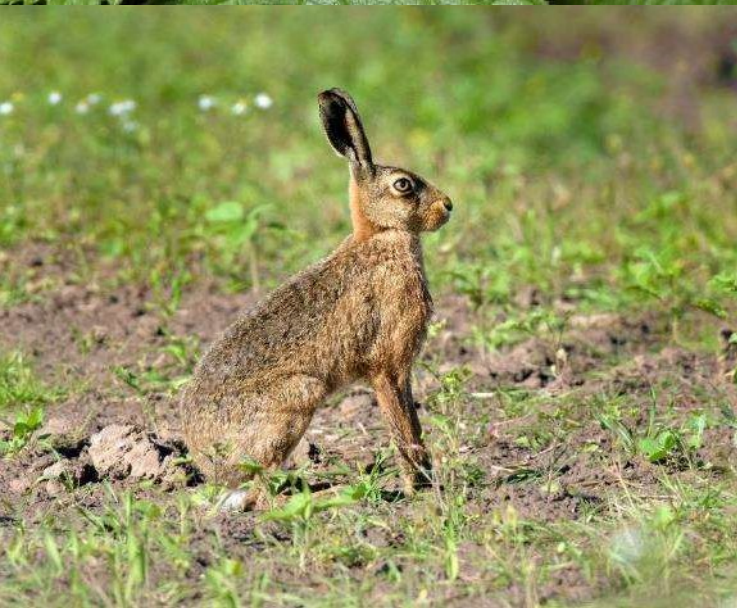


Pathfinder Clean Energy (PACE) Ltd
UKZ157 - Tydd Solar Farm
Biodiversity Net Gain Assessment and Strategy



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Please note that all figures, plans and measurements used in this analysis were provided by the client, PACE. AW Ecology is not responsible for the accuracy of these figures, but our independent checks have not revealed any discrepancies between the figures provided and our field survey findings.

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Summary

1. This Biodiversity Net Gain Assessment and Strategy Statement has been prepared on behalf of Pathfinder Clean Energy Ltd. (PACE) Ltd in support of a planning application for a ground-based solar farm on arable farmland to the east of Sutton St Edmund, Lincolnshire.
2. The baseline primary habitats within the development site are arable farmland with fields bounded by tracks and with a network of drainage ditches. The drainage ditches typically hold water for more than 4 months of the year (and some, including Lady Nunn's Old Eau and Straight Reach hold water throughout the year) but many of the smaller ditches were dry at the time of the initial Phase 1 habitat survey in the summer of 2022. There is a small copse of approximately 1.2ha embedded within the site boundary (but excluded from the development), but this ecological feature is devalued by the significant presence of non-native and invasive species and the virtual absence of an understorey or any natural regeneration due to deer pressure. There are no hedgerows on the site. There is very little grassland on the site, with field margins clearly affected by herbicide spray drift, compacted mown grass access tracks in places and a small patch (0.17ha) of species-poor "improved grassland" alongside a track in the northwestern part of the site.
3. Field surveys determined that only the water courses (and their banks) and the small copse within the site boundary had any notable ecological value, and these features were reduced in value by their poor condition at the time of survey. In brief, the baseline biological/ecological value of the application site was poor and habitat diversity was very low.
4. Apart from the copse, the only trees on the site were four stunted crab-apple trees (of non-native species or strains) in the middle of the site and a single large crack willow tree *Salix fragilis* on the northwestern edge of the site. But just outside the red line.
5. The main proposed habitat changes, which will lead to clear improvements in the ecological value of the site and therefore qualify as Biodiversity Net Gains, are:
 - a) The creation of more than 4.6ha of new native (and locally appropriate species composition) tree lines and copses with associated native hedgerow/scrub understorey and edge planting.
 - b) The conversion of the land under cultivation to native grassland with wildflowers, under and between solar panels on raised frames. This new grassland will be managed for wildlife interest and will have unimpeded access for all wildlife with the partial exception of deer, which are to be selectively excluded from designated exclosures within the site to protect vegetation, including new saplings, and a wider mesh outer perimeter fence designed to prevent possible damage to panels from larger deer species such as fallow deer).
 - c) The creation of new reedbed strips (totaling 1.64ha in total, extending 9m either side of each bank top) fringing two lines of ditches that run east-west in the western section of the proposed development.
6. Smaller scale proposed enhancements include the creation of a refuge for reptiles and amphibians at a strategic location.
7. In total, the Biodiversity Net Gain proposals will deliver a clear Biodiversity Net Gain across the site (a 173.5% net gain in "Habitat Units") that will be beneficial to local wildlife, will safeguard and benefit protected species and will contribute to the resilience of the wider local ecosystems.

