
Sperberry Hill Solar Array

on behalf of Axis

Habitat Management and Monitoring Plan



Report Verification and Declaration of Compliance

This report has been prepared with reference to best practice guidelines for Ecological Impact Assessment in the UK and Ireland, as defined by CIEEM (2018) and is provided in accordance with the provisions of British Standard 42020:2013 Biodiversity: Code of practice for planning and development.

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1. INTRODUCTION

1.1 Background and Scope

1.1.1 Avian Ecology Limited (AEL) were commissioned to produce a habitat management and monitoring plan (HMMP) in relation to a consented Solar Photovoltaic (PV) Array development and associated infrastructure (the 'Consented Development', Planning ref: 24/02455/FP) located on land opposite Wymondley Grid Station and to the South Of Sperberry Hill, St Ippolyts, Hertfordshire (the 'Site').

1.1.2 This document has been prepared to discharge Biodiversity Net Gain Condition 1 of the approved permission, as follows:

The effect of paragraph 13 of Schedule 7A to the Town and Country Planning Act 1990 is that planning permission granted for the development of land in England is deemed to have been granted subject to the condition "(the biodiversity gain condition)" that development may not begin unless:

(a) a Biodiversity Gain Plan has been submitted to the planning authority, and

(b) the planning authority has approved the plan.

The planning authority, for the purposes of determining whether to approve a Biodiversity Gain Plan if one is required in respect of this permission would be North Hertfordshire District Council.

1.1.3 This document details how habitat creation, management and monitoring practices will achieve the biodiversity net gain objectives (i.e., habitat types and conditions) outlined within the approved biodiversity metric for the Consented Development required to fulfil statutory obligations under the Environment Act 2021 (and associated legislation).

1.1.4 Separate schemes have been submitted to discharge other planning conditions. A number of these schemes have some relevance to the HMMP, as outlined in **Table 1.1** below. In particular, the LEMP describes in detail the habitat creation and management procedures to be adopted.

Table 1.1: Relevant Planning conditions

Number	Requirements
4	Construction Environmental Management Plan (CEMP): Biodiversity
7	Detailed Surface Water Drainage Scheme
9	Archaeological Written Scheme of Investigation
16	Landscape Ecology Management Plan (LEMP)
17	Arboricultural Method Statement
19	Detailed Landscape Scheme, including hard and soft specifications and implementation
22	Soil Management scheme, including details of soil amelioration
26	Grazing Management Plan

1.1.5 This HMMP should be considered a working document and should be subject to regular review and updates throughout the lifetime of the Consented Development and as biodiversity interest develops.

- 1.1.6 This HMMP has been prepared with reference to Natural England template documents¹.

1.2 Site Overview and Context

- 1.2.1 Site details can be found in full within the Ecological Assessment Report² (EAR) for the Consented Development.

Site Context

- 1.2.2 The Site is located within the North Hertfordshire Local Planning Authority (LPA) area and is located wholly within National Character Area (NCA) 110 'Chilterns'. The Site context is shown on **Figure 1**.

Baseline Conditions

- 1.2.3 Full details of Site baseline conditions including survey methodologies and results can be found in the EAR for the Consented Development but are summarised briefly below.

Designated Sites

- 1.2.4 The Site does not form part of any statutory designated site for nature conservation, with Wain Wood Site of Special Scientific Interest (SSSI) being the only site located within 2km.
- 1.2.5 The Site does not lie within any non-statutory designated site for nature conservation. The search identified 15 non-statutory designated sites, all Local Wildlife Sites (LWS), within 2km of the Site. The nearest of these is Wymondley Transforming Station LWS, located 10m north of the Site and separated by Sperberry Hill road.

Habitats

- 1.2.6 No priority or irreplaceable habitats are present within the Site.
- 1.2.7 The Site comprises three arable fields, bounded by fragmented hedgerows, of which some lengths are intact, and others defunct. Where hedgerows are not present, field boundaries are marked by narrow margins of neutral grassland.

Habitat Degradation

- 1.2.8 There is no evidence that habitats have been degraded prior to baseline ecological surveys. Review of historic aerial imagery indicates the site has been in agricultural use since at least the year 2000 and likely significantly longer.

1.3 Consented Development

- 1.3.1 The Consented Development is for the construction and operation of a solar PV array and associated infrastructure for a period of 40 years. The Consented Development includes a grid connection to National Grid Wymondley Substation.

¹ <https://publications.naturalengland.org.uk/publication/5813530037846016>

² Avian Ecology (2024) Sperberry Hill Solar Array: Ecological Assessment Report

- 1.3.2 All BNG delivery will be achieved on-Site and works will not be phased.

1.4 Roles, Responsibilities and Funding

HMMP Author

- 1.4.1 This HMMP has been authored by J. Stevens. Mr Stevens is an experienced ecologist with over 9 years experience. He has undertaken BNG assessments utilising the Defra Statutory Biodiversity Metric and its predecessors, and has authored numerous management and monitoring reports, including HMMPs, Landscape and Ecological Management Plans and Biodiversity Management Plans.

