

Flaxlands Solar Farm

Outline Landscape and Ecological Management Plan
(Outline LEMP)

Ampyr Solar Europe

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Prepared for:

Ampyr Solar Europe

Prepared by:

AECOM Limited

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1. Introduction

1.1 Overview

- 1.1.1 This Outline Landscape and Ecological Management Plan (Outline LEMP) has been prepared on behalf of Ampyr Solar Europe (hereafter referred to as 'the Applicant'). This document provides a framework for delivering the landscape strategy and the successful establishment and future management of proposed landscape works associated with the proposed Flaxlands Solar Farm (hereafter referred to as 'the Proposed Development') and forms the baseline for the LEMP.
- 1.1.1 The land on which the Proposed Development would be constructed is referred to as 'the Site'. This Outline LEMP sets out the short and long-term measures and practices that will be implemented by the Applicant to establish, monitor, and manage landscape and ecology mitigation and enhancement (biodiversity net gain) measures embedded in the design. The Biodiversity Net Gain (BNG) requirements, as set out within the BNG Assessment¹, will be achieved through habitat creation over and above that used for habitat mitigation.
- 1.2 A Proposed Landscape Masterplan (Figure 11) has been produced for the Site. The Outline LEMP forms part of the strategy for successfully integrating the Proposed Development within its setting. The outline Landscape Mitigation Plan is based on the Site concept design (refer to Appendix D) and parameters described in the Project Description.

1.3 The Proposed Development

- 1.4 The Proposed Development will involve the construction and operation of 49.9 megawatt (MW) solar photovoltaic (PV) arrays and a 49.9 MW Battery Energy Storage System (BESS) to allow for the creation, storage and exportation of energy to the National Grid, with associated access, landscaping and other infrastructure works within an area of approximately 87.09ha. Other infrastructure on-site would include inverters, transformers, an onsite substation, telecoms mast and cabling (largely buried services). The Site would be enclosed with stock proof mesh fencing to a maximum height of 1.8m with limited access points. Fencing would be sited inside the outermost hedges/ trees/ vegetation along existing field boundaries, ensuring that the fence is visually obscured, and that access is available for hedge trimming and maintenance. Weldmesh Double Leaf Door Gates would be installed at access points for maintenance access. CCTV would be mounted on the perimeter fence to allow remote monitoring, these cameras would be on 3m high poles. The substation and BESS area will be enclosed with a 2.5m high fence.

1.5 Purpose of this Document

- 1.5.1 The purpose of this Outline LEMP is to set out the measures proposed to mitigate the effects of the Proposed Development on landscape and visual amenity and biodiversity features and to ensure their long-term management. It sets out the proposals to enhance the biodiversity, landscape, and green infrastructure value of the Proposed Development, and to secure compliance with relevant national and local planning policies. The Outline LEMP also sets out the measures proposed to replant where practicable any areas of the Proposed Development which will be temporarily impacted during construction, e.g., temporary site accesses.
- 1.5.2 The Proposed Development has been designed, as far as practicable, to avoid or reduce effects on landscape and biodiversity features through siting of the Proposed Development components, including structures and new planting. For further information refer to the Landscape and Visual Appraisal (LVA) and the Ecological Impact Assessment Report (EclA).
- 1.5.3 This document outlines the landscape and biodiversity avoidance measures that will be implemented prior to, and during the construction of the Proposed Development. It also details the habitat and

¹ AECOM (2025) Biodiversity Net Gain (BNG) Assessment

landscape restoration, enhancement, management, and monitoring measures to be implemented once the Proposed Development is operational. This Outline LEMP is a live document, the content of which will continue to be updated, refined and (where necessary) added to, based on ongoing discussions between the Applicant and statutory bodies and relevant Local Planning Authorities.

1.5.4 This document identifies the measures required for both landscape and biodiversity together, in order to demonstrate a cohesive strategy and to prevent conflicting approaches to impact avoidance and enhancement.

1.5.5 This Outline LEMP is structured as follows:

- Section 1 sets out the context, objectives, and responsibilities;
- Section 2 sets out the legislation, policy and guidance;
- Section 3 describes the existing baseline landscape and biodiversity features which have informed the mitigation measures;
- Section 4 describes the landscape and ecology strategy for the Proposed Development which incorporates proposals for landscape and biodiversity impact avoidance;
- Section 5 describes the existing and proposed habitats within the Site;
- Section 6 describes how existing and proposed habitats will be managed, maintained, and monitored; and
- Section 7 discusses the pre- and post-construction monitoring that will be undertaken.

1.6 Objectives

1.6.1 The overarching objectives of the Outline LEMP are to:

- Integrate the Proposed Development into its landscape setting and avoid or minimise adverse landscape, biodiversity, heritage, and visual effects as far as practicable;
- Promote the conservation, protection and improvement of the physical, natural and historic environment within the Site and its setting; the landscape framework should be seen as an integral part of the surrounding landscape;
- Diversify ecological value of existing habitats through, for example, restoration and enhancement of hedgerow and restoration and creation of diverse habitats; and
- Guide the design and management of landscape and biodiversity components that respond to and enhance the character of the landscape, local distinctiveness, and sense of place.

1.7 Responsibilities

- 1.7.1 The Applicant will establish the appropriate roles and responsibilities for site staff within a Detailed Construction Environmental Management Plan (CEMP) in advance of the construction stage. An Environmental Clerk of Works (ECoW) will be responsible for ensuring construction environmental mitigation measures are correctly implemented, monitored, and maintained. These measures will include, but not limited to, watching briefs during vegetation clearance, advice on the demarcation of retained ecological features and exclusion measures where required.
- 1.7.2 The ECoW's role will cover activities that have the potential to impact biodiversity, for example by advising on methods and techniques to prevent or minimise light spill on adjacent habitats and the delivery of 'Toolbox Talks' prior to the start of works that could potentially affect habitats and species.
- 1.7.3 The Contractor appointed by the Applicant to construct the Proposed Development will be responsible for establishing, managing, and monitoring the implementation and establishment of landscape and ecological mitigation within the five-year establishment aftercare period. The Applicant will inspect and report on the success of establishment during this period. For more detail, please refer to Section 6.

- 1.7.4 Any long-term biodiversity monitoring and management requirements are specified in this document and will be carried out by the Applicant and/or a Contractor appointed by the Applicant.

2. Legislation, Policy and Guidance

- 2.1.1 The legislation and policies specific to this Outline LEMP are listed below. For a more complete list of legislation, policies, and guidance, refer to the Landscape and Visual Appraisal (LVA) and the Ecological Impact Assessment Report (EclA).

Legislation

- Environment Act 2021 (HM Government, 2021)²;
- Invasive Alien Species (Enforcement and Permitting) Order 2019 (HM Government, 2019)³;
- The Conservation of Habitats and Species Regulations 2017 (HM Government, 2017)⁴;
- Natural Environment and Rural Communities (NERC) Act 2006 (HM Government, 2006)⁵;
- Countryside and Rights of Way (CROW) Act 2000 (HM Government, 2000)⁶;
- The Hedgerow Regulations 1997 (HM Government, 1997)⁷;
- Wild Mammals (Protection) Act 1996 (HM Government, 1996)⁸;
- Protection of Badgers Act 1992 (HM Government, 1992)⁹; and
- Wildlife and Countryside Act 1981 (HM Government, 1981)¹⁰.

