricultural drainage and lack of acknowledgement of other water features such as ditches) and
 - Policy 52 Green Infrastructure (no detailed impact on users of the rights of way, no information on how the bridleway would be impacted during construction and by the trenching on the site, use of photographs that are not even of the existing footpaths/bridleways on the layout plan). This site will affect 2km of Public Rights of Way, which is a very significant impact when compared to the fact that of the 54 operational and currently approved sites in Wiltshire, there is a total of 4.3km of PRowWs that cross the site. This makes the impacts on the PRow on this site the most significant in the 13yr history of Wiltshire dealing with ground solar planning.
- 13.9 It is important to note that there have been recent planning decisions that readdress the balance between need for solar farms and protecting the rural environment. Application

21/70004/SCRE was for a proposed solar park and associated infrastructure across a 43.3ha (approx. 107 acres) site in Cambridgeshire on Land North East Of Bates Lodge, Peterborough Road, Haddon. This application was rejected following concerns about "the irreversible loss" of agricultural land and an "adverse impact to the landscape and countryside character". The Alfreton solar farm Appeal was dismissed (APP/M1005/W/22/3299953), where planning inspectorate said the 185-acre site would 'present as a starkly industrial mass of metal'.

- 13.10 Wiltshire solar targets have already been met and substantially exceeded. The proposed substation would be a large construction project, and would create a very strategic and enduring asset. It is probable that an initial development phase would be followed by expansion plans on the remaining 300 acres of Potterne Park Farm. From the construction through to operation, the immediate and long-term environmental implications of siting this development in Potterne Vale will result in major adverse impacts. The site does not have the environmental carrying capacity to support such an industrial scale electricity generating project. It is therefore contrary to the national and local planning policy framework.

Section 14 Conclusion

- 14.1 The information in this report demonstrates that this Application is contrary to both National and Local Planning Policy. It had been 'supported' by inaccurate reports with insufficient detail. The site simply does not have the environmental carrying capacity to support a viable solar farm. The site is sub-optimal even when simply considering the aspect, shading and surface water flooding. Much of the so-called benefits put at risk the existing biodiversity. The site has had the benefit of management under the Countryside Stewardship Scheme and includes productive agricultural land. The proposals will leave irreversible damage to the future agricultural production of this area, even if the best and most versatile land on the farm has been avoided.
- 14.2 The existing and emerging research is identifying significant adverse impacts of solar installations in rural areas on agricultural land. There are significant recent developments in renewable energy, which will reduce the reliance on land-based solar proposals. Furthermore, several recent decisions by Local Planning Authorities have recognised the incongruity of such developments in rural areas.
- 14.3 A perfect storm of inflation, supply chain disruption, spiraling interest rates and delays in connection to the National Grid means that the swathe of solar farms approved and going through planning permission in the UK are likely to be severely delayed or cancelled, undermining any hopes of achieving the Government target of a fivefold increase to 70GW by 2035. There are emerging renewable alternatives that will be more efficient in the relatively poor sunlight of the UK. As CPRE repeatedly argue, there is also enough rooftop area to accommodate the national requirement for solar. Furthermore, as solar technology becomes more efficient, it will require less space.
- 14.4 Many of the claims made in support of the Application, such as sheep grazing and improvements to biodiversity, are seriously flawed. Sheep grazing under solar panels is notoriously problematic, the grazing season would be extremely limited if they are to promote ground nesting birds (in the noisy environment of inverters on relatively narrow strips of grassland that already exist) and the clear risk of increased ground water flooding from the proposals. There is significant biodiversity on the site that provides high value habitat for protected species. The proposal will have a major adverse impact on the users of 2km of Public Rights of Way, which is significant in the planning balance. The need to protect what exists, in terms of biodiversity, agricultural production, landscape amenity and green infrastructure, clearly outweighs the benefits of another solar installation in a county that has already exceeded its ambitious target for solar by around 40%.
- 14.5 Accordingly, this application should be refused.