Responsible Landowner and Management Organisation

- 1.4.2 Brockwell Storage and Solar Limited (BSSL) as the developer of the Consented Development (the Developer) will be responsible for the financial and practical delivery of the measures detailed within this HMMP.
- 1.4.3 The management and maintenance of the habitats within the Site, as set out in the HMMP will be the responsibility of the Developer, or their appointed management organisation.
- 1.4.4 All works associated with the implementation of the HMMP will be undertaken by experienced contractors and / or under the watch of a suitably qualified (and where required, licenced) ecologist.
- 1.4.5 In the event of a change of ownership, responsibilities held by the Developer will transfer to the new owners.
- 1.4.6 The Developer and any appointed contractors are expected to identify hazards associated with maintenance operations proposed and undertake a full Risk Assessment which will be recorded and retained for reference.
- 1.4.7 All works should be undertaken in accordance with the latest guidance on safe working practices, including information from the recognised industry bodies, the local authority and the government Health and Safety Executive.

Local Planning Authority

- 1.4.8 North Hertfordshire District Council as the LPA will be responsible for ongoing monitoring of works associated with this HMMP..

Funding

- 1.4.9 All works, including initial habitat creation and ongoing management and monitoring works would be funded by the owner of the Consented Development with funding to come from the operation of the Consented Development.
- 1.4.10 In the event of a change of ownership, responsibilities held by the Developer will transfer to the new owners.

1.5 Constraints to Habitat Management

- 1.5.1 Known constraints to achieving the biodiversity net gain objectives are outlined in **Table 1.2** below and have been considered in the design of habitat creation and management measures.

Table 1.2: Constraints to Habitat Management

Topic	Constraint to works	How considered
Designated Sites	No	No consideration required, all designated sites are located beyond the Site boundary and are physically separated. Designated sites are discussed in the EAR
Protected Species	Yes	No specific constraint however considered with regards to timing of management measures (e.g., avoiding vegetation works bird nesting season) . Protected and notable species are discussed within the EAR
Invasive non-native species	No	No invasive non-native species noted within the Site.
Public access	Yes	Three public footpaths cross the Site. Hedgerows will run alongside two of these. The final footpath will be located at the edge of an area of proposed species diverse grassland, and as such the proposed grassland may suffer some damage as a result of access. It is not considered that footpath use is of a magnitude that significant damage would occur Public access to the site would be limited to these routes, with security fencing preventing wider access.
Climate	Yes	Changing climate may present threats to planted species resulted in increased likelihood of failure. Where high rates of climate-related failure have occurred, substitution with more resilient alternative species shall be considered.
Agricultural land status	Yes	The Site comprises grade 2 and 3a agricultural land which is classified as 'best and most versatile'. This land would be taken out of agricultural production for the duration of the Proposed Development.
Soil and substrate	Yes	Soils have likely been subject to agricultural improvement and as such may have higher than desirable nutrient levels.
Contaminated land	No	No known history of contamination
Hydrology and drainage	Yes	The Site is located within flood zone 1 'low risk'. There is a small area with a low, medium and high risk of surface water flooding in the south of the Site, following an existing ditch field boundary. Sustainable drainage features are included in the design of the Consented Development.
Landscape character	No	The Planning Design and Access Statement (PDAS), and the Landscape and Visual Impact Assessment (LVIA) describe how the design of the Development has responded to the wider landscape character. There are no specific management constraints.
Historic environment/ Archaeology	Yes	A portion of the south-western corner of the Site is located within an archaeological protection zone.
Services	Yes	Overhead lines are present within the westernmost part of the Site. This may restrict the type and height of planting around easements, as well as restricting plant that can be used for habitat creation/ maintenance

2 MANAGEMENT ACTIVITIES

2.1 Aims and Objectives

- 2.1.1 The below text outlines the biodiversity net gain aims and objectives. Wider ecological and landscape aims and objectives are provided within the LEMP (Condition 16).

Management Aims

- To increase the biodiversity value of the Site; and,
- To achieve the relevant habitat type and condition as outlined in the Biodiversity Net Gain Metric Calculator within the stated timeframes.

Management Objectives

- To establish other neutral grassland in moderate condition on land outside the perimeter fence line.
- To establish modified grassland in moderate condition on land within the perimeter fence line.
- To establish other woodland; broadleaved shelter belts in poor condition.
- To establish species rich native hedgerow in moderate condition.
- To establish sustainable urban drainage system in moderate condition.
- To ensure that both existing and newly created habitats are managed appropriately to provide long-term biodiversity benefits.
- To monitor the success of the management plan by undertaking monitoring of habitats and species.
- To implement remedial measures if Management Objectives are not being met.

2.2 Design Principles

- 2.2.1 Loss of or damage to field boundary habitats has been avoided where reasonably practicable. Where hedgerows are gappy or absent these field boundaries will be reinforced via new planting.
- 2.2.2 Habitat creation should utilise species in-keeping with those found locally and should complement the local environment.

2.3 Habitat and Condition Targets

- 2.3.1 Proposed habitat types and their target condition are shown alongside corresponding landscape types as detailed on the Detailed Softworks Plan (drawing No: 3732-01-13 and 3732-01-14) in **Table 2.1** below.
- 2.3.2 No new watercourses or ditches are to be created, however existing ditches will be enhanced through a reduction in riparian zone encroachment. As this is not a change to the management practice, it is included as a retained habitat and addressed in **Section 2.4**.

