

Ecology Technical Note for Minety Solar Farm.

JBM Solar Developments Ltd.

Date: 21/11/2025 | Pegasus Ref: P23-0965

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Document Management.

Version	Date	Author	Checked/ Approved by:	Reason for revision
V1.0	03/10/2025	AP	JB / EM	Internal review
V2.0	13/10/2025	JB	EM	Updated wording within point 6, para 1.3.
V3.0	21/11/2025	JB	EM	Updated based on client review and updated surveys 2025.



Contents.

1. Introduction.....	1
2. Assessment of Impacts	4
Designated Sites	4
Habitats.....	4
Biodiversity Net Gain	5
Protected and Notable Species.....	5
3. Conclusion.....	10
4. References	11

1. Introduction

- 1.1. This Ecology Note has been prepared by Pegasus Group on behalf JBM Solar Projects 14 Ltd., in relation to a Section 73 (S73) application for the consented Minety Solar Farm.
- 1.2. The Development, which comprises the installation of a renewable led energy scheme comprising ground mounted photovoltaic solar arrays and battery-based electricity storage containers together with transformer stations; access; internal access track; landscaping; security fencing; security measures; access gate; and ancillary infrastructure is located on land adjacent to Minety Substation, Wiltshire ('the Site') and was granted planning consent on 7th April 2022.
- 1.3. The purpose of this S73 application is to make the following 11 amendments to the approved Site Layout and Landscape Strategy due to requirements from the Engineering, Procurement and Construction contractor:
 1. Increase the hybrid inverter/battery container areas from 11 to 13 and amend the layout from a linear to a square configuration;
 2. Relocate the access track located north of panel Field 1 so that it runs adjacent to panel Fields 2 and 3, rather than adjacent to the site boundary;
 3. Increase the size of the Construction Compound adjacent to the Western Access;
 4. Amendment to the consented delivery hours to the construction compounds (from 10:00–16:00 on Monday–Friday to 08:00–16:00 Monday–Friday);
 5. Relocation of Construction Compound from panel Field 8 to panel Field 15 adjacent to Eastern Access and a further temporary Construction Compound location to the east of Field 15 (where there are currently no panels) with a Public Right of Way (ProW Hank 12) temporarily diverted around this;
 6. Introduction of a Construction Compound to an area to the east of Field 2 (where there are currently no panels);
 7. Various adjustments to access track including provision of additional turning heads to assist with construction phase;
 8. Removal of an existing concrete track and provision of additional panels in this location;
 9. Various micro adjustments to field panels and fence locations, including southern boundary of panel Field 7 to ensure the required buffer to the SSSI;
 10. Requirement to install a cable between Field Panels 3 and 4 in a narrow strip of the application site; and
 11. Removal of a small section of planting (as demonstrated in the blue hatched area in the accompanying Landscape Masterplan document) from the Planting Plan and BNG calculations, as this area has now been purchased by National Grid to facilitate the

expansion of their substation. This planting will now come forward through a separate application (Reference: PL/2022/O9258).

1.4. Below is each proposed amendment addressed regarding potential impact on ecology:

1. The increase of hybrid inverter/battery containers from 11 to 13 and alterations to their layout are not expected to have any significant effect with regard to ecology. These installations are limited to pre-designated zones, their functions remain the same, and they do not result in a footprint increase.
2. The relocation of the access track is not expected to have any ecological impacts as it doesn't result in additional habitat loss or fragmentation and by following the panel field boundaries rather than the site boundaries, it becomes less disruptive to the hedgerow and grassland habitats.
3. The increase of the construction compound size is not expected to have any additional ecological impacts. The baseline habitats where the compounds will be placed poor semi-improved grassland which is of low value and will be re-instated following the development to poor semi-improved grassland. The temporary change of the compound size is applicable only during the construction phase and the habitats found there will be recreated post-construction, so no significant impact is expected.
4. The extension of delivery hours by two hours from 10am to 8am is not expected to have any significant effects or lead to any significant additional noise and light pollution that would affect local wildlife. The delivery hours are still during daylight and therefore impacts to mammals which are predominantly nocturnal, such as badger, are not expected to increase.
5. As with point 3, the relocation of construction compounds is not expected to have any ecological impacts as it constitutes a temporary change applicable only during the construction phase and the habitats found there will be recreated post-construction.
6. As with point 3, the introduction of a construction compound is not expected to have any ecological impacts as it constitutes a temporary change applicable only during the construction phase and the habitats found there will be recreated post-construction.
7. The provision of additional turning points along the access track have been scoped out as this is considered a minor change, unlikely to cause significant ecological impacts.
8. The removal of an existing concrete track and replacement with additional panels, may have positive impacts on ecology due to the increase in grassland areas created underneath panels, although given the small area, this is not considered to be significant.
9. Any amendments to panel and fence locations, including ensuring required buffers to the SSSIs, should reduce the overall ecological impact of the project and ensure nearby nature conservation designations are appropriately protected.