National Policy

- National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities, 2024)¹¹; and
- Environmental Improvement Plan 2023 (Department for Environment, Food & Rural Affairs, 2023)¹².
- Renewable and Low Carbon Energy Guidance 2015 (Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities, 2015)¹³

Other Guidance

- Guidance contained within the Landscape Institute's Infrastructure Technical Guidance Note (TGN) 04/20¹⁴

² HM Government (2021). *Environment Act 2021*. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents>

³ HM Government (2019). *The Invasive Alien Species (Enforcement and Permitting) Order 2019*. Available at: <https://www.legislation.gov.uk/uksi/2019/527/contents>

⁴ HM Government (2017). *The Conservation of Habitats and Species Regulations 2017*. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents>

⁵ HM Government (2006). *Natural Environment and Rural Communities Act 2006*. Available at: <https://www.legislation.gov.uk/ukpga/2006/16/contents>

⁶ HM Government (2000). *Countryside and Rights of Way Act 2000*. Available at: <https://www.legislation.gov.uk/ukpga/2000/37/contents>

⁷ HM Government (1997). *The Hedgerows Regulations 1997*. Available at: <https://www.legislation.gov.uk/uksi/1997/1160/contents>

⁸ HM Government (1996). *Wild Mammals (Protection) Act 1996*. Available at: <https://www.legislation.gov.uk/ukpga/1996/3/contents>

⁹ HM Government (1992). *Protection of Badgers Act 1992*. Available at: <https://www.legislation.gov.uk/ukpga/1992/51/contents>

¹⁰ HM Government (1981). *Wildlife and Countryside Act 1981*. Available at: <https://www.legislation.gov.uk/ukpga/1981/69>

¹¹ Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities (2024). *National Planning Policy Framework*. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

¹² Department for Environment, Food & Rural Affairs (2023). *Environmental Improvement Plan 2023*. Available at: <https://www.gov.uk/government/publications/environmental-improvement-plan>

¹³ Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities (2024). *Renewable and Low Carbon Energy Guidance*. Available at: <https://www.gov.uk/guidance/renewable-and-low-carbon-energy>

¹⁴ Landscape Institute (2020). *Infrastructure Technical Guidance Note 04/2020*. Available at: <https://landscapepwpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2018/01/LI-Infrastructure-TGN-FINAL-200924.pdf>

- Protected species and development: advice for local planning authorities (Natural England and Department for Environment, Food and Rural Affairs (DEFRA), 2023)¹⁵;
- 25-year Environment Plan (Department for Environment, Food & Rural Affairs and The Rt Hon Michael Gove, 2018)¹⁶;
- BS24020:2013, Biodiversity - Code of practice for planning and development (The British Standards Institution, 2013)¹⁷;
- BS5837:2012, Trees in relation to design, demolition and construction – Recommendations (The British Standards Institution, 2012)¹⁸;
- BS3998:2010, Tree work – Recommendations (The British Standards Institution, 2010)¹⁹;
- NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (National Joint Utilities Group (NJUG), 2007)²⁰;
- Wiltshire Local Plan (the Wiltshire Core Strategy, 2015)²¹; and
- Wiltshire and Swindon Local Nature Recovery Strategy (Wiltshire District Council, 2024)²².

2.2 Biodiversity Net Gain

- 2.2.1 In the NPPF¹¹, it is stated that planning decisions should minimise impacts on, and provide net gain for, biodiversity. In addition, the Environment Act 2021², includes an objective for at least 10% Biodiversity Net Gain (BNG) for developments. The Applicant will provide at least 10% BNG for the Proposed Development. Further information on BNG, including an assessment of the BNG potential of the Proposed Development, is provided in the Biodiversity Net Gain Assessment Report²³.

¹⁵ Natural England and Department for Environment, Food and Rural Affairs (DEFRA) (2023). *Protected species and development: advice for local planning authorities*. Available at: <https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications>

¹⁶ Department for Environment, Food & Rural Affairs and The Rt Hon Michael Gove (2018). *25 Year Environment Plan*. Available at: <https://www.gov.uk/government/publications/25-year-environment-plan>

¹⁷ The British Standards Institution (2013). *BS24020:2013, Biodiversity - Code of practice for planning and development*. Available at: <https://www.n-somerset.gov.uk/sites/default/files/2022-06/16%20-%20biodiversity%20-%20code%20of%20practice%20for%20planning%20and%20development%20%282013%29%20BS%20420202013.pdf>

¹⁸ The British Standards Institution (2012). *BS5837:2012, Trees in relation to design, demolition and construction – Recommendations*. Available at: <https://www.bathnes.gov.uk/sites/default/files/2020-01/BS5837%202012%20Trees.pdf>

¹⁹ The British Standards Institution (2010). *BS3998:2010, Tree work – Recommendations*. Available at:

https://www.westberks.gov.uk/media/50570/CD17-2-BS3998-2010-Tree-Work-Recommendations/pdf/CD17.2_BS3998.2010_Tree_Work_Recommendations.pdf

²⁰ National Joint Utilities Group (2007). *NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees*. Available at: <https://streetworks.org.uk/wp-content/uploads/V4-Trees-Issue-2-16-11-2007.pdf>

²¹ Wiltshire Council (2015). *Wiltshire Core Strategy*. Available at: [Wiltshire Core Strategy 2015.pdf](#)

²² Wiltshire and Swindon Local Nature Recovery Strategy (2024). *Digital mapping*. Available at: [Wiltshire and Swindon Local Nature Recovery Strategy - Wiltshire Council](#)

²³ AECOM (2025) Biodiversity Net Gain Assessment Report

3. Existing Landscape and Biodiversity Features

- 3.1.1 The following provides a summary of the landscape and ecology baselines. For more detail, refer to the Landscape and Visual Appraisal (LVA) and the Ecological Impact Assessment Report (EclA)²⁴.

3.2 Existing Landscape Features

- 3.2.1 The published Landscape Character Areas (LCAs) covering the Proposed Development and the Study Areas (as defined in the LVA) have been outlined as part of the landscape and visual impact appraisal and presented in the LVA. The key characteristics identified with the published landscape character assessments have been used to inform the landscape mitigation proposals.
- 3.3 The landscape features within the Proposed Development Site are located on a low hill which is part of elevated grounds in the upper Thames vales. The eastern section and northern sections of the Study Area consists of gently rolling hills, while the southern and eastern sections becoming flatter or gently undulating. Most of the Site is located on prolonged sloping ground to the south and west, and on a shorter slope facing north.
- 3.3.1 The land use is predominantly arable farmland, comprising medium to large-scale fields bounded by hedgerows and lines of mature trees. The boundary of the western parcel of the Site is located along Flaxlands Wood and Cowleaze Copse (Both identified as Ancient Woodland²⁵). Sections of the north-eastern boundary are bordered by Frith Copse (identified as Ancient Woodland).
- 3.3.2 Sections of the eastern parcel of the Site border along Morris Copse (identified as Ancient Woodland). Several scattered dwellings and farmsteads are located adjacent and surrounded by the Site.
- 3.3.3 As illustrated in Figure 8 – Public Rights of Way and Promoted Routes (refer to Appendix B), the Site includes several PRoW (LTRE 26, 28, 29 & 29) that intersect the Site. Sections of PRoW LTRE 27 and 31 run along the southern, western boundaries of the Site respectively.

3.4 Existing Biodiversity Features

Statutory and Non-Statutory Designated Sites

- 3.4.1 There is one National Landscape located within 10 km of the Site, this being North Wessex Downs National Landscape, which is located approximately 5.7 km south of the Site at its closest point.
- 3.4.2 There are no nature designations within the Site, but within the Study Area there are Sites of Special Scientific Interest (SSSI), and Local Nature Reserves (LNR). These include the Restrop Farm and Brockhurst Wood SSSI approximately 500 m to the north of the Site, and Jubilee Lake LNR approximately 800 m to the South of the Site.

Habitats

- 3.4.3 There are three types of Priority Habitat that are within the Site boundary or directly adjacent to the Site. These are as follows:
- Four areas of Ancient Semi Natural Woodland (ASNW) and one area of Ancient Replanted Woodland directly adjacent to the Site boundary;
 - Three areas of Lowland Meadows within the Site boundary; and
 - Lowland Calcareous Grassland directly adjacent to the Site boundary;

²⁴ AECOM (2025) Ecological Impact Assessment Report

²⁵ Natural England Open Data Publication. *Ancient Woodland (England)*. Available at: <https://naturalengland-defra.opendata.arcgis.com/datasets/ancient-woodland-england/explore?location=51.569767%2C-1.903873%2C14.38>

3.4.4 A UK Habitat survey was undertaken in May 2024²⁶ and a National Vegetation Classification survey in July 2024²⁷. These surveys confirmed the presence of Priority Habitat ponds, Priority Habitat Hedgerows and Priority Habitat Lowland Meadows within the Site boundary. The dominant habitat within the Site is sheep-grazed grassland, identified as modified grassland and other neutral grassland. Hedgerows are present throughout the Site which include mature trees, several of which are identified as veteran trees.