Table 2.1: Habitat and Condition Targets

Detailed Softworks Plan vegetation type	BNG Habitat	Condition	Time to Target Condition
Proposed native woodland planting	Other woodland; broadleaved	Poor	5
Proposed low maintenance pasture grassland	Modified grassland	Moderate	4
Proposed meadow/ species rich grassland	Other neutral grassland	Moderate	5
Proposed seasonally wet attenuation basin	Sustainable drainage system	Moderate	3
Proposed native hedgerow	Species rich native hedgerow	Moderate	5

2.4 Habitat Retention

2.4.1 Habitat retention is shown on **Figure 2**

2.4.2 Perimeter fencing would be erected as one of the early stages of the construction programme (following establishment of construction compounds and access tracks) and as such during all subsequent works retained habitats would be protected from accidental encroachment.

2.4.3 Field boundary ditches will be retained and protected throughout development. While shown as enhanced within the metric, this is through reduction in riparian zone encroachment with no proposed changes to management of retained ditches.

2.5 Habitat Creation and Management

2.5.1 Detailed information relating to the creation and implementation of new vegetation is provided within the Detailed Landscape Scheme (Condition 19) and summarised here.. An overview of how this will contribute to achieving the targeted habitat condition is provided as **Appendix 2**. Habitat creation proposals are shown on the Detailed Softworks Plan (drawing No: 3732-01-13 and 3732-01-14).

2.5.2 The LEMP (Condition 16) sets out details of the long-term maintenance and management of existing and new vegetation, including a schedule of works.

Grassland

Creation

2.5.3 Following construction of the solar panels and all infrastructure, all areas of bare earth within the site, including those areas in between temporary protective fencing and existing landscape features, will be sown with grass seed.

2.5.4 In areas surrounding the solar panels and within the security fence line a seed mix suitable for low intensity sheep grazing that has been specifically designed for solar farms would be sown as outlined in **Table 2.2** below

- 2.5.5 Between the security fencing and existing/proposed hedgerows a species rich grass and wildflower mix would be sown, as outlined in **Table 2.3**
- 2.5.6 Both mixes shall be sown in accordance with the landscape specification as set out in the Detailed Landscape Scheme (condition 19), and shall include the grass species set out in the Tables below. Details are provided in 3732-01-02 Landscape Specification.

Table 2.2: Low maintenance pasture grassland mix

Common Name	Common Name
Meadow fescue	Red clover
Smooth-stalked meadow grass	Yarrow
Crested dogtail	Ribgrass
Smaller cats-tail	Chicory
Slender-creeping red fescue	Sheep's burnet
Perennial ryegrass	Sheep's parsley
Cocksfoot	Sainfoin
Sowing rate: 40kg per ha	

Table 2.3: Species rich grassland mix

Common Name	Common Name
Yarrow	Salad burnet
Betony	Meadow buttercup
Common knapweed	Yellow rattle
Wild carrot	White campion
Hedge bedstraw	Common bent
Ladies bedstraw	Crested dogtail
Ox-eye daisy	Smaller catstail
Musk mallow	Red fescue
Ribwort plantain	Smooth-stalked meadow grass
Sowing Rate: 25kg per ha	

Management

- 2.5.7 Pasture grassland within the solar fenceline will be lightly grazed. If grazing is unable to be undertaken, mechanical cutting will instead be undertaken.
- 2.5.8 Species diverse grassland would be managed broadly following the timings used in a traditional hay cut with a summer cut taken in July or August once plants have had opportunity to set seed. Further cuts may be taken in spring and autumn, subject to vigour of plant growth.

Hedgerow

- 2.5.9 New hedgerow planting is proposed as part of the development and includes new species rich mixed native species hedgerow within the Site.

Creation

- 2.5.10 Hedgerows will be planted in accordance with the and landscape specification (including species mix) as set out in the Detailed Landscape Scheme (condition 19). Hedgerows will be planted to ensure at least five species are present per 30m length, and so meeting the definition of species rich.
- 2.5.11 Hedgerow species have been chosen to be typical of the local area, incorporating species observed during the baseline ecology surveys where appropriate. The species listed in **Table 2.4** will form the hedgerow planting within the Site; details are provided in 3732-01-02 Landscape Specification.

Table 2.4: Hedgerow planting mix

Common Name	% Mix	Common Name	% Mix
Field Maple	15	Blackthorn	10
Hazel	40	Dog rose	5
Hawthorn	20	Elder	10

Management

- 2.5.12 Once established hedgerows will be cut on a rotational basis with no greater than a third of hedgerows cut in each year.
- 2.5.13 Hedgerows will be cut between late September and February, with no cutting or trimming to be undertaken during the bird breeding season (01 March to 31 August inclusive) unless suitable checks for nesting birds have first been undertaken by a suitably qualified ecologist.

Woodland and Shrub

- 2.5.14 Woodland screen planting is proposed at the north-western extent of the Site and also on land west of The Robins. Woodland shall be planted in accordance with the landscape specification (including species mix) as set out in the Detailed Landscape Scheme (condition 19). As well as canopy tree species, planting shall also include a native shrub layer to be incorporated within the woodland planting, encouraging increased structural diversity within the habitat and thereby increasing the overall biodiversity value of the habitat.

Creation

- 2.5.15 It is recommended that the following native species listed in **Table 2.5** will form the tree planting at this Site; details are provided in 3732-01-02 Landscape Specification.

