EAST PARK ENERGY

East Park Energy

EN010141

Outline Landscape and Ecological Management Plan

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Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009: Regulation 5(2)(q)

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CONTENTS

TABLES

APPENDICES

1.0 Introduction

1.1 Purpose of the Document

1.1.1 This outline Landscape and Ecological Management Plan (oLEMP) has been prepared on behalf of BSSL Cambsbed 1 Ltd (the Applicant) for the construction, operation and decommissioning phases of the East Park Energy project (the 'Scheme').

1.1.2 The document has been prepared as part of an application for development consent for the Scheme and sets out the objectives for the existing and proposed landscape elements at the Site, along with the management prescriptions to ensure the successful establishment and future maintenance of the Scheme.

1.1.3 This oLEMP is a control document that will be certified as part of the Development Consent Order (DCO) and secured via a Requirement in Schedule 2 of the **draft DCO [EN010141/DR/3.1]**. Should the Scheme be consented, the DCO will require that a final Landscape and Ecological Management Plan (LEMP) in substantial accordance with this oLEMP is prepared prior to commencing development, and approved by the relevant local planning authority (LPA).

1.2 Document Structure

1.2.1 This oLEMP is structured as follows:

- **Introduction** – provides an introduction to the documents and sets out the structure of the oLEMP;
- **Scheme Description** – provides a summary of the Site and Site Context, a description of the Scheme, and sets out a summary of the landscape and ecological features of the Site;
- **Design Approach** – provides a summary of the design approach and the objectives of the Scheme mitigation;

- **Roles and Responsibilities** – sets out the roles and responsibilities that will need to be defined, and identifies stakeholders relevant to the landscape and ecological management of the Scheme;
- **Implementation** – sets out the actions that will be taken to implement the landscape and ecological proposals during the Construction Phase;
- **Management** – sets out objectives for the landscape elements and provides management and maintenance prescriptions for their successful establishment during the Operational Phase;
- **Decommissioning** – sets out the measures which will be undertaken during the Decommissioning Phase; and
- **Monitoring** - sets out the procedures for monitoring and ensuring compliance with the LEMP, as well as requirements for record keeping.

1.3 Relationship with Other Management Plans

1.3.1 This oLEMP is part of a framework of environmental management documents that will be implemented across the lifetime of the Scheme. The following plans are relevant and will be developed separate to the oLEMP, pursuant to DCO Requirements:

- **Construction Environmental Management Plan (CEMP)**: This plan will set out how the construction phase of the Scheme will be managed to avoid, reduce, or mitigate environmental impacts. It will cover topics like pollution prevention measures, dust and noise control, protection of wildlife, site waste management, and incident response protocols. The CEMP ensures that commitments made in the ES are translated into practical measures on-site. An **outline Construction Environmental Management Plan [EN010141/DR/7.3]** has been prepared and submitted with the application for development consent;
- **Operational Environmental Management Plan (OEMP)**: This plan will set out how the operational phase of the Scheme will be managed to control environmental risks. An **outline Operational Environmental**

Management Plan [EN010141/DR/7.5] has been prepared and submitted with the application for development consent;

- **Decommissioning Environmental Management Plan (DEMP):** This plan will set out how the decommissioning phase of the Scheme will be managed to control environmental risks. An **outline Decommissioning Environmental Management Plan [EN010141/DR/7.6]** has been prepared and submitted with the application for development consent;
- **Soil Management Plan (SMP)**: This plan will ensure the sustainable management of soils and materials by setting out strategies for handling, storage, and reuse of soils. An **outline Soil Management Plan [EN010141/DR/7.9]** has been prepared and submitted with the application for development consent;
- **Surface Water Management Plan (SWMP)**: This plan will detail site-wide measures for managing drainage, rainfall runoff, and groundwater interaction. An **outline Surface Water Management Plan [EN010141/DR/7.13]** has been prepared and submitted with the application for development consent; and
- **Archaeological Mitigation Strategy (AMS):** This plan sets out the management of archaeological remains, both known and currently unknown, across the lifetime of the Scheme. An **outline Archaeological Mitigation Strategy [EN010141/DR/7.15]** has been prepared and submitted with the application for development consent.

2.0 The Site

2.1 Order Limits

2.1.1 The area of land required for the construction, operation and maintenance of the Scheme, which includes land required for permanent and temporary purposes, is shown on **ES Vol 3 Figure 1-1: Site Location [EN010141/DR/6.3]**. This is referred to as the 'Order Limits' or the 'Site'.

2.2 The Site

2.2.1 The Site is located to the north-west of the town of St Neots, and is across two administrative areas; Bedford Borough Council (BBC) (a unitary authority) and Huntingdonshire District Council (HDC) (a two-tier authority with Cambridgeshire County Council). The Site location is shown on **ES Vol 3 Figure 1-1: Site Location [EN010141/DR/6.3]**. The Site area extends to approximately 773 hectares (ha).

2.2.2 With reference to **ES Vol 3 Figure 1-2: Site References [EN010141/DR/6.3]**, for ease of reference the Order Limits have been sub-divided into East Park Sites A to D, in which all of the above ground infrastructure proposed as part of the operational Scheme would be located (excluding works to the Eaton Socon Substation). The Order Limits also cover land outside of East Park Sites A to D which will be required for access, cabling, and the grid connection to the Eaton Socon Substation. East Park Sites A to D can be described as follows:

- **East Park Site A** – covering land west of the B660 between Pertenhall and Swineshead at the western end of the Site. East Park Site A comprises arable fields located to the north, west and east side of a small hill that lies between Pertenhall and Riseley. East Park Site A lies either side of the Pertenhall Brook, with access proposed from the B660 to the east.
- **East Park Site B** – covering land between Pertenhall, Keysoe, and Little Staughton. East Park Site B comprises arable fields located north of an

elevated ridgeline which runs between Keysoe and Little Staughton. East Park Site B is crossed by a number of small watercourses, with access proposed from the B660, Great Staughton Road, Little Staughton Road, and an unnamed road between Little Staughton and Great Staughton Road.

- **East Park Site C** – covering land south of Great Staughton. East Park Site C comprises arable fields located south of the River Kym, with access proposed from Moor Road to its south-eastern boundary, and from Little Staughton Road to the north-west.
- **East Park Site D** – covering land around Pastures Farm between Great Staughton and Hail Weston. East Park Site D comprises arable fields with access proposed via a new access from the B645.

2.2.3 With reference to **ES Vol 3 Figure 1-2: Site References [EN010141/DR/6.3]**, there are three linear corridors proposed for underground cabling that connect the different parts of the Site and provide a grid connection to the Eaton Socon Substation. These are also shown on **Figure 1-2** and identified as:

- **Cable Corridor – Site B to Site C** – which connects Site B to Site C across an unnamed road and arable fields.
- **Cable Corridor – Site C to Site D** – which connects Site C to Site D across Moor Road and an arable field.
- **Grid Connection** – Site D to Eaton Socon Substation – which connects Site D to the Eaton Socon Substation and crosses open arable fields, the Duloe Brook, and Duloe Road and Bushmead Road.

2.3 Site Context

2.3.1 Settlement surrounding the Order Limits comprises a number of villages, including Pertenhall and Great Staughton to the north, Little Staughton and Keysoe to the south, Swineshead to the west, and Hail Weston to the east.

2.3.2 Neither the Order Limits nor the immediate surrounding area is covered by any statutory landscape designations, e.g. National Parks or National

Landscapes. The closest statutory landscape designation to the Scheme Boundary is the Chilterns National Landscape located approximately 30 km to the south. The Order Limits is also not within any locally designated (non-statutory) landscapes.

2.3.3 There are no statutory nature conservation designations within the Order Limits. The closest is the Swineshead Wood Site of Special Scientific Interest (SSSI) located circa 950 m west of the Site, recognised for its structural and biological diversity associated with ancient woodland. Perry Woods SSSI is located circa 1.8 km north of the Order Limits and Grafham Water SSSI is located circa 2.8 km north. The closest 'European site' (Upper Nene Valley Gravel Pits Special Protection Area) is over 10 km from the Order Limits, to the north-west. Further detail on nature conservation designations is set out within **ES Vol 1 Chapter 7: Ecology and Nature Conservation [EN010141/DR/6.1]**.

2.3.4 The following non-statutory nature conservation designations are adjacent to the Site:

- Kangaroo Meadow County Wildlife Site (CWS), which is adjacent to Site B and is recognised for the presence of neutral grassland; and
- Huntingdon Wood CWS, which is adjacent to the south side of the grid connection between Site D and the Eaton Socon Substation.

2.3.5 At the time of Environmental Impact Assessment (EIA) Scoping and during the site selection process there were no statutory designated heritage assets within the Site, however archaeological investigation undertaken as part of the environmental assessment of the Scheme has discovered the site of a Roman Town in Site C. Due to the national importance of the archaeological finding, the Applicant has been engaging with Historic England on the find since it was identified in January 2024. Recognising the potential significance of the archaeology, and seeking to protect it in the future, the Applicant made a decision to apply to the Secretary of State for Culture, Media and Sport (via Historic England) to designate the area as a Scheduled Monument. The

application was accepted and the archaeology was designated as a scheduled monument in September 2024. The location of this Scheduled Monument is shown on **ES Vol 3 Figure 1-3: Environmental Constraints [EN010141/DR/6.3]**.

2.3.6 There are no other statutory designated heritage assets within the Order Limits. There are a number of listed buildings located within the vicinity of the Order Limits, in and around the settlements of Pertenhall, Keysoe, Swineshead, Little Staughton, Great Staughton and Duloe. Of particular note this includes the Grade I listed Church of St Peter in Pertenhall; the Grade I listed Church of St Mary the Virgin in Keysoe; the Grade I listed Church of All Saints to the east of Little Staughton; and the Grade I listed Church of St Andrew at Great Staughton. There is one scheduled monument adjacent to the southern boundary of East Park Site C (two bowl barrows, 900 m and 1,000 m east of Old Manor Farm). A Roman Site, Rushey Farm Scheduled Monument is located circa 130 m south of the East Park Site C boundary, and 'Old Manor House' Scheduled Monument is located circa 770 m west of the East Park Site C boundary.

2.3.7 The Order Limits are not covered by any conservation areas, with the closest being the Great Staughton Conservation Area, located circa 200 m north of East Park Site C; Swineshead Conservation Area, located circa 750 m west of East Park Site A; and Riseley Conservation Area, located circa 1.2 km south-west of East Park Site A.

2.3.8 The Order Limits are located predominantly within Flood Zone 1, with areas of Flood Zone 2 and 3 associated with Pertenhall Brook to the west through Site A; with an unnamed watercourse through Site B; and with the River Kym to the north of Site C.

2.3.9 The Order Limits are crossed by a number of existing utilities including high pressure gas mains and overhead electricity lines, the required easements of which would be excluded from the solar development area. Cabling across these areas would be in accordance with all required standards.

2.4 Landscape Context

Landscape Designations

2.4.1 The Order Limits is not covered by any landscape designations at a national or local level, and there are therefore no existing management plans for the Site with regards landscape conservation and protection.

Landscape Character

2.4.2 The Order Limits are covered by the Bedford Borough Landscape Character Assessment 2020[1] and the Huntingdonshire Landscape and Townscape Supplementary Planning Document 2022[2]. These published landscape studies define the following landscape character areas (LCAs) which cover the Site:

- Bedford LCA 1B Riseley Clay Farmland;
- Bedford LCA 1D Thurleigh Clay Farmland;
- Bedford LCA 4A Great Ouse Clay Valley; and
- Huntingdonshire – Southern Wolds LCA.

2.4.3 The key characteristics, landscape and visual sensitivities, and landscape/development strategy guidelines for these LCAs have been reviewed and are set out in full in **ES Vol 1 Chapter 5: Landscape and Visual [EN010141/DR/6.1]** and **ES Vol 2 Appendix 5-3: Effects on Landscape Character [EN010141/DR/6.2]** and are not summarised again here.

2.5 Green Infrastructure

2.5.1 Green Infrastructure is defined in the Bedford Green Infrastructure Plan 2009[3] as:

> *"A strategically planned and managed network of green spaces, access routes, wildlife habitats, landscapes and historic features which meet the needs of existing and new communities by providing:*

- *an essential environmental foundation and support system;*
- *a healthy and diverse environment;*
- *attractive places to live and visit and a good quality of life; and*
- *a sustainable future"*

2.5.2 The local authorities have prepared green infrastructure plans or strategies for their administrative areas that seek to protect and enhance green infrastructure. The following plans have been prepared:

- Bedford Green Infrastructure Plan 2009; and
- Cambridgeshire Green Infrastructure Strategy 2011[4].

2.5.3 These plans have been reviewed in so far as they relate to the Order Limits and are summarised in the following sections.

Bedford Green Infrastructure Plan 2009

2.5.4 The Order Limits are not located within or adjacent to any of the Green Infrastructure Opportunity Zones identified in the Bedford Green Infrastructure Plan 2009.

2.5.5 The document does however identify green infrastructure opportunities in relation to the Landscape Character Areas identified at the local (Borough) level. Of most relevance are those which relate to LCA 1B Riseley Clay Farmland in which East Park Site A and B are located. The Scheme Boundary also encompasses part of LCA 1D Thurleigh Clay Farmland, however as only temporary works are proposed in this area there is limited opportunity for the provision or management of green infrastructure as part of the Scheme.

2.5.6 For LCA 1B Riseley Clay Farmland the Bedford Green Infrastructure Plan notes the following:

Key features include the scattered woodland, good areas of neutral grassland and the Parkland at Melchbourne. GI would provide

alternative assets for the growing population at Rushden. This area has been identified as a secondary area of search, but this is an area valued for its rural quality and tranquillity

Green Infrastructure opportunities include:

- *Woodland management and expansion;*
- *Restoration of pasture e.g. in corridor of River Til; and*
- *Enhancement and linkage of Green Lanes.*

2.5.7 The overall 'Priority Landscape Projects' are then identified as:

- ***"Woodland creation** – spinneys, larger woods , linking hedgerows;*
- ***Wildflower grassland recreation** e.g. to enhance watercourses, field margins and amenity of rights of way;*
- ***Green and quiet lane complex** – Keysoe - Honeydon – Colmworth; and*
- ***Farmland habitats**: field margins, ponds, hedgerows and feature trees."*

2.5.8 **ES Vol 3 Figure 2-1: Illustrative Environmental Masterplan [EN010141/DR/6.3]** demonstrates how the above opportunities have been embedded into the layout and design of the Scheme. Specifically the following design and mitigation measures provide support:

- Retention of existing woodland, hedgerows, individual trees, ditches and watercourses across the Site as far as practicable;
- Proposed hedgerows with trees for landscape integration, visual screening and habitat connectivity. In parts of the Site these have been provided to restore historic field boundaries;
- Creation of 'Green Lanes' through the Site where public rights of way are set within open 20m wide corridors bounded by hedgerows and woodland blocks for visual screening, landscape integration and habitat connectivity purposes;
- Enhancement of waterside meadows along the Pertenhall Brook and a brook through Site B by creating riparian woodland blocks, meadows,

hedgerows and intermittent riparian tree groups for ecosystem benefits, habitat connectivity, and to reduce visual impact on public rights of way alongside watercourses; and

- Creation of species-diverse grassland meadows and corridors as buffers to existing landscape elements (such as hedgerows and woodland), as buffers to residential properties, and for ecological mitigation and benefits.