3.4.5 No invasive non-native species (INNS) were identified within the Site.

Species

3.4.6 With reference to the EclA and relevant appendices, surveys of protected and notable species within the Site and survey area recorded the following:

- a. Great crested newt *Triturus cristatus* eDNA within five ponds;
- b. 25 species of breeding birds;
- c. A total of 92 trees and 8 building with potential to support roosting bats;
- d. The presence of foraging and commuting bat species assemblage of National importance, including the presence of barbastelle *Barbastellus barbastelle* and lesser horseshoe bat *Rhinolophus hipposideros*;
- e. Water voles, associated with Pond 2;
- f. Badger activity including two outlier setts within the site boundary; and
- g. Common reptiles and amphibians are also likely to be present

3.4.7 For full details on the presence or likely absence of protected and notable species refer to the EclA28.

²⁶ AECOM (2024) Flaxlands Solar Farm, Preliminary Ecological Appraisal Report

²⁷ AECOM (2024) Flaxlands Solar Farm, National Vegetation Classification Survey Report

²⁸ AECOM (2025) Flaxlands Solar Farm, Ecological Impact Assessment

4. Landscape and Ecology Strategy

4.1 Landscape Strategy

- 4.1.1 Good design has been a key consideration from the outset. The iterative design process was guided by design principles developed specifically to address the opportunities and constraints presented by the Proposed Development. These principles have been developed in response to policy requirements, published LCA guidance and fieldwork analysis.
- 4.1.2 With reference to the Proposed Outline Landscape Masterplan (Figure 11), mitigation has been embedded in the Proposed Development to minimise effects on the environment, including landscape character, visual amenity, biodiversity, and heritage assets.
- 4.1.3 In developing the landscape design strategy, particular consideration was given to:
- The recommendations contained within relevant landscape guidelines; and
 - Guidance contained within the Landscape Institute's Infrastructure Technical Guidance Note (TGN) 04/20¹⁴.
- 4.1.4 The overall objective of the landscape design is to integrate the Proposed Development into its landscape setting and avoid or minimise adverse landscape and visual effects as far as practicable. The design achieves this objective whilst maximising opportunities to deliver net gains in biodiversity. Accordingly, the landscape design aims to achieve the following:
- To protect existing vegetation wherever possible;
 - To replace habitat lost as a result of construction of the Proposed Development, enhance existing habitat, and incorporate new planting;
 - To integrate the Proposed Development into the existing landscape pattern as far as practicable by utilising and following existing features, including vegetation, where practicable; and
 - To filter and screen more prominent components of the Proposed Development in views from sensitive receptors.

4.2 Overview Landscape Design Principles

- 4.2.1 This section describes the landscape design principles which underpin the landscape design strategy and explains how they have been applied to the design of the Proposed Development.

Careful Siting in the Landscape

- 4.2.2 Some areas where the effects for visual receptors (both recreational receptors and residential receptors) have been reduced through the landscape design principles are outlined (but not limited to) the areas below.

- Hedgerow strengthening where existing hedgerows are gappy and allow for open views across the Site; and
- Planting of new native hedgerows with trees on boundaries where there are no boundary features.

Conserving Existing Vegetation Patterns

- 4.2.3 The layout of the Proposed Development has been designed to minimise and avoid the loss of existing landscape features and limit impacts on existing hedgerows and hedgerow trees.
- 4.2.4 The layout of the Proposed Development will use existing farm tracks and field openings as the preferred routes for construction access, minimising loss of hedgerows, where practicable.
- 4.2.5 The proposed planting design responds to the character of the landscape within the Site and the key characteristics as defined within the LVA and EcIA Study Areas.

Creating New Green Infrastructure

- 4.2.6 Several new green infrastructure elements will be created across the Site along with the enhancement of existing corridors throughout the Site, which will increase habitat connectivity, enhance landscape condition, and improve visual amenity within the agricultural landscape. This includes provision of other neutral grassland (semi-improved) of moderate species richness which will be created within the fence line of Solar PV areas (including under the Solar PV panels) to increase species biodiversity. In addition, it includes the creation of Lowland Meadow (neutral) grassland with moderate to high species diversity within the field margins outside the Solar PV fence line, BNG areas, and PRoW buffers to encourage development of a diverse sward of grasses, sedges and broadleaved herbs for pollinators and birds.
- 4.2.7 Hedgerows generally will be repaired, gapped up, and enhanced across the Site with additional tree planting and native hedgerow species.

4.3 Ecology Strategy

Impact Avoidance

- 4.3.1 Impact avoidance measures have been set out in the Arboricultural Impact Assessment²⁹ and Section 5.1 Avoidance Measures Incorporated to the Design, within the Ecological Impact Assessment (EclA)³⁰. Further detail will be provided in an Outline Construction Environmental Management Plan.
- 4.3.2 The Proposed Development has been designed to avoid the temporary or permanent loss of valuable habitats as far as is practicable and no works will be required within habitats of principal importance (i.e. lowland meadow habitats).
- 4.3.3 The impact avoidance measures outlined below will be implemented, as relevant and appropriate, prior to and during the construction phase of the Proposed Development. The purpose of this is to minimise the impact of works on landscape and biodiversity features and to achieve legislative compliance.
- 4.3.4 Standard environmental best practice and mitigation will be implemented to ensure construction and operation of the Proposed Development complies with legislation relating to protected species. It will also ensure the Proposed Development does not compromise the local conservation status of ecological receptors present within or in the vicinity of the Site.
- 4.3.5 The impact avoidance approach allows for almost all trees and the majority of hedgerows to remain unchanged to ensure that the connectivity of the existing green infrastructure network is maintained. Only two trees classified as Category U (Unsuitable for retention) will be removed along Flaxlands Lane. Where possible access points will utilise or expand existing features, however, several sections of hedgerow, between 5 – 20m in length, will be removed at each access point to facilitate access across the Site. A 40m section of hedgerow will be temporarily removed to facilitate temporary passing places for articulated vehicles during construction along Flaxlands Lane.
- 4.3.6 There is no vegetation located within 10m of the proposed BESS enclosures. To mitigate fire risk, vegetation shall be trimmed regularly to ensure they do not grow within the minimum of 3m from the batteries.
- 4.3.7 Commitments embedded within the Proposed Development design will contribute to the avoidance of and / or reduction of potential effects on biodiversity. The existing hedgerow network that defines the scale and pattern of fields will be largely unchanged, as will existing blocks of woodland. The following buffers have been incorporated into the design of the Proposed Development, where possible to reduce the impact on ecological features:
- 30m from Ancient Woodland (as feasible);
 - 15m from existing woodland and tree groups;
 - 10m from hedgerows with trees;

²⁹ AECOM (2025) Flaxlands Solar Farm, Arboricultural Impact Assessment

³⁰ AECOM (2025) Flaxlands Solar Farm, Ecological Impact Assessment

- 10m from hedgerows without trees;
- 10m from proposed or strengthened hedgerows with trees;
- Root Protection Area (RPA) to be protected for individual trees and those within hedgerows; and
- at least 10m from ditches.

4.3.8 Provisions in respect of construction methodology are as follows:

- Designing the Proposed Development to comply with industry good practice and environmental protection legislation during both construction and operation e.g. prevention of surface and ground water pollution, fugitive dust management, noise prevention or amelioration.
- The perimeter security fence will be implemented early in the construction phase to prevent construction activity in proximity to existing retained vegetation (such as ponds, trees, hedgerows and the watercourse). The fence design will include gaps to allow mammals that may use retained habitats to pass underneath at strategic locations.
- Where required by arboricultural surveys, specific tree protection measures will be implemented e.g. RPA to protect trees.
- During construction, works will be restricted to daylight hours to remove the need for artificial lighting, with focussed task-specific lighting provided where this is not practicable. Within construction compounds and at welfare areas, motion detection security lighting will be used to avoid lights being permanently on. All lights would have an inward distribution of light and avoid light spill on sensitive ecological features (e.g. along hedgerows) during the construction phase, conforming to best practice guidelines.
- The ecological measures will be implemented by the appointed construction contractor and overseen by an ECoW, where required.
- Careful consideration of access points and tracks to limit the loss of vegetation and the number of field boundary crossings. Where access and crossings are necessary, they have been aligned to utilise existing field access points where available or where removal of a section of hedgerow is required, it has been located to avoid mature tree removals, specifically veteran trees. Where removal of vegetation cannot be avoided, it will take place in a directional manner (working from existing gateways until sufficient access is possible) and the minimum required to allow access will be cleared.
- Undertaking vegetation clearance in advance of construction and at an appropriate time of year to avoid incidental injuring or killing of breeding birds and damage/destruction of bird nests. Checks will be undertaken by an appropriately experienced ECoW prior to vegetation clearance, with appropriate measures put in place to protect any active nests found until the young have fledged such as exclusion zones around the nest.
- Establishing reasonable avoidance measures around ecological features, including the minimum buffers stated in paragraph 4.3.6.
- Post-construction restoration of habitats where viable which were removed to facilitate the construction of the Proposed Development.

