



Landscape and Ecology Monitoring Scheme

Studley Solar Farm, Atworth, Melksham

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PREPARED FOR
Melksham Calne Green
Limited

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[anteagroup.uk](https://www.anteagroup.uk)

Key Details

Client Name	Melksham Calne Green Limited
Site Address	Studley Farm, Atworth, Melksham, Wiltshire
Antea Group UK Contact	Jennifer Britt
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Landscape and Ecology Monitoring Scheme

Studley Solar Farm, Atworth, Melksham

1.0 INTRODUCTION

1.1 CONTEXT AND PURPOSE

Antea Group UK ('Antea') was instructed by Melksham Calne Green Ltd (the 'Client') to prepare a Landscape and Ecology Monitoring Scheme in accordance with Condition 6 of the planning consent (reference: PL/2021/08690), for the installation of a solar farm and battery storage facility with associated infrastructure ('the Development') at land at Studley Farm, Atworth, Melksham, Wiltshire (the 'Site').

This document sets out the proposed monitoring and reporting following construction of the development to ensure objectives are being met and to inform adaptive management where required. This Monitoring Scheme accompanies the Construction Ecology Management Plan (Antea UK, June 2025) which describes measures to avoid, reduce and mitigate likely adverse effects on ecological receptors resulting from the construction phase of the Development, and the Landscape and Ecology Management Plan (Antea UK, June 2025) which details the establishment and management prescriptions for the ecological features associated with the Site during operation.

1.2 OVERVIEW OF THE SCHEME

The Development received conditional planning consent from Wiltshire Council in June 2022 (reference PL/2021/08690) for a photovoltaic solar park and associated infrastructure.

2.0 POST-DEVELOPMENT BASELINE

Following completion of the development (including all landscape provision and installation of species-specific enhancements) a suitably experienced ecologist will undertake a Site walkover in order to establish the effectiveness of protection measures applied during construction. This will review the risk assessment as detailed in the CEMP, including:

- Any physical damage to retained trees or hedgerows, or their root protection areas/buffers.
- Damage/evidence of tree/hedgerow health impacts from dust deposition, resulting in habitat degradation.
- Evidence of pollution of watercourse/waterbody through dust deposition, siltation or chemical spillage.

A review will also be undertaken of the ECoW reporting (as detailed in the CEMP) for any identified incidents which may have a longer-term impact.

The landscape provision will be reviewed to ensure it accords with the submitted plans and that establishment measures have been followed. Species specific enhancements (bird boxes, log piles etc) will be inspected to ensure they meet the correct specification and have been installed appropriately.

Incidental sightings/field signs of fauna will also be recorded, and a summary report prepared to establish a baseline for on-going monitoring and management.

2.1 MONITORING SCHEDULE

Monitoring will be undertaken in Years 1, 3, 5, 10, 25 and 40 immediately following habitat creation, with reports provided to the LPA within 6 months of each monitoring visit.

Monitoring will be undertaken by a suitably experienced ecologist, who will assess the habitats against the target conditions in the submitted Biodiversity Net Gain Assessment. Species-specific enhancements will also be inspected during each monitoring visit to identify any evidence of use. Criteria for the monitoring are set out in the following sections.

An example monitoring report is provided in Appendix A.

2.2 KEY FEATURES TO BE MONITORED

The following features have been identified for monitoring:

Habitats

- Modified grassland (including all grassland and wildflower mixes across the Site)
- Trees (retained and new)
- Hedgerows (retained and new)
- Ponds (retained and new)

Species-Specific

- Log piles
- Insect hotels
- Bat boxes

- Owl box
- Mammal gate

Monitoring criteria for each of these key features are identified in the following section.

2.3 MONITORING CRITERIA

The following criteria are to be used during the monitoring visits to ensure the proposed habitats are on track for achieving the target habitat conditions. This has been taken from the DEFRA Statutory Metric Condition Assessment Sheets.

MODIFIED GRASSLAND (ALL GRASSLAND AND WILDFLOWER MIXES ACROSS THE SITE)

Whilst three grassland mixes are to be sown across the Site, and each have different species composition, target functions and associated management, all grassland at the Site is to target at least a moderate condition.

Criteria	Description	Targeted
A	There are 6-8 vascular plant species per m ² 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 m ² , 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
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.	Possible
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
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.	Possible
E	Cover of bare ground between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens.)	Possible
F	Cover of bracken is less than 20%	Yes
G	There is an absence of invasive non-native plant species (as listed on schedule 9 of WCA)	Yes

Target Condition	Criteria Achieved	Habitat Parcels
Good	Passes 6 out of 7 including passing essential criterion A	n/a
Fairly Good		n/a
Moderate	Passes 4 or 5 out of 7 including passing essential criterion A	All grassland/wildflower mixes on-Site. Potential to achieve higher.
Fairly Poor		n/a
Poor	Passes 3 or fewer criteria: OR Passes 4-6 criteria (excluding criteria A)	n/a

HEDGEROW

All new native hedgerow across the Site is to target at least moderate condition. Furthermore, retained hedgerow with trees are to target a maintained condition of moderate.