1 Introduction

This assessment has been prepared on behalf of Pathfinder Clean Energy Ltd. (PACE) in support of a planning application for a solar farm on land to the east of Sutton St Edmund, Lincolnshire.

The site is situated less than 1km east of Sutton St Edmund and approximately 2km west northwest of Gorefield. The centre of the site is located at approximate grid coordinates TF 38286 12786. The site is poorly defined by roads, with Broad Drove West leading onto Elloe Bank only touching the northeastern corner of the site, and no other paved roads on the site boundaries. The western boundary of the site is defined by Straight Reach (drain) and the southern boundary by Treading Bank. The current land use is arable production (winter wheat in the 2022 growing season).

The application proposes the temporary installation of ground mounted solar photovoltaic (PV) farm with battery storage and substation; along with ancillary infrastructure and security/deer fencing, landscaping provision, ecological enhancements and associated works. The footprint of the proposed development would fall on land that is currently under intensive arable cultivation (including annual ploughing), while all existing habitats on the site such as ditches, a small copse and the very few other trees and shrubs on the site would remain *in situ*. No habitats of significant ecological value will be lost, and all existing habitats (with the exception of arable cropland) will be retained and/or increased in extent and/or enhanced.

This report was created to support a full planning application to be made imminently (at the time of writing, in December 2023). The proposed layout of the site has passed through several revisions to this point, but the latest revisions have involved the addition of new linear reedbed features along several ditch lines and a new section of native hedgerow to link the two existing hedgerow in the north-eastern corner of the site. The site boundaries and general layout are not expected to change significantly, but any changes will be addressed by revisions in the biodiversity net gain proposals where necessary. The assumption has been made that the strategy developed to date will ensure that all existing trees and shrubs (except for invasive or undesirable non-native species) and all water courses/drainage features will be retained and would not be subject to any negative change.

A field survey was carried out in July 2022 to determine the ecological baseline of the site and its immediate surroundings before the proposed development commences, to evaluate the likely ecological changes that could result from the development and to explore the opportunities for delivering realistic, deliverable, measurable and contextually valuable biodiversity net gains during the life of the project and beyond. An update survey was conducted on 7th November 2023 to verify that conditions on the ground had not changed significantly, to update the previous findings regarding badgers, and to inspect the ditches following maintenance work to cut back vegetation and clear obstructions to the watercourses. The figure at Appendix 1 shows the proposed layout and biodiversity enhancements of the proposed development.

This report aims to satisfy the requirements and recommendations of regional planning objectives and national legislation, including reference to: -

- The (superseded) Lincolnshire Biodiversity Action Plan 2011-2020 (3rd Ed), with particular reference to the stated priority habitats¹
- The Greater Lincolnshire Nature Partnership's Local Nature Recovery Strategy (2020)²
- National Planning Policy Framework (NPPF)
- "Conservation 21 Natural England's Conservation Strategy for the 21st Century"³
- The now superseded/devolved but still useful resources at; *UK biodiversity Action Plan* (UK BAP)⁴
- Environment Act 2021⁵

¹ Lincolnshire Biodiversity Action Plan (3rd Edition). (Accessed July 2022, link no longer valid In November 2023)

² [Nature Strategy 2020.pdf \(glnp.org.uk\)](#)

³ [conservation-21.pdf \(publishing.service.gov.uk\)](#)

⁴ [UK BAP | JNCC - Adviser to Government on Nature Conservation](#)

⁵ [Environment Act 2021 \(legislation.gov.uk\)](#)

2 Methods

Desk studies that helped inform this assessment are outlined in the Ecological Impact Assessment Report (AW Ecology dated November 2023). In brief, the following resources were consulted prior to conducting field surveys (and/or subsequently to verify information when necessary).

- Lincolnshire Environmental Records Centre;
- Cambridgeshire and Peterborough Environmental Records Centre;
- Multi-Agency Geographical Information for the Countryside (MAGIC, 2022);
- National Biodiversity Network Atlas⁶
- Ordnance Survey mapping;
- Aerial photography;
- The Woodland Trust online Ancient Tree Inventory;
- Lincolnshire Biodiversity Action Plan (BAP);
- Fenland Local Plan 2021-2040 (Draft Consultation Document dated August 2022); and
- Greater Lincolnshire Nature Partnership's Local Nature Recovery Strategy

Field surveys consisted of a walkover inspection of the land and habitats present following standard Phase 1 survey methodology (JNCC, 2010) and covered all accessible parts of the site, including boundary features. The only limitation of the field surveys was that access to a small, fenced plot containing a recently constructed pond outside, but on the northeastern boundary of, the site was not obtained in time for the initial Phase 1 survey, but this was addressed during the November 2023 survey when the pond and the surrounding site was fully surveyed.

