

Appendix F.4

Outline Landscape and Ecological Management Plan





Bodelwyddan Solar and Energy Storage

Outline Landscape and Ecological Management Plan

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On behalf of:
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APPENDICES

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Appendix EDP 2	Illustrative Landscape and Ecology Strategy (BESS Site) (edp8841_d050b 27 August 2025 JHa/MDu)

Section 1

Introduction

- 1.1 The Environmental Dimension Partnership Ltd (EDP) was commissioned by Bodelwyddan Solar and Energy Storage Limited to prepare an Outline Landscape and Ecological Management Plan (oLEMP) in relation to the Proposed Development at land to the north-west and south-east of Bodelwyddan (hereafter referred to as 'the Site').
- 1.2 EDP is an independent environmental planning consultancy with offices in Cardiff, Cirencester and Cheltenham. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website (www.edp-uk.co.uk).

SITE CONTEXT

- 1.3 The Site comprises three components, namely:
- The Solar Site (location of proposed solar panel arrays), measuring c.168.95 hectares (ha) and centred approximately at Ordnance Survey Grid Reference (OSGR) SH 98274 77362. This component is located c.0.6km north of Bodelwyddan and comprises intensively managed farmland (sheep and cattle pasture and arable) enclosed by hedgerows and field ditches, and is bisected by the A547 (Rhuddlan Road);
 - The Battery Energy Storage System (BESS) Site, measuring c.6.52ha centred approximately OSGR SJ 01308 73447. This component is located c.1km south-east of Bodelwyddan, just to the south of St Asaph Business Park and comprises intensively managed farmland (sheep pasture) enclosed by hedgerows; and
 - A Cable Corridor, c.8km in length and 10m in width and totalling approximately 8.29ha, linking up the Solar Site and BESS Site. The corridor initially runs southward from the south-west corner of the Solar Site, passing through farmland and under the A55. It then runs east- and south-eastward through Kinmel Park and Bodelwyddan Park, utilising existing roads and tracks where available to pass through a mix of farmland, plantation woodland and open parkland habitats, before running along the Glascoed Road (B5831).

PROPOSED DEVELOPMENT

- 1.4 The Proposed Development comprises the construction, operation and maintenance of a proposed solar photovoltaic electricity generating system and BESS, associated solar arrays, inverters, transformers, cabling, substations, access tracks, landscaping, ecological enhancement areas and associated ancillary development.
- 1.5 The Proposed Development will have an operational lifespan of 40 years, after which it will be decommissioned, and the Site can return to its current land use.

- 1.6 To establish the ecological baseline for the Site and inform a detailed planning submission for the Proposed Development, a desk study, Extended Phase 1 Habitat survey, hedgerow assessment and detailed species surveys for breeding birds, wintering birds, roosting bats, foraging/commuting bats, badger (*Meles meles*), otter (*Lutra lutra*), water vole (*Arvicola amphibius*) and great crested newt (*Triturus cristatus*) were completed by EDP across 2024 and 2025.
- 1.7 To establish the existing landscape and visual baseline character of the Site, a desk study and comprehensive field assessment, including a photographic survey of the character and fabric of the Site and its surroundings and a residential visual amenity assessment, were completed by EDP across 2024 and 2025.
- 1.8 This oLEMP incorporates pertinent baseline information and recommendations as given within Chapter 10 (Biodiversity) and Chapter 11 (Landscape and Visual) of the Environmental Statement (ES) submitted in support of the planning application.
- 1.9 This oLEMP should be read in conjunction with the Illustrative Landscape and Ecology Strategy for the Solar Site and BESS Site (**Appendix EDP 1** and **Appendix EDP 2** respectively). This oLEMP should also be read alongside the Arboricultural Impact Assessment (AIA) (report reference: edp8841_r007) and Outline Ecological Construction Method Statement (oECMS) (report reference: edp8841_r011), prepared to further inform the full planning application.

Section 2

Scope, Aims and Responsibilities

SCOPE

- 2.1 Ahead of construction, this oLEMP will form the basis of a full Landscape and Ecological Management Plan (LEMP), prepared in tandem with detailed landscape plans, to be submitted for approval pre-commencement.
- 2.2 This oLEMP addresses all soft landscaping areas within the Solar Site and BESS Site and includes protection for all retained features of landscape and ecological interest, including hedgerows and ditches located along the Site's boundaries. Management recommendations for all retained habitats and those proposed for creation, including wildflower grassland, scrapes, ponds and hedgerows are also included, as are maintenance prescriptions for ecological enhancement features including bird boxes and hibernacula.
- 2.3 This document primarily covers the Solar Site and BESS Site components of the Site, as there are no long-term ecological or landscape proposals for the Cable Corridor, which, once the cables are installed under the ground, the existing habitat/track/road will be reinstated and managed as it is currently. However, certain sections of the Cable Corridor where grassland or hedgerow is impacted will be re-seeded or replanted to aid reinstatement. These management actions will therefore also be covered within this document.
- 2.4 The management scheme outlined within this oLEMP is structured to take into account the following phases of the development works:
 - Construction; and
 - Operation (including short and long-term management and maintenance).
- 2.5 The general scope of this oLEMP includes the following:
 - During the construction phase, this document seeks to ensure the appropriate management and successful delivery of all enhanced and new features of ecological and landscape value or interest; and
 - During the operational phase, the long-term management and maintenance of the Proposed Development seeks to ensure that the landscape and ecological framework is sustained and enhanced, such that all benefits to ecological biodiversity and visual amenity are delivered successfully throughout the lifetime of the scheme.
- 2.6 The Proposed Development will have an operational life of 40 years. Twelve months prior to cessation, a Decommissioning Environmental Management Plan (DEMP) would be submitted for the prior approval of the relevant Local Planning Authorities (LPAs). It would rely on fresh assessments, taking account of the regulatory regime at that time, to inform mitigation and legacy enhancements. The general scope of the future DEMP will include the management, methodology, traffic and control measures throughout the decommissioning phase, to provide the same protection and maintenance measures as the construction

phase, though extended to include planting and other habitat features installed as part of this proposal.

AIMS

2.7 The overall aims of this oLEMP and future DRMP are:

- To ensure that development is carried out in an appropriate manner and that features and species of landscape and ecological importance are protected during the pre-construction/enabling and construction phases of the scheme; and
- To enable the delivery of the appropriate maintenance and management of all semi-natural habitats that are to be retained, enhanced or created within the completed scheme and throughout operation, so as to ensure that they continue to deliver benefits for biodiversity and visual amenity.

RESPONSIBILITIES

2.8 The management and maintenance works of all features of ecological and landscape importance associated with the Proposed Development are the responsibility of the Principal Contractor appointed by the Developer and are to be continued through to practical completion. The responsibility for the management and maintenance works of all features and species of ecological and landscape importance associated with the development post-completion, will remain the responsibility of the Developer and/or Private Management Company appointed by the Developer.

Section 3

Biodiversity and Landscape Resource

- 3.1 This oLEMP incorporates pertinent baseline information documented within the Ecology Baseline Report (report reference: edp8841_r003) prepared by EDP as Appendix F.1 to the Biodiversity Chapter of the Environment Statement and submitted as part of the planning application.
- 3.2 It also incorporates pertinent baseline information documented within the Landscape and Visual Baseline Report (report reference: edp8841_r005) prepared by EDP as Appendix G.1 to the Landscape and Visual Chapter of the Environment Statement submitted as part of the planning application.