4.3.9 Where temporary habitat loss is unavoidable, reinstatement will be undertaken after construction where practicable. Temporary proposed passing places may remove approximately 40 m of hedgerow along Flaxlands Lane (on the north side only). Where possible, the hedgerow will be translocated temporarily and replanted after construction, supported by new infill hedge planting of locally sourced native species. This will preserve the soil ecology and seed bank associated with species-rich hedgerow. Alternatively, this hedgerow will be reinstated with locally sourced native planting following construction, with an appropriate species mix. Areas of grassland creation are included within the landscape design throughout the Solar PV areas, both around the panels and in the field margins of each field. These will be managed to meet the required habitat condition set out in the BNG assessment.

4.3.10 Sustainable management of soil resources which are disturbed by the Proposed Development (and their associated seedbanks) and support the habitats within the Site will be undertaken, based upon

standard industry good practice measures such as those in Defra's Code of Practice³¹, ensuring that stored soils retain their quality and function. Additionally, soils of different types or supporting different habitats will be stored separately and replaced in the area they were taken from so that the incorporated seedbank is not lost.

Update Ecology Surveys

- 4.3.11 Following a change in design along Flaxlands Lane, one tree (T78) (referred to as T265 in the Arboricultural Impact Assessment) with suitability to support roosting bats will be felled to accommodate the Proposed Development. Further assessment is required to determine if bats are present. The assessment (comprising inspection and/or emergence survey) would be completed post determination secured in the Framework LEMP, and any mitigation would be secured in the detailed LEMP which will be subject to approval by the LPA. Should bats be identified within any roost features, a European Protected Species Mitigation Licence (EPSML) will be sought from Natural England to allow for the felling of this tree. All reasonable measures to account for the loss of any roosting feature will be in place, and will likely include the installation of bat boxes on retained trees. Should an EPSML be required, working methodology will be agreed with Natural England in advance of any works taking place.
- 4.3.12 To account for the delay between surveys being completed and works commencing on Site for the Proposed Development, a walkover of the Site will be undertaken in advance of works by a suitably qualified ecologist (SQE), this visit would reaffirm the ecological baseline conditions and identify any new ecological risks in relation to the detailed design. The walkover will be completed sufficiently far in advance of construction to allow for the completion of any additional, seasonally constrained surveys (e.g. surveys in support of any requirements for protected species licences) that may be required, including to take account of and influence the detailed design. These surveys will also be undertaken in advance of the LEMP.
- 4.3.13 Immediately prior to site clearance works commencing and the start of construction, further walkover surveys will be undertaken by a SQE, landscape architect, and arboriculturist to confirm that the risks associated with the Proposed Development remain as assessed within the LVA, EcIA and Arboricultural Impact Assessment. These will also confirm that the correct impact avoidance measures (such as tree protection fencing and protected species buffers) are being implemented.
- 4.3.14 Should any new constraints be identified during these updated surveys, these shall be captured in the LEMP. Any additional impact avoidance or mitigation requirements will be identified in consultation with the Applicant and the relevant statutory consultees.
- 4.3.15 Any additional surveys that are identified as a result of the walkover will be instructed as necessary by the SQE, landscape architect or arboriculturist, based on professional judgement and the findings of the walkover, or identified as appropriate by the Applicant or their contractor(s). These may be required, for example, based on the construction programme, working requirements or following identification of specific issues and constraints not covered by previous advice.

Protected Species Licences

- 4.3.16 A District Level Licence (DLL) is being obtained for the Proposed Development due to the presence of great crested newt within the Site boundary. It is understood that once the conservation payment and licence fee are agreed and paid for this, no further survey or mitigation measures will be required in association with this licence.

Tree Works

- 4.3.17 The infrastructure associated with the Proposed Development has been sited and designed to minimise the removal of mature trees.
- 4.3.18 Where works near retained trees cannot be practicably avoided, these works would be undertaken in accordance with current best practice at the time of the works.

³¹ Department for Environment Food and Rural Affairs (DEFRA), 2009, *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites*. Available at: <https://assets.publishing.service.gov.uk/media/5b2264ff40f0b634cfb50650/pb13298-code-of-practice-090910.pdf>

- 4.3.19 All necessary protective fencing would be installed prior to the commencement of any construction works. This would be set out in the Arboricultural Impact Assessment³².
- 4.3.20 Where part of a group of trees is to be removed the final extent of tree loss will be determined on site by an arboriculturist who will assess the stability and suitability of retained trees.
- 4.3.21 Almost all trees with bat roost suitability have, and will continue to be, avoided through design. However, one tree (T78) (referred to as T265 in the Arboricultural Impact Assessment) with suitability for roosting bats will be felled to accommodate the Proposed Development. Surveys to confirm the presence or likely absence of roosting bats in trees are required, this will include inspection and/or emergence survey), to be completed post determination. All other trees will be retained and protected during construction works to avoid direct impacts. Best practice mitigation measures outlined in the CEMP will avoid potential disturbance impacts should bats be roosting in trees.

Hedgerow Works During Construction

- 4.3.22 The layout of the Proposed Development has been designed to minimise impacts and avoid the loss of existing landscape features. Where temporary impacts to hedgerows are anticipated and unavoidable (for example to facilitate construction access or for potential visibility splays), existing areas of hedgerow will be coppiced rather than removed. Where this is not practicable hedgerow will be translocated temporarily and replanted after construction, supported by new infill hedge planting of locally sourced native species. This will preserve the soil ecology and seed bank associated with species-rich hedgerow. Alternatively, this hedgerow will be reinstated with locally sourced native planting following construction, with an appropriate species mix.

Precautionary Working Methods

- 4.3.23 Precautionary working methods will be adopted to minimise potential adverse effects on retained habitats and protected/notable species prior to and during construction. Precautionary working method statements would be produced as necessary to specify working requirements and other necessary impact avoidance measures. These measures would be controlled and implemented through the detailed CEMP(s) produced pre-construction.

Animal Welfare Requirements

- 4.3.24 Construction excavations have the potential to trap wildlife and result in offences under animal welfare legislation. Implementation of measures to avoid animals being injured or killed within construction working areas, through excluding them from such areas and preventing them from falling into and becoming trapped in excavations. If excavations are required to be left open overnight (which will be avoided where practicable), ramps will be provided to allow animals a means of escape.

³² AECOM (2025) Arboricultural Impact Assessment

5. Existing and Proposed Habitats

5.1 Introduction

- 5.1.1 This section describes how existing and proposed habitats illustrated on the Proposed outline Landscape Masterplan (Figure 11) will be protected or implemented during construction, maintained during the first five years following implementation of each planting phase and managed in the long-term until decommissioning of the Proposed Development.

Existing Retained Vegetation

- 5.1.2 Existing landscape elements comprise the following elements:

- other neutral grassland (g3c);
- modified grassland (g4); ; mixed scrub and scattered trees (h3h 32);priority habitat ponds (r1g 40);
- species-rich native hedgerows with trees (h2a5 32); and,
- native hedgerow (h2a6)

- 5.1.3 Existing trees will be managed to facilitate longevity, increased species diversity, enhanced habitat value and greater resilience to climate change. This will include gapping up existing lines of trees and hedgerows where appropriate, to increase the species and age diversity and include resilient native, locally appropriate species.

- 5.1.4 Existing hedgerows will be managed to protect existing boundaries, enhance biodiversity benefits and ecosystem services, whilst also increasing the level of screening from visual receptors. This will include gapping-up and thickening with a wider range of locally sourced native species where required and planting of additional native hedgerow trees with locally appropriate species. Management will include altering cutting regimes to benefit cover, shelter and food sources.

