The Great Grid Upgrade

Sea Link

Sea Link

Volume 7: Other Documents

Document 7.5.7.2: Outline Landscape and Ecological Management Plan - Kent

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Date	**Issue**	**Status**	**Description/ Changes**
March 2025	A	Final	For DCO submission
July 2025	B	Final	Update to reflect Procedural Decision from the Examining Authority

Executive Summary

Ex1.1.1 The purpose of this Outline Landscape and Ecological Management Plan (oLEMP), which forms **Application Document 7.5.7.2 Outline Landscape and Ecological Management Plan – Kent**, is to provide a framework for delivering the landscape and ecological mitigation strategy and the successful establishment and future management of the proposed landscape and ecology works associated with the Kent Onshore Scheme.

Ex1.1.2 It sets out the short and long-term measures and practices that will be implemented by National Grid to establish, monitor and manage landscape and ecology mitigation and enhancement measures. It also provides a mechanism for the delivery of landscape and ecological measures to avoid, reduce or compensate for environmental effects identified in **Application Document 6.2.3.1 Part 3 Kent Chapter 1 Landscape and Visual**, **Application Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology and Biodiversity** and **Application Document 6.10 Arboricultural Impact Assessment**.

Ex1.1.3 This oLEMP has been informed by consultation with stakeholders as part of the Statutory Consultation and the landscape, ecology and arboriculture thematic meetings. It should be noted that as this is an outline document, which will be fully developed as the Proposed Project progresses into detailed design and prior to the commencement of works. National Grid will maintain a regular dialogue with statutory bodies and relevant stakeholders during this period.

Ex1.1.4 It should also be noted that an equivalent oLEMP has been produced for the Suffolk Onshore Scheme (**Application Document 7.5.7.1 Outline Landscape and Ecological Management Plan – Suffolk**).

1. Introduction

1.1 Overview

1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the South East and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe.

1.1.2 National Grid owns, builds and maintains the electricity transmission network in England and Wales. Under the Electricity Act 1989, National Grid holds a transmission licence under which it is required to develop and maintain an efficient, coordinated, and economic electricity transmission system.

1.1.3 This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400kV overhead line close to Richborough in Kent.

1.1.4 National Grid is also required, under Section 38 of the Electricity Act 1989, to comply with the provisions of Schedule 9 of the Act. Schedule 9 requires licence holders, in the formulation of proposals to transmit electricity, to:

1.1.5 Schedule 9(1)(a) '*…have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest;'* and

1.1.6 Schedule 9(1)(b) *'…do what [it] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects'*.

1.2 Purpose of the Outline Landscape and Ecological Management Plan (oLEMP)

1.2.1 This Outline Landscape and Ecological Management Plan (oLEMP) has been prepared on behalf of National Grid. It forms part of a Development Consent Order (DCO) application and provides a framework for delivering the landscape and ecological mitigation strategy and the successful establishment and future management of proposed landscape and ecology works associated with the Kent Onshore Scheme. It sets out the short and long-term measures and practices that will be implemented by National Grid to establish, monitor, and manage landscape and ecology mitigation and enhancement measures. It also provides a mechanism for the delivery of landscape and ecological measures to avoid, reduce or compensate for environmental effects identified in **Application Document 6.2.3.1 Part 3 Kent Chapter 1 Landscape and Visual**, **Application Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology and Biodiversity** and **Application Document 6.10 Arboricultural Impact Assessment**.

1.2.2 The structure and scope of the oLEMP as well as the landscape and ecological mitigation principles have been discussed with statutory stakeholders through landscape and visual and ecology thematic meetings.

1.2.3 As set out in the draft DCO (**Application Document 3.1 draft Development Consent Order**), a requirement will necessitate the submission and approval of a LEMP, which must be in substantial accordance with the provisions set out in this oLEMP.

1.2.4 This oLEMP is a live document that will continue to be updated and refined based on ongoing discussions between National Grid, statutory bodies and relevant stakeholders. It will be updated by National Grid into a LEMP prior to the commencement of works, in accordance with the following requirements:

- unless otherwise agreed with the relevant planning authority, no stage of the Kent Onshore Scheme may commence until, for that stage, a detailed mitigation planting scheme for the planting of trees, groups of trees, woodlands, hedgerows and grassland has been submitted to and approved by the relevant planning authority;
- the detailed planting scheme submitted must include details of:
  - the location of trees, groups of trees, woodlands, hedgerows, grassland, and riparian planting, including numbers, species, and sizes to be planted;
  - a landscape specification; and
  - a maintenance and management plan incorporating a programme of adaptive management and monitoring measures to ensure that the planting scheme achieves optimum levels of plant growth;
- the detailed planting plan submitted must be in general accordance with the indicative landscape mitigation plans contained in this oLEMP;
- unless otherwise agreed with the relevant planning authority, all mitigation planting must be implemented at the earliest opportunity and no later than by the first available planting season after that part of the Kent Onshore Scheme to which the mitigation planting works apply is first brought into operational use;
- all mitigation planting must be carried out in accordance with the relevant mitigation scheme for that stage of the Kent Onshore Scheme, and to a reasonable standard in accordance with the relevant recommendations of appropriate British Standard or other recognised codes of good practice;
- any tree or shrub planted as part of an approved mitigation planting scheme that, within a period of five years after planting, is removed, dies or becomes in the opinion of the relevant planning authority seriously damaged or diseased, must be replaced in the first available planting season with a specimen of the same species and size as that originally planted, unless otherwise approved by the relevant planning authority; and
- all planting associated with the reinstatement of the landfall and HVDC corridor will be maintained for a five year period. All mitigation planting associated with the permanent access road and Minster Converter Station and Substation will be maintained for the lifetime of the asset.

1.2.5 This document outlines the establishment, management and monitoring of habitats and landscape features that are referenced in **Application Document 6.2.3.1 Part 3 Kent Chapter 1 Landscape and Visual**, **Application Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology and Biodiversity** and **Application Document 6.10 Arboricultural**

Impact Assessment. It also covers those referenced in **Application Document 6.6 Habitats Regulations Assessment Report**, as they relate to mitigation for impacts on Thanet Coast & Sandwich Bay Special Protection Area (SPA) and Ramsar site in Kent.

1.2.6 Note that ecological mitigation measures related to the construction period only, such as seasonal constraints on works where appropriate, pollution controls, use of noise fencing and precautionary working methods are covered separately in **Application Document 7.5.3 Outline Onshore Construction Environmental Management Plan (CEMP)**, **Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice**, or **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments (REAC)**.

1.2.7 Whilst there is currently no mandatory requirement for BNG for Nationally Significant Infrastructure Projects (NSIP's) that are to be consented through Development Consent Orders (DCO); the Proposed Project is seeking to achieve a 10% net gain in biodiversity to align with National Grid commitments. BNG considerations have fed into the development of the landscape planting proposals set out within this document. A BNG assessment of the Proposed Project has been undertaken (**Application Document 6.12 Biodiversity Net Gain Feasibility Report**) which takes account of the proposed landscape planting to the extent that it can contribute to meet BNG requirements (e.g. areas not at risk from other developments) as well as alternative routes for delivery of BNG (e.g. partnership with external organisations).

1.2.8 Reference should be made to **Application Document 7.5.9.2 Outline Public Rights of Way Management Plan – Kent** regarding to Public Rights of Way (PRoW) mitigation measures.

1.2.9 This document is supported by the following figures which are located in Appendix A:

- **Figure 1 Minster Converter and Substation Outline Landscape Mitigation**;
- **Figure 2 Minster Converter and Substation Illustrative Cross Sections**;
- **Figure 3 Minster Converter and Substation Outline Landscape Mitigation - Timing of Planting**; and
- **Figure 4 Minster Converter and Substation Enhancement Areas**.

1.3 The Proposed Project

1.3.1 The Proposed Project would comprise the following elements:

The Suffolk Onshore Scheme

- A connection from the existing transmission network via Friston Substation, including the substation itself. Friston Substation already has development consent as part of other third-party projects. If Friston Substation has already been constructed under another consent, only a connection into the substation would be constructed as part of the Proposed Project.
- A high voltage alternating current (HVAC) underground cable of approximately 1.9 km in length between the proposed Friston Substation and a proposed converter station (below).
- A 2 GW HVDC converter station (including permanent access from the B1121 and a new bridge over the River Fromus) up to 26 m high plus external equipment (such

as lightning protection, safety rails for maintenance works, ventilation equipment, aerials, similar small scale operational plant, or other roof treatment) near Saxmundham.