Criteria	Minimum requirements	Description	Targeted
A1 Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice) A newly planted hedgerow does not pass this criterion (unless it is > 1.5 m height)	Yes
A2 Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (e.g. blackthorn suckers) are only included in the width estimate when they >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice)	Possible
B1 Gap – hedge base	Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	This is the vertical gappiness of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook)	Yes
B2 gap – hedge canopy continuity	- Gaps make up <10% of total length and - No canopy gaps >5 m	This is the horizontal gappiness of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small).	Yes

		Access points and gates contribute to the overall gappiness, but are not subject to the >5 m criterion (as this is the typical size of a gate)	
C1 Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length - measured from outer edge of hedgerow, and - is present on min. one side of the hedge	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least on side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc can limit available habitat niches.	Yes
C2 Undesirable perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	The indicator species used are nettles (<i>Urtica</i> spp.), cleavers (<i>Galium aparine</i>) and docks (<i>Rumex</i> spp.). Their presence, either singly or together, should not exceed the 20% cover threshold.	Possible
D1 Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	Neophytes are plants that have naturalised in the UK since AD 1500. For information on neophytes see the JNCC website and for information on invasive non-native species see the GB Non-Native Secretariat website.	Yes
D2 Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g. excessive hedge cutting)	Yes
Additional criteria for retained hedgerow with trees			
E1 Tree class	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 20-50 m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	No
E2 Tree health	At least 95% of hedgerow trees are in healthy condition (excluding veteran features	This criterion identified if the trees are subject to damage which compromises the survival and health of the individual specimens.	Yes

	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.		
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Target Condition	Criteria Achieved	Habitat Parcels
Good	No more than 2 failures in total and no more than 1 in any functional group	
Moderate	No more than 4 failures in total and fails both attribute in a maximum of one functional group	All new hedgerow and retained hedgerow with trees
Poor	Fails a total of more than 4 attributes or both attributes in more than one functional group	
Additional criteria for retained hedgerow with trees		
Good	No more than 2 failures in total and no more than 1 in any functional group	
Moderate	No more than 5 failures in total and does not fail both attribute in more than one functional group	All retained hedgerow with trees
Poor	Fails a total of more than 5 attributes or fails both attributes in more than one functional group	

TREES

Newly planted trees are to target a moderate condition.

Criteria	Description	Targeted
A	The tree is a native species	Yes
B	The tree canopy is predominately continuous, with gaps in canopy cover making up <10% of total area and no individual gap being > 5 m wide (individual trees automatically pass this criterion)	Yes
C	The tree is mature (or more than 50% within the block are mature)	No
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Yes
E	Natural ecological niches for vertebrates and invertebrates are preset, such as presence of deadwood, cavities, ivy or loose bark	Possible (as trees mature)
F	More than 20% of the tree canopy area is oversailing vegetation beneath	Yes

Target Condition	Criteria Achieved	Habitat Parcels
Good	Passes 5 or 6 criteria	

Moderate	Passes 3 or 4 criteria	All new tree planting
Poor	Passes 2 or fewer criteria	

2.3.1 PONDS

Newly created ponds Site are to target at least moderate condition.

Criteria	Description	Targeted
A	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Yes
B	There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Yes
C	Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp or filamentous algae.	Possible
D	The pond is not artificially connected to other waterbodies, such as agricultural ditches or artificial pipework.	Yes
E	Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps, or pipework.	Yes
F	There is an absence of non-native plant and animal species.	Yes
G	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Yes
H	Emergent, submerged or floating plants (excluding duckweed) cover at least 50 % of the pond areas which is less than 3 m deep.	Possible
I	The pond surface is no more than 50% shaded by adjacent trees and scrub.	Yes

Target Condition	Criteria Achieved	Habitat Parcels
Good	Passes 9 criteria	
Moderate	Passes 6 to 8 criteria	All new ponds
Poor	Passes 5 or fewer criteria	

2.4 SPECIES ENHANCEMENTS

Species specific enhancements are to be monitored for signs of use by the intended species/species group, as well as their continued functionality. This will be undertaken by an appropriately experienced, and where necessary licenced, ecologist, with disturbance kept to a minimum. External observations of insect hotels, bat boxes, bird boxes, owl box and hedgehog boxes are to be undertaken for evidence of activity (such as droppings, staining and nesting material). Where appropriate (as deemed by the ecologist) internal inspections will be undertaken.

Mammal gates and log piles are to be monitored to ensure they remain functional, and for any incidental signs of use.

2.5 GENERAL SPECIES OBSERVATIONS

During the monitoring visits, incidental species sightings/field signs will be recorded to provide a general indication of wildlife use of the Site over the lifetime of the development.

3.0 DISCLAIMER

The recommendations contained in this report represent Antea's professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the Client. The contract between Antea, and its Client outlines the scope of work, and only those tasks specifically authorised by that contract or outlined in this report were performed. This report is intended only for the use of Antea's Client and anyone else specifically identified in writing by Antea as a user of this report. Antea will not and cannot be liable for unauthorised reliance by any other third party. Other than as contained in this paragraph, Antea makes no express or implied warranty as to the contents of this report.

4.0 REPORT AUTHORISATION

Prepared by:



6th June 2025

Jennifer Britt
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Reviewed and Authorised by:



6th June 2025

Charlotte Sanderson-Lewis
Service Line Director - Ecology

5.0 CONTACT INFORMATION

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Appendix A – Example Monitoring Report

Site Name:		Date of Report and Version:	
Planning Reference:		Monitoring year:	
Site Owner:		Prepared By:	
Survey Details			
Name of Surveyor			
Organisation			
Survey Date(s)			
Statement of Competency			
<i>Provide a statement of competency for the person or organisation responsible for undertaking the monitoring</i>			
Survey Conditions and Limitations			
<i>State the conditions relevant to each survey. Where limitations were encountered, discuss how they have affected the survey results and, if relevant, how these have been overcome.</i>			
Progress Towards Habitat Condition Targets			
<i>Provide relevant details for all habitat types covered by management plan</i>			
Target Habitat:			
Condition Assessment Criteria	Targeted?	Target Met?	Management Activity Updates
General Comments on Progress			
Photographs			

Conclusions
Key Future Actions <i>List key actions and/or management prescriptions required to continue progressing towards targets or to adapt management to deliver targets</i>
Adaptive Management <i>Are any Adaptations to the Management Plans Targets and, or Prescriptions Required?</i>