Proposed Vegetation

- 5.1.5 The proposed landscape types illustrated on the Proposed outline Landscape Masterplan (Figure 11) are:

- Existing hedgerows with trees to be strengthened (gapping up with a locally sourced species-rich selection and additional native trees)
- New native hedgerows
- Other neutral grassland (semi-improved)
- Lowland Meadow (neutral) grassland.

- 5.1.6 Existing native hedgerows with trees will be strengthened with additional locally sourced species-rich planting in order to:

- provide containment;
- remove oppressive species;
- reduce the visual effects from receptors;
- reinforce landscape pattern and improve the condition of the existing hedgerow and trees; and,
- improve ecological connectivity across the Site and with the wider landscape.

- 5.1.7 New native hedgerows with locally sourced species-rich planting will create additional habitats and improve ecological connections between existing habitats across the Site and reinforce landscape pattern, and provide additional visual screening to reduce visual effects from adjacent receptors.

- 5.1.8 Areas of other neutral grassland (semi-improved) of moderate species diversity will be established under the solar PV panel areas, providing an extensive habitat. These would be classed as 'other neutral grassland' (semi-improved), reflecting the required management and level of shading provided

by the panels. This grassland would offer a greater species diversity than existing modified grassland. Suitable seed mixes with a diversity of local species will be identified and tailored to habitat creation objectives identified as part of the BNG assessment.

5.1.9 Areas of lowland meadow (neutral) grasslands with moderate to high species diversity will be created within the field margins outside the Solar PV fence line, BNG areas, and PRoW buffers to encourage development of a diverse sward of grasses, sedges and broadleaved herbs for pollinators and birds. Suitable seed mixes with a diversity of local species will be identified and tailored to habitat creation objectives identified as part of the BNG assessment.

5.1.10 Other habitat provisions are as follows:

- Artificial bat boxes will be installed on existing trees to increase the availability of roosting features and enhance their value as habitat for bats; and
- Habitat piles and hibernacula will be created in suitable areas using natural materials generated during clearance of the site, such as logs, turf, and grass strimmings. These will provide refuge and hibernation opportunities for amphibians and reptiles, as well as dead wood habitat for invertebrates, which would in turn benefit fauna such as bats and birds.

6. Management, Maintenance and Monitoring of Landscape and Biodiversity

Introduction

- 6.1.1 This section describes how existing and proposed habitats will be protected or implemented, maintained during the first five years following implementation, and managed in the long term.
- 6.1.2 As the design progresses, further details will be refined, particularly in relation to plant species selection, specification of seed mixes, management prescriptions and timescales, and site-specific mitigation and enhancement elements.
- 6.1.3 Habitats implementation and monitoring works will be supervised by the appointed ECoW.

Existing Retained Vegetation

- 6.1.4 During construction the retained hedgerows and trees will be protected in accordance with a final Tree Protection Plan and associated Arboricultural Report (such as Arboricultural Impact Assessment or Arboricultural Method Statement). The measures to be employed will include the use of clearly defined stand-offs (secured with temporary protective fencing), managing the structure and integrity of the retained vegetation and the soil upon which it relies, and undertaking any pruning outside of the bird breeding season.
- 6.1.5 Where sensitive operations are required within the RPA of retained trees, works will be undertaken under the supervision of an arboriculturist to ensure agreed methodologies are fully implemented, to record any root pruning and to recommend further arboricultural remedial works where required. All works requiring arboricultural supervision will be detailed within the Arboricultural Impact Assessment Statement and/or Arboricultural Method Statement.
- 6.1.6 Retained trees will require periodic inspection to assess their structural condition and safety. Occasional removal of dead wood or other remedial works to address significant defects may be required in areas of frequent access and will be the responsibility of the tree owner.
- 6.1.7 During the construction and operation of the Proposed Development, all staff operating on Site are to be made aware of the need to look out for obvious signs of tree defects and their hazard potential and to report them to the Site Manager who will seek further advice as necessary.

Implementation of Native Planting (Generally)

- 6.1.8 Planting, in areas not affected by future works, will take place in the first available planting season following consent being granted, ideally during November and December for bare root stock, to reduce losses incurred during recent dry springs.
- 6.1.9 Plants will be inspected at the nursery and on delivery, prior to planting. Plants will be protected from strimming damage and animals through biodegradable guards; although consideration will be given to avoiding excessive use of guards. Trees will be staked in line with industry standard specifications.
- 6.1.10 All tree planting will adhere to BS:8545, Trees: from nursery to independence in the landscape – Recommendations³³ and the UK Forestry Standard³⁴.

³³ The British Standards Institute (2014). *BS:8545 Trees: from nursery to independence in the landscape – Recommendations*.

³⁴ Forestry Commission (2023). The UK Forestry Standard: The governments' approach to sustainable forest management, Fifth Editions. Available at:

https://assets.publishing.service.gov.uk/media/651670336a423b0014f4c5c0/Revised_UK_Forestry_Standard_-_effective_October_2024.pdf

Soil Analysis

- 6.1.11 Soil testing was undertaken on site. The location and the analysis of samples taken is detailed in the Soils and Agricultural Land Report and associated appendices which accompany this planning submission.
- 6.1.12 The results of these tests will be used to confirm suitable species mixes for the proposed habitats.

Hedgerow Enhancement, Native Hedgerow, and Native Hedgerow with Trees

Function

- 6.1.13 New, native, species-rich hedgerows and hedgerows with trees will be established, and existing hedgerows will be supplemented with additional trees to fill in any gaps and improve the structural diversity. Strengthened hedgerows with trees provide a valuable habitat, forming important wildlife corridors, address findings made in the Glint & Glare Study (AECOM and PagerPower 2025)³⁵, and provide visual screening. Hedgerow height is important to screen views, and the hedgerows will be maintained to a height between 2.5m and 3.5m and 'infilled' where there are gaps in existing hedgerows.
- 6.1.14 Hedgerow replacement and enhancement is proposed where existing hedges are defunct and/or have been removed (including to facilitate Site access if required), and to retain existing boundaries through increased species and age diversity.

Implementation

- 6.1.15 The locations of new hedgerows including those with trees, and hedgerow enhancement are shown on the Proposed outline Landscape Masterplan (Figure 11).
- 6.1.16 Hedge trenches shall be dug 450 mm wide by 450 mm deep, the base of which shall be broken up prior to returning backfill mixture. All stock to be supplied bare root if in season and container grown if planted out of season. A specification for hedgerows will be developed based on the indicative species list presented in Table 6-1.
- 6.1.17 Individual trees shall be set in pits 900 mm diameter by 900 mm depth. The base of the tree pit will be broken up to a depth of 200 mm and backfilled with topsoil consolidated in layers to allow the tree to be placed at the correct depth. Each tree shall be planted to the nursery line and secured with stakes and ties, including irrigation pipe. A specification for hedgerow trees will be developed based on the indicative species listed in Table 6-2.
- 6.1.18 The ideal planting season is November to March in soil that is not frozen or waterlogged. New planting will be adequately protected from mammalian pests.

Table 6-1: Indicative mix for native hedgerows

Botanical Name	Common Name	% Mix	Density	Specification
<i>Corylus avellana</i>	Hazel	20	5 per linear meter	Bare Root (BR) whips, selected to 900mm, except Ilex (2ltr pot). Planted in a double staggered row at 5No. plants per linear metre/
<i>Crataegus monogyna</i>	Hawthorn	20		
<i>Ilex aquifolium</i>	Holly	15		
<i>Acer campestre</i>	Field Maple	15		
<i>Viburnum opulus</i>	Guelder Rose	10		
<i>Ligustrum vulgare</i>	Wild Privet	4		
<i>Sambucus nigra</i>	Elder	4		
<i>Rosa canina</i>	Dog Rose	4		
<i>Alnus glutinosa</i>	Alder	2		

³⁵ AECOM & PagerPower (2025) Flaxlands Solar Farm, Solar Photovoltaic Glint and Glare Study

Botanical Name	Common Name	% Mix	Density	Specification
<i>Taxus baccata</i>	Yew	2		
<i>Viburnum lantana</i>	Wayfaring tree	2		
<i>Cornus sanguinea</i>	Dogwood	2		