- A HVDC underground cable connection of approximately 10 km in length between the proposed converter station near Saxmundham, and a transition joint bay (TJB) approximately 900 m inshore from a landfall point (below) where the cable transitions from onshore to offshore technology.
- A landfall on the Suffolk coast (between Aldeburgh and Thorpeness).

The Offshore Scheme:

- Approximately 122 km of subsea HVDC cable, running between the Suffolk landfall location (between Aldeburgh and Thorpeness), and the Kent landfall location at Pegwell Bay.

The Kent Onshore Scheme:

- A landfall point on the Kent coast at Pegwell Bay.
- A TJB approximately 800 m inshore to transition from offshore HVDC cable to onshore HVDC cable, before continuing underground for approximately 1.7 km to a new converter station (below).
- A 2 GW HVDC converter station (including a new permanent access off the A256), up to 28 m high plus external equipment such as lightning protection, safety rails for maintenance works, ventilation equipment, aerials, and similar small scale operational plant near Minster. A new substation would be located immediately adjacent.
- Removal of approximately 2.2 km of existing HVAC overhead line, and installation of two sections of new HVAC overhead line, together totalling approximately 3.5 km, each connecting from the substation near Minster and the existing Richborough to Canterbury overhead line.

1.3.2 The Proposed Project also includes modifications to sections of existing overhead lines in Suffolk (only if Friston Substation is not built pursuant to another consent) and Kent, diversions of third-party assets, and land drainage from the construction and operational footprint. It also includes opportunities for environmental mitigation and compensation. The construction phase will involve various temporary construction activities including overhead line diversions, use of temporary towers or masts, working areas for construction equipment and machinery, site offices, parking spaces, storage, accesses, bellmouths, and haul roads, as well as watercourse crossings and the diversion of public rights of way (PRoWs) and other ancillary operations.

1.4 Structure of the oLEMP

1.4.1 The structure of the oLEMP is set out in Table 1.1. The outline contents of the oLEMP has been discussed with Kent County Council, Thanet District Council, Dover District Council and Natural England in thematic meetings.

Table 1.1 Structure of the oLEMP

Chapter	Content
Chapter 1: Introduction	This chapter sets out the purpose of the oLEMP and how it is structured. It references relevant Application Documents and identifies the figures which accompany the oLEMP. It also describes the features of the Proposed Project.
Chapter 2: Landscape and Ecology Baseline	This chapter sets out the baseline landscape and ecology features which have informed the mitigation commitments. It also makes reference to any existing features that will be protected as part of the Kent Onshore Scheme.
Chapter 3: Construction Mitigation	This chapter sets out the pre-construction ecological monitoring required and specific ecological mitigation requirements and associated licensing requirements.
Chapter 4: Landscape and Ecological Reinstatement	This chapter sets out the reinstatement of the cable corridors following construction.
Chapter 5: Long-term Landscape and Ecological Proposals	This chapter sets out the proposed outline landscape and ecological interventions, their aims and objectives and rationale. It also identifies the phasing of the landscape proposals.
Chapter 6: Maintenance and Management Aims, Prescriptions and Objectives	This chapter sets out the maintenance and management prescriptions of the various ecological and landscape interventions. It also identifies the management periods.
Chapter 7: Monitoring	This chapter outlines the monitoring requirements pre and post construction and the requirement for adaptive management.

1.5 Objectives of the oLEMP

1.5.1 The overarching objectives of the oLEMP are to:

- integrate the Kent Onshore Scheme into its landscape setting and avoid or minimise adverse landscape, biodiversity, heritage and visual effects as far as practicable;
- promote the conservation, protection and improvement of the physical, natural and historic environment within the Kent Onshore Scheme and its setting;
- diversify ecological value of existing habitats, for example through restoration and enhancement of riparian ditches and creation of diverse habitats; and
- guide the design and management of landscape and biodiversity components that respond to and enhance the character of the landscape, local distinctiveness and sense of place.

1.6 Responsibilities

1.6.1 National Grid will establish the appropriate roles and responsibilities for site staff as set out in **Application Document 7.5.3 Outline Onshore Construction Environmental Management Plan**. An Environmental Clerk of Works (EnvCoW) will be responsible for

ensuring construction environmental mitigation measures are correctly implemented, monitored and maintained. In addition an Ecological Clerk of Works (ECoW) will be appointed. The scope of the ECoW will be advised by the ecologist and landscape architect based on relevant environmental commitments, the findings of the pre-commencement walkovers, protected species licensing requirements and with reference to the relevant project programmes.

1.6.2 Relevant site staff would receive toolbox talks (summary training by environmental and ecology staff on site on specific issues over which they need to be aware) as necessary from the ECoW on the relevant ecological risks present, legal requirements, and the working requirements necessary to comply with legislation, and the final approved landscape and biodiversity management and enhancement measures. Toolbox talks would be repeated as necessary over the duration of the works.

1.6.3 The contractor appointed by National Grid to construct the Kent Onshore Scheme will be responsible for establishing, managing and monitoring the implementation and establishment of landscape and ecological mitigation within the establishment aftercare period. National Grid will inspect and report on the success of establishment during this period. For more detail, refer to Chapter 8 of **Application Document 7.5.3 Outline Onshore Construction Environmental Management Plan**.

1.6.4 All long-term monitoring and management requirements are specified in this document and will be carried out by National Grid and/or a contractor appointed by National Grid.

2. Landscape and Ecology Baseline

2.1 Landscape Designations Overview

2.1.1 There are no nationally or locally designated landscapes within the study area, however, the following landscape related designations exist which contribute to the landscape character and visual amenity:

- Tree Preservation Orders (TPOs);
- Coastal Margin Access Land;
- Pegwell Bay Country Park; and
- Open Space (designated within Dover District Local Plan to 2040 (Dover District Council, 2024).

2.1.2 Further information regarding these designations within the study area is provided in **Application Document 6.3.3.1.B ES Appendix 3.1.B Landscape Baseline**.

2.2 Landscape Baseline

2.2.1 The following is a summary of the Landscape Baseline which is provided in detail in **Application Document 6.2.3.1 Part 3 Kent Chapter 1 Landscape and Visual** and **Application Document 6.3.3.1.B ES Appendix 3.1.B Landscape Baseline** and on the following figures within **Application Document 6.4.3.1 Landscape and Visual**:

- **Application Document 6.4.3.1.2 Landscape Context and Designations**;
- **Application Document 6.4.3.1.3 Landscape Character - National and County**;
- **Application Document 6.4.3.1.4 Landscape Character - District**; and
- **Application Document 6.4.3.1.5 Seascape Character - National and Regional**.

2.2.2 At the national level the Kent Onshore Scheme falls within the North Kent Plain National Character Area (NCA 113) as shown on **Application Document 6.4.3.1.3 Landscape Character - National and County**. Further detail is given in **Application Document 6.3.3.1.B ES Appendix 3.1.B Landscape Baseline**.

2.2.3 At the county scale the Kent Onshore Scheme falls within the Thanet and The Wantsum and Lower Stour Marshes Kent Character Areas identified in The Landscape Assessment of Kent (Kent County Council, 2004). These areas are shown on **Application Document 6.4.3.1.3 Landscape Character – National and County** in **Application Document 6.4.3.1 Landscape and Visual** with further detail provided in **Application Document 6.3.3.1.B Appendix 3.1.B Landscape Baseline**.

2.2.4 At a district scale the Kent Onshore Scheme falls within a number of Landscape Character Types (LCTs) published in the Thanet District Council Landscape Character Assessment (Thanet District Council, 2017) and in the Dover District Landscape Character Assessment (Dover District Council, 2020). These are shown on **Application Document 6.4.3.1.4 Landscape Character – District** in **Application Document 6.4.3.1 Landscape and Visual** and include the following:

- B1: Wantsum North Slopes;
- E1: Stour Marshes;
- F1: Pegwell Bay;
- G1: Ramsate and Broadstairs Cliffs;
- A2: Ash Levels;
- B1: Great Stour Sandwich Corridor;
- C1: Sandwich Bay; and
- H1: Richborough Bluff.

2.2.5 Further information regarding the key characteristics of these LCTs is given in **Application Document 6.3.3.1.B ES Appendix 3.1.B Landscape Baseline**.

Existing Landscape Features

2.2.6 The landscape across the Minster Converter Station and Substation site comprises low-lying arable land with a series of drainage ditches separating small to medium sized field enclosures, within the former Wantsum Channel. The landscape rises towards the settlement of Minster and the Manston Plateau to the north. A notable woodland block lies adjacent to Ebbsfleet Farm to the east of the Minster Converter Station and Substation, and woodland and scrub associated with the Sandwich Bay to Hacklinge Marshes Site of Special Scientific Interest (SSSI) lies to the immediate south at Weatherlees hill. A hedgerow following an existing ditch extends from the woodland at Weatherlees hill across the Minster Converter Station and Substation site, separating two field parcels. Whilst there is a network of recreational routes within the wider landscape, there is only one Public Right of Way (PRoW) which crosses the permanent access road to the Minster Converter Station and Substation to the east of Brook Lane.