BIODIVERSITY BASELINE

- 3.3 The assessment found that the Site boundary is not covered by any statutory designations for nature conservation. However, eight international statutory designations (including the Dee Estuary, which is covered by three different designations and supports internationally important assemblages of wintering birds) are located within 15km of the Site and one national statutory designation, namely Coedydd ac Ogofau Elwy a Meirchion Site of Special Scientific Interest (SSSI), is located within 2km of the BESS Site.
- 3.4 In relation to non-statutory designations, there are two candidate Wildlife Sites present within the northern section of the Solar Site, namely Abergele Grazing Marsh Wildlife Site (Candidate) and Morfa Rhuddlan Wildlife Site (Candidate), both of which are designated for grazing marsh.
- 3.5 The detailed surveys found that the habitats on-site comprise predominantly agricultural fields dominated by improved grassland subject to grazing and/or cropped for silage (both of which are of limited inherent ecological importance). Parcels of arable land are also present at the Solar Site, which are also of limited ecological importance.
- 3.6 The fields are delineated by a network of managed native hedgerows, and at the Solar Site, also by dry and wet ditches, which are of up to Local ecological importance. Furthermore, the grassland and ditch habitats within part of the Solar Site is classified as coastal floodplain and grazing marsh, albeit a poor example of this habitat type due to the condition of the habitats present. Nonetheless, this habitat is considered to be of County level ecological importance due to its status as a Priority Habitat and Wildlife Site designation. Other habitats present within the Site include standing water (a single pond within the Solar Site) and mature trees, both of Local ecological importance, and which include a veteran tree on the boundary between the two fields of the BESS Site, in addition to small patches of dense and scattered scrub.
- 3.7 Additionally, a number of woodlands are immediately adjacent to and overhang the Solar Site boundary, including restored and plantation ancient woodland sites of County level ecological importance, located immediately adjacent to the southern Solar Site boundary.

3.8 The Cable Corridor runs through a number of woodlands and a section of County level importance Priority Habitat wood-pasture and parkland, utilising existing bare ground trackways and grass areas in order to avoid impacts on mature trees. Additionally, a number of woodlands are immediately adjacent to and overhang the Cable Corridor boundary, including restored and plantation ancient woodland sites of County level ecological importance.

3.9 These habitats across the Site have been found to support the following protected/notable species:

- A relatively diverse breeding bird assemblage with a number of breeding pairs of skylark and lapwing at the Solar Site, of Local level ecological importance;
- A diverse assemblage of wintering birds at the Solar Site, including some larger flocks of wetland waterfowl of County level ecological importance. Most notably this included a large population of teal associated with the wet ditches on and adjacent to the Solar Site which, whilst considered unlikely that these birds are part of the same population as the nearby Dee Estuary SPA/Ramsar owing to the spatial separation from this designation (c.9.9km) and the widespread nature of this species across North Wales, as a precaution, it has been assumed to be functionally linked and is therefore precautionarily assessed of up to International ecological importance;
- A number of mature trees with bat roost potential which are of Local level ecological importance;
- A typical assemblage of foraging and commuting bats primarily composed of widespread species but with some rarer species in smaller numbers, particularly at the BESS Site, of Local level ecological importance overall;
- Presence of badger activity within the Site, however no setts have been found;
- Occasional presence of otter using the wet ditches across the Solar Site;
- A population of water vole within the Solar Site, using the wet ditch habitat for foraging, commuting and refuge;
- Presence of great crested newt within ponds near to the Site boundaries and therefore potentially present within suitable terrestrial habitat across the Solar Site, BESS Site and Cable Corridor, although the single pond within the Solar Site tested negative for this species; and
- Likely (assumed) presence of common reptile species within the suitable habitats across the Solar and BESS Sites, restricted to the field margins and ditches.

LANDSCAPE AND VISUAL BASELINE

3.10 There are local or national landscape designations on or adjacent to the Site boundary. The closest national designation is the Clwydian Range and Dee Valley National Landscape

(c.5.90km east of the Site at its closest point). The nearest local designation is Betws yn Rhos Special Landscape Area (SLA), located c.1.5 km south of the Solar Site.

- 3.11 Baseline field assessments, including photographic surveys, were conducted between November 2024 and April 2025 in clear weather. These were supplemented by aerial photography review, desk-based research, and consultations with statutory bodies. LANDMAP data and relevant local/national planning documents were reviewed.
- 3.12 The Solar Site is within a flood plain and characteristically, it is low lying, flat and visually open. Intensive farm practices and lack of management of field boundaries has led to a mostly degraded landscape with a weak green infrastructure network. There is no public access covering the Site, there is a right of way off-site on the eastern edge of the Solar Site that terminates at Rhuddlan Road. Some field boundaries are intact although the majority are gappy and defunct. Some boundaries are only demarcated by ditches and or fences and there are relatively few trees within the Solar Site.
- 3.13 The BESS Site is more inland, and the landform is gently sloping northwards. The Site is smaller in scale, and it is more enclosed and verdant, with intact boundaries, with the exception of the northern boundary, although this is bordered by an off-site tree belt. In terms of character, there are mature trees of note within the Site and overall, the BESS Site is visually influenced by nearby overhead lines and substation.
- 3.14 A review of character and survey information together with the proposals enabled mitigation measures to be embedded into the scheme. The existing GI framework and the ecological survey findings were integral to the evolution of the scheme. First and foremost, the design intent has been to retain as much of the landscape features as possible such as using existing field gates, providing sensible buffers to landscape features in and adjacent to the Site boundaries, and reinstating ditches where dry (subject to consultation and any necessary consents). Grassland enhancement measures proposed will restore and enhance the agricultural land. New habitats will also be created to support biodiversity on Site. Existing field patterns have been respected, and new planting will reinforce the field structure and provide benefits to the character of the Site. The outcome of identifying and compiling various environmental constraints and opportunities formed the basis for the Illustrative landscape and ecology strategy proposed.

ECOLOGICAL AND LANDSCAPE FEATURES TO BE RETAINED, ENHANCED AND CREATED

- 3.15 In line with those recommendations detailed within Chapter 10 (Biodiversity) and Chapter 11 (Landscape and Visual) of the ES, the Proposed Development has been designed to retain and protect the valued resources listed above wherever possible, in addition to providing additional features for biodiversity and visual benefits as a whole. Such retention is as follows:
- Retention of the vast majority of hedgerows across the Solar and BESS Sites with a 5m buffer, with only small extents of loss proposed for widening of some existing field gateways, the creation of a new access point into the northern part of the Solar Site, and an operational track into the southernmost field at the BESS;

- Retention of all wet and dry ditches across the Solar Site with a 5m buffer (no wet or dry ditches located at the BESS Site);
 - Retention of the entirety of the main running water ditch along northern Solar Site boundary (known as Bodoryn Cut) with a 10m buffer;
 - Protection of the adjacent ancient woodland parcel with a 15m buffer;
 - Protection of the adjacent other woodland parcels with 10m buffer;
 - Retention of all individual mature trees with a 10m buffer; and
 - Retention of the single pond within the Solar Site with a 30m buffer, and this buffer also applied to nearby ponds outside of the Solar Site boundary.
- 3.16 All habitats to be retained will also be subject to protection and buffering through the implementation of protective fencing and employment of sensitive timings and working methods throughout the enabling/pre-construction and construction period so as to minimise pre-construction and construction impacts upon habitats and species. This is outlined within the Outline Ecological Construction Method Statement (oECMS) submitted with the planning application.
- 3.17 Of those habitats retained within the Solar Site, where feasible the currently degraded and dry ditches will be restored and enhanced to form seasonal or permanent wet ditches, using minor re-profiling and hydrological intervention (subject to consultation with Natural Resources Wales (NRW) and any necessary consents). Furthermore, the retained hedgerows will be enhanced with additional species-rich tree and whip planting where necessary and sensitive management, and the onsite pond and its marginal habitats will be enhanced.
- 3.18 Of those habitats retained within the BESS Site, the boundary hedgerows will be enhanced with additional species-rich tree and whip planting.
- 3.19 In addition, the following habitat creation measures are proposed:
- The creation of a number of green corridors throughout the Solar Site along various existing underground utilities easements (which restrict the placement of solar arrays), which will comprise species-rich meadow grassland creation;
 - The establishment of species-rich meadow grassland across the entirety of the Solar Site under the solar arrays, and within the fields of the BESS Site outside of the footprint of the BESS equipment/access track;
 - Planting of new species-rich hedgerows across the Solar Site boundaries and internal field edges, in addition to along several of the underground utilities easements to improve green corridors across the Solar Site, in particular connectivity with the off-site woodland parcels;
 - New tree planting in certain areas to minimise views from roads and residences; and

- The creation of an Ecological Mitigation and Enhancement Area, totalling approximately 10ha, which has been designed to provide enhanced habitat for a range of species, particularly targeting overwintering birds and ground nesting farmland birds. This area will provide enhanced year-round foraging and breeding opportunities for the farmland bird assemblage potentially displaced from the Solar Site and is located immediately to the south of it (parcel no. 6 as shown on the Illustrative Landscape and Ecology Strategy). This area will include:
 - Creation of wildlife ponds, surrounded by meadow grassland, within the c.2.5ha field adjacent to the off-site ancient woodland belt;
 - Within the field to the west of the central ditch further from the woodland edge, a series of shallow, temporary ponds, also known as wader scrapes will be provided;
 - Within the westernmost parcel of the Ecological Mitigation and Enhancement Area, a 50/50 rotation of wild bird crops in accordance with the Sustainable Farming Scheme 2026 habitat type 'Unfertilised, unsprayed and unharvested cereal or linseed headlands', and fallow land (aiming to provide habitat for ground nesting birds such as lapwings) to be brought forward each year; and
 - In addition, the existing dry ditch will be enhanced to provide further foraging opportunities for birds in addition to becoming more favourable for use by water vole.