10. The installation of a cable may lead to minor, localised disruptions during the process, but should not result in significant long-term ecological impact given the small area temporarily impacted.
 11. The removal of a section of planting will reduce the overall area of ecological enhancements and therefore may have negative ecological impacts. This change will also require recalculation of the Biodiversity Net Gain (BNG) metric.
- 1.5. Amendments 1–10 have been scoped out of further assessment. The following sections focus on the impacts of Amendment 11 on ecological features.
- 1.6. The original planning application was informed by an Environmental Statement (ES), of which Chapter 7 – Biodiversity was produced by Avian Ecology (Avian Ecology, 2021) based on information gathered through a desk study, extended Phase 1 habitat survey, preliminary roost assessment (PRA) and botanical surveys.

2. Assessment of Impacts

Designated Sites

- 2.1. The 2021 ES Chapter confirmed that the Site was not located within any statutory or non-statutory designed site for nature conservation. However, Emmett Hill Meadows Site of Special Scientific Interest (SSSI) and Cloatley Farm SSSI were identified immediately adjacent to the Site boundary. Two Local Wildlife Sites (LWS) were also situated adjacent to the Site; Park Copse, Charlton and Stone Hill Wood LWS, both located to the south. They were designated for their woodland habitats, with ancient woodland present within Stone Hill Wood.
- 2.2. Through the adoption of standard measures to ensure runoff control and pollution prevention, no residual impacts were anticipated on any statutory designated site within the 5km study area.
- 2.3. Emmett Hill Meadows SSSI and Cloatley Farm SSSI will be subject to a protective 20m standoff buffer (biodiversity protection zone) for the duration of the works.
- 2.4. The habitats and species present within Park Copse LWS and Stone Hill Wood LWS will not be impacted directly by the construction works. Indirect impacts will be minimised. All construction activities will be undertaken during daylight hours. Lighting will be restricted to compound areas only, which are located well away from woodland and boundary habitats. Both LWS's will be subject to a protective 15m standoff buffer (biodiversity protection zone) for the duration of the works.
- 2.5. The size and scale of the Proposed Development remains consistent with the previously consented scheme. No further impacts are anticipated on any statutory or non-statutory designated site beyond those considered within the ES Chapter. As a result, the conclusions of the ES Chapter in relation to designated sites are still considered valid.

Habitats

- 2.6. At the time of the extended Phase 1 habitat survey (March 2020), the Site was described as comprising of arable land, improved and semi-improved grassland, hedgerows, broadleaved plantation woodland, individual trees, scrub, streams and ditches.
- 2.7. The ES Chapter highlights the inclusion of measures to safeguard and enhance higher value habitats. The proposals included the retention of existing hedgerows and valuable trees, alongside extensive new tree planting; new hedgerows and infill hedgerow planting; and botanically diverse grasslands.
- 2.8. Amendment 11 includes the removal of a section of planting from the Planting Plan as this area has now been purchased by National Grid to facilitate the expansion of their substation. The section which will be excluded consisted of poor semi-improved grassland and broadleaved plantation woodland that was going to be retained. This is not considered to have significant ecological impacts due to its small size and lack of enhancements that were to be undertaken in this area. The majority of the Site is still going to be enhanced, and new habitats will be created in large areas elsewhere on Site, therefore no significant impacts are expected. As a result, the conclusions of the ES Chapter in relation to habitats are still considered valid.