Existing Arboriculture Features

2.2.7 The trees within and immediately adjacent to the Kent Onshore Scheme predominantly comprise of hedgerows and tree groups aligning field boundaries with occasional individual trees. The trees vary in age, ranging from young to mature with a notable dominance of individual semi mature trees. Tree species distribution of individual trees is generally considered to be diverse except for hawthorn (*Crataegus monogyna*) which is considered to be dominant in the landscape.

2.2.8 Further information on the quality and condition of the trees is available in **Application Document 6.10 Arboricultural Impact Assessment**.

2.3 Ecology Baseline

2.3.1 The ecology baseline in areas proposed to be permanently lost as a result of the Kent Onshore Scheme include an arable field which is within the footprint of the Minster Converter Station and Substation. There are also ditches within this location and a 365 m section of ditch is located within the footprint of the Minster Converter Station and Substation. There are additional ditches within the route of the permanent access road connecting to the A256 and seven permanent outfalls. There are some areas of

hedgerow and woodland belt within the footprint of the Minster Converter Station and Substation and near the junction with the A256.

2.3.2 There are also several ecological receptors within the baseline environment that will need mitigation during the construction stage. These include ornithological features (particularly nesting Cetti's warbler), the Sandwich Bay to Hacklinge Marshes SSSI, and commuting bats. Protective working methods are likely to be required to avoid impacts on these baseline features.

2.3.3 Other baseline features that are within the footprint of the Kent Onshore Scheme include:

- non-breeding golden plover and breeding skylarks which both use open arable fields within the footprint of the Minster Converter Station and Substation; and
- Ash Levels and South Richborough Pasture Local Wildlife Site, a small area of which (approximately 300 m^2) is located within the footprint of the new overhead line pylons.

2.3.4 Impacts on these ecological receptors will be mitigated through the enhancement of 10 ha of off-site arable land for the lifetime of the Converter Station/Substation and riparian habitat enhancements along the banks of the River Stour. These are all discussed in this oLEMP.

3. Construction Mitigation

3.1 Approach to mitigation

3.1.1 The Proposed Project has been designed, as far as possible, following the mitigation hierarchy in order to, in the first instance, avoid or reduce impacts and effects through the process of design development, and by embedding measures into the design of the Proposed Project. Where avoidance is not possible, the next steps of minimisation, rehabilitation/restoration and ultimately offsetting, have been followed (where relevant and appropriate).

3.1.2 Mitigation measures typically fall into one of three categories: embedded measures; control and management measures; and additional mitigation measures. All mitigation measures for the Proposed Project are captured within **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**. Control and management measures are also captured within **Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice**.

3.2 Impact avoidance

3.2.1 **Application Document 6.2.1.3 Part 1 Introduction Chapter 3 Main Alternatives Considered** sets out the main alternatives considered in relation to the Kent Onshore Scheme and the reasons behind the decision to cross Sandwich Bay to Hacklinge Marshes SSSI by trenchless technique, and to locate Minster Converter Station and Substation within Minster Marshes.

3.2.2 There will be no loss of pools and scrapes in Ash Level and South Richborough Pasture Local Wildlife Site as these will be avoided by the works, with the nearest new pylon being c. 50 m away from the nearest pool/scrape.

3.2.3 The impact avoidance approach allows for the majority of trees and hedgerows to remain unchanged to ensure that the connectivity of the existing green infrastructure network is maintained. There will be no removal of ancient or veteran trees.

3.2.4 The option to lay the HVDC cables under ditches or the River Stour using a method other than open cut trenching or overhead line has been explored, such as through using horizontal direct drilling (HDD) under ditches. However, this is considered impractical due to the high water table, the large compounds required either side of any ditch to send and receive the drill, and the fact that such crossing methods would take significantly longer (given the number of ditches to be traversed) than a quicker open cut trenching method and therefore extend the overall duration of disruption.

3.3 Impact mitigation

3.3.1 The Kent Onshore Scheme has been designed to avoid the temporary or permanent loss of notable habitats, as far as is practicable and will be constructed predominantly within arable habitats.

3.3.2 The measures outlined below will be implemented, as relevant and appropriate, prior to and during the construction phase of the Kent Onshore Scheme, the purpose being to

minimize the impact of works on landscape and biodiversity features and to achieve legislative compliance.

3.3.3 Standard environmental best practice and mitigation will be implemented to ensure construction and operation of the Kent Onshore Scheme complies with legislation relating to protected species. It will also ensure the Kent Onshore Scheme does not compromise the local conservation status of ecological receptors present within or in the vicinity of the Order Limits.

3.3.4 Commitments embedded within the Kent Onshore Scheme design that will contribute to the avoidance of and/ or reduction of potential effects on landscape and visual amenity which are included within **Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice** and **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments (REAC)** include:

- GG02: A CEMP, Landscape and Ecological Management Plan (LEMP) and Construction Traffic Management and Travel Plan (CTMTP) will be produced and submitted to the relevant authority for approval prior to construction of the relevant stage of the Proposed Project to which it relates. The plan produced will be substantially in accordance with the outline versions submitted as part of the application for development consent. In accordance with the Requirement 6 of Schedule 3 of the draft DCO, the contractor will need to comply with the approved plans (including any amendments to the plans subsequently approved);
- GG04: A suitably experienced Environmental Manager will be appointed for the duration of the construction phase. In addition, a qualified and experienced Environmental Clerk of Works (ECoW) will be available during the construction phase to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the CEMP. The ECoW will monitor that the works proceed in accordance with relevant environmental DCO requirements and adhere to the required good practice and mitigation measures. The ECoW will be supported as necessary by appropriate specialists, including ecologists, soil scientists and arboriculturists;
- GG06: A full photographic/aerial footage and descriptive record of condition (pre-condition survey) will be carried out of the working areas that may be affected by the construction activities prior to these works commencing. This record will be available for comparison following completion of reinstatement works to ensure that the standard of reinstatement at least meets that recorded in the pre-condition survey, or as agreed in the LEMP or if the DCO provides otherwise, then in accordance with the DCO;
- GG07: Land used temporarily will be reinstated (bearing in mind restrictions on planting and land use) to its pre-construction condition and use, unless agreed otherwise, save where the DCO provides otherwise, in which case such reinstatement will be in accordance with the DCO. This is subject to the provisions of Article 27 of the draft DCO. Hedgerows, fences and walls (including associated earthworks and boundary features) will be reinstated to a similar style and quality to those that were removed where possible, with landowner consultation;
- GG08: Where sensitive features will be retained within or immediately adjacent to the Order Limits, an appropriate protective area will be established using appropriate fencing and signage and will be inspected, repaired and replaced as necessary. The protective areas will be shown on the Retention and Reinstatement Plans contained within the LEMP;

- GG19: Earthworks and stockpiled soil will be protected by covering, seeding or using water suppression where appropriate;
- GG21: Construction lighting will be of the lowest levels necessary to safely perform each task. It will be designed, positioned and directed to reduce the intrusion into adjacent properties, protected species and habitats e.g. watercourses;
- GG26: Where working areas are fenced, the type of fencing installed will depend on the area to be fenced and will take into consideration the level of security required in relation to the surrounding land and public access, rural or urban environment and arable or stock farming. Consultation on the type of fencing will be undertaken with the relevant landowner and tenant where required. For some locations the fence used may also serve to provide acoustic and visual screening of the work sites and reduce the potential for disturbance of users in the surrounding areas. Fencing will be regularly inspected and maintained and removed as part of the demobilisation unless otherwise specified;
- LV01: The contractor(s) will retain vegetation where practicable. Where vegetation is lost and trees cannot be replaced in situ due to the restrictions associated with land rights required for operational safety, native shrub planting approved by National Grid will be used as a replacement, in accordance with the outline vegetation reinstatement plans included within the Outline Landscape Environment Management Plan;
- LV02: The contractor(s) will apply the relevant protective principles set out in British Standard (BS) 5837:2012: Trees in relation to design, demolition and construction. This will be applied to trees within the Order Limits which will be preserved through the construction phase, and to trees outside of the Order Limits where such measures do not hinder or prevent the use of the relevant working width for construction. All works to high grade trees, including trees under Tree Preservation Orders and veteran trees, will be undertaken or supervised by a suitably qualified arboriculturist;
- LV05: Subsoil and topsoil will be separated and stored to ensure no degradation in quality and reinstatement undertaken as soon as possible after completion of construction of each section/area of works;
- LV06: Temporary and separate placement of topsoil and subsoil will be stored adjacent to the trench where possible, with the additional height of the subsoil storage used on whichever side requires greater screening benefit, where practicable. In some locations stockpiles will be remote from the trench, such as at pinch points where the corridor has been narrowed, and the additional height of the storage will be sensitively placed as far as possible;
- B04: To control the spread of invasive weeds in accordance with the Wildlife and Countryside Act 1981, any plant or machinery that has been used in areas infested with invasive species (both terrestrial and aquatic), such as Japanese knotweed and Himalayan balsam, will be thoroughly cleaned. Water used to clean vehicles will be controlled to prevent the spread of the plant (through seeds, rhizomes, fragments, etc.). The area will be cordoned off to prevent any inadvertent spreading;
- B07: Where the works require the crossing or removal of hedgerows, the gap will be reduced to a width required for safe working. Where hedge removals are necessary, ‘dead hedging’ should be used, where practicable, in the interim periods to retain connectivity during construction. Dead hedging can comprise vegetation arisings or artificial provision, such as willow screening panels or Heras fencing covered in

camouflage netting. New hedgerow planting will contain native, woody species of local provenance;