Table 6-2: Indicative species for native hedgerow trees

Botanical Name	Common Name	Girth (cm)	Specification
<i>Acer campestre</i>	Field Maple	14–16 cm	Extra Heavy Standard
<i>Acer pseudoplatanus</i>	Sycamore	14–16 cm	Extra Heavy Standard
<i>Alnus glutinosa</i>	Alder	14–16 cm	Extra Heavy Standard
<i>Betula pubescens</i>	Downy Birch	14–16 cm	Extra Heavy Standard
<i>Carpinus betulus</i>	Hornbeam	14–16 cm	Extra Heavy Standard
<i>Fagus sylvatica</i>	Beech	14–16 cm	Extra Heavy Standard
<i>Malus sylvestris</i>	Crab Apple	14–16 cm	Extra Heavy Standard
<i>Prunus domestica</i>	Wild Plum	14–16 cm	Extra Heavy Standard
<i>Quercus robur</i>	Pedunculate Oak	14–16 cm	Extra Heavy Standard
<i>Salix caprea</i>	Goat Willow	14–16 cm	Extra Heavy Standard
<i>Sorbus aucuparia</i>	Rowan	14–16 cm	Extra Heavy Standard

Establishment Maintenance

- 6.1.19 A detailed plan for the establishment and management of new and enhanced hedgerows and hedgerows with trees will be developed for the five-year establishment maintenance period.
- 6.1.20 The aim of establishment maintenance will be to support the early stages of growth to encourage thick, bushy growth and good form and meet any requirements outlined in the BNG assessment to achieve the required habitat condition status. This is based on the following principles and outline prescriptions:
- Maintain a 0.5 m weed free strip either side of hedgerow through mechanical control.
 - First cut in spring to 45–60 cm above ground level taking care to exclude hedgerow trees.
 - Water new plants to minimise failures in periods of drought.
 - Remove litter, rubbish, and debris from planted areas throughout the year.
 - Re-firm soil around roots to ensure plants are supported and upright in spring each year.
 - Inspect and adjust stakes, guards, and ties in spring and autumn.
 - Check and record failed or defective plants in September annually.
 - Replace failed or defective plants with matching species of the same size during the next planting season after failure.
 - A quarterly check of plants to record their growth and condition will be completed.

Translocated Hedgerows

- 6.1.21 Where possible, hedgerow translocation (as identified in the Ecological Impact Assessment³⁶) will be undertaken. The receptor locations for specific sections will be agreed as part of the LEMP.

³⁶ AECOM (2025) Flaxlands Solar Farm, Ecological Impact Assessment (EclA)

- 6.1.22 Hedgerow relocation will occur during the dormant season, spanning from the close of November to the end of February. The primary aim is to re-establish these hedgerows in a form closely resembling their original state. This will be achieved by transferring the maximum amount of existing hedgerow components, including shrubs and beneficial ground-level plants, while simultaneously minimising soil disruption and root damage.
- 6.1.23 Key Principles of Hedgerow Translocation:
- **Maximizing Material Transfer:** The goal is to move as much of the existing hedgerow as possible, including shrubs and desirable ground flora.
 - **Minimizing Disturbance:** Efforts will be made to limit soil disruption and root damage during the process.
 - **Matching Original Form:** The translocated hedgerow will aim to replicate its original structure and composition.
- 6.1.24 Depending on the size and species composition of the hedgerow to be translocated, larger sections may be able to be moved using specialist machinery. However, the standard procedure for hedgerow translocation typically involves the following steps:
- To prepare for translocation and to achieve a higher guarantee of success, where timescales allow it is advised that root pruning and undercutting 1m from the hedgerow should be undertaken over two growing seasons prior to moving. This has the effect of stimulating growth of a fibrous network of roots from the cut sections thereby better preparing the roots for uptake of water and nutrients when it is replanted in the receptor site.
 - The hedgerow to be translocated would be marked on site by an arborist before being reduced in height to between 1m and 1.25m in order stimulate new shoot and root growth once moved.
 - The new location of the hedgerow (receptor site) will be prepared in advance of receiving the translocated material by excavating a trench 1.0m deep and 2.0m wide, and the excavated soil being piled along the length of the trench so that it is easily accessible for backfilling.
 - The hedgerow to be translocated should then be excavated to a depth of at least 1.0m and a width of 1.0m on either side to allow it to be lifted complete along with as much of the intact soil profile and ground flora as possible to maximise the volume of rooting material being translocated. Sections of the hedgerow will be translocated; lengths of sections being dictated by the machinery being used.
- 6.1.25 The duration between the lifting of the hedgerow and its re-establishment at the receptor site must be minimized to the shortest time practicable, as this is when the root systems are most vulnerable to desiccation and physical damage. Consequently, the period during which roots are exposed above ground should be kept to an absolute minimum. To maintain structural integrity and potentially aid establishment, sections of the translocated hedgerow should be replanted in their original sequential order. Backfilling of the root zone will be undertaken using soil excavated from the receptor trench, potentially supplemented with soil from the original hedgerow location. This backfill material will be carefully firmed by foot to eliminate air voids and prevent frost penetration. Where feasible, the existing ground flora associated with the translocated sections should remain uncovered.
- 6.1.26 New hedgerow planting and Tree standards will be incorporated within the translocated hedgerow using species as listed in Tables 6-1 and 6-2 above, to the site and to the translocated hedge.
- 6.1.27 To facilitate root development and maximize the probability of successful establishment, the translocated hedgerow may require periodic irrigation during the initial summer months, particularly during extended periods of dry weather.
- 6.1.28 In the event that hedgerow translocation is unsuccessful, the initial step involves an assessment by an arborist to identify the likely causes of failure, such as inadequate soil conditions, insufficient watering, pest infestation, or disease. Based on this assessment, remedial actions should be implemented. This may include soil amendment, supplementary planting with appropriate native species, enhanced watering regimes, or targeted pest and disease control measures. If the translocated hedgerow shows

limited recovery, a contingency plan involving the planting of new, locally sourced native hedgerow species in the receptor site should be enacted.

Long-Term Management

6.1.29 The long-term management of new and enhanced hedgerows and hedgerows with trees will focus on the following interventions:

- Hedgerows will be managed and maintained at a height of between 2.5 m and 3.5 m (allowing for individual trees within the hedgerow to establish and reach maturity).
- Cutting will be carried out at the end of the winter in January/early February.
- Overgrowing or overhanging branches will be removed from any access routes to keep them unobstructed.
- Dead, over-mature or dying hedgerow trees will be subject to removal where they are considered dangerous on health and safety grounds, and in accordance with any protected species constraints.
- Monitoring will be undertaken to detect any significant changes in hedgerow and tree health and condition. Maintenance and condition checks will be made every three years.

Grasslands - Other neutral grassland (semi-improved) and Lowland Meadow

Function

6.1.30 A mosaic of grassland types varying in species richness will be established across the Site. Broadly the grassland mosaic will comprise:

- Other neutral grassland (semi-improved) of moderate species richness (8 species per m²) will be created within the fence line of Solar PV areas (including under the Solar PV panels) to increase species biodiversity; and
- Lowland Meadow (neutral) grassland with moderate to high species richness (8-15 species per m²) will be created within the field margins outside the Solar PV fence line, BNG areas, and PRow buffers to encourage development of a diverse sward of grasses, sedges and broadleaved herbs for pollinators and birds.

6.1.31 Where practicable, seed will be obtained from a local source for the purpose of maintaining continuity with local species varieties.

6.1.32 Ground preparation and seeding will be based on principles and outline prescriptions as listed in the table below.

Table 6-3 Ground Preparation

Year	Time	Action
Year 0	Spring	Soil testing and if required reduce soil nutrient level by either seed with agricultural grass then overseed with meadow mix and yellow rattle, removing topsoil to expose the sub-soil or incorporating a substrate.
	Late Summer - Autumn	Once the nutrient level is reduced, all clods will be broken up and alien material (such as plastics and metals) above 50 mm in size will be removed. The top 50 mm of the soil will then be raked to prepare a fine tilth for the seedbed. The raking will occur immediately before sowing. Seeding will be completed only once the receiving soils have been tilled and adequately prepared. Immediately after sowing, the ground will be left undisturbed and un-watered to allow the grassland to establish naturally.

Implementation

- 6.1.33 The locations of the proposed other neutral grassland (semi-improved) and lowland meadow grassland areas are shown on Proposed Outline Landscape Masterplan (Figure 11).
- 6.1.34 An indicative mix such as the mix outlined in the table will provide a self-sustaining, low maintenance mixture that brings environmental benefits. However, this may be subject to change based on the needs of the Site's biodiversity and prevailing soil types.