The Biodiversity Net Gain principles applied are in accordance with and/or adapted from the suggested strategies outlined in the BRE (2014) document *National Solar Centre Biodiversity Guidance*⁷, RSPB – *best practice for solar farms*⁸ and with reference to the local authorities' stated priority habitats and species. The main outcome of applying these principles and priorities to this project is to propose the creation of meadow grassland with appropriate wildflower content in accordance with current best practice, to create new woodland and understorey shrub features, to create approximately 1.6ha of new reedbed, to enhance existing habitats where possible and to incorporate multiple small mammal (badger and smaller) access points through all the array compounds. The site layout and proposed enhancements are illustrated on the "Mitigation and Enhancement Plan" drawing attached at Appendix 1).

Natural England's Biodiversity Metric 4.0 Calculation Tool was used to quantify and analyse the value of the habitat changes being proposed.

⁶ [NBN Atlas - UK's largest collection of biodiversity information](#)

⁷ [NSC-Biodiversity-Guidance.pdf \(bre.co.uk\)](#)

⁸ [www.rspb.org.uk/solarfarmadvice](#)

3 Baseline Conditions

As stated above, the site is currently arable farmland with no buildings, no hedgerows and very few trees. The summer of 2022 immediately preceding the Phase 1 survey was unusually hot and dry, and the ditches on the site will have dried up to a greater extent and/or earlier than in a more typical year.

The table below shows the list of existing habitat types found within the site boundary (red line) along with the approximate area of each habitat. The figure at Appendix 2 shows the location of these fields and the habitats recorded within the boundary (source: PEA dated November 2022).

HABITAT TYPE	APPROXIMATE AREA
Cropland - Cereal crops The majority of the site is comprised of arable fields. This habitat was recorded as Cereal Crops within the metric as per the “UK Hab” Habitat Classification terminology.	127ha
Grassland - Modified grassland A small area of poor semi-improved grassland was identified along the south-eastern boundary of the site. This habitat was recorded as Modified Grassland within the metric. Fig. 2.	0.458 ha
Woodland (Copse) A small copse created approximately 20 years ago, containing a high proportion of non-native and invasive species. Fig. 1.	1.2ha
Ditches	C. 10km

Wildflower diversity across the site was very low and was clearly affected by the prevailing drought conditions, but also showed the scorching and curling typical of herbicide effects (likely spray drift from adjacent crops). The field boundaries (other than ditch banks) in July 2022 consisted of narrow, sparsely vegetated field margins and access tracks, with rank but generally sparse grasses (which had been mowed in places) with ruderal weeds including ragwort, groundsel, shepherd’s purse and poppy, with occasional patches of ox-eye daisy and lesser burdock. There were two large patches of ground near the copse that had recently been left uncultivated in 2022 and had been densely colonized by ruderal weeds dominated by (spear and creeping) thistle and ragwort, but in 2023 these areas had been brought back under cultivation.

The only permanent water on the site in July 2022 was in some of the larger/deeper ditches that had not completely dried out (many of the smaller, shallower ditches were dry, and shallower sections of some of the larger ditches were also dry). The total extent of water present was difficult to assess with any accuracy because the ditches were heavily (often completely) obscured/shaded by fringing and emergent reed growth that concealed the standing water from view.



Figure 1. Western Edge of Copse.

The Phase 1 survey demonstrated the presence/absence of:

- a. Brown hares distributed widely across the site.
- b. Two species of deer - roe deer and Reeves' muntjac, were present in significant numbers on the site as evidenced by sightings during the surveys, the presence of numerous hoof prints and droppings and conspicuous evidence of deer-related browsing damage.
- c. No amphibians were observed during the field surveys, and no reptiles were seen.
- d. Thirty-five species of bird were recorded, of which fifteen were either confirmed, probably or possibly breeding. Three species of birds of conservation concern (BoCC) were identified as breeding on the site including skylark, yellow wagtail, reed bunting and grey partridge. Two Schedule 1 bird species were noted – peregrine falcon – with two juveniles being seen on and around the site during the survey (but breeding on a communications tower away from the site), and a single marsh harrier (one of a pair breeding to the north of the site boundary). It was clear from the distribution of birds noted during the survey that the highest biodiversity and population density was associated with the small copse, with a smaller number of species inhabiting the reed fringes of the ditches and the open arable fields. A full list of birds recorded during the survey is included with the Ecological Impact Assessment Report.
- e. Common butterflies typical of open grassland (10 species were recorded) and two species of bumblebee were noted wherever there were nectar sources available.
- f. Three species of dragonfly and one of damselfly were noted, all locally common species and in low numbers.