- B12: Mature vegetation removed from hedgerows and ditches will be retained as close to the area of removal as possible, retaining intact root balls, where feasible and desirable, such that it can be re-used;
- W03: Riverbank and in-channel vegetation will be retained where not directly affected by installation works. Where ditches retaining seasonal flows are crossed, culverts in waterbodies will either preserve the natural bed or be box culverts with inverts sunk a minimum of 300 mm below the hard bed of the watercourse and natural / existing bed material placed across the inside of the culvert, to maintain existing channel gradients and habitat for aquatic invertebrates, as well as to ensure continued passage for in channel species;
- TT03: All designated Public Rights of Way (PRoWs) will be identified, and any potential temporary and/or permanent diversions applied for/detailed in the DCO. All designated PRoWs crossing the working area will be managed with access only closed for short periods while construction activities occur. Any required diversions will be clearly marked at both ends with signage explaining the diversion, the duration of the diversion (for temporary diversions) and a contact number for any concerns. This is outlined in the Outline Public Rights of Way Management Plans;
- A01: All tree work will follow the principles of BS3998:2010 Treework – Recommendations (BS3998:2010) (British Standards Institute) and will be carried out by suitably qualified and insured contractors;
- A02: A pre-construction check will be undertaken of trees within the Order Limits and remedial works actioned where appropriate (e.g. where they pose an unacceptable risk to people or property). Trees will be monitored during the construction period, and during operation where they pose a risk to infrastructure constructed as part of the Proposed Project. All staff operating on the Site are to be made aware of the need to look out for obvious signs of tree defects and to report them to the Site Manager who will seek further advice as necessary;
- A03: A banksman will be used where the movement of plant or long reach machinery occurs within 5m of any part of a retained tree to ensure no damage is sustained;
- A04: All storage or mixing of materials will take place in agreed allocated areas at least 5 m from the edge of the RPA of retained trees and at least 5 m from the edge of an ancient woodland buffer zone;
- A05: Retention of all veteran and ancient trees within or immediately adjacent to the Order Limits; and
- A06: All tree works required which are not identified within the Arboricultural Method Statement and final Tree Protection Plans will require consent from the relevant local planning authority.

3.3.5 Commitments embedded within the Kent Onshore Scheme design that will contribute to the avoidance of and/or reduction of potential effects on biodiversity include:

- HVDC cables would be installed using a trenchless technique at the landfall to minimise direct impacts on Thanet Coast & Sandwich Bay SPA/Ramsar and Sandwich Bay Special Area of Conservation (SAC) (Commitment B42 in

Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments).

- Noise-fencing or similar effective noise reduction methods around works areas where required to avoid significant disturbance on noise sensitive receptors, particularly the SSSI and birds. (Commitment B44 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- seasonal restrictions on some works:
  - vegetation with the potential to support breeding birds will not be removed during the breeding bird season (March to August inclusive). If any works become necessary during the breeding bird season, works will be supervised by an ECoW. Appropriate protection measures will be put in place should active nests be found. These will include exclusion zones around active nests until chicks fledge or nests become inactive as determined by monitoring by the ECoW (Commitment B02 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
  - installation of overhead line pylons either side of Sandwich Bay to Hacklinge Marshes SSSI will not cover the entire breeding season but will either take place outside the bird breeding season or will only occupy approximately two months of the breeding season (Commitment B45 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
  - seasonal restriction on site preparation, earthworks, and foundation creation for the Minster Converter Station and Substation, as well as construction of the section of permanent access road immediately north of the SSSI, so they occur outside the breeding bird season March to June (Commitment B50 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
  - programming the overhead line pylon base installation to avoid the core wintering bird period of October to February (Commitment B51 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
  - it is assumed that water voles could be present on any ditch section to be traversed and a watching brief will therefore be introduced during any vegetation clearance in these ditches. Displacement of water voles if any are encountered would be undertaken under the supervision of a licenced ecologist under Class Licence CL31. This would restrict clearance of any locations where water voles are present to either 15 February to 15 April or 15 September to 31 October (Commitment B46 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
  - in order to avoid both the nesting bird season and the water vole active season, vegetation clearance of sections of ditch will need to take place during 15th September to 31st October (this being one of the two legally permissible windows for excluding water voles by displacement). However, if pre-construction surveys undertaken immediately prior to the clearance works taking place confirm the absence of nesting birds, vegetation removal may also occur between 15 February to 15 April (this being the other legally permissible window for excluding water voles by displacement), provided that pre-construction surveys have been undertaken to ensure there is no suitable habitat for hibernating reptiles. If pre-construction surveys identify no water vole burrows or

nesting birds are present within the area to be cleared, then vegetation clearance could also take place outside these windows. The actual culverts will then be installed at the appropriate time as the haul road progresses across the site (Commitment B47 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).

- ensure disturbing works commence in an area prior to the start of the Cetti warbler nesting season where possible. A 20 m buffer will be implemented during construction around any Cetti's warbler nests that do establish in each nesting season. A specific decision will then be undertaken in discussion with the ecological clerk of works over what can take place in that area while the nest is active (Commitment B48 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- minimising the width of the cable corridor at ditch and hedgerow crossings to 20 m where possible (Commitment B11 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- while the haul road will be fenced this fence will not go entirely to ground level so mammals such as badger will be able to pass (Commitment B15 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- there will be no lighting near any badger setts or any significant sources of noise that would affect badgers during construction (Commitment B49 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- as far as possible, trenches and excavations should not be left open overnight. Where there will be a risk of animal entrapment, a means of escape (such as a plank that can be used as a ladder) will be installed into all excavations that are left open overnight (Commitment B03 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- to avoid killing and injury of reptiles a two-stage strimming displacement technique will be used in key areas that may harbour reptiles. (Commitment B05 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- where ditches retaining seasonal flows are crossed, culverts in waterbodies will either preserve the natural bed or be box culverts with inverts sunk a minimum of 300 mm below the hard bed of the watercourse and natural / existing bed material placed across the inside of the culvert, to maintain existing channel gradients and habitat for aquatic invertebrates, as well as to ensure continued passage for in channel species. (Commitment W03 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- the culverts will also avoid narrowing of natural channel width. Where bank material cannot be preserved within the culvert (due to the weight or levels) they will also include a minimum 150 mm wide mammal ledge (with 600 mm headroom where ditch depth allows) to ensure continued accessability by water voles (Commitment B17 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- localised introduction of *Azolla* weevil to control invasive *Azolla* fern in Ash Levels and South Richborough Pasture Local Wildlife Site (Commitment B52 in

Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments).

- larger gaps in hedgerows or woodland belts would be reduced to 10 m maximum during the night by hurdles or similar (Commitment B53 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- around construction compounds, direct illumination of boundary features will be avoided. Lighting will be designed to comply with published guidelines (Commitment B53 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- bird diverters on new section of overhead line, which are visible in low light conditions. It is considered that in the context of the Kent Onshore Scheme and species involved, that hanging deflectors, especially those with fluorescent markings, offer the best solution to making the lines visible in adverse weather or low light conditions (Commitment B55 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- control of dust generation (Commitments GG17, GG18, GG19, GG20, AQ02, AQ03, AQ05 and AQ08 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitment**).
- water quality controls (Commitments W02, GH05, GG14, GG15, GG16, W06 and W11 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- measures to manage risk of frac out (Commitment B09 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).
- measures to avoid the trenchless drilling equipment getting stuck (Commitment B43 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).