Table 6-4: Indicative mix for other neutral grassland (semi-improved)

Botanical Name	Common Name	% Mix
<i>Lolium perenne</i>	Perennial Ryegrass	18
<i>Onobrychis viciifolia</i>	Sainfoin (Ag)	15
<i>Cynosurus cristatus</i>	Crested Dogs-tail	10
<i>Schedonorus pratensis</i>	Meadow Fescue	8
<i>Dactylis glomerata</i>	Cocksfoot	8
<i>Festuca rubra</i>	Red-fescue	8
<i>Poa trivialis</i>	Rough-stalked Meadow-grass	5
<i>Phleum pratense</i>	Timothy	4
<i>Poa pratensis</i>	Smooth-stalked Meadow-grass	4
<i>Poa annua</i>	Annual Bluegrass	4
<i>Lotus corniculatus</i>	Birds-foot Trefoil (Ag)	3
<i>Schedonorus arundinaceus</i>	Tall Fescue	3
<i>Trifolium pratense</i>	Red Clover (Ag)	3
<i>Trifolium repens</i>	Small Leaved White Clover (Ag)	2
<i>Alopecurus pratensis</i>	Meadow Foxtail	2
<i>Centaurea nigra</i>	Common Knapweed	1
<i>Plantago lanceolata</i>	Ribwort Plantain	1
<i>Achillea millefolium</i>	Yarrow	1

Lowland meadow creation from 'Donor' Site

- 6.1.35 In the first instance, options to use green hay from adjacent areas of lowland meadow should be used to overseed any areas of proposed created lowland meadow. Seed taken from these 'Donor' sites are suited to local soils and climate and conserves the species and character of the grassland found on-site and across the wider landscape.
- 6.1.36 As a general rule, approximately 1 ha of green hay will be sufficient to be spread on a 3 ha Site. The sward from the Donor site should support a range of species and be sufficiently close to the target habitat type and be free of injurious or undesirable species i.e. spear thistle, ragwort and broadleaved dock. It should have a low percentage cover of competitive species such as white clover, creeping buttercup and perennial rye-grass.
- 6.1.37 The donor site should be left unmown and/or ungrazed for at least 3 months before green hay is cut or seed is harvested. This will allow for plants to flower and set seed. Green hay cut can be taken from mid-July to mid-August. However, this timing will vary based on weather conditions.

- 6.1.38 Once the green hay has been cut, it must be collected, transported and spread within 24 hours. Once cut and gathered green hay will heat up very quickly which can result in infertile seeds.
- 6.1.39 Where donor sites are being retained care must be taken to ensure that enough seed is left on the donor site to maintain the donor site. This may be done by only harvesting part of the site, for example, harvest a strip then miss a strip.

Preparation of Receptor Site

- Sward Preparation
 - Receptor sites should be cut low in summer with arising removed.
- Bare ground creation
 - After the summer cut, bare ground formation will be required. This can be done with a power harrow or similar machinery. This should be completed shortly before the green hay is to be strewn, aiming to create around 30-50% bare ground.
- Spreading the green hay
 - once delivered to the receptor site, the green hay must be spread quickly. It should be spread evenly and thinly to ensure sufficient coverage.
 - Green hay can be spread with a muck spreader or forked out of the back of a trailer.
 - Green hay must be left in situ for 2-3 weeks, and within that time should be turned over at least once to ensure that all viable seed has dropped.
 - After this period, the hay must be gathered and taken off the receptor site, to ensure that the soil is not enriched with nutrients from the decomposition of the dried hay. Alternatively, the receptor site can be grazed, livestock will help by treading in seed and eat the remaining green hay.

Overseeding with purchased seed mix

- 6.1.40 If the usage of green hay is unfeasible then the application of an appropriate seed mix should be undertaken.
- 6.1.41 Table 6-5 below details an approximate seed mix composition that should be used for the creation of Lowland meadow.

Table 6-5: Indicative mix for lowland meadow grassland

Botanical Name	Common Name	% Mix
<i>Festuca rubra</i>	Red Fescue	25
<i>Festuca ovina</i>	Sheep's Fescue	15
<i>Agrostis capillaris</i>	Common Bent	10
<i>Cynosurus cristatus</i>	Crested Dog's Tail	10
<i>Agrostis capillaris</i>	Common Bent	10
<i>Alopecurus pratensis</i>	Meadow Foxtail	5
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass	4
<i>Centaurea nigra</i>	Common Knapweed	2
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	2
<i>Plantago lanceolata</i>	Ribwort Plantain	2
<i>Briza media</i>	Quaking Grass	2
<i>Ranunculus acris</i>	Meadow Buttercup	1.5
<i>Scorzoneroide autumnalis</i>	Autumn Hawkbit	1.3
<i>Achillea millefolium</i>	Yarrow	1
<i>Agrimonia eupatoria</i>	Agrimony	1

Botanical Name	Common Name	% Mix
<i>Cerastium fontanum</i>	Common Mouseear	1
<i>Galium verum</i>	Lady's Bedstraw	1
<i>Lathyrus pratensis</i>	Meadow Vetchling	1
<i>Prunella vulgaris</i>	Selfheal	1
<i>Rhinanthus minor</i>	Yellow Rattle	1
<i>Rumex acetosa</i>	Common Sorrel	1
<i>Succisa pratensis</i>	Devils-bit Scabious	1
<i>Primula veris</i>	Cowslip	0.5
<i>Trifolium pratense</i>	Red Clover	0.5
<i>Alchemilla glabra</i>	Smooth Lady's Mantle	0.1
<i>Veronica chamaedrys</i>	Germander Speedwell	0.1

Establishment maintenance

- 6.1.42 A detailed plan for the establishment and management of grassland areas will be developed for a five-year establishment maintenance period.
- 6.1.43 The aim of establishment maintenance will be to encourage development of a diverse sward of grasses and herbs in line with any requirements outlined in the BNG assessment to achieve the required habitat condition status. Establishment maintenance will be based on principles and outline prescriptions as listed in the table below. References to 'cutting' will apply to open areas only (excluding areas under solar panels which require grazing).

Table 6-6: Establishment maintenance

Year	Time	Action
Year 1	Late Summer	Light cut. Cuttings to be removed.
	Autumn	Light sheep grazing can occur if sward is well established. Density should be low at 2-3 ewes per ha and for short durations in rotation.
Year 2	Spring (before April)	Once established (second spring after sowing), another cut should occur before April in Spring. Cuttings should be removed.
	Late Summer	Cut or mow and remove cuttings.
	Autumn - Winter	Aftermath grazing can occur in low stocking densities (2-3 ewes per ha).
Year 3 - 5	Late Summer	Cut late summer.
	Autumn - Winter	Aftermath sheep grazing in rotation. Low stocking densities (4-5 ewes per ha).

6.2 In addition to the above, the following should be considered on an annual basis:

- Visual inspections will be made during the growing season;
- Control of undesirable species (e.g. arable weeds and plant INNS) and injurious weeds will be undertaken to prevent colonisation and domination of the grassland through the use of additional cuts during the growing season or if essential, a selective herbicide (where appropriate and managed in accordance with locality e.g. applying appropriate buffers to watercourses or grasslands managed for invertebrates);
- Botanical surveys will be carried out in late spring to confirm that the establishment of the grassland mosaic has been successful in achieving their intended aims and objectives. Spot checks will be undertaken at locations within each grassland area by a suitably qualified ecologist during years 1, 3 and 5, the purpose being to record plant species, their distribution, and the overall condition of the grassland. Other relevant indicators relating to the sward that may require remedial action during the contract period or in the future will also be recorded;
- If remedial action is required, the ECoW will agree appropriate action with suitably qualified ecologist; and
- If re-seeding is required in the early years, this should occur in late summer – early autumn with NO grazing that winter.

Long-Term Management

6.2.1 The long-term management (beyond the initial 5 years) of grasslands within the Site will be undertaken to maintain a relatively stable grassland community in the long-term, and to avoid areas naturally progressing into tall, dense, grass-dominated areas to perform the function as described for each grassland type listed below.