The site is not subject to any statutory or non-statutory designations. The southern boundary of the site is 9.3km north of the Nene Washes SPA/Ramsar site and falls (just) within the site's Impact Risk Zone (IRZ) as it is within the 10km contour. It does not, however, lie within or adjacent to the identified "Goose and Swan Functional Land IRZs". There are no other statutory or (non-statutory) local conservation sites that are relevant to this application, and none within 2km of the site boundary.

All baseline habitats were identified, their condition assessed and geotagged photographic records taken during the Preliminary Ecological Appraisal process. The condition of the arable fields did not require assessment due to its low ecological value and the small areas of modified grassland were assessed as "poor" due to their structure and very poor species diversity. The existing copse and ditches were both assessed as being in "poor" condition in accordance with Natural England's Biodiversity Metric 4.0 Habitat Condition Assessment criteria. The proposed new habitats of native grassland with wildflowers and new tree/shrub plantings were conservatively projected to have a "moderate" projected habitat condition. Photographs illustrating the conditions of the copse and ditches at the time of survey are attached at appendices 3 and 4.



Figure 2. Western Site Boundary, Showing Track, Small Area of Improved Grassland and a Large Willow Tree.

4 Biodiversity Net Gain Proposals

There are two main proposals underpinning the Biodiversity Net Gain strategy for this project – the conversion of a little over 50ha of arable farmland into lowland meadow grassland, and the creation of 4.64ha of new native woodland (in the form of tree lines and copses) with native shrub understorey structure. There will also be a short section of new species-rich native hedgerow creation to provide visual screening from roadsides and to link two existing areas of hedgerows and trees.

4.1 Wildflower-rich Native Grassland Creation

The arable fields will be taken out of cropland agriculture and re-seeded with a native meadow mixture containing a varied mix of native grasses and wildflower species that will be beneficial to a wide variety of invertebrates, including pollinators, and will also provide food sources and habitat for a wide variety of wildlife including birds and smaller mammals. The intention is to seek the cooperation of the two local wildlife trusts to identify local donor sites as potential seed sources for selective reseeded as the site matures. Constructive discussions with Planning Authority ecologists and Local Wildlife Trusts at other sites have led to the classification of the proposed grassland habitats to be created as “other neutral grassland” for unshaded grassland areas (on this site, between the panels and the clear swathe under the high tension power lines that cross the site) and “modified grassland” for the areas shaded by the panels, as this shading is likely to inhibit botanical species diversity to some extent. These new areas of native grassland with wildflowers (132.5ha), of which 84.5ha would be of the higher diversity, unshaded “other neutral grassland” habitat type, have been proposed to help increase biodiversity within the site. The area of higher quality grassland delivered will be higher than this calculation suggests, as the degree of shading caused by the panels is very low at the northern edges, and only high at the southern edges of the panels.

The transition from intensive agriculture to a biodiverse mix of native grassland will take time to develop and mature, and a management plan will be put in place for the duration of the solar farm’s operation. The newly created grassland and hedgerow habitats will require monitoring, particularly in the first few years, to determine that establishment has been successful and to remedy any areas of failure or weakness. The grassland areas will be monitored for key factors including botanical diversity, variations in sward height and composition and other indicators of favourable conservation value. If after 4-5 years conditions botanical diversity is still low or vegetation is too rank, changes to the maintenance regime will be considered with advice being sought from the local Wildlife Trusts who have relevant experience in meadow creation/enhancement. It is hoped that, with the cooperation of the relevant Wildlife Trusts, local donor sites can be identified as potential additional seed sources for selective reseeded with locally occurring native grassland species to further increase over time the botanical diversity and local conservation value of the new grassland to be created. The aspiration remains to create areas of lowland meadow (or comparable) habitat over time.