3.20 Furthermore, the following species-specific features will be incorporated into the development proposals to further enhance retained habitats for protected/notable species such as birds, amphibians, common reptiles and invertebrates:

- Two barn owl boxes;
- Two 32mm nest boxes suitable for small birds such as great tit, tree sparrow, pied flycatcher and redstart;
- Two woodpecker boxes; and
- Four hibernacula features for amphibians and reptiles.

3.21 Of further relevance, *Planning Policy Wales Edition 12*, published February 2024, sets out a requirement for development to provide a net benefit for biodiversity and improve, or enable the improvement, of the resilience of ecosystems, through the application of the step-wise approach necessary to ensure that any adverse environmental effects are firstly avoided, then minimised, before being mitigated for and/or, as a last resort, compensated for either on- or off-site. In combination with the step-wise approach, the inclusion of enhancements to biodiversity proportionate to the scale and nature of the Proposed Development, alongside the implementation of a management plan over the long-term, are also required to further demonstrate that net benefits for biodiversity will be achieved for the Site.

3.22 The step-wise approach and associated enhancement measures proposed for the Site is therefore summarised within **Table EDP 3.1**.

Table EDP 3.1: Application of the Step-wise Approach at the Site

Assessing Impacts on Habitats and Species Through the Step-Wise Approach	Measures Proposed for Implementation
Step 1 – Avoid	• Sensitive siting of development away from important ecological features, enabling their retention in full or in part, including the retention and buffering of the vast majority of hedgerows (with 5m buffer), wet and dry ditches (5m buffer), main running water ditch along northern Solar Site boundary (10m buffer), adjacent ancient woodland (15m buffer), other woodland (10m buffer), mature trees (10m buffer) and the onsite and immediately off-site ponds (30m buffer); • Careful routing of the Cable Corridor in association with ecological and arboricultural advice to follow existing tracks and roads as far as possible and avoid root protection areas, thereby avoiding impacts on important habitats and mature trees; • Avoidance of potential impacts from light spill by keeping lighting requirements within the Proposed Development to a minimum (noting that there will not be any operational lighting at the Solar or BESS Sites); and • Implementation of additional avoidance measures throughout the pre-construction and construction phases in accordance with the Outline Construction Environment Management Plan (oCEMP) and oECMS, including pre-commencement surveys and precautionary working measures.
Step 2 – Minimise	• The impacts on the onsite features are primarily limited to a small amount of hedgerow loss. This has been minimised through sensitive layout design to utilise existing field access points where possible, whilst minimising the number of breaks required to facilitate access. All vegetation clearance impacts will be further minimised through the use of method statements, toolbox talks and ecological supervision; • The layout also incorporates buffers between the equipment anticipated to cause some noise and important habitats to minimise noise disturbance upon commuting and foraging areas for wildlife; and • Additional minimisation measures will be followed throughout the pre-construction and construction phases in accordance with the CEMP and ECMS, including pre-commencement surveys and precautionary working measures.
Step 3 – Mitigate/Restore	

Assessing Impacts on Habitats and Species Through the Step-Wise Approach	Measures Proposed for Implementation
Step 4 – Compensate on-site	• Of those habitats retained within the Solar Site, where feasible the currently degraded and dry ditches will be restored and enhanced and the retained hedgerows will be enhanced; • The creation of a number of meadow grassland green corridors throughout the Solar Site along existing underground utilities easements; • The establishment of species-rich meadow grassland across the entirety of the Solar Site under the solar arrays, and within the fields of the BESS Site outside of the footprint of the BESS equipment/access track; • Planting of new species-rich hedgerows across the Solar Site boundaries and internal field edges; • New tree planting in certain areas to minimise views from roads and residences; and • The creation of an Ecological Mitigation and Enhancement Area, totalling approximately 10ha, which has been designed to provide enhanced habitat for a range of species, particularly targeting overwintering birds and ground nesting farmland birds.
Step 4 – Compensate off-site	Not applicable.
Step 5 – Long Term Management Plan and Additional Measures	• Implementation of a CEMP during the construction stage to ensure appropriate management and operational systems are in place to avoid or minimise adverse pollution effects; • Implementation of an ECMS detailing measures to be implemented to protect important ecological features during the construction phase of the Proposed Development, overseen by an appointed Ecological Clerk of Works (ECoW); and • The appropriate management, maintenance and monitoring of all retained and newly created habitats/features proposed over the lifetime of the development through implementation of this outline LEMP, to deliver a net benefit to biodiversity.

Section 4

Habitat Creation and Landscape Planting (Construction Phase)

- 4.1 This section sets out the proposed habitat creation, enhancement and landscape planting works to be completed across the Solar and BESS Sites, to ensure that appropriate measures to mitigate for potential impacts arising and deliver net benefits to biodiversity are implemented from the early stages of the scheme. Such measures have been designed with reference to those mitigation principles previously set out within Chapter 10 (Biodiversity) and Chapter 11 (Landscape and Visual) of the Environmental Statement prepared by EDP in support of the planning application.
- 4.2 A range of new habitats and landscape features will be established during the construction phase of the Proposed Development and/or in the first planting season thereafter, where feasible. Areas of the Site proposed to accommodate biodiversity and landscape features are illustrated within the Landscape and Ecology Strategies provided at **Appendix EDP 1** and **Appendix EDP 2**.
- 4.3 Retained and enhanced habitats will require ongoing sensitive and appropriate management over the lifetime of the development given the presence of protected and notable species on-site. Sensitive management will seek to enhance the value of foraging, dispersal, breeding and hibernation resources for protected and notable species. Planting will be undertaken in accordance with those specifications stated therein. Additional measures are further outlined below.

PRE-COMMENCEMENT SITE CHECK

- 4.4 Prior to commencement of all significant planting or habitat manipulation works, the works footprint and surrounding area shall be checked by a suitably qualified ecologist to ensure that there have been no significant material changes to the existing ecological interest of the area and that no protected or notable species, which could be harmed by the planting or habitat works, have moved on site since the previous surveys were carried out (e.g. establishment of badger setts or new water vole burrows).
- 4.5 Should any protected species be found during this check, full details of mitigation measures to prevent their harm shall be submitted to and approved in writing by the relevant LPAs. Where additional mitigation and/or precautionary working methods are required, the full LEMP document will be updated accordingly.

GENERAL MEASURES

- 4.6 All work is to be carried out in accordance with the following:
- All materials and workmanship are to be to the highest possible standards in accordance with relevant good practice and British Standards;

- All work is to be carried out by appropriately skilled, qualified and experienced operatives for the type and quality of work, and in accordance with good horticultural practice and ecological techniques in line with contemporary Legislation, Regulations and Codes of Practice;
- All work will be undertaken where weather conditions are suitable, avoiding moving, handling and tracking over very wet soils. Soils for planting will be warm, moist, friable and not waterlogged;
- Planting should be undertaken using topsoil recovered from the Site, where this is feasible, incorporating soil conditioner as required;
- Only tools suited to Site conditions and work carried out are to be used. Hand tools to be used around existing and newly planted trees and shrubs. Boards to be used where required while working, to protect grass/planting areas;
- Materials are not to be stock-piled adjacent to newly planted trees or shrubs;
- All waste materials, including plant wrappings and temporary labels, will be removed off site at the contractor's own expense. No waste materials to be buried or burnt on-site;
- All hard and soft landscape materials will conform to the relevant British Standards and Codes of Practice. All plants to be true to name, type and character, and to comply with the National Plant Specification;
- Plants will be vigorous, weed, pest and disease free, and not suffering from drought, waterlogging, windburn, damage or nutrient deficiency. Fresh grass seed and turf produced for the current growing season to be used. Any substitutes will otherwise be approved by the project Landscape Architect;
- Transport and handling of plants shall comply with 'Handling and Establishing Landscape Plants' (Horticultural Trades Association), including protection from desiccation or any other damage prior to planting out;
- Watering will be undertaken as necessary by the Developer to ensure the establishment and thriving of all planted areas;
- All areas where plants or trees have failed to thrive (through death, damage or disease), will be identified by the Developer and plants will be removed and replaced with equivalent species to match the size of adjacent nearby plants in the next appropriate planting season, as frequently as necessary. The advice of the project Landscape Architect should be sought wherever possible;
- All plants will be pruned to promote healthy growth and natural shape, and any dead, dying or diseased wood and suckers will be removed. Overhanging branches will be pruned to ensure that growth is prevented from encroaching onto paths, signs, sightlines and road lighting. Pruning will be undertaken annually or as appropriate to each species between October and February inclusive, to avoid the main bird breeding

season, and undertaken according to best practice. All arisings will be removed for composting; and

- Ensure the Site is kept free of any vandalism or damage; where this occurs ensure issues are reported and appropriate action taken to rectify.