Table 2.5: Woodland planting mix

Common Name	% Mix	Common Name	% Mix
Field Maple	15	Crab apple	10
Silver birch	20	Blackthorn	10
Hornbeam	15	English oak	10
Hazel	10	Elder	10

Management

- 2.5.16 Following initial establishment it is not expected that woodland areas would require substantial management, with any management (e.g., felling or pruning) restricted only to that necessary to

preserve tree health, maintain health and safety or enhance structural diversity for the benefit of biodiversity (e.g., creation of clearings)

2.6 Risks and Remedial Measures

- 2.6.1 A risk register is provided as **Appendix 1**. It is intended that this document be continuously added to and updated over the course of habitat creation, management and monitoring works as new risks are identified. Such risks may come from existing constraints (e.g., ground conditions), or from new risks such as climatic changes or invasive species.

3 MONITORING

3.1 Monitoring Strategy

- 3.1.1 The development of the biodiversity interest of the Site will be monitored over time by a suitably experienced ecologist. A walkover survey will be undertaken on years 1, 3 and 5 and 10 and every five years thereafter. This will involve an inspection of the grassland to ensure that it is being managed in a manner suitable for the enhancement of wildlife interest.
- 3.1.2 In addition, a habitat survey and condition assessment of the site will be undertaken to ensure created habitats are achieving their target condition as stated in the biodiversity metric calculations.
- 3.1.3 The management plan will be amended if necessary, based on the monitoring recommendations.

3.2 Monitoring Criteria

- 3.2.1 Habitats will be monitored in accordance with the criteria set out within the Defra Biodiversity Metric Condition Assessment Guide⁴, as shown in **Annex 2** and as outlined in **Table 2.1**.
- 3.2.2 If habitats are not meeting the description for the particular habitat type, are not achieving the target condition, or appear unlikely to achieve it, a suitably qualified ecologist will be consulted to determine appropriate changes to the management to enable to the proposed habitat type and/ or target condition to be achieved. Suggestions for management changes are outlined in the contingency measures section below, however the exact requirements will be dependent on the cause and extent of any failure.
- 3.2.3 If it is considered it is not possible to achieve either the proposed habitat type or target condition the biodiversity calculator will be revised and the results submitted to the local planning authority with a report detailing the reasons why habitats have not achieved the condition stated, steps taken to rectify this and any additional compensation measures as appropriate.

3.3 Reporting of Monitoring Results

- 3.3.1 Results of monitoring, and any required changes would be included within a monitoring report to be submitted to North Hertfordshire District Council and any other relevant stakeholders no later than

⁴ <https://publications.naturalengland.org.uk/publication/5850908674228224>

the end of the calendar year in which monitoring was undertaken (e.g., Year 5 monitoring reports must be submitted by 31st December of Year 5).

- 3.3.2 Monitoring reports must include the methods used to assess efficacy of habitat management, details of the personal undertaking monitoring, results of monitoring and any required changes to existing management.

3.4 Contingency Measures and Adaptive Management

- 3.4.1 All Site management should be routinely reviewed by a suitably qualified ecologist in light of its objectives and adapted as required. Any proposed changes to management and the justifications for these should be included within monitoring reports.
- 3.4.2 If the monitoring outlined above identifies that a habitat is not meeting the target condition, or is not meeting the description for the proposed habitat type the following contingency measures should be considered.
- 3.4.3 In all cases, where a failure is identified the root cause should be identified and remedial measures implemented.

Grasslands

Absence of herbs/ high cover of bare ground

- 3.4.4 If the herb layer is not establishing, or there are large areas of bare ground it may be appropriate to re-seed the area. This should be done using a suitable mix and following the methodology outline in the habitat creation section above. It may be necessary to create batches of bare ground prior to seeding.

Area is over-grazed

- 3.4.5 Should the area become over grazed, as will be indicated by a uniform and short grass sward, it may be appropriate to reduce the grazing density. This could be achieved either through the removal of animals or by grazing for a shorter period each year.

Grasses are over-dominant

- 3.4.6 Should grasses become over-dominant the grazing intensity may need to be increased. This could be achieved either through the introduction of more animals, or grazing for an extended period.
- 3.4.7 Alternatively, it may be appropriate to introduce yellow rattle to the grassland area. This plant parasitises grasses, reducing their competitive ability.

Nutrient levels too high

- 3.4.8 If nutrient levels are too high, resulting in lack of species diversity and indicated by the dominance of a small number of competitive species (e.g., nettles, spear thistle, white clover, coarse grasses), efforts should be made to reduce the nutrient levels in the soils. Grazing should help reduce nutrient levels, however as an additional measure a cut and collect regime may also be the most appropriate way to do this.

- 3.4.9 Cut and collect involves waiting for plants to reach a substantial height before mowing and then removing all arisings from the Site. Any nutrients taken in by the plants during growth will therefore be removed from the site. This method may take a number of years to be effective.

Absence of bare ground

- 3.4.10 Many herb species require patches of bare soil to germinate. If grazing animals are not adequately disturbing the soil, or in ungrazed areas if there are no localised bare patches, it may be appropriate to manually disturb the soil. This should be in no more than 5% of the total area.

Hedgerows

High planting failure rate.

- 3.4.11 Small gaps should fill in naturally as neighbouring hedgerow shrub species grow, however where there is a high failure rate shrub species should be replanted or alternative species used. It may be appropriate to consider alternative planting methods, such as traditional hedgerow laying.
- 3.4.12 Where high rates of climate-related failure have occurred, substitution with more resilient alternative species shall be considered.