4.2 Proposed Hedgerows

A total of 309m of new species-rich (i.e. which contain five or more native woody species in a 30 metre length) native hedgerows will be planted along the site boundary at Elloe Bank/Broad Drove West that will link the hedgerows around the houses and gardens to the east and the fenced small plantation at the southern end of the Elloe Bank road. This will provide enhanced connectivity for the small bat population at the residential properties and access to the pond and surrounding plantation. The location of this hedge can be seen in the Mitigation and Enhancement Plan (Drawing Ref: UKZ157_10) at Figure 4 below.

4.3 New Native Tree and Shrub Planting

The proposed species mix for the new tree lines and copses has not been finalized at the time of writing but will be of species consistent with the fenland setting, including *Quercus robur*, *Salix fragilis*, *Salix caprea*, *Corylus avellana*, *Crataegus monogyna* and *Prunus spinosa*. The proposed location and form of these new features is illustrated in the Mitigation and Enhancement Plan (see Appendix 1) and represents the creation of valuable new habitats that are currently entirely lacking from the site and the addition of visual interest in a currently monotonous landscape largely devoid of trees or hedges.

4.4 New Reedbed Creation

Most of the ditches on and around the site have narrow fringes of reeds that occupy the banks (Fig 3), with minimal incursion into the field margins. However, until recently there were two broad strips of reeds, each approximately 50m wide, straddling ditches on the northern boundary of the site and in the section southwest of the copse. These reedbed features covered a total area of approximately 1.85ha and their former location and extent is illustrated on the PEA Habitats Map (reproduced here at Appendix 2). At the time of writing (November 2023) these former reedbed features are still clearly visible on online aerial/satellite imagery (e.g. the areas outlined in purple in Fig 4 below) but in reality these features were lost in 2020 when these areas were recultivated and brought back into arable production and in July 2022 these areas were almost indistinguishable from the areas that had remained under cultivation (Fig 5).



Figure 3. Reed-fringed Ditch.