HABITAT ENHANCEMENT AND CREATION MEASURES

Retained Grassland

- 4.7 Retained grassland across the Solar Site and BESS Site will be subject to enhancement through their sensitive management over the long-term, necessary to maximise species and structural diversity whilst providing further benefits to wildlife.
- 4.8 To initiate the enhancement, the existing grass will be mown short, scarified and over-seeded with an appropriate seed mix such as 'Meadowmania Native Meadow Wildflower Seeds for Partial Shade' or similar mix with tolerance to partial shading for areas under and around the solar arrays, 'Emorsgate EM3 Meadow Mixture' (or similar) for areas not shaded or 'Emorsgate EM8 Meadow Mixture for Wetlands' (or similar) for areas that are seasonally wet.

Newly Created Grassland

- 4.9 Areas of species-rich meadow grassland are proposed within the Solar Site across land that currently comprises arable fields. Grassland creation is likely to comprise the following or similar mixes which are suitable for grazing, subject to soil testing to be undertaken alongside development of the detailed landscape scheme and LEMP;
- All areas under and around the solar arrays will be sown with a species-rich meadow grass 'Meadowmania Native Meadow Wildflower Seeds for Partial Shade' or similar mix with tolerance to partial shading;
 - Areas across the wider utilities easements that will not be subject to such shading from the solar arrays will include 'Emorsgate EM3 Meadow Mixture' (or similar) which incorporates 29 wildflower species and five grass species; and
 - Areas subject to seasonal inundation will be sown with 'Emorsgate EM8 Meadow Mixture for Wetlands' (or similar) which contains species suitable for seasonally wet soils and is based on the vegetation of traditional floodplain and water meadows.
- 4.10 Areas of the Cable Corridor where grassland was removed for installation of the ducting will be seeded with an appropriate species-rich mix similar in species composition to the surrounding grassland.
- 4.11 The seed mixtures will be sown onto a medium tilth seedbed, which is free from perennial weeds or other vegetation. Weeds will be controlled by repeated cultivation or herbicide before sowing if necessary.

4.12 Where required, topsoil will also be reduced by around 150mm, so as to reduce the long-term fertility of the soil and facilitate competition within the establishing grassland sward aimed at achieving and sustaining medium to long term species diversity. The following would also apply:

- Sowing will take place in the late summer/autumn (late August-October) or spring (April-May);
- Seeds will be surface sown at a rate of c.4 g/m², using a seed broadcaster or by hand; and
- Seed must not be covered but should be 'firmed in' to give good soil-seed contact using either a roller or by treading.

Tree, Hedgerow and Shrub Planting

Retained Habitats

4.13 Protection, enhancement and long-term management measures of retained woody habitats will include:

- Reinforcement of retained hedgerows and woodland edge boundaries with native shrub and tree planting to reduce edge effects and enhance wildlife corridors. Planting mixes will include a mixture of native trees and shrubs to encourage species and structural diversity;
- Newly planted areas should be rabbit-proofed where necessary to discourage damage/disturbance. Planting of climbing species such as ivy (*Hedera helix*) and honeysuckle (*Lonicera periclymenum*) is recommended to provide food and shelter for invertebrates, birds and other wildlife;
- The provision of log piles and deadwood utilising arisings from any tree works undertaken on-site, so as to maximise habitat structure and forage availability for protected and notable species;
- The control of invasive species in accordance with the advice of a specialist contractor; and
- The avoidance of herbicide unless considered necessary to inhibit re-growth of non-native and invasive species.

Newly Created Habitats

4.14 Native tree, hedgerow and shrub planting will be delivered across the Solar Site and BESS Site as illustrated at **Appendix EDP 1** and **Appendix EDP 2** respectively. Any hedgerow removal along the Cable Corridor will also be subject to replanting following completion of ducting works.

4.15 Newly planted areas of trees, shrubs and hedgerows have been designed to be ecologically and structurally diverse alongside existing off-site woodland parcels, and include native species of local provenance; species which offer a flower and fruiting resource; those

suitable for the environmental conditions of the Site; and species which have some resilience to climate change.

- 4.16 Furthermore, the planting will reinforce the historic field pattern, and strategic planting zones have been designed to minimise visual impact. The proposed planting reflects the local character and visual structure of the area, strengthening the sense of place and minimising landscape harm.
- 4.17 Native tree, hedgerow and shrub planting will commence as soon as possible, and undertaken during the optimum planting season as determined by the Chartered Landscape Architect/Contractor appointed by the Developer. Planting will be undertaken in accordance with the specifications to be set out within the detailed landscape planting plans specific to each component of the Site. Additional measures are further provided below.
- 4.18 Species to be planted will include native species, including those of local provenance, considered to provide good cover and food sources for a variety of wildlife.
- 4.19 All planting material will incorporate native species and will be of local or at least UK origin. Such stock will be handled in accordance with the Horticulture Trade Association guidelines and will follow landscape specifications as provided by the project Landscape Architect/Contractor appointed by the Developer.
- 4.20 Planting of new areas with shrub, tree and hedgerow planting will be undertaken during the optimal window of between October and March and ideally between October and January, or in accordance with the advice of the project Landscape Architect. Planting outside of this time will require the use of containerised stock and may involve additional irrigation arrangements.
- 4.21 Any seeding will be carried out in accordance with supplier specifications.
- 4.22 All planting and seeding to be undertaken in accordance with the construction for that specific development area, and it will conform to BS 3936-1 Nursery Stock: Specification for Trees and Shrubs.
- 4.23 All products will be supplied and fitted in accordance with the manufacture's guidelines and whips protected using stakes and durable rubber ties.
- 4.24 The condition of all tree stakes, ties and/or guards will be checked by the appointed Landscape Contractor or Developer, and all broken items will be replaced, and items regularly adjusted to accommodate plant growth and prevent rubbing. Any bark damage will be cut back neatly with a sharp knife. All plants will be straightened and the ground at the base to be firmed up. All shelters will be hand weeded.
- 4.25 Cultivation adjacent to established vegetation should take care to ensure no damage to existing root systems, with disturbance kept to the minimum necessary to expose fresh soil.