2.5.9 The Bedford Green Infrastructure Plan also identified potential opportunities in relation to the historic environment, biodiversity, and access. None of these opportunities relate specifically to the Site.

Cambridgeshire Green Infrastructure Strategy 2011

2.5.10 The Order Limits are not located within any of the 'Strategic Areas' for green infrastructure identified in the Cambridgeshire Green Infrastructure Strategy 2011.

2.5.11 The document is structured around the Strategic Areas, identifying both Target Areas and Projects within each Strategic Area. The closest Strategic Area is *Strategic Area 3: Great Ouse* which covers the Ouse Valley, Ouse Washes and the Old West River. The towns of St Neots and Huntingdon each fall within the Strategic Area.

2.5.12 Whilst the Site is not within the Strategic Area it has the potential to contribute to some of the identified opportunities for the nearby Grafham Water Target Area, including:

- ***"Climate Change:** the Grafham Water area sits on a clay plateau above Huntingdon and Kimbolton with the majority of the land being arable agriculture which drains very quickly causing flooding, particularly in Kimbolton. Increasing the area of woodland will slow the storm water surge that occurs in this area."*

2.5.13 The Scheme has incorporated wetland meadows and woodlands alongside main watercourses within the Site, whilst establishing broad areas of

grassland instead of arable habitats will help manage run-off. Collectively these measures should contribute to slowing any storm water surges.

2.5.14 There are no other specific green infrastructure opportunities that the Scheme supports within the area.

2.6 Ecological Context

Ecological Designations

2.6.1 The Order Limits are not covered by any statutory designated sites for nature conservation, the closest being Swineshead Wood Site of Special Scientific Interest (SSSI), located approximately 925m north-west of East Park Site A.

2.6.2 The Order Limits are also not covered by any non-statutory designated sites for nature conservation, however there are two CWSs that are adjacent to the Scheme boundary as follows:

- Kangaroo Meadow CWS – adjacent to the northern boundary of East Park Site B; and
- Huntingdon Wood CWS – adjacent to the Grid Connection between Site D and the Eaton Socon Substation.

2.6.3 The non-statutory designated sites for nature conservation are shown on **ES Vol 3 Figure 7-2: Non-Statutory Designated Sites [EN010141/DR/6.3]**.

2.6.4 Kangaroo Meadow CWS is a small triangular area of unimproved neutral grassland which can be inundated in winter.

2.6.5 Huntingdon Wood CWS is a woodland listed in the Cambridgeshire Inventory of Ancient Woodland which retains more than 25% semi-natural cover.

Ecological Habitats

2.6.6 Priority habitats recorded within the Order Limits through the desk-based review and extended habitat surveys include hedgerows, deciduous woodland and ponds.

East Park Site A

2.6.7 East Park Site A, west of B660 Kimbolton Road and B660 Pertenhall Road, predominantly consists of large arable fields planted with cereal crops at the time of survey. Fields are typically bounded by species-poor hedgerows dominated by hawthorn and blackthorn, but also variously including field maple, ash, oak, dog rose, sycamore, hazel.

2.6.8 Within the north of East Park Site A lies the Pertenhall Brook, while more natural at the western extent, the watercourse becomes more open and heavily modified towards the east of East Park Site A, including the straightening and deepening of the channel. At the western extent and along the southern bank in particular are mature tree lines of ash and willow, with unmanaged grassland in more open areas towards the east of the Site.

2.6.9 Habitats immediately beyond the East Park Site A boundary include further arable fields, blocks of plantation broadleaved woodland, as well as the existing Manor Farm solar array.

East Park Site B

2.6.10 East Park Site B, east of B660 Pertenhall Road, similarly comprises agricultural habitats consisting of cereal crops and non-cereal (legume) crops. Fields typically have modified grassland margins consisting of common species typical of agricultural landscapes.

2.6.11 Fields are bounded by hedgerows, typically species-poor and dominated by hawthorn and blackthorn but variously also containing oak, ash, willow, elder and sycamore. Ditches are also present, as well as some small streams that are tributaries of the Pertenhall Brook.

2.6.12 A few small areas of broadleaved woodland are located within the Site.

2.6.13 Habitats immediately beyond the East Park Site B boundary include further arable fields, with the village of Little Staughton to the south.

East Park Site C

2.6.14 East Park Site C surrounding New Wood consists predominantly of arable fields bounded by ditches and with modified grassland margins.

2.6.15 New Wood is located centrally in the parcel, which is an oak dominated woodland with evidence of use for gamebird rearing.

2.6.16 The River Kym bounds Site C to the north, a river approximately 5m wide and with banks modified by reprofiling. The river is lined with trees including ash and willow and grassland bank tops.

2.6.17 Habitats immediately beyond the East Park Site C boundary include further arable fields, with the village of Staughton Highway to the north.

East Park Site D

2.6.18 East Park Site D comprises predominantly arable fields with small blocks of woodland and scrub on the western boundary, as well as recent hedgerow planting. Field boundaries are less well established in this Site.

2.6.19 Habitats immediately beyond the East Park Site D boundary include further arable fields.

Cable Corridors

2.6.20 Cable routes located between East Park Site B and Site C, between Site C and Site D and between Site D and the Eaton Socon Substation are located predominantly within arable fields bounded by hedgerows. Between East Park Site D and the Eaton Socon Substation, the route crosses the South Brook and Duloe Brook. The Site also encompasses land surrounding the Eaton Socon Substation.

2.6.21 Habitats adjacent to the cable route consist predominantly of further arable land, but also includes Huntingdon Wood (ancient woodland).

Protected and Notable Species

2.6.22 The Order Limits support a range of species that have been identified during field surveys. Full detail of the surveys and species identified is set out within **ES Vol 1 Chapter 7: Ecology and Nature Conservation [EN010141/DR/6.1]** and its supporting appendices in **ES Vol 2 [EN010141/DR/6.2]**.

2.6.23 The following ecological receptors have been identified within the Order Limits:

- **Breeding Birds** – habitats within the Site are suitable to support a range of widespread breeding birds, including ground nesting species within more open arable land and a wide range of species typical of lowland arable landscapes (e.g., passerines, corvids, owls, raptors) within boundary woodlands, hedgerows and trees;
- **Non-Breeding Birds** – habitats within the Site are suitable to support a range of non-breeding bird species, including gulls, waders and other waterbirds, as well as notable species including passerine flocks and raptor. Typically only small numbers were recorded regularly within the Site;
- **Bats** – habitats within the Site such as trees have the potential to support bat roosts, whilst for foraging and commuting bats the linear habitat features within and around the Site such as tree lines, hedgerows, field margins, ditches, woodland edges and watercourses are considered to offer the most favourable habitats, particularly the Pertenhall Brook and the River Kym;
- **Amphibians** – habitats within the Site include three ponds that have the potential to support amphibians, as well as suitable terrestrial habitat particularly along field margins and hedgerow bases;
- **Reptiles** – habitats within the Site are predominantly sub-optimal for reptiles, comprising predominantly arable land, however discrete areas of the Site, including field margins and hedgerow bases, offer more suitable habitat;

- **Badgers** – habitats within the Site are suitable to support badgers, and several setts have been identified within the Scheme Boundary;
- **Otters** – habitats within the Site, including the Pertenhall Brook, River Kym, South Brook and Duloe Brook, as well as their smaller tributaries, offer suitable habitats to support foraging and commuting otters;
- **Water Voles** – habitats within the Site including watercourse and ditches offer suitable habitats for water vole;
- **Hazel Dormouse** – habitats within the Site including hedgerows and woodland blocks have the potential to support hazel dormouse;
- **Other Notable Mammals** – habitats within the Site including the hedgerows, woodland, tree lines and grassland field margins provide the greatest opportunities for breeding, foraging and sheltering brown hare and hedgehog, and brown hares were frequently noted within the Site during surveys; and
- **Notable Flora** – habitats within the Site are typical of lowland agricultural landscapes and are common and widespread both locally and nationally. Arable fields, which dominate the Site, are unlikely to support notable flora and no evidence was found during habitat surveys. Bluebells were identified directly adjacent to the Site during the extended habitat surveys with the species recorded in woodlands neighbouring East Park Sites A, B and C.

3.0 THE SCHEME

3.1 Overview

3.1.1 The Scheme comprises a new ground-mounted solar photovoltaic energy generating station and an associated on-site battery energy storage system (BESS) on land to the north-west of St Neots. The Scheme also includes the associated infrastructure for connection to the national grid at the Eaton Socon National Grid Substation.

3.1.2 The Scheme would allow for the generation and export of 400 megawatts (MW) of renewable electricity, as well as the storage of 100 MW of electricity in the BESS. The precise generating capacity and storage capacity will be subject to detailed design, but it should be noted that the Applicant presently has a grid connection agreement with National Grid for 400 MW export and 100 MW import.

3.1.3 Subject to the Scheme securing Development Consent in Winter 2026/27 it is anticipated that works would start on site in early 2028 and be completed by mid-to late 2030 (although initial energisation of the Scheme is likely to commence prior to 2030). The Scheme comprises a temporary development with an operational phase of 40 years; decommissioning activities would therefore likely commence in 2070, 40 years after commissioning.

3.1.4 A more detailed description of the Scheme is provided within **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]**.

3.2 Design Approach

3.2.1 The **Design Approach Document [EN010141/DR/5.6]** which also forms of the application for development consent describes the following:

i. The approach that the Applicant has taken to design from the outset of the project.
ii. The Design Vision and Design Principles that have influenced decision making.

iii. The design evolution that has resulted in the development that is being applied for.

iv. How design measures will be secured through the provisions of the DCO.

v. The framework for delivering on design post-consent.

3.2.2 This oLEMP provides further detail regarding bullets iv. and v. in respect of the landscape and green infrastructure proposals within the Scheme.

3.3 Design Principles

3.3.1 A series of design principles have been established from the outset of the project to guide decision making in relation to Scheme design, and to avoid or minimise the environmental impacts of the Scheme as far as practicable. These design principles have evolved since the inception of the Scheme as an understanding of the project has also evolved, and in response to the EIA process. The design principles are as follows:

- **Design Principle 1:** The Scheme will seek opportunities to deliver solar development as efficiently as practicable to support national electricity network decarbonisation targets;
- **Design Principle 2:** The Scheme will be sensitive to landscape and views, and how people perceive the landscape;
- **Design Principle 3:** The Scheme will be sensitive to heritage assets, looking to protect the most valuable assets that contribute to a sense of place;
- **Design Principle 4:** The Scheme will be sensitive to biodiversity, and look to provide enhancement where possible;
- **Design Principle 5:** The Scheme will be sensitive to the water environment, looking to avoid harm to watercourses and improve water quality where practicable;
- **Design Principle 6:** The Scheme will be sensitive to local amenity and human health; and

- **Design Principle 7:** The Scheme will seek opportunities to leave a positive legacy through the delivery of multiple social and environmental benefits.

3.3.2 Delivery of a Scheme that accords with the Design Principles is secured by the **Design Parameters and Principles Statement [EN010141/DR/7.1]** in accordance with a Requirement of the **draft DCO [EN010141/DR/3.1]**.

3.4 Scheme Buffers and Utility Easements

3.4.1 The Scheme includes a number of buffers that are embedded into the layout and secured by the limit of deviation shown for the various Work Packages in the **Works Plan [EN010141/DR/2.3]**, and these include:

- A minimum 6m buffer between the fenceline of the solar farm and the surrounding hedgerows or substantial areas of vegetation;
- A minimum 10m buffer between the fenceline of the solar farm and public rights of way; and
- A minimum 10m buffer between the fenceline of the solar farm and watercourses.

3.4.2 **ES Vol 3 Figure 2-1: Illustrative Environmental Masterplan [EN010141/DR/6.3]** incorporates the above buffers to illustrate how the Scheme is likely to come forward.

3.4.3 A number of utilities cross the Order Limits which are shown on **ES Vol 3 Figure 2-1: Illustrative Environmental Masterplan [EN010141/DR/6.3]**. Easements are in place to enable the utility providers to access and maintain these, and the design of the Scheme secures this through the limits of deviation set out on the **Works Plan [EN010141/DR/2.3]**, the design parameters set out in the **Design Parameters and Principles Statement [EN010141/DR/7.1]** and the protective provisions of the **draft DCO [EN010141/DR/3.1]**.

3.4.4 The utility easements that have been applied are as follows:

- **National Grid Overhead Line** – 30m radius around the base of towers in East Park Site D in which no development will occur;
- **Distribution Network Operator Overhead Lines** – 4m either side of the overhead power lines within East Park Site B and East Park Site C;
- **Anglian Water Pipeline** – 4.5m either side of the centreline of the pipeline through East Park Site D in which development will be avoided, with the exception of fencelines, access tracks, and cable crossings; and
- **National Gas Transmission Pipelines** – 12.2m either side of the pipelines through East Park Site B, the cable corridor between East Park Site B and Site C, and East Park Site D in which development will be avoided, with the exception of fencelines, access, tracks, and cable crossings.

3.4.5 Landscape proposals within the above easements will be specified in accordance with any specific requirements of the relevant statutory undertaker, and this could include either avoidance of planting, or planting of slow-growing or shallow-rooting species, or the provision of root guards to protect the utility from future root growth. Where planting is proposed within easements it will be subject to specific maintenance prescriptions as required and agreed by the statutory undertaker.

3.4.6 If any further unknown utilities are discovered prior to construction (for example within the local road network) the Applicant will engage with the utility owner to understand any easements or design requirements prior to construction.

3.5 Landscape and Ecological Proposals

3.5.1 As set out in **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]**, Work No. 8 comprises works associated with the retention of existing habitats and creation of new green infrastructure across the Scheme, including native species woodland, native species hedgerows, individual trees, grasslands and permissive paths.

3.5.2 **ES Vol 3 Figure 2-1: Illustrative Environmental Masterplan [EN010141/DR/6.3]** and the **Illustrative Landscape Proposals** drawing at **Appendix A** of this oLEMP illustrate the location of the following proposed landscape elements:

- Proposed Native Species Woodland or Woodland Belt;
- Proposed Native Species Hedgerow;
- Proposed Native Species Individual Tree;
- Proposed Grazing Pasture or Neutral Grassland;
- Proposed Species-Diverse Grassland; and
- Proposed Permissive Paths.

3.5.3 The landscape design has been developed in response to the Design Principles for the Scheme as set out earlier in this chapter and in the **Design Approach Document [EN010141/DR/5.6]**.

3.5.4 In summary, the landscape proposals shown on the Illustrative Landscape Proposals include for the creation of approximately:

- 19 hectares of native species woodland or woodland belt;
- 17.4 km of native species hedgerow;
- 375 individual native species trees;
- 448 hectares of grazing pasture or neutral grassland; and
- 205 hectares of species-diverse grassland.