Not achieving species rich status

- 3.4.13 If due to failure or competition there are found to be fewer than 5 different species per 30m length of hedgerow then additional infill planting should be undertaken in accordance with the methods outlined above. Infill planting should be of species not already present and designed to increase the number of different species.

Woodland

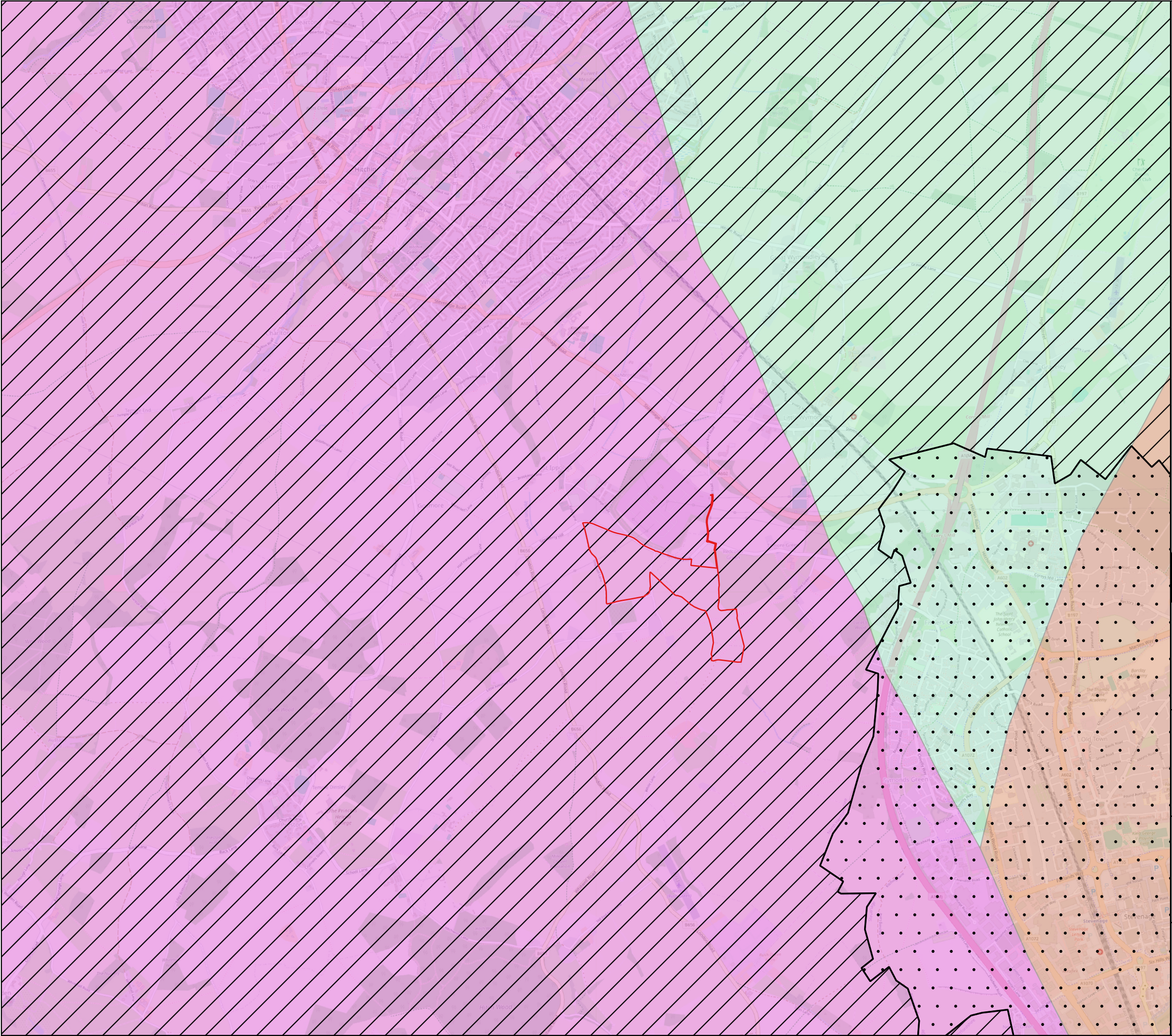
Newly planted trees fail to establish

- 3.4.14 Any plants which fail during establishment will be replaced, in line with the planting specification and implementation programme submitted as part of Condition 19. Where high rates of climate-related failure have occurred, substitution with more resilient alternative species shall be considered.
- 3.4.15 Should the woodland become overly dense with little light reaching understorey layers then selective thinning may be required. If not caught early it is also possible that understorey shrubs may need to be replanted, and/or the ground seeded with a shade tolerant flower mix.