- 4.26 Within the establishment phase, watering will be undertaken as necessary by the appointed Landscape Contractor or Developer to ensure the establishment and thriving of all planted areas. Watering will be to the full depth of the topsoil. If supply is restricted by emergency legislation, watering will not be carried out unless instructed to do so.
- 4.27 All areas where plants or trees have failed to thrive (through death, damage or disease), will be identified by the Developer with specimens removed and replaced with equivalent or more appropriate species to match the size of adjacent nearby plants in the next appropriate planting season, as frequently as necessary. The advice of the project Landscape Architect should be sought wherever possible.
- 4.28 All plants will be pruned to promote healthy growth and natural shape, and any dead, dying or diseased wood and suckers will be removed. Pruning will be undertaken annually or as appropriate to each species between October and February inclusive, to avoid the main bird breeding season and undertaken according to best practice. All arisings will be removed for composting.
- 4.29 Spot weed control of all broad-leaved and injurious weed species listed in the *Weeds Act 1959* will be undertaken using a suitable non-residual herbicide as and when required annually. The specification and use of herbicides or pesticides, including their use in proximity to water bodies, to comply with all contemporary Regulations, British Standards and Codes of Practice.
- 4.30 In addition to the above, the planting of new hedgerows will be undertaken in accordance with the advice of the project Landscape Architect. In general, however, the following additional principles may apply:
- Ground preparation for hedgerow seeding will rid the soil of perennial weeds, through repeated cultivation or herbicide application, prior to sowing. Cultivation of the ground prior to sowing must take into consideration the existing tree stock within the hedgerow sections retained adjacent to ensure damage to existing root systems is avoided. Cultivation should only go to the minimum depth required to expose fresh soil into which new seeds are to be sown;
 - Following preparation of the ground soil, trenches and pits dug for hedgerow planting will be dug by hand only, following current best practice; and
 - New tree whips will be planted in two rows, staggered from one another, at c.30cm spacing.
- 4.31 Species selected for inclusion should be consistent with those across the wide Site. Planting will favour hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), hazel (*Corylus avellana*), dog rose (*Rosa canina*) and holly (*Ilex aquifolium*), with other species making up no more than c.15-20% of the mixture in total.

Retained Ditches

- 4.32 Where feasible, the currently degraded and dry ditches identified on the Illustrative Landscape and Ecology Strategy (**Appendix EDP 1**) will be restored to form seasonal or permanent wet ditches, using minor re-profiling and/or hydrological intervention. Such proposals will be subject to consultation with NRW on the detailed plans, with the proposed detailed design agreed and subject to any relevant consents where applicable. The works will then be undertaken under the guidance of a suitably experienced and qualified Ecological Clerk of Works (ECoW) given the presence of water vole within the Solar Site.
- 4.33 Proposals for the ditches include widening and deepening, to allow them to hold water more permanently as well as to allow a more diverse plant community to establish. Profiling of the ditches will allow areas of deeper water as well as shallow shelves at the margins. Areas of strategic planting will occur within the ditches, to include species suitable for the range of depths created. The planting of the ditches and natural establishment of vegetation not only will enhance the ecology within these watercourses it will also act as a natural filtration system to improve the water quality of any runoff.
- 4.34 The exact specification for the ditches will be agreed with a hydrologist to ensure flood risk outside the Site is not increased, or that other ditches elsewhere will suffer reduced water levels, and with the management company to ensure all management is both practical and sustainable. All proposals will also be confirmed following consultation with NRW and subject to any relevant consents where applicable. This will be detailed within the full LEMP.
- 4.35 Reedbeds and other swamp habitats will also be allowed to colonise in more permanent wetter areas around the ditches. The management of these habitats will depend on the size and scale that eventually establish and should be a fluid management approach.

Retained Pond

- 4.36 Pond P1 located in the eastern section of the Solar Site in association with hedgerow H5.18, is to be retained with a 30m buffer from development.
- 4.37 Enhancement measures to be commenced during the construction phase of development will include the removal of encroaching scrub to reduce shade and encourage re-establishment of associated flora necessary to improve water quality. As the pond is currently very shallow, re-profiling to recreate some deeper areas will also be undertaken.
- 4.38 This pond tested negative for great crested newt in 2025, however, update surveys must be undertaken to confirm the continued absence of this species from this waterbody prior to commencement of enhancement works.
- 4.39 Reedbeds and other swamp habitats will be allowed to colonise in more permanent wetter areas around the pond. The management of these habitats will depend on the size and scale that eventually establish and should be a fluid management approach.

Ecological Mitigation and Enhancement Area

- 4.40 The following habitats are to be created within the c.10ha Ecological Mitigation and Enhancement Area.

Wildlife Ponds

- 4.41 Creation of several wildlife ponds, surrounded by meadow grassland, will be undertaken within the c.2.5ha field adjacent to the off-site ancient woodland belt. These waterbodies will be suitable for a range of foraging and refuging wildlife including amphibians, reptiles, water vole, birds, invertebrates and bats.
- 4.42 Variable water depths will be created, including deep areas (c.1-1.6m deep), mid shallow areas c.30-60cm depth and shallows of 0-30cm depth.
- 4.43 Ponds will support shallow sloping edges to provide a wide drawdown zone into the pond.
- 4.44 The pond will not be lined and will use the natural clay substrate to retain water.
- 4.45 Ponds will include submerged and marginal vegetation. Species can be plug planted or introduced on pre-planted coir mats. This includes species that are suitable for the range of depths proposed.

Scrapes

- 4.46 Within the field to the west of the central ditch further from the woodland edge, a series of shallow, temporary ponds, also known as wader scrapes will be provided, designed in accordance with guidance on scrape creation for waders provided by the Royal Society for the Protection of Birds (RSPB)¹.
- 4.47 These scrapes will be of varying sizes, generally shallow (from 5cm at the edges to c.50cm maximum depth) with gentle sloping edges and of irregular shapes for a naturalistic, undulating edge to maximise marginal 'edge' habitat.
- 4.48 The scrapes will be sown and managed as per the surrounding grassland, however, may not support vegetation depending on the levels of inundation. These scrapes will not be created in close proximity to trees or hedgerows (within their root protection areas).

Bird Crop and Fallow Land

- 4.49 Within the westernmost parcel of the Ecological Mitigation and Enhancement Area, a c.50/50 rotation of 'wild bird crops' in accordance with the Sustainable Farming Scheme 2026 habitat type 'Unfertilised, unsprayed and unharvested cereal or linseed headlands', and fallow land (aiming to provide habitat for ground nesting birds such as lapwings) will be established.
- 4.50 Strips of land adjacent to the field boundaries equating to approximately 50% of the area will be sown with a wild bird seed mix 'Greenland OP2/AHL2/CAHL2 Organic Wild Bird Seed Cover Mix' or similar mix which provides feed and cover for up to two years.

¹ <https://speciesontheedge.co.uk/wp-content/uploads/2024/10/Scrapes.pdf>

4.51 The bird seed mixture will be sown onto a medium tilth seedbed, which is free from perennial weeds or other vegetation. The following will apply:

- Sowing will take place in the late summer/autumn (late August-October) or spring (April-May);
- Seeds must be surface sown at a rate of c.5 g/m², using a seed broadcaster or by hand; and
- Seed must not be covered but will be 'firmed in' to give good soil-seed contact using either a roller or by treading.

Species Habitat Features

Barn Owl Boxes

4.52 To enhance barn owl nesting opportunities across the Solar Site, two barn owl nesting boxes are proposed, as illustrated at **Appendix EDP 1**.

4.53 The two boxes are to be fitted to suitable mature trees in the approximate locations shown on the Illustrative Landscape and Ecology Strategy, or if one is not available, mounted on a pole. The boxes will be installed in accordance with manufacturer's specifications, on suitable aspects so as to be protected from strong wind, rain and sunlight, and at suitable heights of no less than 3m above ground level.

Small Bird and Woodpecker Nest Boxes

4.54 To enhance bird nesting opportunities across the Solar Site and provide visual interest for pertinent adjacent residences, two small bird nest boxes (of long-lasting woodcrete-type material, with a 32mm entrance hole) and two woodpecker nest boxes are proposed, as illustrated at **Appendix EDP 1**.

4.55 The four boxes are to be fitted to suitable mature trees in the approximate locations shown on the Illustrative Landscape and Ecology Strategy. The boxes will be installed in accordance with manufacturer's specifications, on suitable aspects so as to be protected from strong wind, rain and sunlight, and at suitable heights of no less than 2m above ground level.

Amphibian and Reptile Hibernacula

4.56 Four hibernacula features will be created across the Solar Site, which will provide habitats for a variety of wildlife, including reptiles, amphibians, invertebrates, hedgehog and small mammals.

4.57 These features will be created using a proportion of the arisings from woody vegetation pruning/clearance to form log and brash piles. The principles of the design of these features are as follows:

- To be created and supplemented in the long-term using materials resulting from tree pruning operations elsewhere on-site;

- An 'above-ground' or mounded design to be used to prevent the hibernaculum from flooding;
- Finished size to be approximately 2m long, by 2m wide, by 0.5m high;
- To contain a mixture of log sizes and shapes with some small-diameter material present, smaller material can be secured into the ground for safety reasons where necessary. Inert, clean fill (hardcore, brick rubble, etc.) can also be used; and
- They should be capped with topsoil and turf covering (for amphibians and reptiles). The margins must have the fill exposed to allow access by species.