3.5.5 In addition, new ditches and swales required as part of the **outline Surface Water Management Plan [EN010141/DR/7.13]** will increase the extent of watercourse habitat across the Order Limits.

3.5.6 A series of permissive paths are proposed as part of the Scheme to improve public access where possible and desirable, these are also shown on the **Illustrative Landscape Proposals** drawing at **Appendix A** of this oLEMP. In total, 0.9 km of permissive path will be provided for the lifetime of the Scheme.

3.6 Biodiversity Net Gain Objectives

3.6.1 While the Scheme is not subject to statutory biodiversity net gain (BNG) requirements, the Scheme has committed to achieving an increase of at least 10% in area-based and hedgerow habitats, with no net loss of watercourse habitats.

3.6.2 The implementation of the landscape and ecological works and their subsequent management will ensure the Scheme meets the above objectives (i.e., achieving the stated habitat type and condition), as summarised in Table 1 overleaf. Table 1 will serve as a guide to the future management and monitoring of created habitats, outlines timescales in which the objectives should be achieved, and offers a direct comparison between the habitats shown on the **Illustrative Landscape Proposals** (**Appendix A** of this document) and the habitat types utilised for the Biodiversity Metric for the Scheme. Additional details of the BNG Assessment are provided in the **Biodiversity Net Gain Report [EN010153/DR/7.17]**.

3.6.3 The habitat types and conditions set out in Table 1 are in accordance with the Biodiversity Metric for the Scheme, which utilised DEFRA's Statutory Biodiversity Metric Calculator. Target condition, and the associated targeted criteria, are measured in accordance with the relevant condition assessment sheets for the particular habitat, as issued alongside the Statutory Biodiversity Metric (July 2024 version) and provided in **Appendix B**. Time to target condition is pre-set within the Biodiversity Metric, and is the timeframe in which it is expected the habitat type and condition would be achieved.

Table 1: Summary of Biodiversity Net Gain Objectives

Landscape Habitat Type	BNG Habitat Type	Condition Sheet	Target Condition	Targeted Criteria	Time to Target Condition (Years)
Proposed Native Species Woodland or Woodland Belt	Other woodland; broadleaved	Woodland	Poor	N/A – poor condition targeted	5
Proposed Species-Diverse Grassland	Arable Field Margins; Tussocky	N/A	N/A	N/A	1
	Other neutral grassland	Grassland (Medium, high and very high distinctiveness)	Moderate	A, B, C, D	5
Proposed Grazing Pasture or Neutral Grassland (within solar fence line)	Modified grassland	Grassland (Low distinctiveness)	Moderate	C, E, F, G	4
Proposed native species hedgerow	Native hedgerow (species rich)	Hedgerow	Moderate	A1, A2, B1, B2, C2, D1, D2	5
Individual trees	Individual trees – Rural tree	Individual trees	Poor	N/A	10

4.0 Roles and responsibilities

4.1 Site Team

4.1.1 The following are key Site roles that would have responsibility for the implementation, management and maintenance of the proposed green infrastructure, with responsibilities for each role also set out (this list is not definitive and additional roles & responsibilities may be added to the final LEMP).

Construction Phase

4.1.2 The following roles would be established during the construction phase and are of relevance to the implementation of the LEMP:

- **Principal Contractor** – This is a formal role established in the Construction (Design and Management) Regulations 2015. The Principal Contractor will be appointed by the Applicant and have responsibility for co-ordinating the construction phase of the Scheme.
- **Site Manager** – The Principal Contractor will identify a Site Manager who will have overall responsibility for implementation of the final LEMP and all other DCO and legislative requirements.
- **Landscape and Ecological Works Contractor** – The Principal Contractor will appoint a specialist landscape and ecological contractor to implement the proposed landscape elements and ecological enhancements;
- **Environmental Manager** – The Environmental Manager has responsibility for management of environmental matters related to the construction phase of the Scheme, including ensuring compliance with legislation, ensuring that mitigation, management and monitoring measures are implemented, and that best practice is applied during works. The Environmental Manager will be a point of contact with environmental bodies and other third parties as required to perform their duties.

- **Environmental Clerk of Works** – The Environmental Clerk of Works (ECoW) will be a suitably qualified environmental manager responsible for on-site management and monitoring of environmental impacts including for soil management, pollution control, noise and dust monitoring, and surface water.
- **Ecological Clerk of Works –** The Ecological Clerk of Works (EcoCoW) will be a suitably qualified ecologist responsible for on-site managing and monitoring of the works in relation to habitats, protected species, and other wildlife.
- **Archaeological Clerk of Works –** The Archaeological Clerk of Works (ACoW) will be a suitably qualified archaeologist responsible for on-site management and monitoring of the works in relation to archaeology.
- **Flood Warden** – The Flood Warden will be responsible for preparation, management, and response to flood incidents, inclusive of reacting to flood warning and alerts.
- **Community Liaison Officer** – The Community Liaison Officer will ensure that the Community Liaison Group (CLG) is established and will be the point of contact for the CLG, ensuring that regular updates are issued during the construction of the Scheme.

4.1.3 These roles and responsibilities are indicative and will be confirmed in the final LEMP.

Operational Phase

4.1.4 The following roles would be established during the operational phase and are of relevance to the implementation of the LEMP:

- **Landscape and Ecological Maintenance Contractor** – a specialist landscape and ecological maintenance contractor will be appointed for the operational phase of the Scheme. For the first five years of implementation this role is typically taken by the same contractor responsible for implementation during the construction phase, in order to ensure accountability for any defects or failure of planting to establish;

- **Landscape Manager** – a suitably qualified landscape manager will be appointed for the operational phase to oversee the implementation of the LEMP, review progress against specified objectives, and work with the contractor to administer the landscape maintenance contract. The Landscape Manager will be responsible for reporting progress to the local planning authorities and advising on any possible changes to the LEMP in order to ensure successful delivery;
- **Environmental Clerk of Works** – The Environmental Clerk of Works (ECoW) will be a suitably qualified environmental manager responsible for on-site management and monitoring of environmental impacts including for soil management, pollution control, noise monitoring, and surface water run-off;
- **Ecological Clerk of Works** – The Ecological Clerk of Works (EcoCoW) will be a suitably qualified ecologist responsible for on-site monitoring the maintenance works in relation to habitats, protected species, and other wildlife. The EcoCoW will monitor and report on progress against the objectives of the LEMP and advise the Landscape Manager on any possible changes to ensure successful delivery;
- **Community Liaison Officer** – The Community Liaison Officer will remain in place during the Operational Phase to ensure that the CLG has a regular point of contact to communicate any issues.

4.1.5 As set out in **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]**, the Applicant expects that there would be 20 full time equivalent (FTE) roles for the Scheme during the operational phase covering the various activities, this would breakdown broadly as twelve FTE roles working on site maintenance, five FTE roles working in management and administrative roles, and three FTE roles working in land management including landscape maintenance and agriculture.

4.1.6 The Applicant currently intends for the three roles supporting land management to be permanent positions directly employed by the Scheme to provide continuity in the management and maintenance of Scheme habitats,

however this will be subject to review and the Applicant may seek to instruct a landscape and ecological contractor on a multi-year maintenance contract.

Decommissioning Phase

4.1.7 The following roles are expected to be established during the decommissioning phase and are of relevance to the implementation of the LEMP:

- **Principal Contractor –** This is a formal role established in the Construction (Design and Management) Regulations 2015. The Principal Contractor will be appointed by the Applicant and have responsibility for co-ordinating the decommissioning phase of the Scheme.
- **Site Manager –** A Site Manager will be identified who will have overall responsibility for implementation of the DEMP and all other DCO and legislative requirements.
- **Environmental Manager** – The Environmental Manager has responsibility for management of environmental matters related to the decommissioning phase of the Scheme, including ensuring compliance with legislation, ensuring that mitigation, management and monitoring measures are implemented, and that best practice is applied during works. The Environmental Manager will be a point of contact with environmental bodies and other third parties as required to perform their duties.
- **Environmental Clerk of Works** – The Environmental Clerk of Works (ECoW) will be a suitably qualified environmental manager responsible for on-site management and monitoring of environmental impacts including for soil management, pollution control, noise and dust monitoring, and surface water.
- **Ecological Clerk of Works –** The Ecological Clerk of Works (EcoCoW) will be a suitably qualified ecologist responsible for on-site managing and monitoring of the works in relation to habitats, protected species, and other wildlife.

- **Archaeological Clerk of Works –** The Archaeological Clerk of Works (ACoW) will be a suitably qualified archaeologist responsible for on-site management and monitoring of the works in relation to archaeology.
- **Flood Warden** – The Flood Warden will be responsible for preparation, management, and response to flood incidents, inclusive of reacting to flood warning and alerts.
- **Community Liaison Officer** – The Community Liaison Officer will ensure that the CLG is established and will be the point of contact for the CLG, ensuring that regular updates are issued during the construction of the Scheme.

4.1.8 These roles and responsibilities are indicative and will be confirmed in the final DEMP.

4.2 Stakeholders

Landscape and Ecological Management Plan Steering Group

4.2.1 At the beginning of the operational phase, an 'East Park Landscape and Ecological Management Plan Steering Group' will be created with the aim of providing oversight and monitoring of the aims and objectives of the final LEMP.

4.2.2 In addition to the Scheme's Environmental Manager, representatives from the following groups will be invited to join the Steering Group:

- Bedford Borough Council;
- Huntingdonshire District Council;
- Cambridgeshire County Council; and
- The Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire.

4.2.3 The Steering Group will undertake an annual site walkover as part of the Scheme's monitoring, as set out in Section 8.0 of this oLEMP.

Community Liaison Group

4.2.4 As set out in the **outline Construction Environmental Management Plan [EN010141/DR/7.3]**, a CLG will be formed prior to construction and will continue through until ultimate decommissioning of the Scheme.

4.2.5 During all stages of the project lifecycle, the purpose of the CLG will be to allow interested community members and bodies to be updated on progress and activities. The CLG will allow local residents to raise issues with the Community Liaison Officer and to act as a forum to discuss relevant issues for the construction of the Scheme. Membership will be open to the following non-exhaustive list of groups:

- Parish Councils;
- Local Businesses; and
- Local Community Groups.

5.0 Implementation

5.1 Introduction

5.1.1 This section of the oLEMP sets out the precautionary working methods that will be adopted during the construction phase, and provides an overview of the specification and approach to implementation of the proposed landscape elements and ecological enhancements.

5.2 Precautionary Working Methods

5.2.1 The following precautionary working methods will be employed during the construction phase to minimise potential adverse effects.

Protection of Soils

5.2.2 Soils will be protected during the construction phase in accordance with a final Soil Management Plan (SMP) that will be in substantial accordance with the **outline Soil Management Plan [EN010141/DR/7.9]**.

5.2.3 The outline SMP includes best practice measures in relation to:

- Movement of plant and vehicles around the Site, including use of low pressure tyres to distribute weight where possible;
- Management of soil horizons to ensure that topsoils and subsoils are kept separate when excavated, not mixed with other materials, and replaced in a sensitive manner to restore pre-excavation soil horizons and avoid excessive compaction;
- Avoiding multiple handling of soils, which should be moved directly from areas being excavated or stripped to receptor sites, stockpiles, or reinstatement;
- Ensuring soils are only handled in appropriate moisture conditions; and
- Recording of soil handing operations and regular monitoring of soil condition across the Site in accordance with the SMP.

5.2.4 Prior to any planting or seeding, the Landscape and Ecological Contractor will ensure that any extraneous matter such as plastic, large pieces of wood, or metal will be removed from Site to an appropriate registered waste recycling or disposal facility.

5.2.5 It is not expected that there would be any requirement to import topsoil to Site to implement the landscape proposals, however if soil is required then it will accord with BS 3882:2015 British Standard Topsoil[5].

Protection of Existing Vegetation

5.2.6 An arboricultural survey has been undertaken in accordance with BS:5837 Trees in Relation to Design, Demolition and Construction[6] and is reported in **ES Vol 2 Appendix 2-2: Arboricultural Impact Assessment [EN010141/DR/6.2]**.

5.2.7 Apart from where specified for removal, all vegetation will be protected during the construction phase in accordance with British Standard (BS) 5837:2012 and the provisions set out in the Arboricultural Method Statement within **ES Vol 2 Appendix 2-2: Arboricultural Impact Assessment [EN010141/DR/6.2]**. Hedgerow and trees located in proximity to the working areas will be protected from disruption and if necessary, protection fences will be erected to ensure that roots remain undisturbed.

Protection of Wildlife

5.2.8 The following general and species-specific measures will be implemented throughout construction of the Scheme for the protection of biodiversity:

General

5.2.9 General pre-construction surveys to be undertaken to update the ecological baseline prior to construction, including for:

- Badger;
- Bat roosts;

- Nesting birds (including Wildlife and Countryside Act 1981 Schedule 1 species);
- Otter;
- Water vole;
- Great crested newt; and
- Arable flora.

5.2.10 Before starting on Site, site operatives will be informed by a 'tool box' talk of the potential for protected species to occur on-site, what to look out for and what to do in the event that an animal is found.

5.2.11 Any excavations will be graded or include an escape route for animals that might enter the trench, especially if left open overnight. Ramps should be no greater than 45 degrees in angle and can include wooden planks or ramped earth. All excavations left open overnight or longer will be checked for animals prior to the continuation of works or infilling, and any excavated material stored overnight will be searched prior to being used as infill.

5.2.12 Any lighting used will be task specific and directed away from boundary habitats including hedgerows, watercourses and woodland.

5.2.13 All works will follow general best practice pollution prevention methods, and any potential pollutants will be stored in a secure area away from any sensitive ecological receptors.

Birds

5.2.14 Where reasonably practicable vegetation removal will be undertaken outside of the bird breeding season (March-August inclusive).

5.2.15 If vegetation works are necessary during the breeding season, any suitable nesting habitat to be affected by works will be checked by a suitably experienced ecologist such as the EcoCoW prior to works commencing. Works would be permitted to proceed only when the ecologist is satisfied that no offence will occur under statutory legislation. Should an active nest be

identified, a suitable buffer zone will be implemented (species dependent) and remain in place until chicks have fledged or the nest is no longer in use.

5.2.16 Suitable buffer zones (species specific) around nests of birds listed on Schedule 1 of the Wildlife and Countryside Act 1981[7] will be implemented to prevent disturbance. This will be informed by a pre-construction bird survey prior to commencement in any given area of the Site.

Bats

5.2.17 Any temporary lighting required during construction will be implemented in line with Bat Conservation Trust and Institution of Lighting Professionals Guidance: Bats and Artificial Lighting at Night[8].

5.2.18 Should any trees be required to be removed, they will first be subject to an inspection by a suitably qualified ecologist (such as the EcoCoW) to assess their potential to support roosting bats.