6.2.2 Measures for the grassland mosaic will focus on a regime of:

- Grassland to visibility splays will be maintained at the required height where necessary, with less frequent management to allow a taller and more diverse sward at the back of the verges behind the required visibility splays;
- Visual inspections during the growing season. Where any areas not already subjected to removal of cuttings, are identified as having a decline in habitat condition or species diversity, a targeted cut and collect management regime will be implemented on a temporary basis;
- Control of undesirable species (e.g. arable weeds and plant INNS) and injurious weeds to prevent colonisation and domination of the grassland using a selective herbicide (where appropriate and managed in accordance with locality e.g. applying appropriate buffers to watercourses or grasslands managed for invertebrates);
- Meadow margins adjacent to hedgerows may be left for a year or more between cuts to provide dense ground level cover for fauna, including amphibians, small mammals, and invertebrates;
- Habitat conditions assessments following BNG methodologies will be undertaken in years 2, 5, 10, 15, 20, 25 and 30. The results of these monitoring surveys will be used to adjust the management regime to maximise biodiversity and achieve the projected BNG unit values.

6.2.3 Long-Term maintenance will be based on principles and outline prescriptions as listed in the table below:

Table 6-7: Long-Term Management

Year	Time	Action
Long-term Management	Spring - Early Summer	No grazing
	Late Summer	Cut for hay or mow (optional under panels depending on re-growth). Remove cuttings.
	Autumn Winter	Aftermath sheep grazing in rotation. Low stocking densities (4-5 ewes per ha)

Provision of Habitat Boxes

Function

- 6.2.4 A range of artificial bat boxes will be installed on existing individual trees and on existing trees in hedgerows, to increase the availability of roosting features and enhance the value of the Site for bats.

Implementation

- 6.2.5 A total of at least 10 bat roost boxes (general-purpose boxes) will be installed in locations to be determined by an ecologist at the time of installation.
- 6.2.6 Bat boxes made from long lasting materials (such as Woodcrete) will be used, where available and would be expected to have a life expectancy of 20–25 years.

Long-Term Management

Bat Boxes

- 6.2.7 The condition of all wildlife boxes installed will be monitored annually during the operation of the Proposed Development and replacements will be made as necessary. Inspections can be timed to coincide with the required inspections of new tree and shrub plantings.
- 6.2.8 General purpose bat boxes are, in most circumstances, unlikely to be used by hibernating bats during winter months (between November and February inclusive). Therefore, any maintenance that is required on bat boxes should be undertaken during these months, when any bird nests will be removed, after ensuring they are not in use. Self-cleaning boxes styles (entry points at the base so droppings fall out and do not accumulate inside) are preferable to other types to reduce potential disturbance due to increase requirements for maintenance.
- 6.2.9 All bats and their roosts are protected under the Wildlife and Countryside Act (1981), as amended. Therefore, it is an offence to disturb, possess, control, transport, sell or exchange any live or dead bat. Therefore, if bats are inadvertently discovered during maintenance, the person undertaking the maintenance should leave the box undisturbed.

Creation of Habitat Piles

- 6.2.10 Habitat piles and hibernacula will be constructed throughout the Site in suitable areas, such as close to existing ponds or the newly created grassland areas. Habitat piles will be created using natural materials, generated during clearance of the Site, such as logs, brash, turf and grass clippings.
- 6.2.11 These will provide refuge and hibernation opportunities for reptiles and amphibians, as well as dead wood habitat for invertebrates, which will in turn benefit fauna such as bats and birds.

Protected Species

Habitat Creation

- 6.2.12 The habitat creation and management detailed in the above sections will be of benefit to a wide range of protected and notable species that have been identified as present or likely present within the Site. Summarises the habitat creation and benefits to relevant protected and notable species.

Table 6-8: Summary of habitat creation and benefits to protected species

Habitat Creation/ Management Prescription	Species Benefits
Native planting, including trees, scrub, and hedgerows	Locally sourced native planting will improve connectivity for a wide range of species across the Site, such as bats, creating green corridors and linking up areas of woodland. Native planting will be of an appropriate mix of fruit-bearing, native species that will provide food and shelter for a number of species such as wintering birds and badger.
Other neutral grassland	Creation of grassland habitats, sown with appropriate seed mixes will improve flora and increase terrestrial invertebrates which will be of benefit to a wide range of species.

Lowland Meadow grassland	Creation of grassland habitats, sown with appropriate native seed mixes will improve flora and increase terrestrial invertebrates which will be of benefit to a wide range of species, such as: ▪ Reptiles and amphibians – providing permanent habitat for foraging, commuting, and resting; ▪ Breeding birds – providing increased opportunities for foraging and potentially nesting; ▪ Wintering birds – providing increased opportunities for foraging; Bats – linking up areas and providing green corridors with increased prey (terrestrial invertebrates), improving connectivity and foraging opportunities; and, ▪ Other mammals – providing permanent and largely undisturbed habitat for species such as brown hare and hedgehog.
Provision of habitat boxes	Increase the roosting opportunities for bats.
Provision of habitat piles	Refuge and hibernation opportunities for reptiles and amphibians well as dead wood habitat for terrestrial invertebrates, which would in turn benefit fauna such as bats and birds

7. Pre and Post Construction Monitoring

- 7.1.1 Monitoring is required to determine that the functions documented within this Outline LEMP are being achieved and whether any remedial management action may be required. The baseline against which the effects of the actions resulting from the monitoring can be compared against comprises the pre-construction baseline data. This baseline data collected in 2024-2025 will require updating prior to construction, as by operation, this data may be out of date (refer to 'On The Lifespan Of Ecological Reports & Surveys' ³⁷). Updates would include a similar set of surveys undertaken at the baseline where relevant ecological receptors have been identified, including surveys of birds, bats, riparian mammals, amphibians, and badgers.
- 7.1.2 A post-construction monitoring programme will be formalised, agreed and included within the LEMP. Walkover surveys of the Site will be undertaken between April and June in years 2, 4, 6, 10 and then every 5 years post-construction until year 30. The surveys will involve inspection of the hedges with trees, hedgerows and grassland habitats to ensure that they are being managed accordingly.
- 7.1.3 Post-construction monitoring for flora, birds (breeding and non-breeding), riparian mammals, badger and bats (bat activity survey), will be undertaken in the respective seasons, in years 1, 3, 5, 10 and 15 post-construction and thereafter in years 20 and 30, paying due regard to recommendations in the Wiltshire Solar PV Farm and Ecology Advice Note³⁸. For the purposes of BNG Condition Assessments, post-construction surveys will also be undertaken in years 2, 5, 10, 15, 20, 25 and 30. These surveys are likely to involve similar methods to those used to determine the ecological baseline of the Scheme.
- 7.1.4 Maintenance checks of wildlife boxes (bats) will be made as per the prescription in this Outline LEMP to ensure that all boxes are still in position and secure. Some refitting of boxes, repairs and replacements are likely to be required over the lifetime of the Proposed Development.
- 7.1.5 Results from the post-construction monitoring will feed into the management plan and, if required, management may be amended accordingly based on this monitoring.

Adaptive Management Monitoring

- 7.1.6 The adoption of an adaptive management programme for the landscape planting is proposed to achieve optimum levels of plant growth and growing conditions and ultimately provide greater confidence that effective screening will be achieved by hedgerows and hedgerows with trees. It will also allow flexibility to adapt to future climate changes and trends regarding species selection and maintenance requirements. Monitoring will be undertaken throughout the implementation and maintenance and management periods to ascertain progress of tree growth to inform the subsequent steps to be taken as part of the adaptive management programme.
- 7.1.7 The LEMP will define the adaptive management programme in agreement with the relevant planning authority. New activities or adaptations to the management and maintenance regime will respond to the results of monitoring and changes because of climate change. It will comprise a landscape aftercare supervision structure that specifically addresses the quality and annual growth of different planting areas, with monitoring against agreed objectives. It will provide mechanisms to target specific measures to improve any areas where planting is not establishing satisfactorily. These measures could include replacement of failed trees and shrubs and other remediation measures to improve growth including but not limited to watering, targeted weeding and soil analysis.

³⁷ CIEEM – Chartered Institute of Ecology and Environmental Management (2019). *On The Lifespan Of Ecological Reports & Surveys*. Available at: [Advice-Note.pdf](#)

³⁸ Wiltshire Council (July 2021) Solar PV Farms and Ecology: Developer Advice Note