Figures

Figure 1: Site Context Plan

Figure 2: Habitat Retention Plan



- Site_Boundary_Current
- Context
- LAU1
- North Hertfordshire
- Stevenage
- NCA
- Chilterns
- East Anglian Chalk
- South Suffolk and North Essex Clayland
- Basemap
- OpenStreetMap

SPARBERRY HILL SOLAR ARRAY

Figure 1: Site Context Plan

Version: 01 Date: 28/10/2025



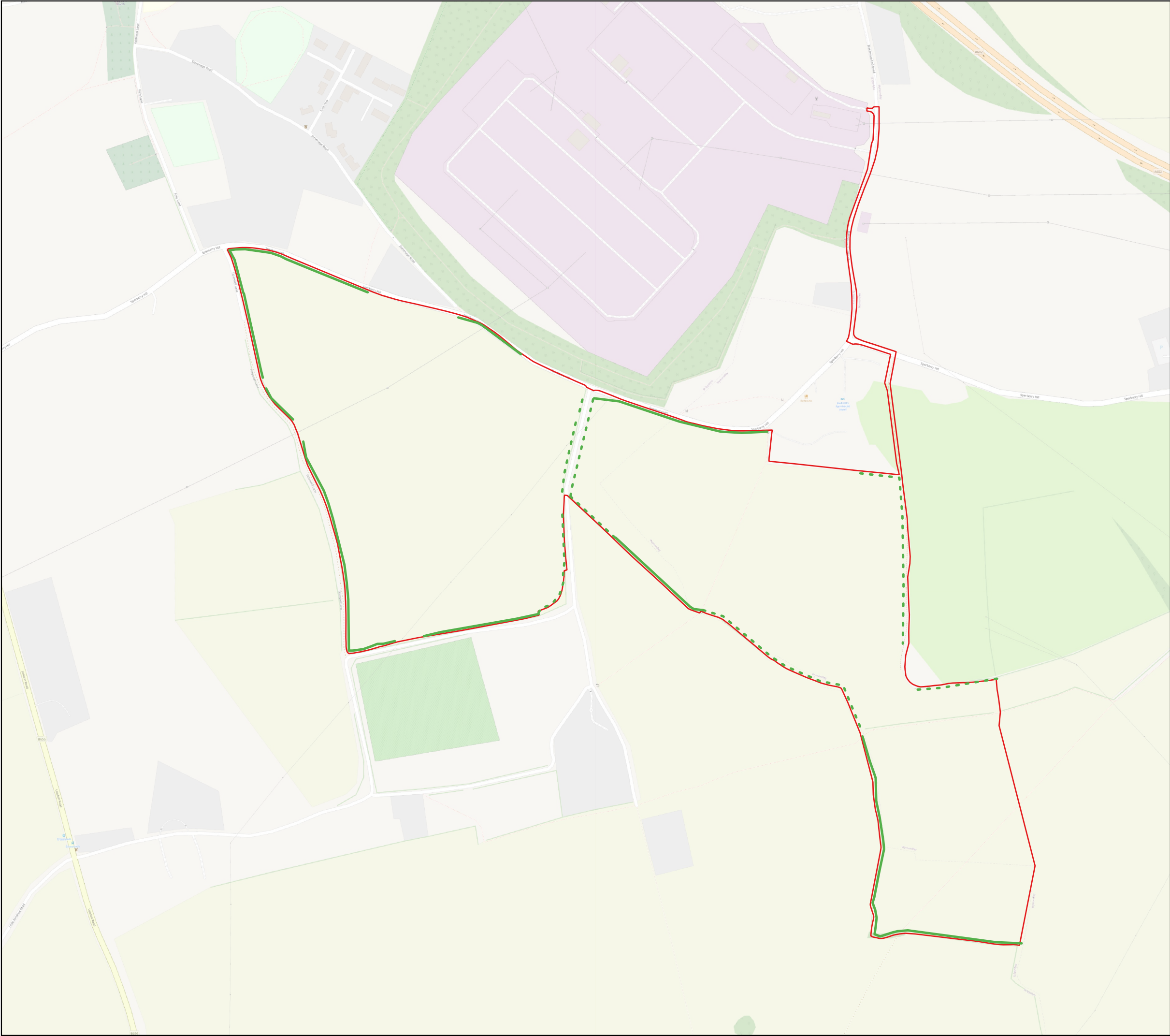
Avian Ecology, Suite 3c Walnut Tree Farm, Northwich Road, Lower Stretton WA4 4PG
www.avianecology.co.uk

0 10 200 m

Co-ordinate System :
British National Grid
Projection: Traverse



This map contains data from the following sources:
OpenStreetMap (2025) Reproduced under Open Database License



- Site Boundary
- Retained Hedgerow
 - h2a5-Species rich native hedgerow
 - h2a6-Other native hedgerows

SPERRBERRY HILL SOLAR ARRAY

Figure 2: Habitat Retention Plan

Version: 01 Date: 28/10/2025



Avian Ecology, Suite 3c Walnut Tree Farm, Northwich Road, Lower Stretton WA4 4PG
www.avianecology.co.uk