Amphibians

5.2.19 No works with the potential to harm individual great crested newt, damage great crested newt resting places or disturb great crested newt using such a place are to be undertaken within 250m of a pond with known or assumed great crested newt presence without first obtaining a European Protected Species Mitigation Licence from Natural England.

5.2.20 Vegetation clearance within suitable habitats will be undertaken following a two-stage cut, first taking the vegetation to approximately 150 mm before a visual inspection by a suitably qualified ecologist (such as the EcoCoW). Vegetation can then be taken to ground level.

5.2.21 Removal of hedgerows should avoid the period between approximately November and February (inclusive) when amphibians and reptiles are hibernating.

Badgers

5.2.22 Any works within 30 m of a known badger sett will be undertaken under the watching brief of a suitably qualified ecologist (such as the EcoCoW), including a pre-construction survey. Exact measures to be implemented will be dependent on the works type and risk to badgers.

5.2.23 Any areas of soil to be stored for any period of time should be fenced to deter use by badgers and/or checked daily by site staff to ensure no attempted creation of new setts by badgers.

5.2.24 If works cannot be undertaken without disturbing badgers or damaging a set, works will only be undertaken following the grant of a licence by Natural England (either development licence A24 or class licence CL35).

Otter

5.2.25 A pre-construction otter survey will be undertaken for any construction works within 20m of a watercourse to identify any potential otter holts/ resting sites.

5.2.26 Should a holt be identified, a suitable buffer zone will be implemented or a Natural England Mitigation licence (A45) obtained prior to works proceeding. Buffer zones will be determined by a suitably qualified ecologist (such as the EcoCoW) dependent on the works type proposed and the sensitivity of the holt.

Water Vole

5.2.27 Any works within 10m of a ditch bank will be subject to a pre-construction inspection by a suitably qualified ecologist (such as the EcoCoW).

5.2.28 If evidence of water vole is encountered then works must cease until an appropriate course of action has been determined by the EcoCoW. This may include design alterations or to undertake works under a licence issued by Natural England (either mitigation licence A11 or class licence CL31).

Protection of Utilities

5.2.29 As set out in Section 3.4, the required offsets to utilities have been factored into the design process, and have informed the illustrative design shown on **ES Vol 3 Figure 2-1: Illustrative Environmental Masterplan [EN010141/DR/6.3]**.

5.2.30 There are several high-pressure gas transmission assets which cross the Site. Planting above gas transmission pipelines will be limited to hedgerows, and only where essential to ensure visual screening and landscape integration of the Scheme. In planting zones above gas transmission pipelines only shallow rooting species will be used, and dependent on the depth of the pipeline (and in consultation with National Gas), root guards will be used.

5.2.31 In accordance with National Grid's Design Guidelines for Development Near Pylons and High Voltage Overhead Power Lines (2022)[9] guidance, only low growing species of trees and shrubs will be planted within the prescribed clearance areas beneath overhead lines. This will reduce the potential for conflict between planting and any overhead lines that cross the Site. Any planting beneath overhead lines will be subject to annual inspection and maintenance to ensure safety issues do not occur.

5.2.32 There is an Anglian Water pipeline asset within East Park Site D. There will be no planting within the easement for this asset.

5.3 Proposed Landscape Elements

5.3.1 The following section provides an outline specification for the landscape elements proposed as part of the Scheme, which are shown on **ES Vol 3 Figure 2-1: Illustrative Environmental Masterplan [EN010141/DR/6.3]** and the **Illustrative Landscape Proposals** at **Appendix A** of this oLEMP:

- Proposed Native Species Woodland or Woodland Belt;
- Proposed Native Species Hedgerow;
- Proposed Native Species Individual Tree;

- Proposed Grazing Pasture or Neutral Grassland;
- Proposed Species-Diverse Grassland; and
- Proposed Permissive Paths.

Native Species Woodland or Woodland Belt

5.3.2 Native Species Woodland or Woodland Belt planting is proposed across East Park Sites A to D.

5.3.3 All planting stock supplied shall be healthy and viable and comply with BS 3936 Nursery Stock[10] as relevant, and the National Plant Specification published by the Horticultural Trades Association (HTA) as appropriate. Supplying nurseries will be registered under the HTA Nursery Certification Scheme. All plants will be packed and transported in accordance with the Code and Practice for Plant Handling as produced by the Committee for Plant Supply and Establishment (CPSE).

5.3.4 Plants are to be of certified local provenance (seed zone 402), subject to availability. Stock from immediately adjacent seed zones 401, 403, and 406 is also considered suitable and inclusion is encouraged to add resilience against potential adverse climate-change related effects

5.3.5 The proposed woodland planting stock will include a mixture of bare-root transplants along with light-standard trees where appropriate for early initial filtering of views towards the Scheme. Woodland species mixtures will be tailored according to the prevalent conditions of the proposed location, with more riparian mixtures located alongside watercourses, and species better suited to exposed conditions in more elevated parts of the Site. An indicative species list from which mixtures will be developed is as follows:

- *Acer campestre* (Field Maple);
- *Alnus glutinosa* (Alder);
- *Betula pendula* (Silver Birch);
- *Betula pubescens* (Downy Birch);
- *Corylus avellana* (Hazel);

- *Crataegus monogyna* (Hawthorn);
- *Malus sylvestris* (Crab Apple);
- *Populus nigra* (Black Poplar)
- *Prunus padus* (Bird Cherry);
- *Prunus spinosa* (Blackthorn);
- *Quercus robur* (Pendunculate Oak);
- *Rosa canina* (Dog Rose);
- *Salix alba* (White Willow);
- *Salix caprea* (Goat Willow);
- *Sambucus nigra* (Elder);
- *Sorbus aucuparia* (Rowan);
- *Ulmus sp.*[1] (Elm); and
- *Viburnum opulus* (Guelder Rose).

5.3.6 Bare-root transplants would be specified at heights between 40cm and 100cm heights, and minimum 1+1 transplants. Plants would be notch-planted at 2m centres with slots to be made using a planting spade. Plant notches would be T, L- shaped or straight, using spades of a design suitable for this purpose. The planting notches must be vertical and deep enough for the roots to hang freely, with the transplant being planted so that the root collar is exactly level with the ground surface. The notch must then be closed and the soil will be well firmed round the roots in line with the guidelines as set out in BS 8545.

5.3.7 Light standard trees would have a stem girth of between 6-8cm and a height of between 200cm and 250cm, with a natural form. Trees would be pit-planted with tree pits to be at least 75mm greater in radius than the root ball off any plant. Light standard trees would be interspersed within areas of bare-root transplants where appropriate, at 4m centres. Topsoil and subsoil horizons must be maintained during excavation once soils are replaced in the tree pit, and the sides of a tree pit should be scarified before the tree is planted to

[1] *Locally suitable cultivars with high resistance to Dutch elm disease to be specified.*

encourage root penetration. Tree pits would be excavated with a slightly raised centre to encourage drainage and prevent pooling.

5.3.8 All bare-root planting stock will be kept covered until actually planted in order to minimise water-loss and prevent the roots from drying out. Bare root and rootballed stock will be planted while dormant (between the months of November and February inclusive). Containerised stock will be used where necessary.

5.3.9 All new planting will be adequately and appropriately staked and guarded against damage.

Native Species Hedgerow Planting

5.3.10 Native Species Hedgerow planting is proposed across East Park Sites A to D.

5.3.11 All planting stock supplied shall be healthy and viable and comply with BS 3936 Nursery Stock as relevant, and the National Plant Specification published by the Horticultural Trades Association (HTA) as appropriate. Supplying nurseries will be registered under the HTA Nursery Certification Scheme. All plants will be packed and transported in accordance with the Code and Practice for Plant Handling as produced by the Committee for Plant Supply and Establishment (CPSE).

5.3.12 Plants are to be of certified local provenance (seed zone 402), subject to availability. Stock from immediately adjacent seed zones 401, 403, and 406 is also considered suitable and inclusion is encouraged to add resilience against potential adverse climate-change related effects

5.3.13 The proposed native species hedgerow planting stock will comprise bare-root transplants. Hedgerow species mixtures will be tailored according to the prevalent conditions of the proposed location, with shallow rooting species selected in proximity to utility easements. An indicative species list from which mixtures will be developed is as follows:

- *Acer campestre* (Field Maple)
- *Cornus sanguinea* (Dogwood)
- *Corylus avellana* (Hazel)
- *Crataegus monogyna* (Hawthorn)
- *Euonymus europaeus* (Spindle)
- *Ilex aquifolium* (Holly)
- *Lonicera periclymenum* (Honeysuckle)
- *Populus nigra* (Black Poplar)
- *Prunus spinosa* (Blackthorn)
- *Rosa canina* (Dog Rose)
- *Sambucus nigra* (Elder).

5.3.14 A linear trench will be dug to a minimum of 550mm wide x 300mm depth, the base of which will be broken up before returning a mixture of approved topsoil and tree and shrub planting compost to the trench, at the ratio of one part compost to two parts topsoil. All stock will be planted to the root collar and well firmed in place. Hedgerows will be planted in a double staggered row at 5 plants per linear metre with rows set 350mm apart, central to the pre-prepared trench. A minimum of five different species will be planted per 30m length

5.3.15 Bare-root transplants would be specified at heights between 40cm and 100cm heights, and minimum 1+1 transplants. All bare-root planting stock will be kept covered until actually planted in order to minimise water-loss and prevent the roots from drying out. Bare root and rootballed stock will be planted while dormant (between the months of November and February inclusive). Containerised stock will be used where necessary.

5.3.16 All new planting will be adequately and appropriately staked and guarded against damage.

Native Species Individual Tree Planting

5.3.17 Native Species Individual Tree Planting is proposed across East Park Sites A to D.

5.3.18 All planting stock supplied shall be healthy and viable and comply with BS 3936 Nursery Stock as relevant, and the National Plant Specification published by the Horticultural Trades Association (HTA) as appropriate. Supplying nurseries will be registered under the HTA Nursery Certification Scheme. All plants will be packed and transported in accordance with the Code and Practice for Plant Handling as produced by the Committee for Plant Supply and Establishment (CPSE).

5.3.19 Plants are to be of certified local provenance (seed zone 402), subject to availability. Stock from immediately adjacent seed zones 401, 403, and 406 is also considered suitable and inclusion is encouraged to add resilience against potential adverse climate-change related effects

5.3.20 The proposed native species individual tree planting will comprise heavy standard trees. The selection of individual trees will be tailored according to the prevalent conditions of the proposed location. An indicative species list from which trees will be selected is as follows:

- *Acer campestre* (Field Maple);
- *Alnus glutinosa* (Alder);
- *Carpinus betulus* (Hornbeam);
- *Quercus robur* (Pendunculate Oak);
- *Populus nigra* (Black Poplar)
- *Populus tremula* (Aspen);
- *Salix alba* (White Willow);
- *Sorbus aucuparia* (Rowan);
- *Ulmus sp.* (Elm[2]).

[2] *Locally suitable cultivars with high resistance to Dutch elm disease to be specified.*

5.3.21 Trees will be placed into pre-prepared pits that will accommodate the roots comfortably, with minimum 75mm space on all sides outside the extent of the roots.

5.3.22 Heavy standard trees would have a stem girth of between 12-14cm and a height of at least 350cm, with a natural form. Trees would be pit-planted with tree pits to be at least 75mm greater in radius than the root ball off any plant.

5.3.23 Topsoil and subsoil horizons must be maintained during excavation once soils are replaced in the tree pit, and the sides of a tree pit should be scarified before the tree is planted to encourage root penetration. Tree pits would be excavated with a slightly raised centre to encourage drainage and prevent pooling.

5.3.24 All new planting will be adequately and appropriately staked and guarded against damage.

Grazing Pasture or Neutral Grassland

5.3.25 Grazing Pasture or Neutral Grassland will be created within all areas enclosed by fencing for solar panels, as shown on the **Illustrative Landscape Proposals** in **Appendix A** of this oLEMP.

5.3.26 All seeding shall be carried out in accordance with BS 4428:1989 Code of Practice for general landscape operations (excluding hard surfaces)[11], or the most up to date and current British Standard and in accordance with seed supplier's technical advice.

5.3.27 Subsequent to the last crop being removed, no fertiliser will be added to the arable land on the site.

5.3.28 It is anticipated that advanced seeding will take place between the last crop being harvested and the beginning of the construction phase. The purpose of advance seeding the areas will be to allow the grasslands to establish and suitably bind the soils prior to the start of construction.

5.3.29 Directly before sowing, the ground will be harrowed or raked to produce a medium tilth then rolled. The surface should be friable and lightly firmed, but not over compacted. All extraneous matter such as plastic, wood, metal and stones larger than 50mm in any direction will be removed to ensure the ground is suitable for use with mowers.

5.3.30 Seed will be broadcast by machine and then rolled to ensure good contact with the soil. Seed is to be broadcast at a rate of 32.5kg/ha, in 2 passes perpendicular to each other where possible to ensure a good distribution, and to the supplier's recommendations.

5.3.31 The precise seed mix will be tailored according to the prevalent conditions of the proposed location. An indicative species list for grazing pasture or neutral grassland is as follows:

- Birdsfoot Trefoil – 4%;
- Cocksfoot – 5%;
- Crested Dogstail – 8%;
- Knapweed – 1%;
- Meadow Fescue – 8%;
- Meadow Foxtail – 1.5%;
- Perennial Ryegrass – 18%;
- Red Clover – 3%;
- Ribwort Plantain – 1%;
- Rough-stalked Meadow-grass – 6%;
- Sainforn – 10%;
- Small Leaved White Clover – 2%;
- Smaller Cat's-tail – 4%;
- Smooth-stalked Meadow-Grass – 7%;
- Strong-creeping Red-fescue – 8%;
- Tall Fescue – 8%;
- Timothy – 5%; and
- Yarrow – 0.5%.

Species-Diverse Grassland

5.3.32 Species-diverse grassland is proposed across East Park Sites A to D in field boundaries between hedgerows and fencelines, and at field-scale.

5.3.33 All seeding shall be carried out in accordance with BS 4428:1989 Code of Practice for general landscape operations (excluding hard surfaces), or the most up to date and current British Standard and in accordance with seed supplier's technical advice.

5.3.34 Subsequent to the last crop being removed, no fertiliser will be added to the arable land on the site.

5.3.35 It is anticipated that advanced seeding will take place between the last crop being harvested and the beginning of the construction phase. The purpose of advance seeding the areas will be to allow the grasslands to establish and suitably bind the soils prior to the start of construction.

5.3.36 Directly before sowing, the ground will be harrowed or raked to produce a medium tilth then rolled. The surface should be friable and lightly firmed, but not over compacted. All extraneous matter such as plastic, wood, metal and stones larger than 50mm in any direction will be removed to ensure the ground is suitable for use with mowers.

5.3.37 Seed will be broadcast by machine and then rolled to ensure good contact with the soil. Seed is to be broadcast at a rate of 40kg/ha, in 2 passes perpendicular to each other where possible to ensure a good distribution, and to the supplier's recommendations.