Section 5

Establishment and Management Regime – Years 1–10 (Operation Phase)

- 5.1 This section details the management which will be undertaken for newly created ecological habitat features and enhancements, including areas of tree, hedgerow, shrub and grassland planting across the development to ensure successful establishment within Years 1 - 5.
- 5.2 Broad management and maintenance tasks for the long-term care and protection of landscape and ecological features on-site are also provided. Given the dynamic nature of habitats and their ability to change over time, it is both inappropriate and impractical to set out a fixed and prescriptive set of management tasks to be implemented 'regardless of progress'. A key element of the plan is flexibility. It is, therefore, considered that this plan will be reviewed after five years with any necessary changes to management documented within an updated detailed LEMP. However, the longer-term recommendations for management discussed below will be broadly adopted during the management regime of Years 6 to 10 and included within an updated LEMP as required.

GENERAL MEASURES - ESTABLISHMENT AND MAINTENANCE

- 5.3 Soil debris and arisings will be swept from any adjacent hard surfaces after each maintenance operation. All extraneous rubbish not arising from the contract works will be collected and recycled (where feasible) or else removed from the Site at each maintenance visit.
- 5.4 Watering will be undertaken as necessary by the Developer to ensure the establishment and continued thriving of all planted areas. Watering will be to the full depth of the topsoil. If supply is restricted by emergency legislation, watering will not be carried out unless instructed to do so.
- 5.5 All areas where new plants or trees have failed to thrive (through death, damage or disease) will be identified and plants will be removed and replaced with equivalent species to match the size of adjacent nearby plants in the next appropriate planting season as frequently as necessary. The advice of the project Landscape Architect should be sought wherever possible. Any variation of this will only occur in line with any relevant planning condition or upon consent by the relevant LPAs.
- 5.6 Spot weed control of all broad-leaved and injurious weed species listed in the Weeds Act 1959 will be undertaken using a suitable non-residual herbicide as and when required annually. The specification and use of herbicides or pesticides, including their use in proximity to water bodies, will comply with all contemporary Regulations, British Standards and Codes of Practice.
- 5.7 Any bark mulch on planted areas is to be topped-up to appropriate levels at least once in spring, with a second application in autumn as required.

SPECIES-RICH GRASSLAND

- 5.8 Areas of wildflower grassland proposed across the Solar and BESS Sites will be regularly mown during its first growing season to promote establishment as follows:
- Grassland will be subject to a first cut in late June to early July, with a second cut undertaken between no earlier than mid-September if required. Sward heights will not be reduced to less than 75mm height to allow slow growing species to establish and prevent weeds from dominating the sward; and
 - Mowing may be undertaken using an appropriate mechanical mower or using a brushcutter/trimmer where access for larger machinery is not possible. Cut material will be removed and disposed of away from the grassland areas, e.g. baled as hay or composted on-site or elsewhere. Ideally, material will be cut and left on the ground for two to three days to allow seed and invertebrates to drop out, but it may be necessary to use a mower or collector for practical reasons.
- 5.9 Following establishment, the grassland sward will be subject to biannual cutting outside of the skylark nesting season (one cut in October and a second cut in January). Sward heights should not be reduced to less than 75mm height.
- 5.10 Cut material will be removed and disposed of away from the grassland areas, e.g. baled as hay or composted on-site or elsewhere. Ideally, material will be cut and left on the ground for two-three days to allow seed and invertebrates to drop out, but it may be necessary to use a mower or collector for practical reasons. It is important to remove all cuttings to progressively reduce the soil fertility and thereby prevent weed dominance.
- 5.11 Alternatively, to cutting, once the grassland has established, the area can be subject to low-density grazing outside of skylark nesting season (grazed between October and February).
- 5.12 The grassland will also not be treated with herbicides or pesticides to provide additional seed and invertebrate resources for skylarks. Should habitat management be required between March and August, this should only comprise low-density (conservation level) grazing by livestock, preferably cattle.
- 5.13 Weed and scrub control by manual means will be undertaken as required, so as to prevent pernicious perennial weed species from becoming established. During the early developmental stages of the grassland sward, some 'undesirable' broadleaved species are to be expected and should become less dominant as the communities become established and stabilised. Control methods will comprise hand-pulling only; timing will be dependent on the affected species.

TREE, HEDGEROW AND SHRUB

- 5.14 Sensitive management of retained and newly planted trees, shrubs and hedgerow species will seek to maximise the species and structural diversity of such habitats whilst providing further benefits to wildlife.

- 5.15 All newly planted tree, hedgerow and shrub planting will be managed to ensure the stock establishes and thrives in accordance with the detailed Landscape Proposals. New planting will be watered as required, particularly during the first three years of establishment.
- 5.16 An assessment of the condition of all retained and newly planted tree, hedge, shrub and scrub plants will be made by a qualified and experienced arboriculturist annually for a period of five years from the first spring following planting to ensure the adequate establishment of all plants, identify the presence of any undesirable species and disease and to determine whether remedial action is required. Thereafter, an assessment will be undertaken at years 10, 20 and 30 following planting.
- 5.17 Where remedial work to mature trees is required, an update ground-level inspection by a suitably qualified ecologist will be undertaken to determine its current potential to support roosting bats. Where remedial works proposed are considered likely to impact upon potential bat roosting features, a detailed aerial inspection will be undertaken to further inspect suitable roosting features to be impacted for the presence of bats, prior to any commencement of tree works. Aerial inspections will be undertaken by a suitably qualified and NRW bat licensed ecologist, an arboricultural contractor with a NRW bat survey licence, or with experience of working with bats and under the supervision of a NRW bat survey licence holder. Thereafter, works will only progress in accordance with the advice of the suitably qualified and NRW bat licensed ecologist.
- 5.18 Where damage is identified, consideration should be given to the inclusion of protective fencing. Dead/dying/damaged limbs would be removed only if they pose a hazard to public health and safety. In these instances, a suitably qualified ecologist will inspect any limbs prior to their removal to check for the presence of roosting bats. Once removed, the limb, as well as any dead wood, will be retained in situ wherever practicable to provide a refugia and rood resource for invertebrates.
- 5.19 All tree works are to be undertaken in accordance with *BS 3998:2010 Tree Work*. Retained trees should be allowed to develop naturally where feasible, subject to Health and Safety considerations.
- 5.20 All management and remedial work should avoid the main bird nesting season (March to August inclusive). Minor works required during this period should otherwise follow the advice of a suitably qualified ecologist, landscape architect or arboriculturist.
- 5.21 The condition of all stakes, ties and guards will be checked by the Developer and all broken items will be replaced and items regularly adjusted to accommodate plant growth and prevent rubbing. Any bark damage will be cut back neatly with a sharp knife. All plants will be straightened and the ground at the base to be firmed up. All shelters will be hand weeded.
- 5.22 Weeding will be undertaken during the main growth period (April to June inclusive) for the first three years, achieving and maintaining a weed-free area around each stem of a minimum of 1m radius. Weed control will be by strimming (using appropriate guards to avoid damage to the plant) and/or herbicide application. Care will be taken to avoid damage to trees themselves.

- 5.23 The requirement for selective thinning of all newly planted trees/shrubs will be assessed and undertaken as necessary to ensure that overcrowding is reduced with increasing species maturity; that slower growing climax species are not outcompeted, and that diseased and dying plants are removed. Thinning is to be undertaken between September and February inclusive to avoid the main bird breeding season.
- 5.24 All plants will be pruned to promote healthy growth and natural shape, and any dead, dying or diseased wood and suckers will be removed. Any maintenance pruning required should be undertaken in accordance with good horticultural and arboricultural practice with thinning, trimming and shaping of specimens undertaken as appropriate to species, location, and stage of growth. Pruning should be confined to the months of September and February inclusive, so as to avoid the main bird breeding season. All arisings from any vegetation clearance will be taken away from the vicinity of the development footprint no later than the day after vegetation clearance.
- 5.25 Following establishment of any new native hedgerow planting, new growth will be topped by approximately 30% on two sides on an annual cycle for up to the first three years after planting to encourage low lateral growth of branches necessary to establish a thick hedgerow at its base.
- 5.26 In addition, retained hedgerow sections will be cut back to no less than 3m height and 3m width on an approximate three-year rotation (or as required), with only 25-30% of the hedgerow resource subject to such cutting at any one time to ensure continued availability of a foraging resource. Such works will be undertaken between September and February inclusive, avoiding the main bird breeding season.