3.3.6 Commitments embedded within the Kent Onshore Scheme design that will contribute to the avoidance of and/or reduction of potential impacts to trees include:

- retention of all veteran and ancient trees within or immediately adjacent to the Order Limits (Commitment A05 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**);
- all tree work will follow the principles of BS3998:2010 Treework – Recommendations (BS3998:2010) (British Standards Institution, 2010) and will be carried out by suitably qualified and insured contractors (Commitment A01 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**); and
- all tree works required which are not identified within the Arboricultural Method Statement and final Tree Protection Plans will require consent from the relevant local planning authority (Commitment A06 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**).

Ensuring continued connectivity for bats during works

3.3.7 Where hedgerow gaps or gaps in woodland belts exceed 10 m these will be closed at night (or reduced to a maximum of 10 m) through the use of hurdles or similar (Commitment B53 in **Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments**):

- hurdles (Plate 3.1), which could be interwoven with vegetation such as evergreen climbers;
- temporary native hedges in troughs, such as 'instant hedges' (Plate 3.2). This could comprise single native species such as hornbeam (*Carpinus betulus*) or a native species mix;
- native trees in planters, such as hornbeam or holly (*Ilex aquifolium*) (Plate 3.3); or
- Herras fencing with attached shade mesh, plastic hedge or camouflage windbreak (Plate 3.4).

3.3.8 The most suitable method may vary by location and width of the gap to be closed.

Plate 3.1 Example hurdle (without vegetation)

Plate 3.2 Example hornbeam instant hedge (source: https://www.instanthedges.co.uk/products/troughs/)

Plate 3.3 Example standard hornbeam trees in planters (source: https://www.instanthedges.co.uk/products/standard-trees).

Plate 3.4 Herras fencing with attached textured plastic hedgerow (source: HS2/ EKFB, in Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.1. Charter

3.3.9 Structures utilised for connectivity for bats would need to be able to resist wind (for example Herras fencing may require triangular layout for bracing), be easily portable and sufficiently robust to withstand movement on a daily basis. Troughs or planters would need to be able to withstand movement, or be placed on a trailer that could be moved in and out of place. Instant hedges or trees in planters would be kept watered in order to maintain live vegetation during construction. The hedges or trees could then be used in planting once construction has ceased.

3.3.10 These measures are all set out in either **Application Document 7.5.3 Outline Onshore Construction Environmental Management Plan**, **Application Document 7.5.3.1 CEMP Appendix A Outline Code of Construction Practice**, **Application Document 6.10 Arboricultural Impact Assessment** or **Application Document**

7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments (REAC).

3.4 Protected species licences

Water voles

3.4.1 Any necessary protected species licences will be applied for and obtained prior to undertaking any works that might result in offences under the relevant legislation. The only protected species licence expected to be required for the Kent Onshore Scheme is one for water voles. Water voles are expected to be excluded from areas of ditch that must be crossed by the haul route or cable trench using the displacement method. This is proposed to be addressed through Class Licence CL31[1] under supervision of a registered ecologist. As such, no specific protected species licence to Natural England is required.

3.4.2 The exclusion of water voles using the displacement method is only permitted during either 15 February to 15 April or 15 September to 31 October.

3.4.3 Exclusion under the Class Licence will only be required if water voles are to be displaced, it will not be required where water voles are present in a watercourse, but their burrows are not in a location that would require their exclusion, or which would lead to their disturbance.

3.4.4 However, many of the watercourses on site are very densely vegetated with very steep banks. It is therefore generally difficult to survey these watercourses both in terms of physical penetration (even with a boat) and in terms of avoiding damaging habitat. As a precaution therefore it is assumed that water voles could be present on any ditch section to be traversed, and a watching brief will therefore be introduced during any vegetation clearance in these ditches.

Dormice

3.4.5 Based on the survey undertaken for the Kent Onshore Scheme, dormice are assumed to be likely absent from the construction footprint, since no confirmed records of dormouse were identified from the nest tubes on site. However, due to some records of 'possible' dormouse nests (some of which were later confirmed to be other species i.e. wood mouse) and anecdotal information from landowners regarding possible dormouse presence, a precautionary method statement will be followed.

3.4.6 Vegetation clearance of habitat suitable for dormice will be undertaken in two stages. The first stage will comprise an initial cut to 150-300 mm, with a second cut at least 24 hours later to ground level. Prior to each stage of clearance commencing, the Suitably Qualified Ecologist (SQE) will carry out a fingertip search of the area. The SQE will hold (or be accredited to work under) a WML-CL10a Natural England hazel dormouse class licence (Class 1 survey licence). They will check the area for signs of hazel dormouse, including nests. Clearance will only proceed if hazel dormice are confirmed to be absent.

3.4.7 The SQE will remain on site until the vegetation suitable for hazel dormouse is cleared. All clearance works of vegetation that is suitable for dormouse must be undertaken

[1] Water voles: licence to intentionally damage or destroy water vole burrows by displacement (CL31) - GOV.UK

using hand-held tools such as strimmers and chainsaws. In the unlikely event that a hazel dormouse or signs of hazel dormouse are encountered during the search it will be left in situ, works will cease, and a European Protected Species Mitigation Licence obtained from Natural England.

3.5 Tree Works

3.5.1 The Kent Onshore Scheme has been designed to minimise the removal of mature trees across the Order Limits. Some removal and pruning of mature trees will be required to facilitate vehicle access, attenuation features and for cabling works.

3.5.2 Where works in close proximity to retained trees cannot be practicably avoided, these works will be undertaken in accordance with the Arboricultural Method Statement and Tree Protection Plan. All works will be undertaken in accordance with the current best practice at the time of the works. In January 2025, current best practice is defined in:

a) British Standard (BS) 5837: 2012 Trees in relation to design, demolition and construction – Recommendations (British Standard Institution, 2012);

b) National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (National Joint Utilities Group , 2007); and

c) BS 3998: 2010 Tree work – Recommendations (British Standards Institution, 2010).

3.5.3 All necessary protective fencing would be installed prior to the commencement of any construction works. This would be set out in the Arboricultural Method Statement, the CEMP and a Tree Protection Plan prepared pre-construction, pursuant to the DCO.

3.5.4 Where part of a group of trees is to be removed the final extent of tree loss will be determined on site by an arboriculturist who will assess the stability and suitability of retained trees.

4. Landscape and Ecological Reinstatement

4.1 Arable and grassland field margin reinstatement

4.1.1 Soils will be removed in sequence. Topsoil and subsoil will be stockpiled separately and will be restored in reverse sequence of removal (subsoil first, topsoil last) to retain the original soil profile. These fields could then be immediately returned to agricultural use following ploughing. This is secured via **Application Document 7.5.10.2 Outline Soil Management Plan – Kent**.

4.1.2 Grassland field margins will be returned to a grassland condition. The bare ground will be harrowed to raise a tilth of c. 15 cm and grass and wildflower seed mix then either broadcast or slot-seeded into the soil. The ground will then be rolled to maximise contact between seeds and soil.

4.2 Hedgerow reinstatement

4.2.1 Where temporary gaps are to be created in hedgerows for construction, these will vary from approximately 7 m (if only haul road access is required) to approximately 20 m (where the cable corridor must traverse the hedgerow).

4.2.2 Wherever feasible and desirable, mature material will be removed from hedgerows in as large sections as possible and retained as close to the area of removal as possible. These will be watered until such time as they are reinstated. However, even if hedgerow material dies during this process, it can still be of value ecologically in helping to quickly re-establish a natural structure in the gap for purposes of (in particular) bat commuting along the hedgerow.

4.2.3 This is particularly the case with the woody material from the parallel hedgerows that lie within the footprint of the Minster Converter Station and Substation. This hedgerow is identified on **Application Document 6.10 Arboricultural Impact Assessment** and will be entirely removed. As such, the woody material will be retained as discussed above and used to reinforce the new woodland planting north of Sandwich Bay to Hacklinge Marshes SSSI. This will occur in the Winter before construction of the Minster Converter Station and Substation. Translocation of the hedgerow will be undertaken in accordance with Section 3.5.

4.2.4 Once works are complete, temporary hedgerow gaps will be planted in the first available planting season post construction, with a combination of whips where hedgerows are reinstated over the cable corridor and whips and light standards or feathered trees beyond the cable corridor. The species mix will comprise species typically found in adjacent hedgerows and will likely comprise the following species:

- field maple (*Acer campestre)*;
- common hazel (*Corylus avellana)*;
- common hawthorn (*Crataegus monogyna)*;

- blackthorn *(Prunus spinosa)*; and
- dog rose *(Rosa canina.*

4.3 Ditch reinstatement

4.3.1 Temporary habitat losses from ditches will be reinstated in the Winter following cable installation in that section, although a 7 m gap for the haul road will have to be retained until the end of the construction programme. Gaps in ditch marginal vegetation will either be planted with mature emergent vegetation purchased from nurseries or left to recolonize naturally from the adjacent ditch vegetation.