5.3.38 The precise seed mix will be tailored according to the prevalent conditions of the proposed location, but typically would be sown at a rate of 20% wildflowers to 80% grasses. An indicative species list from which the mix for species diverse grassland will likely be created is as follows:

- Betony
- Birdsfoot Trefoil

- Common Bent
- Common Knapweed
- Common Sorrel
- Cowslip
- Crested Dogstail
- Devilsbit Scabious
- Field Scabious
- Lady's Bedstraw
- Meadow Buttercup
- Meadow Vetchling
- Oxeye Daisy
- Ragged Robin
- Ribwort Plantain
- Rough Hawkbit
- Self Heal
- Sheeps Fescue
- Slender Creeping Red Fescue
- Smooth Stalked Meadow Grass
- Strong Creeping Red Fescue
- Tufted Vetch
- Wild Red Clover
- Yarrow
- Yellow Rattle

Permissive Paths

5.3.39 Permissive paths will be provided at the locations within East Park Site B and East Park Site C as identified on the **Illustrative Landscape Proposals** drawing at **Appendix A** of this oLEMP.

5.3.40 Permissive paths would be suitably waymarked. As they are located along field boundaries they would not be surfaced so that they are in keeping with the existing character of public rights of way in the local landscape.

5.4 Proposed Ecological Enhancement Elements

5.4.1 The following section sets out proposed ecological enhancement elements that will be included across the Site, but the location of such features will be defined at the detailed design stage. The proposed elements are as follows:

i) Bird Boxes:
   a. General Purpose Bird Boxes;
   b. Barn Owl Boxes;
   c. Raptor Boxes;
ii) Bat Boxes:
   a. Hibernation Boxes;
   b. Colony Boxes;
iii) Reptile / Amphibian Refugia; and
iv) Hedgerow Boxes.

Bird Boxes

General Purpose Bird Boxes

5.4.2 Additional bird nesting provision will be made through the inclusion of circa 40 bird boxes erected on existing semi-mature and mature trees located within East Park Sites A to D. Precise locations will be subject to tree condition at that time.

5.4.3 Bird boxes would be installed in the first autumn (September to November) following the end of the construction phase, under advice of the EcoCoW.

5.4.4 Boxes will be erected at an appropriate height of between 1 to 5 metres. Boxes would be angled so that they face away from the prevailing wind or placed in a semi sheltered environment. Positioning within or close to hedgerows will increase chances of occupation. Bird boxes will be suitable for a variety of farmland bird species.

Barn Owl Boxes

5.4.5 Additional bird nesting provision will be made through the inclusion of circa 6 barn owl boxes erected on either existing semi-mature and mature trees, or on poles, within East Park Sites A to D. Precise locations will be subject to tree condition at that time and as advised by the EcoCoW.

5.4.6 Barn owl boxes would be installed in the first autumn (September to November) following the end of the construction phase, under advice of the EcoCoW.

5.4.7 Boxes will be erected at a minimum height of 3 metres above ground level and away from any artificial light sources. Selected trees should be isolated within hedgerows or on a woodland edge, have a high canopy with few or no low branches, and where there is good visibility towards the box for passing owls. Boxes would be angled so that they face away from the prevailing wind or placed in a semi sheltered environment.

Raptor Boxes

5.4.8 Additional bird nesting provision will be made through the inclusion of circa 3 specific raptor boxes erected on either existing semi-mature and mature trees within East Park Sites A to D. Precise locations will be subject to tree condition at that time and as advised by the EcoCoW.

5.4.9 Raptor boxes would be installed in the first autumn (September to November) following the end of the construction phase, under advice of the EcoCoW.

5.4.10 Boxes will be erected at a minimum height of 3 metres above ground level and away from any artificial light sources. Selected trees should be isolated within hedgerows or on a woodland edge, have a high canopy with few or no low branches, and where there is good visibility towards the box for passing raptors. Boxes would be angled so that they face away from the prevailing wind or placed in a semi sheltered environment.

Bat Boxes

5.4.11 The tree, hedgerow and grassland planting will, over time complement the retained existing habitat features and enhance foraging and commuting opportunities.

5.4.12 Additional bat roost provision will be made through the inclusion of a minimum of 60 bat roost boxes on suitable trees within East Park Sites A to D. This will include a minimum of 5 hibernation boxes, and 5 colony boxes. Precise locations will be subject to tree condition at that time.

5.4.13 Bat boxes would be installed in the first winter (December to February) following the end of the construction phase, under advice of the EcoCoW.

5.4.14 Boxes will be erected at a minimum height of 4 metres above ground level and away from any artificial light sources. Boxes would be angled so that they face away from the prevailing wind or placed in a semi sheltered environment, but with exposure to the sun for part of the day. Positioning within or close to hedgerows and watercourses will increase chances of occupation. It is often appropriate to erect multiple boxes on the same tree at slightly different heights and aspects to create a variety of microclimates. Minor pruning may be required to ensure a clear drop zone below newly installed bat boxes, this will be carried out under Arboricultural supervision.

Reptile / Amphibian Refugia

5.4.15 Additional habitat for reptiles and amphibians will be provided within East Park Sites A to D. A minimum of 10 refugia will be created under the supervision of the EcoCoW at the end of the construction phase by:

- Creating hibernacula by digging a shallow hole up to 1.5m across and 0.3m deep to be filled with logs, branches and rocks and loosely cover the hole with the excavated soils that should then be seeded with the species-diverse grassland mix. Hibernacula will be created in field boundaries in

proximity to hedgerows, but avoiding root protection areas of trees or hedgerows; and

- Creating log piles by stacking any logs or hedge cuttings.

5.4.16 The locations of reptile / amphibian refugia would be recorded by the EcoCoW and recorded in an updated LEMP to ensure that future maintenance of grassland and hedgerows does not inadvertently damage or harm any refugia.

Hedgehog Boxes

5.4.17 A minimum of 10 hedgehog boxes will be provided across East Park Sites A to D, to be located in quiet, shady spots at ground level in close proximity to hedgerows or woodland under the guidance of the EcoCoW. Hedgehog boxes will be elevated and angled slightly to ensure no surface water ingress during periods of heavy rain.

6.0 Landscape and Ecological Management

6.1 Introduction

6.1.1 This section sets out the proposed management of the existing and proposed landscape elements identified on the **Illustrative Landscape Proposals** at **Appendix A** of this oLEMP.

6.2 Management Aims

6.2.1 The primary aim of the management of the proposed landscape elements is to deliver the mitigation required to avoid or minimise environmental effects identified in the ES, and to deliver on the overall objectives for the Scheme.

Proposed Native Species Woodland or Woodland Belt

6.2.2 The aims for native species woodland or woodland belt are to provide taller visual screening of the Scheme; integrate the Scheme into the landscape pattern; restore historic field boundaries; reduce flood risk; and improve habitat connectivity by providing a diverse landscape framework that complements hedgerows and provides 'stepping stones' in the landscape.

6.2.3 Woodland management will create optimal woodland structures that attain four distinct layers: namely the canopy, scrub, field, and ground layers, all of which contribute to the habitat mosaic.

Proposed Native Species Hedgerow

6.2.4 The aims for native species hedgerow are to provide visual screening of the Scheme; integrate the Scheme into the landscape pattern; restore historic field boundaries; and improve habitat connectivity through the creation of wildlife corridors connecting areas of woodland and surrounding habitat.

6.2.5 Hedgerow management will create hedgerows that are fruit rich, with a bushy structure that extends to the ground to provide cover for birds and small mammals.

Proposed Native Species Individual Tree

6.2.6 The aim for native species individual trees is improve landscape structure and integrate the Scheme with the existing landscape character, whilst complementing the proposed hedgerows.

Proposed Grazing Pasture or Neutral Grassland

6.2.7 The aim for grazing pasture is to provide a low-cut sward in the spring which will encourage a high population of invertebrates, which in turn will provide a suitable foraging habitat for grassland birds such as skylark.

6.2.8 Grazing is the preferred management technique used in conservation often because it is the most practical procedure for maintaining a landscape of varied topography at a low nutrient level giving the land a structurally intricate habitat matrix not achieved by other methods.

Proposed Species-Diverse Grassland

6.2.9 The aim for species-diverse grassland is to provide pollen- and nectar-rich wildflower grassland that will improve habitat connectivity by creating wildlife corridors through the Site along field margins, ditches and hedges. These areas of grassland will in turn encourage a high population of invertebrates that will provide suitable foraging habitat for grassland birds such as skylark, and small mammals such as hedgehogs and badgers.

6.2.10 Additionally, these areas will be managed to provide suitable nesting habitat for skylark by maintaining an undisturbed and varied sward.

6.2.11 Annual cut-and-collect is the preferred management technique used for species-diverse grasslands in order to maintain a low nutrient input.

6.3 General Landscape and Ecological Management

Site Walkovers

6.3.1 The Landscape Manager shall undertake a minimum of quarterly site walkovers, or as required to survey and report on the works being undertaken on Site. The walkover shall include for the identification of any issues such as the establishment of invasive species, damage or vandalism to planting, or issues with public rights of way and permissive paths.

Invasive Non-Native Species

6.3.2 If invasive non-native species listed under Schedule 9 of The Wildlife & Countryside Act 1981 (as amended) or the EU Invasive Alien Species Regulation (1143/2014) are encountered within or immediately surrounding the Order Limits at any time, the advice of a suitably qualified ecologist (such as the EcoCoW) will be sought, and the appropriate best practice measures for the species in question shall be taken to prevent the establishment and spread of such plants around the Order Limits.

6.3.3 Where required, a suitably experienced specialist management company will be instructed to eradicate the invasive non-native species from the Site. Any arisings will be disposed of offsite to a suitably licenced waste disposal facility.

Watering

6.3.4 During the establishment period, planted areas will be inspected during periods of warm weather and drought. If it is considered that the ground conditions are too dry or the plants are showing signs of drought stress, the planted areas will be watered until weather conditions are considered suitable for watering to cease.

6.3.5 To support watering, the Applicant is proposing rainwater harvesting tanks within East Park Site D at the East Park substation and the storage, operations and maintenance building. The roofs of these buildings are likely to cover a large area, with an estimate (as set out under Design Principle 1.3

of Section 5 of the **Design Approach Document [EN010141/DR/5.7]**) that in an average year the total rainfall that could potentially be captured by the roofs would be up to 1,116,130 litres. Utilising a proportion of this harvested rainwater would reduce demand on mains water supply, providing greater resilience for future changes in climate during times of drought. The possible locations of rainwater harvesting tanks are shown on Sheet 10 of **ES Vol 3 Figure 2-1: Illustrative Environmental Masterplan [EN010141/DR/6.3]**.

6.3.6 In addition to rainwater harvesting, water may be sourced either from off-site agricultural lagoons (where available and by agreements with third-party landowners), or by tankering in water within bowsers.

6.3.7 Watering of planted areas (including woodland and hedgerows) would generally be undertaken by 'overhead' watering using a water bowser, essentially mimicking a rainfall effect. The benefit of this is that all soil area areas around and between the plants will receive moisture, encouraging wider root growth and avoiding cracking of clay soils. Where necessary, spot watering would also be utilised, which is more targeted and water-efficient, but significantly more labour intensive.

Roman small town scheduled monument

6.3.8 The landscape proposals within the Roman small town scheduled monument in East Park Site C comprise seeding of species-diverse grassland meadows, with no planting to be undertaken within this area. There will be no excavation or turning of soils (ploughing) within this area as part of the landscape and ecological maintenance regime.

6.3.9 The management of grassland for farmland birds in this area will involve cutting grasslands to ground level only.

Access

6.3.10 During the operational phase, all public rights of way and permissive routes within the Order Limits would be kept free from obstruction, save where

required to be crossed for maintenance, where the measures in this plan would apply. The Site layout includes for a 10m public right of way (PRoW) buffer and landscape treatment to preserve routes through the Site.

6.3.11 There would be no requirement to implement any permanent closures or diversions of any of the PRoW routes that interact with the Order Limits.

6.3.12 The definitive widths of public rights of way will be maintained during the operational phase of the Scheme. Public rights of way within the Order Limits are shown on the **Illustrative Landscape Proposals** drawing in **Appendix A** of this oLEMP.

6.3.13 Where public rights of way are within areas identified as grassland on the **Illustrative Landscape Proposals**, a strip of grassland will be cut to a minimum width of 2m, or in accordance with the definitive width of the public right of way, whichever is wider. These strips will be maintained such that the grasses do not exceed 150mm by regular cutting across the summer months. The purpose of these cuts is to ensure clear wayfinding across the Site and promote usage.

6.3.14 Where public rights of way are on existing access tracks including aggregate or metalled surfaces, the Site Operator will be responsible for the maintenance and repair of the surfaces, for instance by repairing potholes. Any repairs will be made using materials consistent with the existing access track surfacing.

6.3.15 Any temporary closures or diversions to public rights of way during the operational phase to provide for maintenance activities would be agreed with Bedford Borough Council or Cambridgeshire County Council as applicable, but at this time none are expected.

Fencing

6.3.16 All fencing is to be inspected at least twice annually to ensure it is stout and fit for purpose and repairs made as soon as possible for the life of the development. At the time of inspection, the mammal gates proposed to each

solar development area shall be checked to ensure they are clear and remain suitable for purpose.

Street Furniture

6.3.17 Interpretation panels will be provided within the Order Limits at locations to be set out in the final LEMP. These will provide content providing information on subjects including local biodiversity, cultural heritage assets, renewable energy generation and climate change. Full details of the interpretation panels, including location, content and specification will be set out in the final LEMP.

6.3.18 Signage will comprise waymarking signs mounted on timber posts (or attached to fenceposts) located at each route intersection. The purposes of signage will be to indicate the direction that each route follows, and to provide any other information pertinent to the health and safety of users. Full details of signage, including location and specification will be set out in the final LEMP.

6.3.19 All signage and interpretation material will be maintained in good condition, so that the information that they show is unobscured and easy to read. Any damage will be made good as soon as feasible.

6.3.20 Benches/seating will be provided at strategic locations across the Scheme. Details of these, including locations will be set out in the final LEMP, and will be consulted on with the relevant parish councils.

Litter

6.3.21 Litter and debris shall be removed as required as part of each regular maintenance visit, including from ditches/waterbodies.

Community Engagement

6.3.22 The establishment and maintenance of the landscape proposals has scope for local community engagement and volunteering through planting or habitat

creation and management days, or educational visits on ecological management and how the Scheme is contributing to ecosystem enhancements.

6.3.23 The Applicant will deliver a minimum of two half day community engagement sessions per year between years 2 and 10 of the operational phase, which will be arranged through the CLG and open to local residents, community groups, or local schools. Depending on engagement and in consultation with the CLG, these sessions could be expanded beyond the first 10 years of the operational phase.

6.3.24 The responsibility for implementing and maintaining the landscape proposals will remain with the Applicant.

6.4 Management of Existing Landscape Elements

Existing Trees and Woodland

6.4.1 Existing trees and woodland will be surveyed in operational year 1 to identify any hazards. This will be completed by a suitably qualified arboriculturist, and any resultant tree works will be carried out to BS 3998:2010[12] or any subsequent relevant standard.