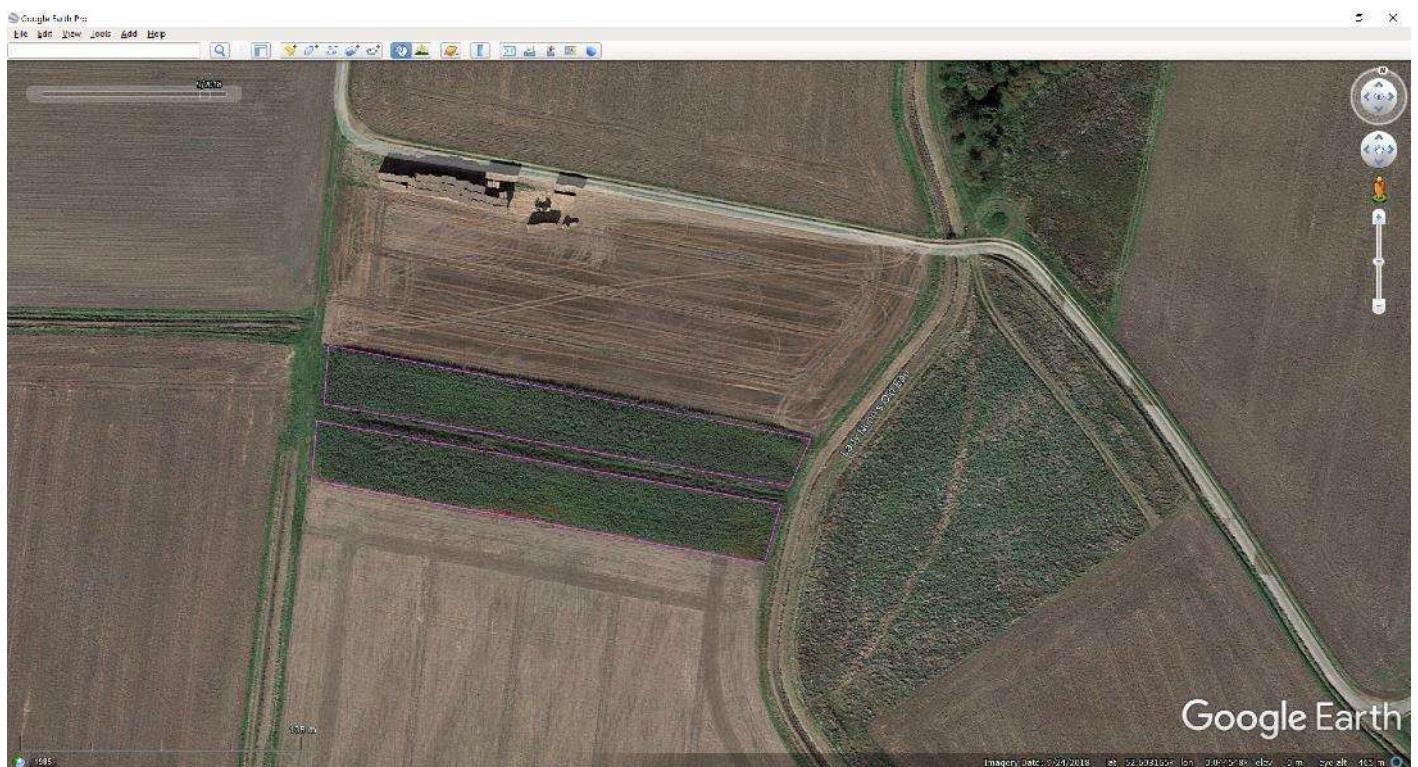


Figure 4. Google Earth™ Image Still Showing Lost Former Reedbed Habitat Within Site Boundary (Purple Outline).



Figure 5. July 2022 Condition of Area of Lost Reedbed Outlined in Figure 4.

The proposal is to create new reedbed features extending out from the banks of ditches that run east-west in the western part of the proposed development site. These reedbeds will extend the reed fringing of the banks into the adjacent level ground, creating new habitat for a variety of species including birds such as reed warbler, sedge warbler and reed bunting. These reed strips also offer potential breeding habitat for marsh harriers, which breed in rank vegetation on field margins elsewhere in fenland. These new reed strips will extend along a total of 880m of ditch length, and will extend for approximately 9m from each bank, giving a total area of reedbed of 1.584ha to be created. The MEP drawing (Appendix 1) illustrates the proposed location and extent of these proposed reedbed features.

4.5 Other Enhancements

4.5.1 Copse. Deer fencing will be introduced to mitigate the currently damaging levels of deer pressure as described and illustrated in the EclA report. The net result would be to significantly improve its condition (from the current “poor” assessment) by improving the species composition, encouraging the establishment of an understorey.

4.5.2 Reptile/Amphibian Refugia. It is proposed to construct a wood pile reptile/amphibian refuge on the southeastern edge of the copse (near one of the ditches), that would also provide habitat for a wide variety of invertebrates and fungi.

4.5.3 Bird and Bat Boxes. In the early years of the proposed development it is considered that there will be insufficient suitable habitat to support a resident bat population, and for this reason bat boxes are not proposed as part of the initial biodiversity/ecological mitigation proposals. The Lincolnshire Bat Group’s input at similar sites has also supported the priority of creating enhanced foraging conditions and habitat connectivity for local bat populations rather than the installation of bat boxes. There are currently no suitable locations for kestrel or barn owl nest boxes within the site boundaries, although this will change over time as the new trees mature and once the grasslands mature, a small number of pole-mounted kestrel/barn owl nest boxes will become a viable option.

5 Feasibility of Biodiversity Net Gain Proposals

All of the Biodiversity Net Gain proposals for this project are core parts of the development proposals rather than add-ons for the sole purpose of meeting targets. The switch from arable production to meadow establishment and maintenance is a logical and sustainable approach to the green landscaping of the ground holding the solar panels, and the new woodland/tree line features will define the site boundaries and visually screen the solar arrays to minimise visual impacts. Natural England's metric assessment matrices state "high" difficulty (and longer timescales) in establishing lowland meadow habitats, and it is understood that the establishment of high-quality wildflower rich meadow on arable land that has just been taken out of production can be complicated, particularly in the early years, by the presence of residual agricultural fertilisers in the soil that can lead to lush growth of dominant grasses and ruderal weeds unless kept in check. The proposed new species-rich native woodland/hedgerow habitats are given a "low" difficulty of creation. The new reedbed strips are also relatively simple to establish, as the reeds already show a natural tendency to encroach into adjacent field margins and this can be accelerated by the spreading of cut reeds with ripe seed heads from the ditch banks onto the relevant adjacent areas.

Throughout the evolution of this project, the Mitigation Hierarchy has been followed with avoidance of impacts being the preferred approach throughout (and reflected in the stated policy within this project of retaining all native trees, ditches and other ecologically valuable habitats across the site), and with appropriate impact mitigation/minimisation measures applied where some risks of impact are unavoidable (in this project these are primarily potential temporary disturbance impacts during works). The typical rehabilitation/restoration stages of the hierarchy are only minimally applicable within this project where the only existing habitats that will be directly impacted are arable fields of very low ecological value that will be replaced by extensive areas of new habitats of higher ecological value for a wider range of species of flora and fauna. There are no proposed offsets associated with this project.