0 50 100 150 m

Co-ordinate System :
British National Grid
Projection: Traverse



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Appendix 1

Risk Register

Risk Identification Date	Habitat Type	Risk Factor	Trigger for Action	Remedial Measure
26/09/2025	Other neutral grassland.	High cover of bare ground.	Bare ground greater than 5%	If there are large areas of bare ground, it may be appropriate to re-seed the area. This should be done using a suitable mix and following the methodology outline in the habitat creation section above.
26/09/2025	Other neutral grassland.	Absence of bare ground.	Bare ground present in less than 1%	Many forbs require patches of bare soil to germinate. If areas of bare ground are not naturally occurring, it may be appropriate to periodically manually disturb the soil. This should be in no more than 5% of the total area.
26/09/2025	Other neutral grassland.	Grasses are over-dominant.	Fewer than 4 forb species per m ² after year 5 in retained grassland and 6 forb species per m ² after year 10 in BNG Habitat Area.	Should grasses become over-dominant the management intensity may need to be increased. This could be achieved either through the introduction of an early spring (February) cut or an additional late summer/ autumn cut and overseeded with a flower only mix. Alternatively, it may be appropriate to introduce additional yellow rattle to the grassland area if not already present. This plant parasitises grasses, reducing their competitive ability. Additional seeded could be considered.
26/09/2025	Other neutral grassland / hedgerow planting	Nutrient levels too high.	Species indicative of high nutrient environments is dominant e.g. dominance of a small number of competitive species such as nettles, spear thistle, white clover, coarse grasses.	If nutrient levels are too high, resulting in lack of species diversity and indicated by the dominance of a small number of competitive species efforts should be made to reduce the nutrient levels in the soils. A cut and collect regime is likely to achieve this over time. Cut and collect involves waiting for plants to reach a substantial height before mowing and then removing all arisings from the Site. Any nutrients taken in by the plants during growth will therefore be removed from the site. This method may take a number of years to be effective.
26/09/2025	Other neutral grassland	Scrub encroachment.	Scrub accounts for more than 20% (ideally should be absent from grassland habitats).	Areas of scrub encroachment to be checked with scrub saplings removed to prevent spread. The annual cutting regime should prevent scrub from establishing within grassland areas.

26/09/2025	Other neutral grassland	Sward with a uniform height.	No variation in sward height (at least 20% should be less than 7cm and at least 20% greater than 20cm.	A change to the cutting regime may be required to introduce a phased cut, if not already included, so not all the grassland is cut at the same time.
26/09/2025	Hedgerow planting	Plant failure	Gaps hedgerow canopy or high proportion of dead or dying specimens.	Hedgerow plants should be replanted or alternative species used. It may be appropriate to consider alternative planting methods.
26/09/2025	Hedgerow planting	Fewer than 5 species per 30m	Fewer than 5 woody species per 30m causing hedgerow not to meet definition of 'species rich'	Infill planting with additional hedgerow species to bolster the numbers of different species per 30m.
26/09/2025	Other neutral grassland / hedgerow planting	Presence of invasive non-native species (INNS).	A species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) identified or suspected.	A specialist contractor with experience of treating and removing INNS will be appointed.
26/09/2025	Woodland	Newly planted trees failing to establish	10% of targeted number of newly planted trees found to be dead during years 1-10.	Plant a larger number of trees initially as contingency against some losses in the early years. Undertake a second round of planting, replacing failed specimens on a like-for-like basis

Appendix 2

Summary of Approach to Habitat Creation and Management

Target Habitat				Modified grassland (within perimeter fence line)		
Condition Assessment Criteria		Targeted	Relevant Parcels	Creation Approach	Enhancement Approach	Management Approach
A	There are 6-8 vascular plant species per m² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m², please review the full UKHab description to assess whether the grassland should be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high or very high distinctiveness, please use the relevant condition sheet.	Yes		The grass seed mixes to include a diverse species mix and shall be sown in line with the supplier’s guidance. Natural colonisation from surrounding landscape may also occur.	N/A	Grassland subject to annual cuts, typical of traditional hay meadow management allowing flower plants to set seed Grassland to be subject to periodic overseeding, if required
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Yes		N/A	N/A	Management regime to ensure a varied sward.
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes		N/A	N/A	Regular grazing would limit shrub growth. Scrub to be selectively removed if establishing
D	Physical damage is evident in less than 5% of total grassland area Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No		The grass seed mixes shall be sown in line with the supplier’s guidance.	N/A	May fail due to routine management associated with solar array.
E	Cover of bare ground between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens.)	Yes		The grass seed mixes shall be sown in line with the supplier’s guidance.	N/A	Areas to be re-seeded, if required, to ensure coverage. Occasional ground

						disturbance, if required to open areas of bare ground.
F	Cover of bracken <i>Pteridium aquilinum</i> less than 20%.	No		Ground to be subject to suitable preparation work prior to seeding.	N/A	Regular grazing would limit growth of bracken Targeted removal if bracken establishes
G	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA).			Ground to be subject to suitable preparation work prior to seeding.	N/A	Regular grazing would limit growth of invasive or undesirable species. Invasive and sub-optimal species to be selectively managed throughout management period.

Additional Management Prescriptions

Grassland management will be timed to avoid main breeding bird season, typically considered to be between March and August inclusive.