Biodiversity Net Gain

- 2.9. A biodiversity net gain (BNG) assessment was undertaken using Metric 4.0 (Walker and Stevens, 2023) which predicted the Development would result in a **69.95% net gain in habitat units** and **21.19% net gain in hedgerow units**.
- 2.10. Mandatory Biodiversity Net Gain (BNG) is required for planning permissions granted in respect to applications made from 12th February 2024. Permissions granted for applications made before this date are not subject to mandatory BNG requirements, this applies to S73 permissions where the original permission to which the S73 relates to was granted before this date. However, a BNG assessment (using Metric 4.0) was undertaken for the original Development, and as such the amendments and updated landscape scheme have been assessed using the latest Statutory Biodiversity Metric.
- 2.11. Adopting the Statutory Metric, the BNG assessment (Pegasus, 2025) shows that the updated landscape scheme will deliver a net gain of **70.13% habitat units** and **21.19% in hedgerow units**. Therefore, the updated landscape plans increase the net gain on Site for habitat units and the net gain for hedgerows remains the same. This is due to the baseline value of the Site being lower than previous, as a result of the removed area of landscaping. Therefore, no significant impacts are predicted on the BNG on Site as a result of the updated designs.

Protected and Notable Species

Wintering Birds

- 2.12. In summary, only two target species; mallard *Anas platyrhynchos* and green sandpiper *Tringa ochropus*, were recorded within the Site, and no target species were recorded within the wider survey area (an approximate 600m radius area around the Site). Eleven secondary species were observed within the Site and no secondary species were recorded within the wider survey area.
- 2.13. The ES Chapter concluded that the Site was of negligible importance for target species and that any small number of displaced species resulting from the Proposed Development would likely use alternative comparable habitats in the surrounding area. Additionally, it highlighted that the planned enhancements would benefit target species.
- 2.14. No additional impacts on wintering birds are anticipated as a result of Amendment 11, due to the small scale of the change. The area which is to be excluded consisted of poor semi-improved grassland and broadleaved plantation woodland which was proposed to be retained and is of low suitability for wintering birds. As a result, the conclusions of the ES Chapter in relation to wintering birds are still considered valid.

Otter

- 2.15. No otter records were found during the desk study or the Site survey. However, a single otter spraint was recorded on a dry ditch on the site's eastern boundary during updated surveys in 2025. This was recorded during a period of drought. This may be indicative of an opportunistic otter, ranging into new territory in search of suitable food sources, given the drought conditions throughout the region. In any case, it is acknowledged that otter are likely to pass through the site using the ditch networks.

- 2.16. No other field signs of otter were recorded, and no obvious signs of a holt or suitable holt location were identified at the time of the 2025 surveys. Nonetheless, terrestrial habitats which are most likely to offer suitable cavities for otter occupation, such as exposed tree roots within hedge-lined ditches and woodland, will be largely retained. The ES Chapter highlights the inclusion of measures to safeguard and enhance these higher value habitats.
- 2.17. A protective 5m standoff buffer from all watercourses will be adopted for the duration of the works. Further simple precautionary mitigation measures have been recommended in the pre-start otter report. These include, but are not limited to silt management, providing a means of egress to any open excavations and soft blocking of open pipework during cable installation. Furthermore, security fencing located around the Site perimeter will have mammal gaps or gates positioned at regular intervals along the base of fences to maintain dispersal routes and connectivity around the Site and into the wider landscape for any passerine otters.
- 2.18. In lieu of the above, Amendment 11 is not considered to result in any additional impacts for any otter on or passing through the site.

Water vole

- 2.19. Water vole records were identified during the desk study within 5km of the Site but no evidence of water vole was found during the Site survey. The Site was considered to be of some suitability to water vole due to the presence of ditches and small streams, however this was limited due to sparse vegetation and very shallow water levels in some areas.
- 2.20. Updated site surveys in 2025, included for eDNA analysis of water samples collected from two of the larger watercourses onsite. One was located in the western land parcel and one in the eastern land parcel. Neither ditch has connectivity to the other, and hypothetically, should water vole be present, would therefore denote two autonomous colonies.
- 2.21. Both water samples returned negative results for water vole eDNA, in all 12 replicates. It is therefore reasonable to conclude the species is absent from the site.
- 2.22. Amendment 11 is not considered to result in any additional impacts on water vole, given that the species has been confirmed absent at the site. Taking into consideration any populations further downstream beyond the site confines, the conclusions of the ES Chapter in relation to water vole are still considered valid.