The proposed management of the vegetation within the solar array compounds by pulse grazing rather than mechanical cutting will lead to a greater diversity of habitats, including varying vegetation heights, creation of bare patches and soil disturbance, and will contribute to the replenishment of organic content in the soil profile. The removal of sheep between March and August inclusive will give flowering plants time to flower and set seed and will provide valuable habitat for grassland wildlife, including small mammals and ground nesting birds, to flourish. Over time, grazing and removal of stock will lead to a slow reduction in soil nutrient levels to the benefit of more varied meadow flora of the types seen in the remnant local meadows.

Management of the retained/enhanced copse will involve regular (annual) monitoring to check for any detrimental deterioration through damage and/or disease. The monitoring process will put forward suggested remedial work measures to ensure the long-term survival of the existing retained trees and the healthy development of new habitats. The grazing regime will also be reviewed annually to ensure that the stated objectives are delivered.

Funding for the landscaping and enhancement proposals has been considered throughout the evolution of this project and are accepted as being core elements of the project's fundamental costs. The green landscaping proposals (recultivation of fields to meadow grassland and tree, shrub and reed planting) will occur during or immediately following the construction phase, while refugia and nest boxes will be installed when construction is complete and the risk of disturbance by construction activity has been removed.

6 Biodiversity Net Gain Delivery - Project Stages

Protection of existing wildlife and habitats and Biodiversity Net Gain aims and delivery will be considered throughout the project, with site contractors being briefed about aims, precautions and responsibilities during the construction phase. Green landscaping (soil preparation and seeding) within the solar array compounds will commence in stages across the site as soon as the installation works within each compound are completed. Creation of the new woodland sections will commence as soon as is practicable (dependent on best planting season and weather conditions) after construction works are completed.

The newly created grassland and hedgerow habitats will require close monitoring, particularly in the first few years, to determine that establishment has been successful and to remedy any areas of failure or weakness. The meadow grassland areas will be monitored for key factors including botanical diversity, variations in sward height and composition and other indicators of favourable conservation value. If after 4-5 years conditions diversity is still low or vegetation is too rank, changes to the maintenance regime will be considered with advice being sought from the Local Wildlife Trusts who have relevant experience in meadow creation/enhancement. Responsibility for auditing of the Biodiversity Net Gain programme will be carried by the appointed operative who will report to the relevant person at PACE Ltd (or its successor company or facility manager).

The new woodland/shrub planting will be initially audited in year 3 to determine whether the stated aims are on track to be delivered and, if not, what remedial action will be necessary. The grassland/meadow areas should be deliverable within a 10-year timescale, and should be audited at year 7, as lead times for remedial action in this habitat type are longer.

7 Conclusion

Biodiversity Net Gain at this site will be primarily delivered by:

- The conversion of existing arable farmland of low ecological value to wildflower-rich grasslands that are a scarce local habitat with much higher ecological value (that will increase over time);
- The creation of approximately 1.64ha of new reedbed;
- The creation of 4.64ha of native trees and shrubs;
- The creation of 309m of species-rich native hedgerow;
- The installation of deer fencing to protect new and existing woodland and shrub plantings; and
- Several smaller enhancements, including the installation of hibernacula and, at a later date, bird nest boxes.

Inputting the survey findings and proposals into Natural England's Biodiversity Metric 4.0 Calculation Tool produces the following results:

Applying weighting for the stated priority habitats, including woodland and lowland meadow, Natural England's Biodiversity Metric 4.0 Calculation Tool produces the following post-intervention results (Table 1), following the retention and/or enhancement of existing higher value habitats and the creation of significant new woodland and lowland meadow and two areas of new reedbed.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	487.83
	<i>Hedgerow units</i>	2.39
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	173.53%
	<i>Hedgerow units</i>	N/A (no existing hedgerows on site)
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

Table 1. Biodiversity Metric Calculator “Headline” Results.