DITCHES

- 5.27 An assessment of the condition of all retained and enhanced ditches will be undertaken by a suitably qualified specialist annually for a period of five years from the first spring following enhancement works to ensure the adequate establishment of any planting, determine the success of re-profiling to allow standing water, identify the presence of any undesirable species, and to determine whether remedial action is required. Thereafter, an assessment will be undertaken at Years 10, 20 and 30 following enhancement works.
- 5.28 Ditch management works will be undertaken under the guidance of a suitably experienced and qualified ECoW given the presence of water vole within the Solar Site.
- 5.29 At Years 10, 20 and 30 following habitat works, excessive leaf litter, debris and silt should also be removed from retained ponds/wetland areas where necessary through use of a small excavator or by hand during early autumn or late winter when conditions are mild (and avoiding the main breeding and hibernation periods). Arisings should be left adjacent to the pond edge for c.48 hours to facilitate dispersal of any wildlife therein.
- 5.30 The removal of encroaching scrub should also be undertaken to prevent overshadowing and maintaining their drainage function. Scrub should be cleared on rotation so as to leave sections of scrub uncut in any one year. Bankside cutting is best carried out in late summer (mid-July to mid-Sept), with the flail cutters set to retain c.15cm of vegetation. Variable

cutting will encourage diversity, thereby increasing the ecological value of the pond. Any deadwood can be stacked as log piles adjacent to ditches to provide suitable hibernacula and refuge for wildlife.

- 5.31 Generally, habitat management works should ideally be undertaken during early autumn or late winter so as to avoid the main breeding and hibernation periods of wildlife potentially present.

PONDS

- 5.32 An assessment of the condition of all ponds and wetland areas to be retained or created for biodiversity purposes (i.e. retained P1 and the ponds within the Ecological Mitigation and Enhancement Area) will be undertaken by a suitably qualified specialist annually for a period of five years from the first spring following planting to ensure its adequate establishment, identify the presence of any undesirable species and disease, and to determine whether remedial action is required. Thereafter, an assessment will be undertaken at Years 10, 20 and 30 following enhancement works.
- 5.33 Pond management works will be undertaken under the guidance of a suitably experienced and qualified ECoW given the presence of water vole and great crested newt within the Solar Site.
- 5.34 The extent of plant colonisation is to be reviewed two years following creation by a Chartered Landscape Architect/Contractor. In the event that colonisation by target habitats of such features has been slow to the extent that margins remain as bare mud, devoid of desirable plants, then low-density plug planting of native flora will be undertaken where this does not interfere with drainage and attenuation.
- 5.35 Bankside, marginal and emergent vegetation of retained ponds and newly created wetland features are to be maintained around at least 50% of the basin's edge where feasible; where necessary, marginal plants shall be prevented from encroaching across the water's surface by hand removal undertaken on an as needs basis. As a minimum, 40% of the water's surface is to remain clear. To be effective in removing marginal and emergent vegetation, and to prevent rapid regrowth, plant removal must include removal of the roots. Hand digging with spades is advisable in small areas.
- 5.36 At Years 10, 20 and 30 following enhancement works, excessive leaf litter, debris and silt should also be removed from retained ponds/wetland areas where necessary through use of a small excavator or by hand during early autumn or late winter when conditions are mild (and avoiding the main breeding and hibernation periods). Arisings should be left adjacent to the pond edge for c.48 hours to facilitate dispersal of any wildlife therein.
- 5.37 The removal of encroaching scrub should also be undertaken to prevent overshadowing and terrestrial succession, whilst maintaining their drainage function. Scrub should be cleared on rotation so as to leave sections of scrub uncut in any one year. Bankside cutting is best carried out in late summer (mid-July to mid-Sept), with the flail cutters set to retain c.15cm of vegetation. Variable cutting will encourage diversity, thereby increasing the ecological

value of the pond. Any deadwood can be stacked as log piles adjacent to ponds to provide suitable hibernacula and refuge for wildlife.

- 5.38 Generally, habitat management works should ideally be undertaken during early autumn or late winter so as to avoid the main breeding and hibernation periods of wildlife potentially present.

BIRD CROP, FALLOW LAND AND SCRAPES

- 5.39 An annual inspection of the bird mix will be required to identify excessive weeds (undesirable species not included within the seed mix) and any presence of disease. Weeds and disease will be treated through hand-pulling and/or spot-spraying as required. Nitrogen fertiliser may be required for successful establishment and to boost the seed yield of the crop - the amount will be determined by the needs of the component crops and agreed with the ECoW.
- 5.40 The proposed bird seed mix will provide cover and foraging opportunities for up to two years. At the end of its final winter, the crop will be destroyed through mowing/mulching after late February, ideally as late as possible, before reestablishing the cover in April or May using the same or a similar seed mix. Where disease has become a problem for a certain species, an alternative seed mix can be chosen which does not include susceptible species.
- 5.41 In relation to the fallow land, an annual inspection will be required to identify if any natural regeneration of vegetation requires management (to be undertaken in March, to avoid the main winter and breeding seasons) to ensure ample cover of bare ground is retained in the area for nesting birds. The appearance of a very rough seedbed or tillage will be created on the bare ground areas to provide optimal ground nesting conditions.
- 5.42 An assessment of the condition of the scrapes will be undertaken by a suitably qualified specialist annually for a period of five years from the first spring following creation to ensure the adequate establishment of the scrapes, identify the presence of any undesirable species, and to determine whether remedial action is required. Thereafter, an assessment will be undertaken at Years 10, 20 and 30 following creation works.
- 5.43 The scrapes will generally be managed as per the surrounding species-rich grassland, however, may not support vegetation depending on the levels of inundation.

SPECIES HABITAT FEATURES

Barn Owl Boxes

- 5.44 The two tree or pole-mounted barn owl boxes will be checked in Years 1 and 3 following installation. Boxes should be inspected by an appropriately licensed ecologist, with damaged boxes repaired/replaced where necessary. The maintenance and repair of boxes installed across the Site should remain the responsibility of the Developer, or any appointed Private Management Company. Replacement checks should continue long-term at Years 10, 20 and 30 following installation.

Nest Boxes and Hibernacula

- 5.45 The two small bird nest boxes, two woodpecker boxes and four amphibian/reptile hibernacula will be externally checked in Years 1 and 3 following installation, with damaged boxes or hibernacula repaired/replaced where necessary under the guidance of an ecologist. The maintenance and repair of boxes and hibernacula installed across the Site should remain the responsibility of the Developer, or any appointed Private Management Company. Replacement checks should continue long-term at Years 10, 20 and 30 following installation.

Section 6

Monitoring and Timetable of Works

MONITORING

- 6.1 The responsibility for the undertakings set out within this oLEMP rests with the Developer and/or appointed Principal Contractor for the duration of the construction phase.
- 6.2 Upon completion of development, responsibility of managed areas will be the responsibility of the Developer or appointed Private Management Company.
- 6.3 The provisions and responsibilities for the plan will be reviewed on an annual basis during the first five years (known as the establishment period) by those responsible for landscape management and maintenance, and at Years 10, 20 and 30 thereafter (or as required). Any substantial amendments will be approved in writing by the relevant LPAs.

TIMETABLE OF WORKS

- 6.4 All new planting and habitat creation associated with the development is to be undertaken during the first optimum planting season following construction as determined by the Chartered Landscape Architect/Contractor appointed by the Developer (i.e. between October and March). Planting outside of this time will require the use of containerised stock and may involve additional irrigation arrangements.
- 6.5 **Table EDP 6.1** illustrates optimal times of year to undertake habitat creation. **Table EDP 6.2** illustrates optimal times of year to undertake subsequent monitoring and management of created/enhanced habitats.