4.3.2 The emergent vegetation species mix[2] will comprise 20% common reed and 80% using 13 plants from the following palette:

- wild angelica (*Angelica sylvestris*);
- articulated rush (*Juncus articulatus*);
- blue water speedwell (*Veronica anagallis-aquatica*);
- common sedge (*Carex nigra*);
- lesser spearwort (*Ranunculus flammula*);
- meadowsweet (*Filipendula ulmaria*);
- purple loosestrife (*Lythrum salicaria*);
- ragged robin (*Silene flos-cuculi*);
- square stalked st Johns wort (*Hypericum tetrapterum*);
- valerian (*Valeriana officinalis*);
- water avens (*Geum rivale*);
- water forget me not (*Myosotis scorpioides*); and
- yellow flag iris (*Iris pseudacorus*).

[2] [redacted]

5. Long-term Landscape and Ecological Proposals

5.1 Landscape and Ecological Strategy

5.1.1 Good design has been a key consideration from the outset. The Environmental Impact Assessment (EIA) has informed the iterative design process, guided by design principles developed specifically to address the opportunities and constraints presented by the Kent Onshore Scheme. These principles have been developed in response to policy requirements, published landscape character assessment guidance and fieldwork analysis. The Design Principles are contained within **Application Document 7.12.2 Design Principles – Kent**.

5.1.2 With reference to the **Figure 1 Minster Converter and Substation Outline Landscape Mitigation** in Appendix A of this document, the following design mitigation has been embedded in the Kent Onshore Scheme to minimise effects on the environment, including landscape character, visual amenity, biodiversity, and heritage assets.

5.1.3 In developing the landscape design strategy, particular consideration was given to:

- the recommendations contained within relevant landscape guidelines, including Natural England Statements of Environmental Opportunity (SEO) (Natural England, 2025) outlined in the profiles for NCA 113 and Thanet and Dover District Council LCTs; and
- guidance contained within the Landscape Institute's Infrastructure Technical Guidance Note (TGN) 04/20 (Landscape Institute, 2020).

5.1.4 The overall objective of the landscape design is to integrate the Kent Onshore Scheme into its landscape setting and to avoid or minimise adverse landscape and visual effects as far as practicable. Accordingly, the landscape design aims to achieve the following:

- to integrate the Kent Onshore Scheme into the existing landscape pattern as far as practicable by utilising and following existing features, including vegetation;
- to replace habitat lost as a result of construction of the Kent Onshore Scheme and enhance habitats through the creation of woodland, grassland, and riparian ditch habitats;
- to use native woodland planting to provide structural screening to the Minster Converter Station and Substation in views from the north and northwest whilst providing containment to the converter station and substation site so that it appears visually connected to the Richborough Energy Park rather than the wider marsh landscape;
- to reinforce the pattern of drainage ditches with appropriate marginal planting and establish a sensitive interface with the wider marsh landscape;
- to provide connectivity with wider blue and green infrastructure networks through the enhancement of existing drainage ditches, creation of vegetative corridors and habitat connectivity;

- to protect existing vegetation wherever possible;
- to reflect the historic landscape character and limit planting within areas where significant archaeology exists and retain the open aspect of the former Wantsum Channel around the permanent access road;
- to consider opportunities for advanced planting to provide early establishment of woodland planting; and
- to provide an integrated drainage solution with attenuation ponds and swales, planted with marginal wetland species set within a wider context of marshland and native scrub planting to improve the biodiversity value across the site.

5.2 Landscape and Ecological Proposals

5.2.1 The core habitat creation proposals are illustrated on **Figure 1 Minster Converter and Substation Outline Landscape Mitigation**, in Appendix A of this document, and are described below. Species mixes are also identified for the different planting interventions which have been agreed with stakeholders through the landscape and visual thematic meetings.

5.2.2 The result of these proposals is that there will be a permanent net increase in woodland, wetland and semi-natural grassland creation around the Minster Converter Station and Substation, and through the creation of swales along the permanent access road. This net habitat creation will require design, management and monitoring. It is the purpose of this oLEMP to address those issues.

Woodland planting

5.2.3 New woodland will be planted around Minster Converter Station and Substation, primarily as mitigation to help screen sensitive receptors and soften views, but also to provide increased structure, ecological connectivity, and interest within the landscape. Species will be appropriate to the particular requirements of the geographical area, but also take account of climate change and potential pest and pathogen threats. Where practicable, woodland will include varied heights, spacing and species mix to maximise habitat diversity.

5.2.4 There will be a long-term net increase in woodland habitat due to the Kent Onshore Scheme with a total area of 65,985 m^2.

5.2.5 The species mixes for these areas of woodland are shown in Table 5.1 and Table 5.2 below.

Table 5.1 Native woodland mix

Common Name	Botanical Name	Proposed Mix %
common oak	*Quercus robur*	15
downy birch	*Betula pubescens*	15
small leaved lime	*Tilia cordata*	10
field maple	*Acer campestre*	10

Common Name	Botanical Name	Proposed Mix %
common beech	*Fagus sylvatica*	10
rowan	*Sorbus aucuparia*	10
common alder	*Alnus glutinosa*	10
common holly	*Ilex aquifolium*	5
Common Privet	*Ligustrum vulgare*	5
silver birch	*Betula pendula*	5
whitebeam	*Sorbus subg. Aria*	5

Table 5.2 Native woodland edge mix

Common Name	Botanical Name	Proposed Mix %
common hawthorn	*Crataegus monogyna*	20
common dogwood	*Cornus sanguinea*	10
common hazel	*Corylus avellana*	10
common crab apple	*Malus sylvestris*	10
blackthorn	*Prunus spinosa*	10
goat willow	*Salix caprea*	10
common elder	*Sambucus nigra*	10
guelder rose	*Viburnum opulus*	10
common spindle tree	*Euonymus europaeus*	5
common holly	*Ilex aquifolium*	5

Native hedgerow planting

5.2.6 A short section of native hedgerow (995.1 m^2) is proposed along the permanent access track close to the bell mouth with the A256 to replace a section of existing hedgerow which will be removed during construction. The new section of hedgerow will tie into the existing section and will contain the following species mix shown in Table 5.3 below.

Table 5.3 Native hedgerow mix

Common Name	Botanical Name	Proposed Mix %
common maple	*Acer campestre*	20
common hornbeam	*Carpinus betulus*	5

Common Name	Botanical Name	Proposed Mix %
common hazel	*Corylus avellana*	2
common hawthorn	*Crataegus monogyna*	55
common dogwood	*Cornus sanguinea*	5
common privet	*Ligustrum vulgare*	5
blackthorn	*Prunus spinosa*	2
common buckthorn	*Rhamnus catharticus*	2
dog rose	*Rosa canina*	2
holly	*Ilex aquifolium*	2

Grassland planting

5.2.7 New species-rich neutral grassland will be implemented around the Minster Converter Station and Substation platform, along the proposed access road and around the attenuation ponds and ditches between the riparian planting and woodland areas. Consequently, there will be a long-term net increase in semi-natural grassland habitat due to the Kent Onshore Scheme. A total area of 50,260 m^2 of neutral grassland will be created primarily around the HVDC cable corridor and adjacent to the Permanent Access Road as well as around Minster Converter Station and Substation.

5.2.8 The species mix for the species-rich neutral grassland is the EM3 Special General Purpose Meadow mix[3] or similar approved.

Pond and wetland habitat creation

5.2.9 Attenuation ponds are proposed around the Minster Converter Station and Substation which, whilst primarily having a drainage attenuation function, will be designed such that they integrate positively within the landscape and provide improved biodiversity and habitat for riparian mammals. Consequently, there will be a long-term net increase in wetland habitats due to the Kent Onshore Scheme. There will be seven attenuation ponds; four around the Minster Converter Station and Substation and three situated close to the permanent access road. These will total 20,925.2 m^2 in area. This equates to an increase of 1.38 km of perimeter due to the permanent attenuation ponds.

5.2.10 These ponds will be designed to be organic in shape and to be of value for riparian mammals by retaining an earth ledge and sloping bank above a shallow (e.g. minimum 10 cm) permanent water level. The ledge will be planted with emergent riparian vegetation. While the water voles on site are using linear ditches, there are many examples in Kent and elsewhere of water voles using pond and wetland margins, and even nesting in reedbeds with no standing water.