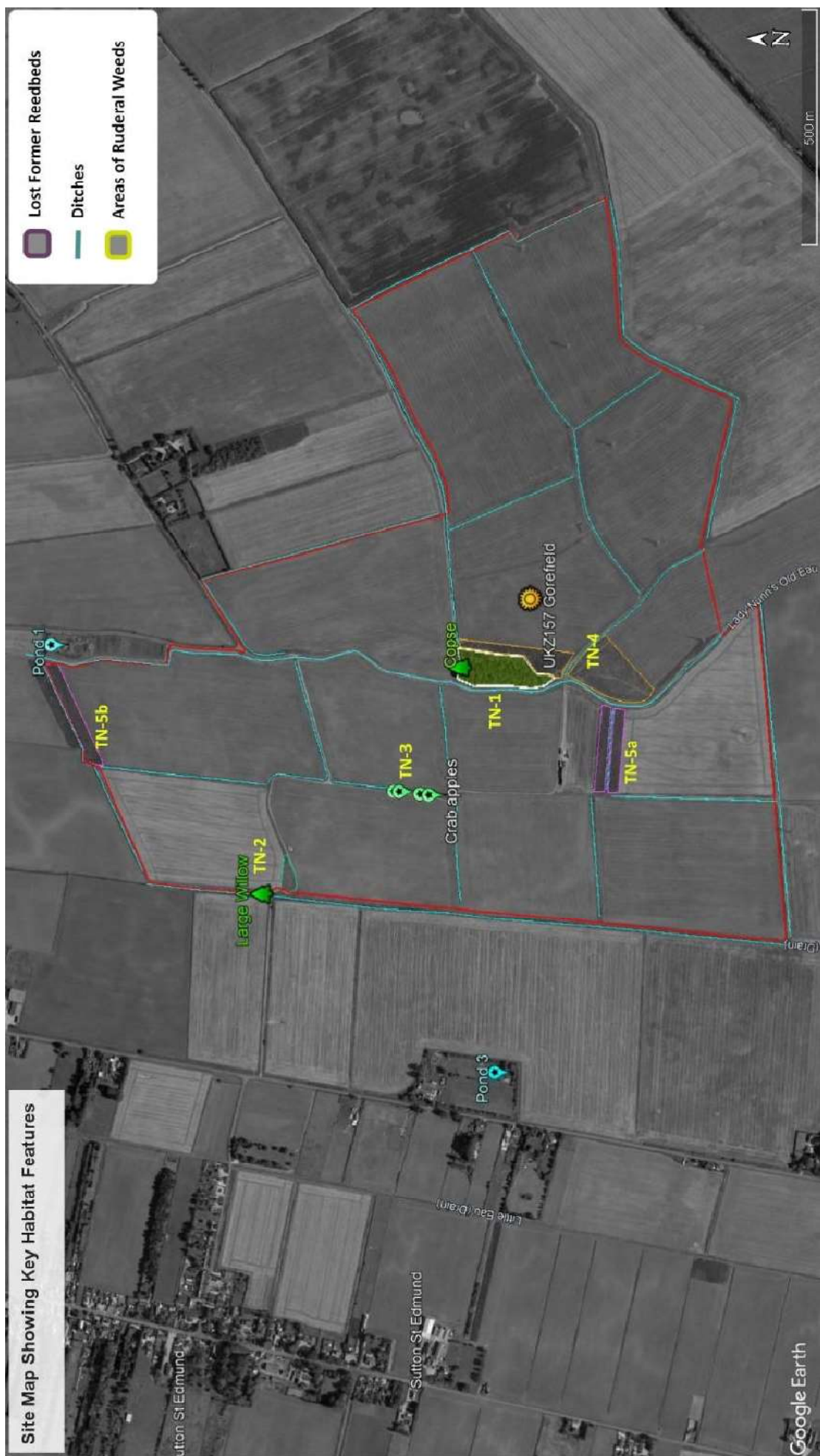
Following determination of the application, a more detailed biodiversity management plan will be produced as part of a planning condition. The figures in the table below should therefore be treated as an approximate indication of likely net gain from the proposed development that may be further improved following consultation during the planning process.

There is a very strong increase in the habitat units ascribed to the proposed post-development environment and the proposed development, with its associated landscaping and ecological enhancement proposals, would deliver a significant Biodiversity Net Gain to the local environment.

Appendix 1. Mitigation and Enhancement Plan



Appendix 2. Baseline Habitats Map (PEA)



Appendix 3. Images Showing Conditions at Copse on 15th July 2022.



Appendix 4. Images Showing Condition of Ditches on 15th July 2022 and 7th November 2023.



Lady Nunn's Old Eau – Heavy Duckweed and Filamentous Algal Growth in Small Areas of Open Water.



Complete Shading of Water Surface by Reed Growth (July 2022).



Lady Nunn's Old Eau - Turbid Water With Decomposing Filamentous Algae, November 2023.



7th November 2023. All Drains and Ditches Cleared to Site Boundary (Photograph Location)