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Target Habitat				Other neutral grassland (beyond perimeter fence line)		
Condition Assessment Criteria		Targeted	Relevant Parcels	Creation Approach	Enhancement Approach	Management Approach
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type. Note – this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Yes		The grass seed mixes shall be sown in line with the supplier's guidance.	N/A	Subject to annual cuts, typical of traditional hay meadow management. And subject to periodic overseeding, if required.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes		Seed mix to include tussock forming species	N/A	Mowing regime to ensure a varied sward.
C	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Yes		The grass seed mixes shall be sown in line with the supplier's guidance.	N/A	Areas to be re-seeded, if required, to ensure coverage. Occasional ground disturbance, if required to open areas of bare ground.
D	Cover of bracken <i>Pteridium aquilinum</i> less than 20% and cover of scrub (including bramble) less than 5%.	Yes		N/A	N/A	Regular mowing/ maintenance would limit shrub growth. Scrub to be selectively removed if establishing
E	Combined cover of species indicative of suboptimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging activities) accounts for less than 5% of total area. If any invasive non-native species (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed.	Yes		Ground to be subject to suitable preparation work prior to seeding.	N/A	Regular mowing/ maintenance would limit growth of invasive or undesirable species. Invasive and sub-optimal species to be selectively managed throughout management period.
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type.	No		The grass seed mixes to include a diverse species mix	N/A	Grassland subject to annual cuts, typical of traditional hay meadow

Target Habitat			Native species rich hedgerow			
Condition Assessment Criteria		Targeted	Relevant Parcels	Creation Approach	Enhancement Approach	Management Approach
A1	Height >1.5m average along length.	Yes		Whips planted with 5 plants per metre allowing for plants to grow.	N/A	The height of the hedgerow will be reduced at the end of each growing season to ensure even growth and will aim to exceed 1.5m in the first 3 years.
A2	Width >1.5m average along length.	Yes		Whips planted in double rows 40cm apart, to allow for thick hedgerow to be created.	N/A	Trimming of the hedgerow will allow the width to exceed 1.5m and then maintain this thickness as a minimum.
B3	Gap – hedge base Gap between ground and base of canopy <0.5m for >90% of length.	Yes		Plants will be planted with leaf growth in the lower part of the plant to ensure plants are not leggy when planted.	N/A	Ensure trimming occurs at the end of each growing season to ensure a thick hedgerow establishes.
B2	Gap – hedgerow canopy continuity Gaps make up <10% of total length; and no canopy gaps >5m.	Yes		Plants of a similar size and age will be planted at the creation stage to allow for equal growth opportunities..	N/A	Ensure trimming occurs at the end of each growing season to ensure a thick hedgerow establishes. Re-plant as required to replace dead specimens.
C1	Undisturbed ground and perennial vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: measured from outer edge of hedgerow, and is present on one side of the hedge (at least)	Yes		Ground flora will be encouraged along the base of the hedgerows once plants have become established.	N/A	Monitor this condition for any unexpected undisturbed ground.
C2	Nutrient-enriched perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	Yes		Planted area will be cleared of existing vegetation before planting to reduce the amount of nutrient enriched perennial vegetation.	N/A	Plant species indicative of nutrient enrichment of soils dominate will be removed by hand-pulling. Cut vegetation from adjacent grasses will be removed from the site to prevent further nutrient enrichment.
D1	Invasive and neophyte species >90% of the hedgerow and undisturbed ground is free of invasive non-native plant species	Yes		All planted stock will form native species. No invasive non-	N/A	The use of hand-pulling and spot treatment with herbicide will be used in the event of any invasive non-native species is identified within

	(including those listed on Schedule 9 of WCA) and recently introduced species.			native species were recorded during the baseline surveys.		the hedgerow. This will continue until the species has been satisfactorily removed from the Site.
D2	Current damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	Yes		Access will only be allowed by permit and is controlled. Management will follow the work methods and schedule in this HMMP. As the hedgerow is proposed along the edge of a car park, this condition criteria may not be met but will be targeted.	N/A	Monitoring of the hedgerow establishment will identify any areas of damage. This will be reported, and the management scheme will identify areas where this can be reduced e.g. timing and amount of trimming.
E1	Tree class (applicable to hedgerows with trees only) There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient), and there is on average at least one mature, ancient or veteran tree present per 20 – 50m of hedgerow.	No	N/A	N/A	N/A	N/A
E2	E2. Tree health (applicable to hedgerows with trees only) At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	N/A	N/A	N/A	N/A	N/A

Additional Management Prescriptions

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Target Habitat				Sustainable Drainage System		
Condition Assessment Criteria		Targeted	Relevant Parcels	Creation Approach	Enhancement Approach	Management Approach
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No		SUDs features to be seeded with seed mix suitable for wetlands.	N/A	Not targeted – habitat components likely to comprise entirely of grassland
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Yes		SUDs features to be seeded with seed mix suitable for wetlands.	N/A	To be managed through annual cut allowing different flowering species to flower and set seed annually.
C	Invasive non-native plant species (listed on Schedule 9 of WCA) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of total vegetated area. Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Yes		Seed mix to comprise native species only	N/A	Invasive non-native species to be managed if found to be present
D1	The parcel shows spatial variation and forms a mosaic of bare substrate PLUS: - At least four early successional communities (a) to (i); Communities: (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland, (i) pools. (only applicable to Open mosaic on previously developed land habitat type)	No – not applicable to habitat type	N/A	N/A	N/A	N/A

E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife. (only applicable to Bioswale and SUDS habitat types)	Yes		SUDs features to be seeded with a native seed mix	N/A	Invasive non-native species to be managed if found to be present
E2	The vegetation is comprised of plant species suited to wetland or riparian situations. (only applicable to Bioswale and SUDS habitat types)	No			N/A	Not targeted – SUDS features likely to hold water only in times of extreme rainfall so unlikely to hold permanent wetland vegetation.
F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features). (only applicable to Intensive green roofs habitat types)	No – not applicable to habitat type	N/A	N/A	N/A	N/A

Additional Management Prescriptions

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