6.4.2 Thereafter existing trees will be surveyed every 5 years to identify any defects or hazards, and works undertaken as appropriate.

Existing Hedgerows

6.4.3 Existing hedgerows will be brought into a rotational cutting, with 1/3 of the hedgerows cut each year to maintain size and promote density.

6.4.4 Hedgerows will be cut on different sides each year and not all hedgerows will be cut in the same year to allow a varied structure for the benefit of wildlife.

6.4.5 Cuts will be made by tractor with flail between December and February, and maintained to a minimum height of 2.5m.

6.4.6 Hedgerow cutting must not be undertaken in the breeding bird season (1st March to 31st August inclusive).

6.4.7 If of a sufficient amount, cuttings can be collected and used to create small habitat piles / wildlife refuges in field boundary habitats adjacent to hedgerows on Site.

Existing Ditches and Watercourses

6.4.8 The approximate locations of existing ditches are shown on the **Illustrative Landscape Proposals** in **Appendix A** of this oLEMP which are to be protected from works throughout the construction period, and as part of the actions proposed in this oLEMP.

6.4.9 Following establishment, areas of species-diverse grassland, native species hedgerows or native species woodland alongside ditches will be subject to maintenance under the same regime as set out above and below; however, one bank of the ditch must always be left unmanaged during any one operation and managed on rotation as necessary.

6.4.10 Retained ditches will be enhanced and managed for the benefit of water voles by diversifying the bankside vegetation, and also managing scrub and trees to maintain a mix of structure and age and reducing any encroachment/shading of scrub on the channel. Rotational cutting of any existing scrub would maintain a range of successional stages and therefore structure, whilst also encouraging the growth of grass and other bankside vegetation, which would provide more varied cover and food sources for water vole.

6.4.11 The following actions may be undertaken (adapted from *Helping Water Voles on Your Land*[13]) .

- Cut vegetation on a two-year rotation (or longer), leaving one bank uncut each year. Maintain 15cm of vegetation when cutting and leave gaps of 10-20m as untouched refuge areas. Vegetation to be cut in late Summer (September).

- Where ditches have filled in or overgrown, de-silt ditches on a five-year rotation. Carry out work between mid-September and late January. Avoid de-silting more than half a ditch in any winter, and avoid scraping the bank edges as this can destroy burrows. This will encourage the growth of marginal and in channel vegetation.
- Selectively coppice bankside trees and manage hedgerows adjacent to ditches to encourage the growth of marginal and in channel vegetation and reduces leaf fall into the channel. Vegetation removal to be undertaken in winter.

6.4.12 Prior to undertaking any maintenance works within 10m of a ditch, a pre-construction water vole and otter walkover will be carried out by the EcoCoW. If an otter or water vole is found, guidance on maintenance operations should be taken from the EcoCoW.

6.4.13 No tools, vehicles, or materials will be stored within 10m of watercourses/ditches.

Public Rights of Way

6.4.14 The definitive widths of public rights of way will be maintained during the operational phase of the Scheme. Public rights of way within the Order Limits are shown on the **Illustrative Landscape Proposals** in **Appendix A** of this oLEMP.

6.4.15 Where public rights of way are within areas identified as grassland on the Illustrative Landscape Proposals, a strip of grassland will be cut to a minimum width of 2m, or in accordance with the definitive width of the public right of way, whichever is wider. These strips will be maintained such that the grasses do not exceed 150mm by regular cutting across the summer months. The purpose of these cuts is to ensure clear wayfinding across the Site and promote usage.

6.5 Management of Proposed Landscape Elements

6.5.1 Where new planting / seeding is required, the operations set out below shall be carried out in order to allow the new vegetation to establish. It is anticipated that grassland establishment would take approximately one year, and that establishment of new planting would take between three and five years.

Native Species Woodland and Woodland Belt Planting

Establishment Period (Years 1 to 5)

6.5.2 During the establishment period (the first five years), all dead, dying or diseased stock will be replaced with stock of similar size and species. If the failure of the plant is due to disease and the disease is considered likely to re-occur, then an alternative native species of local provenance may be used as a replacement. The exact timing of replacement planting is dependent on the ground conditions; however, planting will take place between the months of November and February inclusive.

6.5.3 An annual inspection will be undertaken in September to identify stock in need of replacement.

6.5.4 The planting areas (0.5m radius around each stem) will be kept weed-free during the establishment period, manually. If necessary, herbicide treatment would be used for small areas (applications in April, June and August). Where used, herbicides will be sprayed in appropriate weather conditions, to avoid affecting adjacent grassland areas and will not be used within 10m of watercourses, ditches or ponds.

6.5.5 During the establishment period, trees will be inspected during periods of warm weather and drought. If it is considered that the ground conditions are too dry, the planted areas will be watered until weather conditions are considered suitable for watering to cease.

6.5.6 All canes, stake guards, spirals or ties will be regularly checked, replaced as required and removed from Site and disposed of once plants have established.

6.5.7 Existing and newly planted trees within woodland planting areas will be left to grow naturally and not cut apart from pruning if necessary to maintain the health of the tree or for safety reasons.

6.5.8 No cutting or trimming will be undertaken during the breeding bird season (1st March to 31st August inclusive).

6.5.9 At the end of each growing season, all light standard trees will receive an application of slow-release fertiliser for the first 5 years after planting.

Long-term Management

6.5.10 In year 5 the woodland areas will be thinned by approximately 15%, choosing weaker growing plants where appropriate, whilst maintaining species diversity. The purpose of woodland thinning will be to encourage natural growth and regeneration of woodland understorey, prevent over densification which can restrict light and airflow, and allow space for trees to establish and grow out without extensive shading.

6.5.11 Woodland thinning will thereafter be undertaken every 5 years, thinning the woodland by approximately 15% to promote a mature canopy and healthy understorey, whilst maintaining a diversity of species and maturity.

6.5.12 In year 10, hazel will be coppiced by 33%, with hazel poles stacked around coppice stools to prevent grazing of new shoots. Hazel will thereafter be coppiced on rotation, coppicing approximately 33% every three years.

Native Species Hedgerow Planting

Establishment Period (Years 1 to 5)

6.5.13 During the establishment period (the first five years), all dead, dying or diseased stock will be replaced with stock of similar size and species. If the

failure of the plant is due to disease and the disease is considered likely to re-occur, then an alternative native species of local provenance may be used as a replacement. The exact timing of replacement planting will be dependent on the ground conditions; however, planting will take place between the months of November and February inclusive.

6.5.14 The initial cutting of hedgerows will be between December and February in the 3rd year after planting.

6.5.15 The hedgerow will then be cut by tractor and flail on rotation between December and February such that 1/3 of the hedgerows are cut every year to maintain size and density, to achieve and maintain a minimum height of 3m above ground level.

6.5.16 No cutting or trimming is to be undertaken during the breeding bird season (1st March to 31st August inclusive).

6.5.17 Hedgerows will be cut on different sides each year and not all hedgerows will be cut in the same year to allow a varied structure for the benefit of wildlife.

6.5.18 If of a sufficient amount, cuttings can be collected and used to create small habitat piles / wildlife refuges in field boundary habitats adjacent to hedgerows on Site.

6.5.19 All canes, spirals or guards shall be regularly checked and adjusted or replaced as required. The bases of all hedges are to be kept weed-free manually during the first three years. After the first three years the ground flora is to be allowed to develop naturally in order to contribute to the wildlife value of the hedgerow and managed as an existing hedgerow.

6.5.20 Any litter accumulated around hedgerow bases is to be cleared at the same time as weed control operations.

6.5.21 During the establishment period, hedgerows will be inspected during periods of warm weather and drought. If it is considered that the ground conditions

are too dry, the planted areas will be watered until weather conditions are considered suitable for watering to cease.

6.5.22 An annual inspection will be undertaken in September to identify dead/diseased plants to be replaced at the end of each growing season.

Long-term Management

6.5.23 Hedgerows will be managed at a height of 3m, to screen the development and provide ecological benefits. From year 5 onwards, hedgerows will be cut on rotation, with 1/3 of each hedgerow cut every 3 years. This will ensure that there is always a reliable food source available for wildlife relying on these habitats.

Native Species Individual Tree Planting

Establishment Period (Years 1 to 5)

6.5.24 During the establishment period (the first five years), all dead, dying or diseased stock will be replaced with stock of similar size and species. If the failure of the plant is due to disease and the disease is considered likely to re-occur, then an alternative native species of local provenance may be used as a replacement. The exact timing of replacement planting will be dependent on the ground conditions; however, planting will take place between the months of November and February inclusive.

6.5.25 An annual inspection will be undertaken in September to identify stock in need of replacement.

6.5.26 The planting areas (0.5m radius around each stem) will be kept weed-free during the establishment period, manually. If necessary, herbicide treatment would be used for small areas (applications in April, June and August). Where used, herbicides will be sprayed in appropriate weather conditions, to avoid affecting adjacent grassland areas and will not be used within 10m of watercourses, ditches or ponds.

6.5.27 During the establishment period, trees will be inspected during periods of warm weather and drought. If it is considered that the ground conditions are too dry, the planted areas will be watered until weather conditions are considered suitable for watering to cease.

6.5.28 All canes, stake guards, spirals or ties will be regularly checked, replaced as required and removed from Site and disposed of once plants have established.

6.5.29 Trees will be left to grow naturally and not cut apart from pruning if necessary to maintain the health of the tree or for safety reasons.

6.5.30 No cutting or trimming will be undertaken during the breeding bird season (1st March to 31st August inclusive).

6.5.31 At the end of each growing season, all standard trees will receive an application of slow-release fertiliser for the first 5 years after planting.

Long-term Management

6.5.32 Trees will be left to grow naturally and not cut apart from pruning if necessary to maintain the health of the tree or for safety reasons. No cutting or trimming will be undertaken during the breeding bird season (1st March to 31st August inclusive).

Grazing Pasture or Neutral Grassland

Establishment Period (Years 1 to 5)

6.5.33 Following seeding, the grazing pasture will be left to establish for the first 8 to 10 weeks. After 8 to 10 weeks the pasture should have established and light grazing by sheep can be introduced. In Year 1 the grazing will be by a small number of sheep for light grazing to thicken up the grass sward at the base through tillering. To avoid over-grazing in year 1, the livestock will be rotated between different parts of the site to produce an even and healthy sward.

6.5.34 If required, the grass will be cut after 3 months by mechanical strimmer to a height of minimum 50mm.

6.5.35 Thereafter, once the grazing pasture is established with good ground cover and soils are effectively bound by root growth, the livestock numbers will increase as appropriate to continue successful management. The livestock will continue to be rotated around the Site to prevent over-grazing and allow sward recovery. The grazing pasture will be maintained at a height of minimum 50mm across the grazing period.

6.5.36 Ideally, it is best to aim for a stocking rate just sufficient to maintain a varied structure, rather than the maximum that the grassland can support. Grazing density (Table 2) is based on medium sized sheep (e.g. 60kg). It is important to constantly monitor the Site to ensure the grassland is not under or over-grazed and stock density and duration altered accordingly. The stocking density would be reduced in wet periods or in conditions when poaching would lead to a break-up of the sward and colonisation by aggressive weed species.

Table 2: Stocking Density for Neutral Grassland

Number of grazing weeks per year	Neutral Grassland (sheep per ha)
16	12.5
20	10
24	8
36	5.5
52	4

6.5.37 At times where the ground is very wet or waterlogged then the livestock will be moved appropriately to prevent the ground being churned up by hooves, which could encourage rilling and bare patches of soil, that in turn could cause weed growth.

6.5.38 The sward composition of the grazing pasture will be reviewed annually to identify any problem weeds, such as ragwort, thistle, Dock etc, and management of these weeds would be undertaken as appropriate.

6.5.39 If it is found on the annual inspection that strips of bare soil are occurring beneath the solar arrays due to rainwater runoff (rilling) then these areas will be scarified, the soil cultivated locally and then reduced to a fine till, and the areas re-seeded with an appropriate hardy water-tolerant grass seed mix.

6.5.40 Note that it would be the responsibility of tenant farmers to manage and monitor the sheep grazing, in co-ordination with the Landscape Manager. This includes the provision of all infrastructure required to graze the land.

6.5.41 The grass will be cut annually in August by the Landscape and Ecological Contractor using mechanical strimmer to a height of maximum 75mm.

Long-term Management

6.5.42 The long-term management of the grazing pasture would continue as per the establishment period, with maintenance through grazing to achieve neutral grassland, and an annual cut in August of each year.

Species-Diverse Grassland

Establishment Period (Years 1 to 5)

6.5.43 Following seeding, the species-diverse grassland areas will be left for the perennial grass and wild flower species to establish. This can take a full year and these meadow areas are not expected to flower in the first year.

6.5.44 A first cut to control weed growth in the first year will be undertaken in late summer, with all arisings removed from Site to avoid mulching and fertilisation of the soils. This cut would be by mechanical strimmer to a height of maximum 75mm. The species-diverse grassland areas would not be grazed.

6.5.45 Thereafter, from the second growing season onwards the species-diverse grassland areas would be cut by mechanical strimmer to a height of minimum

150mm in August. An additional cut will be undertaken in February of each year to manage any regrowth over the winter period and ensure the grasslands are suitable for skylark nesting.

6.5.46 After cutting, arisings will be left to remain on-site for three to five days following the cut to allow drying and for seeds to disperse, and will then be removed in order to prevent build-up of thatch and nutrients. This will promote the development of a species-diverse sward. Arisings will be either removed to a suitable composting facility or placed to form habitat piles located on the periphery of the Site.

6.5.47 No cutting will take place throughout the summer to allow the seeds of the later flowering species to fall prior to the cut.

6.5.48 Mowing will only take place during periods of dry weather to ensure that no waterlogged ground is damaged by machinery.

6.5.49 Cutting shall adopt a systematic method working outwards towards the boundary features from the centre. This will allow fauna such as invertebrates, amphibians, birds and small mammals to temporarily and safely vacate the area.

Long-term Management

6.5.50 The long-term management of the species-diverse grassland would continue as per the establishment period.

Ground Nesting Birds

6.5.51 To mitigate for the potential impact on ground-nesting birds within the Site grassland would be managed to provide suitable nesting and foraging habitat. Grassland would be managed to provide a tussocky sward with no management undertaken between March and August inclusive to allow for repeated nesting attempts by skylark and other ground nesting species. Flowering plant species would attract invertebrate prey, providing a valuable foraging resource.

6.5.52 Where winter regrowth has occurred, grassland would be cut no later than February to a height of no greater than 150mm to provide low-level vegetation suitable for ground nesting birds.

6.6 Management of Ecological Enhancement Elements

Bird Boxes

6.6.1 An annual inspection of all bird boxes will be undertaken in late autumn to record usage rates and to ensure that an old nest material and debris is removed prior to the onset of the next breeding season. Inspections will be made under the supervision of the EcoCoW.

6.6.2 Bird boxes will be replaced as required throughout the operational phase if they are damaged. Any replacement will be undertaken outside of the nesting season.