Table EDP 6.1: Optimal Timings to Undertake Tasks Proposed

Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
New planting (shrub, tree and hedgerow)												
Seeding: species-rich grassland												
Seeding: wild bird mix												
Pond and scrape creation												
Installation of species habitat features												

Table EDP 6.2: Schedule of Works for Monitoring and Maintenance of Enhanced and Newly Created Habitats

Task	Frequency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Condition assessment of all retained and newly planted trees, hedges and shrubs. Inspection, management and remedial works to structure planting.	Annually for first five years, thereafter at Years 10, 20 and 30 with any clearance undertaken outside of bird nesting season – thinning, pruning and removal of dead material.												
Retained/established hedgerow management.	Three-year rotation, with 25-30% of the hedgerow subject to cutting at any one time.												

Task	Frequency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Tree habitat management.	Annually with any clearance/pruning undertaken outside of bird nesting season. Coppicing and scrub management to be undertaken on a rotational basis.												
Species-rich grassland management – cutting option.	Year 1: Single cut in late June/early July. Where a second cut is necessary, this will be undertaken no earlier than mid-September.												
Species-rich grassland management – cutting option.	Years 2+: Biannual cutting outside of the skylark nesting season – one cut in October and a second cut in January.												
Species-rich grassland management – grazing option.	If grazing: low-density grazing outside of skylark nesting season – grazed between October and February.												
Ponds/ditches – condition assessment and monitoring.	Annually for first five years, thereafter at Years 10, 20 and 30, ideally in spring.												
Ponds/ditches – scrub removal.	Scrub to be cut on rotation to ensure sections of scrub remain.												

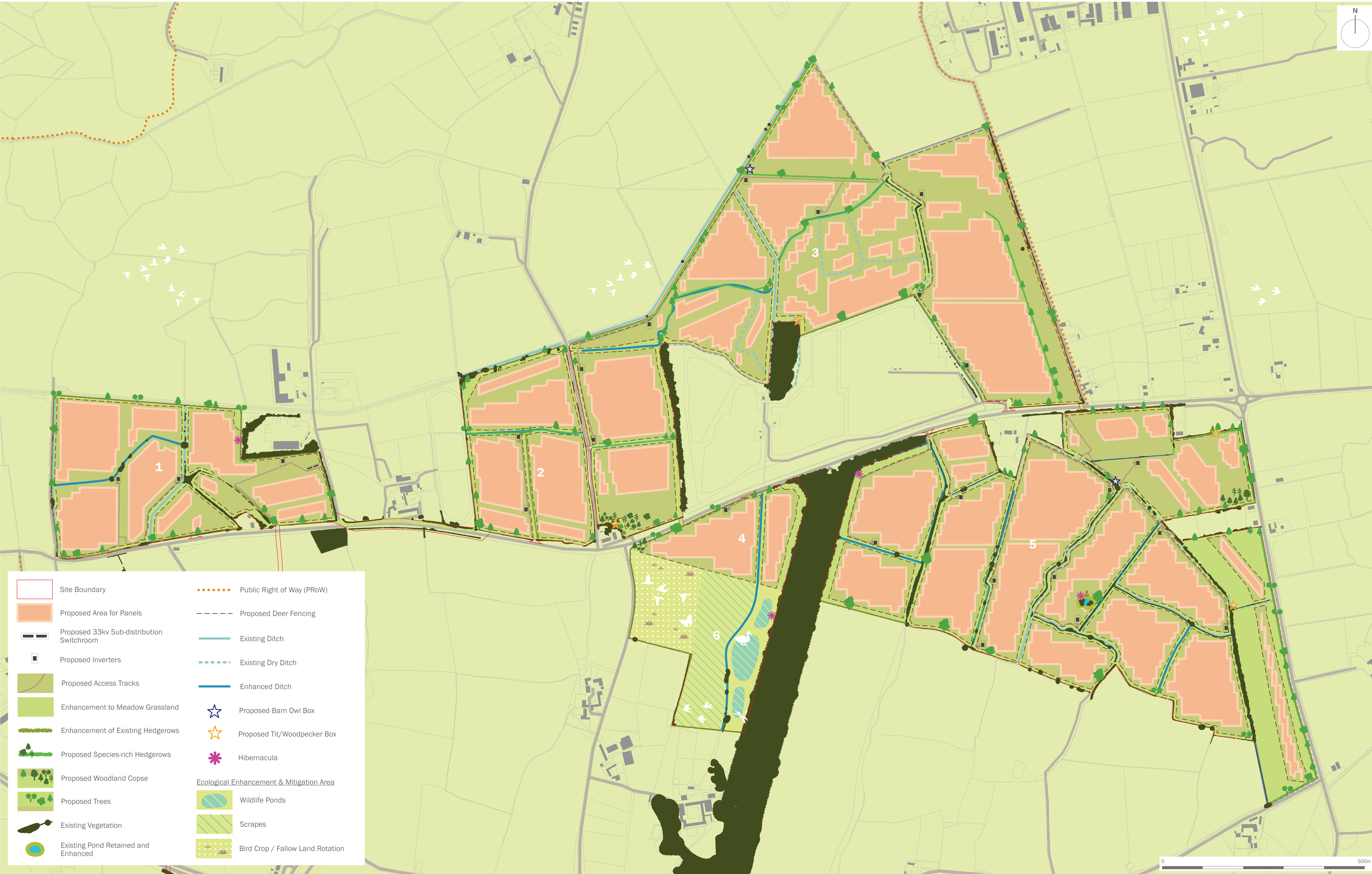
Task	Frequency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ponds/ditches – remove algae growth.	As required.												
Ponds/ditches – removal of leaf litter, debris and silt.	At Years 10, 20 and 30 following habitat works in early autumn or late winter.												
Ponds/ditches – removal of bankside/marginal/aquatic vegetation.	At Years 10, 20 and 30 following habitat works in early autumn or late winter. Wetland vegetation to be cut on rotation; 30% each year.												
Inspection – bird crop, fallow land and scrapes.	Annually.												
Mulching/mowing – bird crop.	Every two years.												
Re-seeding – bird crop.	Every two years.												
Vegetation management – fallow land.	As required.												
Checks of species habitat features – bird boxes.	Years 1 and 3 following installation. Every five years thereafter. Outside of bird nesting season.												
Checks of species habitat features – hibernacula.	Years 1 and 3 following installation. Every five years thereafter. Outside of amphibian/reptile hibernation season.												

Section 7

Summary and Conclusions

- 7.1 This oLEMP sets out the management and maintenance framework specific to the proposed Solar and BESS development at the Site considered necessary to protect and conserve the ecological and landscape interest features whilst ensuring a net benefit for biodiversity. As such, this oLEMP has been prepared with reference to those recommended mitigation measures detailed within Chapter 10 (Biodiversity) and Chapter 11 (Landscape and Visual) of the Environmental Statement submitted in support of the planning application.
- 7.2 Management prescriptions for the maintenance of the viability of retained, enhanced and newly created habitats located across the development footprint have been provided, including timings for when operations should occur. Such prescriptions are considered to be in line with the broader recommendations made for the continued long-term maintenance and protection of the Site's ecological and landscape interests.
- 7.3 The responsibility of the undertakings set out within this oLEMP rests with the Principal Contractor appointed by the Developer for the enabling/pre-construction and construction works phase. Thereafter, the long-term management of retained/newly created/enhanced habitats will be the responsibility of the Developer or appointed Private Management Company. Any deviation from that prescribed within this oLEMP is to be agreed in writing with the relevant LPAs.

Appendix EDP 1
Illustrative Landscape and Ecology Strategy (Solar Site)
(edp8841_d044c 27 August 2025 HEI/MDu)



Appendix EDP 2
Illustrative Landscape and Ecology Strategy (BESS Site)
(edp8841_d050b 27 August 2025 JHa/MDu)



- Existing Trees
- Existing Tree Group/Woodland
- Existing Hedgerow
- Proposed Enhanced Hedgerow
- Proposed Species-Rich Hedgerow
- Proposed Tree Planting
- Development Access Track
- Enhanced Meadow Grassland
- Proposed BESS Compound
- Proposed Substation Compound
- Weldmesh Fence
- Noise Barrier
- Metal Palisade
- Existing Veteran Tree (T262)

client			
Bodelwyddan Solar and Energy Storage Limited			
project title			
Bodelwyddan Solar and Energy Storage			
drawing title			
Figure 11.8: Illustrative Landscape and Ecology Strategy (BESS Site)			
date	27 AUGUST 2025	drawn by	JHa
drawing number	edp8841_d050b	checked	MDu
scale	Refer to scale bar @ A2	QA	JFr



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