Hazel dormouse

- 2.23. Updated surveys in 2025 confirmed the presence of hazel dormice on site. Construction of the solar farm will impact upon suitable habitat, specifically in relation to the erection of fencing, provision of access and installation of CCTV and cabling. Indirect impacts will also result from vibration and noise disturbance. These activities will result in the severance of dormouse habitats and dispersal routes, albeit temporarily, given that restocking of hedges is proposed to mitigate the disturbance to the species.
- 2.24. These actions will only be permitted under the conditional granting of a European Protected Species Mitigation (EPSM) licence from Natural England. At the time of writing, application 2025-72392-EPS-MIT was under assessment with Natural England and awaiting determination.

- 2.25. Amendment 11 is not considered to result in any additional impacts on dormice which have not already been accounted for within the EPSM licence application. It is expected that if all the mitigation measures, as set out within the EPSM are implemented, the proposed development will not result in any long-term or permanent impacts upon the local dormouse population and dormice will be retained within the local area at favourable conservation status.

Bats

- 2.26. The ES Chapter noted one structure on Site with negligible bat roost suitability (BRS). Within the Site, bat roosting opportunities were considered to be limited to the hedgerows which contained varying numbers of semi-mature and mature trees and a number of stand-alone mature oak trees within fields. The majority of the Site was not considered suitable for foraging and commuting bats due to it being predominantly arable land. The only parts of the Site which were considered suitable for foraging and commuting bats were the hedgerows with trees along the field boundaries which connected to adjacent woodlands.
- 2.27. The habitats including boundary hedgerows within the Site were to be mostly retained, thereby retaining suitable foraging and commuting opportunities within and adjacent to the Site. Preservation of foraging routes, particularly for light-averse species such as Long-eared, Horseshoes and Myotis, will be maintained by undertaking construction activities during daylight hours. The use of artificial lighting will be permitted for time limited use within compound areas only, whereby light spillage will be regulated through the careful positioning of lighting so as not to illuminate boundary features.
- 2.28. The ES Chapter noted the landscape scheme would provide enhanced habitats for foraging and commuting bats through the planting plan including the enhancement of hedgerows. In addition, the cessation of intensive agricultural management and pesticide applications, was reported to likely result in increased prey for bats. The inclusion of eight bat roost boxes was considered to be beneficial for the local bat population post-development.
- 2.29. Amendment 11 is not expected to have any additional impacts to roosting, commuting or foraging bats, as the majority of the excluded area consists of poor semi-improved grassland which is of low value to bats. A small area of woodland lies within the excluded area, however the majority of woodland remains within the Site and will be retained, thereby ensuring the Site continues to be suitable for foraging, roosting and commuting bats. The previously recommended enhancements for bats will still be implemented and as a result, the conclusions of the ES Chapter in relation to bats are still considered valid.

Badger

- 2.30. Updated survey effort in 2025 confirmed the presence of the previously identified badger main sett, which is located within a narrow woodland strip on the eastern side of the Site. The sett was confirmed to be active and expanding.
- 2.31. The 2025 survey effort also found further clusters of sett holes within Perlieu Plantation. A small woodland which abuts the site's red line boundary in the eastern land parcel. These were considered to be the likely result of outlier sett expansion. A further single hole outlier sett was recorded in the western land holding.
- 2.32. Amendment 11 has allowed for a redesign which will see the boundary fencing relocated so that it avoids the entirety of the main sett. The redesign of the fence layout allows for both

the retention of the main sett and a 30m protective buffer around it. Therefore, avoiding the need for exclusion of the clan to an artificially substituted source of shelter.

- 2.33. One cluster of sett holes, located within the off-site plantation, but where a 30m protective buffer cannot be maintained, even with scheme redesign, will be closed under the provisions of a licence from Natural England for the duration of the works. These sett holes are not considered to be in permanent usage, and are permitted to be closed without detriment to the badger population at a site level, given the recorded availability of alternative natural shelter.
- 2.34. The ES Chapter noted that the solar panels would be raised off the ground, and the perimeter security fence would include small mammal gates at the base to allow free movement of badgers, therefore no permanent habitat loss or severance effects were expected during the operational lifetime of the solar farm. The ES Chapter concluded the proposed landscape planting would provide continued and enhanced foraging opportunities and habitat connectivity in the wider environment.
- 2.35. No additional impacts on badger are anticipated as a result of Amendment 11 due to the small size of the habitat that is to be temporarily excluded. The size and scale of the Proposed Development remains consistent with the previously consented scheme, with large areas of habitat retained and/or enhanced for badger. As a result, the conclusions of the ES Chapter in relation to badger are still considered valid.