Bat Boxes

6.6.3 An annual inspection of bat boxes will also be carried out under licence in late Autumn under the supervision of the EcoCoW to record usage rates across the Site.

6.6.4 Bat boxes will be replaced as required throughout the operational phase if they are damaged. Any replacement will be undertaken under licence and under supervision of the EcoCoW during winter months.

Reptile / Amphibian Refugia

6.6.5 Reptile / amphibian refugia will be replenished as required during the operational phase using arisings from management of the on-site habitats.

Hedgehog Boxes

6.6.6 Hedgehog boxes will be cleaned annually in early spring or late autumn, and replaced as required if they are damaged.

7.0 Decommissioning

7.1.1 As set out in **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]** At the end of the operational phase the Scheme will be decommissioned and all above ground infrastructure would be removed from the Site. The land forming the Site is to be leased for the operational phase, and therefore following decommissioning the land would be returned to landowners in accordance with their relevant commercial agreements.

7.1.2 The following proposed landscape elements would be retained at the decommissioning phase and handed back to landowners:

- Proposed Native Species Woodland and Woodland Belt Planting;
- Proposed Native Species Hedgerow Planting; and
- Proposed Native Species Individual Tree Planting.

7.1.3 By the time of decommissioning these elements would be mature features within the landscape and therefore annual maintenance requirements would be relatively limited and comparable to the ongoing long term management prescriptions.

7.1.4 The following elements would be at the discretion of the landowners once the land is handed back, and could either be retained or reverted to existing (arable) use:

- Proposed Grazing Pasture or Neutral Grassland; and
- Species-Diverse Grassland.

7.1.5 The landowners will be able to determine the outcome of all landscape elements based on agricultural or economic factors at the time of decommissioning.

7.1.6 The ecological enhancement elements would be retained on Site at decommissioning and will be at the discretion of landowners for their future use.

8.0 Monitoring

8.1 General

8.1.1 Monitoring will be required during the operational phase to ensure that the aims and objectives of the final LEMP are being achieved.

8.1.2 It is recognised both that landscapes may develop in unexpected ways, and that the demands upon them may change with time, including as a response to climate change. Such changes may require maintenance operations/ frequencies to change in order to adapt to new circumstances. The final LEMP shall therefore be kept under review and revised as necessary to ensure development of a healthy, safe and ecologically diverse landscape.

8.1.3 The Landscape Manager may propose changes to maintenance operations or frequencies, felling or re-planting of trees, shrubs or hedges or any other changes which in their opinion would achieve the aims set out in the LEMP.

8.1.4 Reviews shall be held annually with the 'Steering Group' set out in Section 4.2 of this oLEMP during the first five years of the operational phase, and subsequently shall be held at a maximum of five-yearly intervals. Reviews shall be carried out by the Landscape Manager with support from the EcoCoW and a suitably qualified Arboriculturist.

8.1.5 Maintenance and Monitoring Reports will be prepared and made available (if requested) to the local planning authorities at the following periods:

- End of operational year 1;
- End of operational year 2;
- End of operational year 3;
- End of operational year 4;
- End of operational year 5;
- End of operational year 10; and
- At the end of every fifth year thereafter.

8.2 Biodiversity Net Gain

8.2.1 Ecological monitoring of created habitats will be undertaken in line with the schedule outlined above for a minimum of 30 years from operational year 1. Monitoring will assess the habitats within the Site against the proposed habitats and conditions within **the Biodiversity Net Gain Report [EN010141/DR/7.17]** that has been prepared as part of the application for development consent.

8.2.2 Habitats will be assessed following the UKHabitat survey methodology, with habitat condition assessed in line with the relevant condition sheets for each habitat type. Monitoring surveys will be undertaken within the optimum botanical survey period, which is generally between April and September.

8.2.3 Following completion of monitoring, a report will be prepared detailing the following:

- If habitats are meeting (or on track to meet) the proposed target habitat type;
- If habitats are meeting (or on track to meet) the proposed target habitat condition ;
- Any remedial measures to be implemented (e.g., replanting, overseeding); and
- Any changes to the management regime that may be required to achieve or maintain habitat type and condition.

8.2.4 Details regarding the monitoring criteria and specific methods to be used for each habitat type will be outlined in a Biodiversity Net Gain Habitat Monitoring and Management Plan, to be prepared as part of the final LEMP.

8.3 Remedial Measures

8.3.1 If the monitoring outlined above identifies that a habitat is not meeting the target condition or is not meeting the description for the proposed habitat type

then contingency measures appropriate for the habitat in question would be followed.

8.3.2 In all cases, where a failure is identified, the root cause should be identified and remedial measures implemented.

8.3.3 The below is intended only as a guideline to possible measures that could be taken for common causes of failure, with any remedial actions to be decided upon only after consultation with a suitably qualified and experienced ecologist and/or landscape architect.

Grasslands

Absence of herbs/ high cover of bare ground

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

Area is over-managed

8.3.5 Should the area become over managed, as will be indicated by a uniform and short grass sward, it may be appropriate to reduce the frequency of the mowing regime or stocking density.

Grasses are over-dominant

8.3.6 Should grasses become over-dominant the management intensity may need to be increased. This could be achieved either through the introduction of an early spring (February) cut or an additional late summer/autumn cut.

8.3.7 Alternatively, it may be appropriate to re-sow Yellow Rattle (*Rhinanthus minor*) to the grassland area. This plant is parasitic to grasses, reducing their competitive ability.

Nutrient levels too high

8.3.8 If nutrient levels are too high, resulting in lack of species diversity and indicated by the dominance of a small number of competitive species (e.g. nettles, spear thistle, white clover, coarse grasses), efforts should be made to reduce the nutrient levels in the soils. A cut and collect regime is likely to achieve this over time.

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

Absence of bare ground

8.3.10 Many herb species require patches of bare soil to germinate. If areas of bare ground are not naturally occurring it may be appropriate to periodically manually disturb the soil. This should be in in no more than 5% of the total area.

Woodland

Excessive shading

8.3.11 Selective thinning will be undertaken to increase light levels reaching the woodland floor. It may be appropriate to create glades or rides through the woodland, provided this does not affect visual screening.

Planted species failing

8.3.12 In the event where a species planted within the woodland does not take to the soils, it will be assessed for whether it is not suitable for the woodland, or whether management requires alteration e.g. added mulch, increased watering or additional weeding around the base of the plant.

8.3.13 If it is assumed that the plants are managed correctly and they are still not adapting to the woodland, an alternative species will be planted in its place.

No National Vegetation Classification (NVC) communities are forming on the woodland floor

8.3.14 Even if the ground within the woodlands receives increased light and temperature from thinning the woodland canopy, the establishment of a recognisable NVC community may be stunted through the lack of potential species within the seed bank in the woodlands.

8.3.15 The use of a suitable seed mix could be used to establish a native woodland flowerbed.

Hedgerows

Not achieving species rich status

8.3.16 Where hedgerows are not achieving species rich status, defined as five or greater species on average per 30m stretch, infill planting with additional native woody species will be undertaken to increase the species richness.

High planting failure rate/gaps

8.3.17 Small gaps should fill in naturally as neighbouring hedgerow shrub species grow, however where there is a high failure rate shrub species should be replanted or alternative species used. It may be appropriate to consider alternative planting methods, such as traditional hedgerow laying.

9.0 Implementation of Management Plan

9.1.1 The LEMP will define all responsibilities, roles and actions required for implementation of the measures that are set out in this oLEMP. These will include as a minimum:

- The team roles and responsibilities, and the named individuals fulfilling those roles. An organogram and contact directory will also be included;
- The procedures required for monitoring, inspection and reporting;
- Document control systems and procedures;
- Detail of the communication strategy (stakeholders and third party);
- Detail of the required training for key personnel on environmental topics relevant to the Scheme and LEMP. This will include detail on toolbox talks and on-site briefings required to ensure that relevant staff and site operatives are aware of the requirements for environmental control and procedures for the same, and that they have the required level of knowledge to deliver them;
- Detail of measures to ensure that staff and personnel are advised of changes to circumstances as work progresses on the Scheme; and
- Procedures for environmental emergencies.

10.0 References

[1] Land Use Consultants (2020). Bedford Borough Landscape Character Assessment. Available at: https://edrms.bedford.gov.uk/OpenDocument.aspx?id=H1s1ijkK2oPN8wKbNf7JDw%3d%3d&name=Bedford%20LCA%202020.pdf [Last Accessed: 04 August 2025]

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[3] Bedford Borough Council, Bedfordshire & Luton Biodiversity Recording & Monitoring Centre, Bedfordshire and Luton Green Infrastructure Consortium (2009). Bedford Green Infrastructure Plan, November 2009. Available at: https://edrms.bedford.gov.uk/OpenDocument.aspx?id=FQ2b4LGPg3edj1fOTa7V%2fw%3d%3d&name=Bedford%20Green%20Infrastructure%20Plan%202009.pdf [Last Accessed: 04 August 2025]

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[8] Bat Conservation Trust and Institution of Lighting Professionals (2023). Guidance Note GN08/23 - Bats and Artificial Lighting at Night. Available at: https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/ [Last Accessed: 04 August 2025]

[9] National Grid (2022) Design guidelines for development near pylons and high voltage overhead power lines. Available at: https://www.nationalgrid.com/electricity-transmission/document/130626/download [Last Accessed: 04 August 2025]

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[11] British Standards Institution (1989). *BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces)*. BSI

[12] British Standards Institution (2010). *BS 3998:2010 Tree work. Recommendations*. BSI

[13] People's Trust for Endangered Species (undated). *Helping Water Voles on Your Land*. [online] Available at https://ptes.org/wp-content/uploads/2019/07/Helping-water-voles-on-your-land.pdf [Last Accessed: 04 August 2025].

Appendix A: Illustrative Landscape Proposals

Rev	Date	Comment
P01	30/09/2025	DCO Application

Order Limits

1

2

3

N

0 1 2 3 4km

EAST PARK ENERGY

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Client
BSSL Cambsbed 1 Ltd

Project
East Park Energy

Drawing Title
Outline LEMP Appendix A: Illustrative Landscape Proposals Key Plan (Sheet 0 of 3)

Scale
1:20,000 @A1

Status
DCO Application

APFP Reference
Regulation 5(2)(q)

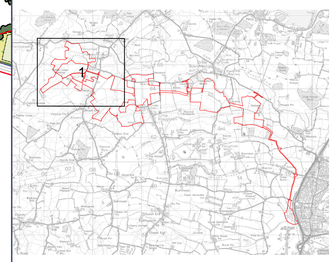
Submission Reference
EN010141/DR/7.7

Dwg no
Figure 1

Rev
P01

Rev	Date	Comment
P01	30/09/2025	DCO Application

- Order Limits
- Land Excluded from Order Limits
- Fenceline
- Existing Vegetation (derived from BlueSky National Tree Map, and a review of aerial imagery)
- Existing Building (derived from Ordnance Survey MasterMap)
- Existing Ditch or Watercourse (derived from Ordnance Survey MasterMap)
- Existing Public Right of Way (taken from Local Authority Definitive Map)
- Proposed Native Species Woodland or Woodland Belt
- Proposed Native Species Hedgerow
- Proposed Native Species Individual Tree
- Proposed Grazing Pasture or Neutral Grassland
- Proposed Species-Diverse Grassland



EAST PARK ENERGY

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Client
BSSL Cambsbed 1 Ltd

Project
East Park Energy

Drawing Title
Outline LEMP Appendix A: Illustrative Landscape Proposals Sheet 1 of 3

Scale
1:2500 @A1

Status
DCO Application

APFP Reference
Regulation 5(2)(q)

Submission Reference
EN010141/DR/7.7

Dwg no
Figure 2

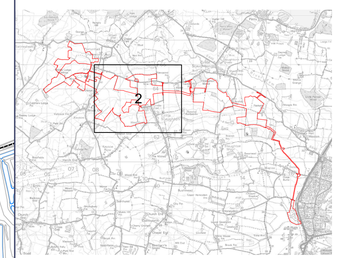
Rev
P01

N

0 100 200 300 400 500m

Rev	Date	Comment
P01	30/09/2025	DCO Application

- Order Limits
- Land Excluded from Order Limits
- Fenceline
- Existing Vegetation (derived from BlueSky National Tree Map, and a review of aerial imagery)
- Existing Building (derived from Ordnance Survey MasterMap)
- Existing Ditch or Watercourse (derived from Ordnance Survey MasterMap)
- Existing Public Right of Way (taken from Local Authority Definitive Map)
- Proposed Native Species Woodland or Woodland Belt
- Proposed Native Species Hedgerow
- Proposed Native Species Individual Tree
- Proposed Grazing Pasture or Neutral Grassland
- Proposed Species-Diverse Grassland
- Proposed Permissive Access



EAST PARK ENERGY

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Client
BSSL Cambsbed 1 Ltd

Project
East Park Energy

Drawing Title
Outline LEMP Appendix A: Illustrative Landscape Proposals Sheet 3 of 3

Scale
1:2500 @A1

Status
DCO Application

APFP Reference
Regulation 5(2)(q)

Submission Reference
EN010141/DR/7.7

Dwg no
Figure 3

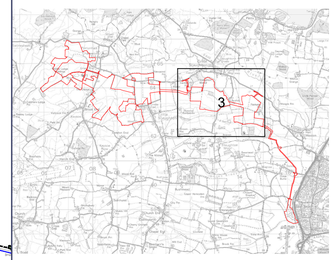
Rev
P01

N

0 100 200 300 400 500m

Rev	Date	Comment
P01	30/09/2025	DCO Application

- Order Limits
- Land Excluded from Order Limits
- Fenceline
- Existing Vegetation (derived from BlueSky National Tree Map, and a review of aerial imagery)
- Existing Building (derived from Ordnance Survey MasterMap)
- Existing Ditch or Watercourse (derived from Ordnance Survey MasterMap)
- Existing Public Right of Way (taken from Local Authority Definitive Map)
- Proposed Native Species Woodland or Woodland Belt
- Proposed Native Species Hedgerow
- Proposed Native Species Individual Tree
- Proposed Grazing Pasture or Neutral Grassland
- Proposed Species-Diverse Grassland
- Proposed Permissive Access
- Battery Energy Storage System (Work No. 2)
- East Park Substation (Work No. 3)
- Storage and Maintenance Area (Work No. 6A)
- Drainage Area (Work No. 6B)
- Agrisolar Research Area (Work No. 10)



EAST PARK ENERGY

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Client
BSSL Cambsbed 1 Ltd

Project
East Park Energy

Drawing Title
Outline LEMP Appendix A: Illustrative Landscape Proposals Sheet 3 of 3

Scale
1:2500 @A1

Status
DCO Application

APFP Reference
Regulation 5(2)(q)

Submission Reference
EN010141/DR/7.7

Dwg no
Figure 3

Rev
P01

N

0 100 200 300 400 500m

Appendix B: Condition Assessment Sheets

Condition Sheet: WOODLAND Habitat Type

UK Habitat Classification (UKHab) Habitat Types

Woodland and forest - Lowland beech and yew woodland
Woodland and forest - Lowland mixed deciduous woodland
Woodland and forest - Native pine woodlands
Woodland and forest - Other coniferous woodland
Woodland and forest - Other Scot's pine woodland
Woodland and forest - Other woodland; broadleaved
Woodland and forest - Other woodland; mixed
Woodland and forest - Upland birchwoods
Woodland and forest - Upland mixed ashwoods
Woodland and forest - Upland oakwood
Woodland and forest - Wet woodland

Habitat Description

ukhab – UK Habitat Classification

This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here:
Woodland Wildlife Toolkit (sylva.org.uk)

IMPORTANT: This biodiversity metric woodland condition assessment must be used to assess woodland being input into the biodiversity metric. The outputs of this condition assessment are not equivalent to, nor are they comparable with the scores from the EWBG condition assessment, because the EWBG assessment has been adapted for the biodiversity metric, including the removal of EWBG Indicator 7 (Proportion of favourable land cover around woodland) and Indicator 14 (Size of woodland), and minor changes to other indicators.