5.2.11 The land around the converter station has a combination of soils and geology that drain quite poorly, such that when it rains the water does not soak away readily; retaining

[redacted]

sufficient dampness for riparian vegetation would be viable. Moreover, the attenuation ponds will be connected to the existing ditch network in Minster Marshes by pipes such that the invert level of the pipe can be set so as to retain some water permanently, and this will also facilitate water vole colonisation from elsewhere on the ditch network.

5.2.12 The riparian planting species mixes are identified below:

- Wetland Plug Mix - The wetland plug mix[4] will comprise 20% common reed and 80% using thirteen plants from the following palette wild angelica, articulated rush, blue water speedwell, common sedge, lesser spearwort, meadowsweet, purple loosestrife, ragged robin, square stalked st johns wort, valerian, water avens, water forget me not, yellow flag iris; and
- riparian grassland seed mix - The riparian grassland seed mix is EM8 Meadow Mixture for Wetlands[5].

Swales along permanent access road

5.2.13 In order to maintain an open landscape along the permanent access road, the landscape treatment will be limited to the creation of 1,215 m of swale either side of the permanent access road which will not be surrounded by a fence. This limited landscape intervention will provide ecological benefit and will be in keeping with the local landscape and historic character.

5.2.14 The swales would need to have some infiltration element and therefore would not permanently retain standing water. Water from rainfall would be retained in a shallow swale and losses would largely be due to evapotranspiration. Therefore, during Winter some standing water is likely, but after several weeks of dry weather standing water may dry. However, riparian vegetation such as common reed, which can grow in damp soils, should be able to persist. The swale area will be planted with the grassland mix identified above.

5.3 Riparian enhancement of River Stour corridor

5.3.1 The Proposed Project will deliver enhancement of an approximately 500 m stretch of the riparian corridor along the River Stour from approximate grid reference TR 30665 62754 to TR 31176 62863. The enhancement area is also shown on **Figure 4 Minster Converter and Substation Enhancement Areas** in Appendix A of this document**.** This will consist of the creation of a total of three shallow scrapes on the north and south banks of the River Stour, each approximately 40 m long by 5 m wide and approximately 30 cm deep at their deepest point. These will then be planted around the margins with riparian species typical of the area (unbranched bur-reed (*Sparganium emersum*) (depending upon commercial availability at the time), reed sweet grass (*Glyceria maxima*), reed canary grass (*Phalaris arundinacea*) and spiked woodrush (*Juncus spicata*), depending upon commercial availability at the time)). These would be planted across the scrape at a density of four plants per square metre.

5.3.2 The mix will exclude common reed which is a fast-growing species that can easily become dominant and is likely to colonise naturally.

[4] [redacted]

[redacted]

5.3.3 Such riparian enhancements in close proximity to the River Stour are very likely to be used by riparian mammals and invertebrates. Throughout this 500 m stretch there will also be a programme of targeted riparian invasive plant species removal or control, particularly regarding release of *Azolla* weevil to reduce the extent of water fern (*Azolla filiculoides*) infestation.

5.4 Golden plover and skylark habitat enhancement

5.4.1 It has been assumed for the purposes of the Environmental Statement for the DCO that the Minster Converter Station and Substation field, which will be entirely lost to wintering waterfowl and waders, and the construction compound field to the north that will be temporarily lost, constitute functionally-linked land for golden plover associated with Thanet Coast & Sandwich Bay SPA/Ramsar, albeit not functionally-linked land of highest importance and significant flocks were not recorded in both fields at the same time. In addition to its value for golden plover, the Environmental Statement identifies that there will be a loss of skylark nesting habitat as a result of the Kent Onshore Scheme. Most of this loss will be temporary due to construction compounds. An opportunity has therefore been taken to ensure the off-site arable land to be enhanced for golden plover will also be enhanced for nesting skylark.

5.4.2 The mitigation parcel is an area of 10 hectares (ha) of existing arable land near Great Stonor, located approximately 500 m from Thanet Coast & Sandwich Bay SPA/Ramsar. The mitigation parcel is shown on **Figure 4 Minster Converter and Substation Enhancement Areas** in Appendix A of this document. No individual field in this group meets the necessary requirement to be a minimum of 10 ha in size. However, there are no visual barriers between the fields in this cluster (with the boundaries being ditches rather than tall dense hedgerows) and, as such, bringing all three fields forward together would meet the necessary requirements.

5.4.3 The soils present within this cluster comprise predominantly one Soil Association: Newchurch 2 1. These soils are described as seasonally wet deep clay soils developed in marine alluvium, often used for winter cereals. According to **Application Document 6.2.3.6 Part 3 Kent Chapter 6 Agriculture & Soils** agricultural land is mapped as predominantly Grade 2 land on the Provisional Agricultural Land Classification (ALC) mapping (no detailed mapping is available).

5.4.4 Based on the characteristics of the soils and the predominance of high-grade land across this cluster, it is assumed that all fields are capable of supporting arable production on an on-going basis (all are currently under arable cultivation). The soils are relatively heavy (clay-rich) and thus would be susceptible to compaction as a result of agricultural operations. As part of implementation of the mitigation the fields would be assessed for compaction and any subsoiling requirements identified to maximize the number of soil invertebrates present (in particular earthworms).

5.4.5 The field(s) will be available for the alternative cropping regime prior to the loss of the Minster Converter Station field if that loss takes place in winter (it is currently programmed for Winter 2026), otherwise in time for the following winter. It will be secured for the lifetime of the Proposed Project or ‘in perpetuity’ (typically defined as 80 years), whichever is sooner. **Application Document 6.2.1.4 Part 1 Introduction Chapter 4 Description of the Proposed Project** for the DCO identifies that the design life for the Minster Converter Station and Substation is 40 years but that it is likely refurbishment would extend the life (given future electricity needs) rather than it being subject to decommissioning. If it was decommissioned it would likely be restored to

agricultural use. Given the potential for the Converter Station to not be decommissioned, 80 years is an appropriate period to secure the mitigation.

5.4.6 Prescriptions for how this land will be managed for golden plover and skylark are provided in the management section. These prescriptions have been discussed with Natural England and updated following their feedback.

5.5 Phasing of Landscape Proposals

5.5.1 Where planting areas do not conflict with construction compounds and activities, advanced planting will be undertaken in the first available planting season prior to construction commencing. These areas will be developed in detail as part of the LEMP but, subject to contractor discussions, could include the areas identified on **Figure 3 Minster Converter and Substation Outline Landscape Mitigation - Timing of Planting** in Appendix A of this document.

6. Maintenance and Management Aims, Prescriptions, and Objectives

6.1 Introduction

6.1.1 This section describes how existing and proposed habitats will be protected or implemented during construction, maintained during the first five years following implementation, and managed in the long term for the lifetime of the Kent Onshore Scheme.

6.1.2 As the detailed design progresses, further details will be provided, particularly in relation to plant species selection, specification of seed mixes, management prescriptions and timescales, and site-specific mitigation and enhancement elements.

6.1.3 Implementation and monitoring works will be supervised by the ECoW.

6.2 Management Periods

6.2.1 All planting associated with the reinstatement of the landfall and HVDC and HVAC corridors will be maintained for a five year period. All mitigation planting associated with the permanent access road and Minster Converter Station and Substation will be maintained for the lifetime of the asset.

6.2.2 For the golden plover and skylark mitigation at Great Stonor the intention is to devise a management agreement with the current farmer to secure the amended management required as mitigation. However, if agreement cannot be reached with the landowner/farmer, the DCO includes compulsory acquisition powers that would allow National Grid to ‘step in’ to ensure the management is delivered. National Grid would also arrange for the monitoring of bird numbers and bird species composition.

6.2.3 For the habitat creation along the River Stour riparian corridor, no long-term management is proposed, as it is not considered necessary since such scrapes naturally progress through a succession and do not need to be frozen at a particular successional stage.

6.3 Existing Retained Trees and Shrubs

6.3.1 During construction the retained hedgerows, woodland and trees will be protected in accordance with the Arboricultural Method Statement and final Tree Protection Plan which will be secured via the DCO Schedule 3 Requirement 8. The measures to be employed will include the use of clearly defined stand-offs (secured with temporary protective fencing), managing the structure and integrity of the retained vegetation and the soil upon which it relies, and undertaking any pruning outside of the bird breeding season.

6.3.2 Retained trees will be periodically inspected by an arboriculturist during construction to ensure that the tree protection measures detailed in the Arboricultural Method Statement and the Tree Protection Plans are adhered to. Where sensitive operations are required within Root Protection Areas (RPA) of retained trees, works will be

undertaken under the supervision of an arboriculturist to ensure that agreed methodologies are fully implemented, to record any root pruning and to recommend further arboricultural remedial works where required. All works requiring arboricultural supervision are detailed within the Arboricultural Method Statement.