Amphibians (including Great Crested Newts) and Reptiles

- 2.36. Great crested newts (GCN) are confirmed present within ponds on-site and in the surrounding area. Since approval, a District Level Licence, (DLL) from Natural England has been granted for the Proposed Development. In addition, a GCN Mitigation Strategy has been developed that sets out what mitigation and enhancement measures are to be adopted during the construction phase to avoid adverse impacts on this species.
- 2.37. With regards to reptile species, the desktop study did not reveal any records within close proximity to the site. Physical survey effort and searches also returned a nil conclusion for reptiles at the site. Land within the Site is dominated by arable and grassland, which is intensively managed and considered to be low suitability habitat for reptiles. More favourable habitat is present along hedgerow bases, field margins, and woodland edges which will be largely retained and safeguarded during the works.
- 2.38. The ES Chapter stipulated that all mitigation and enhancement measures were to be incorporated in the CEMP and LEMP, and concluded that the proposed landscape planting including creation of structurally diverse grasslands and new hedgerow planting, as well as the creation of habitat piles, would offer enhanced terrestrial habitat for both amphibian and reptile species improving foraging opportunities and increasing cover. Therefore, no significant negative impacts were predicted on amphibians and reptiles.
- 2.39. Amendment 11 is not considered to result in any additional impacts on GCN which have not already been accounted for within the DLL application. It is expected that if all the mitigation measures, as set out within the CEMP and LEMP are implemented, the proposed development will not result in any long-term or permanent impacts upon the local amphibian or reptile populations, and GCN specifically will be retained within the local area at favourable conservation status.

Other Notable Species

- 2.40. The Site was considered to provide suitable habitat for brown hare *Lepus europaeus* and hedgehog *Erinaceus europaeus*, both listed as priority species on Section 41 of the NERC Act 2006. Additionally, the hedgerows within the Site were considered to provide suitable habitat for brown hairstreak butterfly *Thecla betulae*, which are protected under the Wildlife and Countryside Act 1981 and are classified as a priority species in the UK Biodiversity Framework.
- 2.41. The proposed landscape planting was considered to offer enhanced habitat for brown hare, hedgehog and brown hairstreak butterflies. The ES Chapter concluded no significant negative impacts on these species as a result of the Proposed Development.
- 2.42. No additional impacts on brown hare, hedgehog and brown hairstreak butterflies are anticipated as a result of Amendment 11 due to the small size of the habitat excluded. The size and scale of the Proposed Development remains consistent with the previously consented scheme and the proposed landscape planting recommended previously will still be implemented, offering enhanced opportunities for these species. Therefore, no significant impacts are expected on brown hare, hedgehog and brown hairstreak butterfly and the conclusions of the ES Chapter in relation to these species are still considered valid.

3. Conclusion

- 3.1. The proposed amendments are small-scale and have been micro-sited so to only impact areas of poor semi-improved grassland, deemed to be of low value, a small area of plantation woodland and a limited number of hedge severances (on average measuring less than 10m each), the loss of which will be temporary in nature.
- 3.2. The size and scale of the Proposed Development remains consistent with the previously consented scheme, with previously agreed upon recommendations in terms of mitigation and enhancement still being implemented. Higher value habitats, including hedgerows and woodland, will be retained and/or enhanced in line with the dormouse EPSM, great crested newt DLL and badger licence, as applicable. Therefore, no additional impacts on designated sites, habitats or protected and notable species are anticipated as a result of the proposed amendments.
- 3.3. This Supplementary Ecology Note provides confirmation that findings and recommendations in the 2021 ES Chapter, as updated by the 2025 site surveys accordingly, remain valid for this S73 application. Provided the recommendations are implemented in full, the amended layout proposed as part of the S73 application will have no significant increase in the impact on biodiversity compared with the current consented scheme.

4. References

Avian Ecology (2021). Minety Solar Farm. Environmental Statement. Technical Appendices. Chapter 7. Biodiversity.

Pegasus Group (2025). Land adjacent to Minety Substation. The Statutory Biodiversity Metric

Walker, B. and Stevens, J. (2023). Land adjacent to Minety Substation. The Biodiversity Metric 4.0.

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