On-site or off-site, site name and location		**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference		**Habitat parcel reference**	

Condition Assessment Criteria

	Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes (such as justification)
A	**Age distribution of trees**	Three age-classes[1] present.	Two age-classes[1] present.	One age-class[1] present.		
B	**Wild, domestic and feral herbivore damage**	No significant browsing damage evident in woodland[2].	Evidence of significant browsing pressure is present in less than 40% of whole woodland[2].	Evidence of significant browsing pressure is present in 40% or more of whole woodland[2].		
C	**Invasive plant species**	No invasive species[3] present in woodland.	Rhododendron *Rhododendron ponticum* or cherry laurel *Prunus laurocerasus* not present, and other invasive species[3] <10% cover.	Rhododendron or cherry laurel present, or other invasive species[3] ≥10% cover.		
D	**Number of native tree species**	Five or more native tree or shrub species[4] found across woodland parcel.	Three to four native tree or shrub species[4] found across woodland parcel.	Two or less native tree or shrub species[4] across woodland parcel.		
E	**Cover of native tree and shrub species**	>80% of canopy trees and >80% of understory shrubs are native[5].	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native[5].	<50% of canopy trees and <50% of understory shrubs are native[5].		
F	**Open space within woodland**	10 - 20% of woodland has areas of temporary open space[6]. Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted[7].	21 - 40% of woodland has areas of temporary open space[6].	<10% or >40% of woodland has areas of temporary open space[6]. But if woodland <10ha has <10% temporary open space, please see Good category[7].		
G	**Woodland regeneration**	All three classes present in woodland[8]; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	One or two classes only present in woodland[8].	No classes or coppice regrowth present in woodland[8].		
H	**Tree health**	Tree mortality 10% or less, no pests or diseases and no crown dieback[9].	11% to 25% tree mortality and or crown dieback or low-risk pest or disease present[9].	Greater than 25% tree mortality and or any high-risk pest or disease present[9].		
I	**Vegetation and ground flora**	Recognisable NVC plant community[10] at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community[10] at ground layer present.	No recognisable woodland NVC plant community[10] at ground layer present.		
J	**Woodland vertical structure**	Three or more storeys across all survey plots, or a complex woodland[11].	Two storeys across all survey plots[11].	One or less storey across all survey plots[11].		
K	**Veteran trees**	Two or more veteran trees[12] per hectare.	One veteran tree[12] per hectare.	No veteran trees[12] present in woodland.		
L	**Amount of deadwood**	50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities[13].	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities[13].	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities[13].		
M	**Woodland disturbance**	No nutrient enrichment or damaged ground evident[14].	Less than 1 hectare in total of nutrient enrichment across woodland area, and or less than 20% of woodland area has damaged ground[14].	1 hectare or more of nutrient enrichment, and or 20% or more of woodland area has damaged ground[14].		
				Total Score (out of a possible 39)		

Condition Assessment Result	Condition Assessment Score	Result Achieved
Total score >32 (33 to 39)	Good (3)	
Total score 26 to 32	Moderate (2)	
Total score <26 (13 to 25)	Poor (1)	

Suggested enhancement interventions to improve condition score

Footnotes

Footnotes below refer to the EWBG woodland condition assessment details: EWBG (No date). *Assessing your Woodland's Condition* [online]. Available from:
Woodland Wildlife Toolkit (sylva.org.uk)

The woodland condition assessment survey methodology is outlined in the EWBG toolkit. However the criteria on this sheet are those specific to the Statutory Biodiversity Metric and must be used when assessing woodland condition.

Footnote 1 - See EWBG method INDICATOR 1 for more information. If tree species is not a birch *Betula* sp., cherry *Prunus* sp. or *Sorbus* sp.: 0 – 20 years (Young); 21 - 150 years (Intermediate); and >150 years (Old). For birch, cherry or *Sorbus* species; 0 - 20 years = Young; 21 - 60 years =Intermediate; >60 years = Old. A recognisable age-class should be a consistent recognisable layer across the woodland or stand being assessed. Presence of a few saplings would not indicate that the woodland has an 'age-class' of young trees.

Footnote 2 - See EWBG method INDICATOR 2 for more information. Browsing pressure is considered to be significant where >20% of vegetation visible within each survey plot shows damage from any type of browsing pressure listed.

Footnote 3 - See EWBG method INDICATOR 3 for more information. Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly.

Check for the presence of all plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), particularly the following invasive non-native species: American skunk cabbage *Lysichiton americanus* ; Himalayan balsam *Impatiens glandulifera* ; Japanese knotweed *Reynoutria japonica* ; cherry laurel *Prunus laurocerasus* ; shallon *Gaultheria shallon* ; snowberry *Symphoricarpos albus* ; variegated yellow archangel *Lamiastrum galeobdolon subsp. argentatum* ; rhododendron *Rhododendron ponticum* ; and tree-of-heaven *Alianthus altissima* .

Footnote 4 - See EWBG method INDICATOR 4 and Table 2 for more information. The number of different native tree or shrub species including young trees and shrubs. A list of commonly found native tree and shrub species is provided in Table 2. Not all species listed are native to all parts of the UK. Note a list of commonly found non-native tree species are also included and should be recorded if present.

Footnote 5 - See EWBG method INDICATOR 5 and for more information. The abundance of native tree species in upper (>5 m) and understorey (up to 5 m) layers including young trees and shrubs.

Footnote 6 - See EWBG method INDICATOR 6 for more information. Open space within woodland in this context is temporary open space in which trees can be expected to regenerate (for example, glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (for example, tarmac, buildings, rivers). Area is at least 10 m wide with less than 20% covered by shrubs or trees.

Footnote 7 – Given the increased ratio of edge habitat to woodland where the woodland is <10ha.

Footnote 8 - See EWBG method INDICATOR 8 for more information. This indicator measures regeneration potential of the woodland by considering three classes: seedlings; saplings; and young trees of 4-7 cm DBH. All three classes would fall in the 'young' category of the 'age distribution of trees' indicator, but the regeneration indicator gathers additional information by considering regeneration potential - if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.

Footnote 9 - See EWBG method INDICATOR 9 for more information and Table 3 for a list of diseases and pests and their risk level.

Footnote 10 - See EWBG method INDICATOR 10 directing to NVC key for more information. The 'UKHab to NVC translation table' in the UK Habitat Classification resources may also be useful to assess this.

Footnote 11 – This criterion looks at structural diversity and is useful to understand in conjunction with the age of trees in a woodland. Vertical structure is defined as the number of canopy storeys present. Possible storey values are: 1) Upper; 2) Complex: recorded when the stand is composed of multiple tree heights that cannot easily be stratified into broad height bands (such as upper, middle or lower); 3) Middle; 4) Lower; and 5) Shrub layer. There might be no storeys where the woodland has been felled. See EWBG INDICATOR 11 for more information.

Footnote 12 - See EWBG method INDICATOR 12 for more information. See gov.uk standing advice on ancient and veteran trees. Available from:

Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)
and:
Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

EWBG INDICATOR 12 is the relevant indicator.

Footnote 13 – See EWBG method INDICATOR 13 for more information. This includes logs, large dead branches on the forest floor and stumps (<1 m tall) >20 cm diameter at narrowest point and >50 cm long. Also includes standing dead trees (>1 m tall) and also deadwood on standing live trees. Diameter is measured at the narrowest point on the stem. Minimum diameter of 20 cm.

Footnote 14 - See EWBG method INDICATOR 15 for more information. Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery, animal poaching or litter.

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)

UK Habitat Classification (UKHab) Habitat Types

Grassland - Lowland calcareous grassland
Grassland - Lowland dry acid grassland
Grassland - Lowland meadows
Grassland - Other lowland acid grassland
Grassland - Other neutral grassland
Grassland - Tall herb communities (H6430) [Not to be confused with the Tall forbs secondary code – see UKHab guidance for details.]
Grassland - Upland acid grassland
Grassland - Upland calcareous grassland
Grassland - Upland hay meadows
Sparsely vegetated land - Calaminarian grassland

On-site or off-site, site name and location		**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference		**Habitat parcel reference**	

Habitat Description

ukhab – UK Habitat Classification

	Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).[1] **Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**		
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.		
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens[2].		
D	Cover of bracken *Pteridium aquilinum* is less than 20% and cover of scrub (including bramble *Rubus fruticosus* agg.) is less than 5%.		
E	Combined cover of species indicative of suboptimal condition[3] and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species[4] (as listed on Schedule 9 of WCA[5]) are present, this criterion is automatically failed.		
	Additional Criterion - must be assessed for all non-acid grassland types		
F	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). **Note - this criterion is essential for achieving Good condition for non-acid grassland types only.**		
	Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		
	Number of criteria passed		

Condition Assessment Result	Condition Assessment Score	Score Achieved ×/✓
Acid grassland types (Result out of 5 criteria)		
Passes 5 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	
Non-acid grassland types (Result out of 6 criteria)		
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)	
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)	

Suggested enhancement interventions to improve condition score

Notes

Footnote 1 - Professional judgement should be used alongside the UKHab description.

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*. There may be additional relevant species local to the region and or site.

Footnote 4 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.

Footnote 5 – Wildlife and Countryside Act 1981 (as amended).

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
UK Habitat Classification (UKHab) Habitat Type			
Grassland - Modified grassland			
On-site or off-site, site name and location		**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference		**Habitat parcel reference**	
Habitat Description			
ukhab – UK Habitat Classification			

	Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.		
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.		
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.		
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.		
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].		
F	Cover of bracken *Pteridium aquilinum* is less than 20%.		
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).		
		Essential criterion achieved (Yes or No)	
		Number of criteria passed	

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris*.

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

Condition sheet: HEDGEROW Habitat Types

Habitat Type

Native hedgerow
Native hedgerow - associated with bank or ditch
Native hedgerow with trees
Native hedgerow with trees - associated with bank or ditch
Species-rich native hedgerow
Species-rich native hedgerow - associated with bank or ditch
Species-rich native hedgerow with trees
Species-rich native hedgerow with trees - associated with bank or ditch

Habitat Description

ukhab – UK Habitat Classification

On-site or off-site, site name and location		**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference		**Habitat parcel reference**	

Condition Assessment Details

A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.

This assessment is based on the Hedgerow Survey Handbook[1] and Favourable Conservation Status document[2]. For further clarification please refer to the Hedgerow Survey Handbook.

Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.

Hedgerow favourable condition attributes

		Attributes and functional groupings (A, B, C, D and E)	Criteria - the minimum requirements for 'favourable condition'	Criteria description	Criterion passed (Yes or No)	Notes (such as justification)
Core groups - applicable to all hedgerow types						
A1.	Height		>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).		
A2.	Width		>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn *Prunus spinosa* suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).		
B1.	Gap - hedge base		Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).		
B2.	Gap - hedge canopy continuity		Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).		
C1.	Undisturbed ground and perennial vegetation		>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.		
C2.	Nutrient-enriched perennial vegetation		Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp. Their presence, either singly or together, does not exceed the 20% cover threshold.		
D1.	Invasive and neophyte species		>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA[3]) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website[4], as well as the BSBI website[5] where the 'Online Atlas of the British and Irish Flora'[6] contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website[7].		
D2.	Current damage		>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).		
Additional group - applicable to hedgerows with trees only						
E1.	Tree class		There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient[8]), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.		
E2.	Tree health		At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.		

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees

Category	Category Requirements	Metric Score
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 4 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Condition categories for hedgerows with trees

Category	Category Requirements	Metric score
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2
Poor	Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – DEFRA (2007) *Hedgerow Survey Handbook. A standard procedure for local surveys in the UK.* [online] Available on:
layout (hedgelink.org.uk)
Footnote 2 – STALEY, J.T. ET AL. (2020) *Definition of Favourable Conservation Status for Hedgerows.* [online] Available on:
Definition of Favourable Conservation Status for Hedgerows - RP2943 (naturalengland.org.uk)
Footnote 3 – Wildlife and Countryside Act 1981 (as amended).
Footnote 4 – CHEFFINGS, C. M. et al. (2005) *The Vascular Plant Red Data List for Great Britain.* Species Status 7: 1-116. [online] Available on:
The Vascular Plant Red Data List for Great Britain (Species Status No. 7) | JNCC Resource Hub
Footnote 5 – BOTANICAL SOCIETY OF BRITAIN AND IRELAND (BSBI). *Definitions: wild, native or alien?* [online] Available on:
Definitions: wild, native or alien? – Botanical Society of Britain & Ireland (bsbi.org)
Footnote 6 – BSBI and Biological Records Centre (BRC) (2022) *Online Atlas of the British and Irish Flora.* [online] Available on:
Acknowledgements | Online Atlas of the British and Irish Flora (brc.ac.uk)
Footnote 7 – GB NON-NATIVE SPECIES SECRETARIAT (GBNNSS) (2022) Available on:
Home » NNSS (nonnativespecies.org)
Footnote 8 – See gov.uk standing advice on ancient and veteran trees. Available from:
Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)
and
Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.

Habitat Description

Individual trees (description applied to the urban or rural environment):
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.

On-site or off-site, site name and location		**Survey date and Surveyor name**	
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference		**Habitat parcel reference**	

	Condition Assessment Criteria	**Criterion passed (Yes or No)**	**Notes (such as justification)**
A	The tree is a native species (or at least 70% within the block are native species).		
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).		
C	The tree is mature (or more than 50% within the block are mature)[1].		
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.		
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.		
F	More than 20% of the tree canopy area is oversailing vegetation beneath.		
	Number of criteria passed		

Condition Assessment Result (out of 6 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**
Passes 5 or 6 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.		

Suggested enhancement interventions to improve condition score[2]

Footnotes

Footnote 1 - See gov.uk standing advice on ancient and veteran trees. Available from:
Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk)
and:
Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

Footnote 2 - Enhancement of this habitat type is only possible by improving the habitat so that it meets all Criteria B, D and F. It is not possible or appropriate to enhance individual tree/s through meeting just one or two of those Criteria, nor by meeting Criteria A, C or E.