6.3.3 Retained trees will require periodic inspection to assess their structural condition and safety. Occasional removal of dead wood or other remedial works to address significant defects may be required in areas of frequent access and will be the responsibility of the tree owner.

6.3.4 During the construction and operation of the Proposed Project, all staff operating on site are to be made aware of the need to look out for obvious signs of tree defects and to report them to the Site Manager who will seek further advice as necessary.

6.4 Implementation of Native Planting (General)

6.4.1 Planting will take place in the first available planting season following consent being granted, ideally during November and December for bare root stock, to reduce losses incurred during recent dry springs.

6.4.2 Plants will be inspected at the nursery and on delivery, prior to planting. Plants will be protected from strimming damage and animals through guards, preferably biodegradable; although consideration will be given to methods of avoiding excessive use of guards. Trees will be staked in line with industry standard specifications.

6.4.3 All tree planting will adhere to BS:8545 Trees: from nursery to independence in the landscape – Recommendations (2014) (British Standards Institution, 2014) and the UK Forestry Standard: The governments' approach to sustainable forest management (2023) (Forest Research, 2023).

6.5 Woodland planting

Function

6.5.1 Woodland belts are proposed in areas to provide a more substantial visual screen. Proposed woodland and tree planting will increase tree cover and provide ecological value and habitat connectivity. Trees will be managed to achieve their maximum mature height for the species.

Implementation

6.5.2 The locations of proposed woodland are illustrated on **Figure 1 Minster Converter and Substation Outline Landscape Mitigation** in Appendix A of this document.

6.5.3 Woodland areas will comprise, woodland and woodland edge mix. Areas will be pit planted in cultivated ground to accommodate the full depth of roots, then levelled and the soil firmed. Woodland and shrub plants will be planted in single species groups of 5no. minimum and protected against mammalian pests.

Establishment Maintenance

6.5.4 A detailed plan for the establishment and management of new trees and shrubs will be developed for the five year establishment maintenance period.

6.5.5 The aim of establishment maintenance will be to support the early stages of growth to encourage bushy growth and the canopy to close, reducing future management requirements to address competition from weeds. The trees and shrubs will be maintained in line with the recommendations of a ECoW.

6.5.6 Establishment maintenance will be based on the following principles and outline prescriptions:

- maintain a 1 m weed-free circle around trees and shrubs through mechanical control;
- water new plants to minimise failures in periods of drought;
- remove litter, rubbish, and debris from planted areas throughout the year at each inspection visit;
- re-firm soil around roots to ensure plants are supported and upright in spring;
- inspect and adjust guards, ties and stakes in spring and autumn and after strong wind events;
- check and record failed or defective plants annually in September;
- replace failed or defective plants with matching species of the same size during the next planting season after failure; and
- undertake quarterly check of plants to record their growth and condition.

Long-Term Management

6.5.7 The long-term management of new tree and shrub belts will focus on the following interventions within the Order limits:

- all woodland, woodland buffer, and native tree belt planting plots will undergo an annual condition assessment and an appropriate programme of works will be developed to address changes in condition and site requirements;
- from year five onwards, guards, ties and stakes will be removed from plants;
- between years seven and ten, planted areas will be reviewed and thinned out as necessary to remove any poor or weak specimens, which will help other specimens to flourish and provide space for trees and shrubs to further establish;
- the understorey of woodland, woodland buffers, and native tree belts will be coppiced in stages to minimise disturbance to wildlife, as required, as part of good woodland management;
- management of bramble will be carried out to prevent encroachment into adjacent areas; and
- arisings from thinning or other woodland management functions will be retained on site in the form of dedicated brash and wood piles or wind-rows, for the benefit for fungi, lichen, and invertebrates.

6.6 Native hedgerow planting

Function

6.6.1 A short section of new hedgerow will be established adjacent to the permanent access track close to the junction with A256 to connect with existing hedgerow vegetation. Hedgerows will be maintained to a height between 2.5 m and 3.5 m and 'infilled' where there are gaps in the existing hedgerows that the new hedgerow is connecting to.

Implementation

6.6.2 The location of the short section of new hedgerow is shown on **Figure 1 Minster Converter and Substation Outline Landscape Mitigation** in Appendix A of this document.

6.6.3 Hedge trenches shall be dug 450 mm wide by 450 mm deep, the base of which shall be broken up prior to returning backfill mixture. All stock to be supplied bare root if in season and container grown if planted out of season.

Establishment Maintenance

6.6.4 A detailed plan for the establishment and management of new hedgerows will be developed for the five-year establishment maintenance period.

6.6.5 The aim of establishment maintenance will be to support the early stages of growth to encourage thick, bushy growth and good form. This is based on the following principles and outline prescriptions:

- maintain a 0.5 metre weed free strip either side of hedgerow through chemical and mechanical control;
- first cut in Spring to 45-60 cm above ground level taking care to exclude hedgerow trees;
- water new plants to minimise failures in periods of drought;
- remove litter, rubbish, and debris from planted areas throughout the year;
- re-firm soil around roots to ensure plants are supported and upright in Spring each year;
- inspect and adjust stakes, guards, and ties in Spring and Autumn;
- check and record failed or defective plants annually in September;
- replace failed or defective plants with matching species of the same size during the next planting season after failure; and
- ECoW to undertake a quarterly check of plants to record their growth and condition.

Long-Term Management

6.6.6 The long-term management of new hedgerows will focus on the following interventions:

- hedgerows will be managed and maintained at a height of between 2.5 m and 3.5 m (allowing for individual trees within the hedgerow to establish and reach maturity);

- cutting will be carried out at the end of the Winter in February, thereby retaining berries through the Winter months for wildlife and avoiding the bird breeding season;
- overgrowing or overhanging branches will be removed from any pathways to keep them unobstructed;
- dead, over-mature or dying hedgerow trees will be subject to removal where they are considered dangerous on health and safety grounds, and in accordance with any protected species constraints; and
- monitoring will be undertaken to detect any significant changes in hedgerow and tree health and condition (maintenance and condition checks will be made every three years).

6.7 Species-rich neutral grassland

Function

6.7.1 Species-rich neutral grassland will be established across Minster Converter Station and Substation site.

6.7.2 Where practicable, seed will be obtained from a local source for the purpose of maintaining continuity with local species-rich grasslands.

6.7.3 Receiving soils will be prepared to reduce nutrients where practicable. This could include incorporating a substrate to reduce nutrient levels or removing topsoil to expose the sub-soil. Herbicide use can be beneficial but the risks of using across a large area, or close to a sensitive receptor, will need to be considered.

6.7.4 Once the nutrient level is reduced, all clods will be broken up and alien material (such as plastics and metals) above 50 mm in size will be removed. The top 50 mm of the soil will then be raked to prepare a fine tilth for the seedbed. The raking will occur immediately before sowing.

6.7.5 Seeding will be completed in either Autumn or Spring and only once the receiving soils have been tilled and adequately prepared.

Implementation

6.7.6 The locations of species-rich neutral grassland area shown on **Figure 1 Minster Converter and Substation Outline Landscape Mitigation** in Appendix A of this document.

6.7.7 The species mix will provide a self-sustaining, low maintenance species-rich neutral mixture that brings environmental benefits to pollinators and birds, whilst reinforcing positive landscape character features. However, this may be subject to change based on the needs of the site's biodiversity and prevailing soil types.

Establishment Maintenance

6.7.8 A detailed plan for the establishment and management of grassland areas will be developed for the five-year establishment maintenance period.

6.7.9 The aim of establishment maintenance will be to encourage development of a diverse sward of grasses and herbs. Establishment maintenance will be based on the following principles and outline prescriptions.

- immediately after sowing, the ground will be left undisturbed and un-watered to allow the grassland to establish naturally.
- mowing (where required) will be carried out in either August or September in the first year with subsequent cuts in March and September.
- visual inspections will be made during the growing season.
- control of undesirable species (e.g. arable weeds) and injurious weeds will be undertaken to prevent colonisation and domination of the grassland through the use of additional cuts during the growing season or, if essential, a selective herbicide (where appropriate and managed in accordance with locality e.g. applying appropriate buffers to watercourses or grasslands managed for invertebrates).
- botanical surveys will be carried out in late Spring to confirm that the establishment of the grassland mosaic has been successful in achieving their intended aims and objectives. Spot checks will be undertaken at locations within each grassland area by a suitably qualified ecologist during years 1, 3, and 5, the purpose being to record plant species, their distribution, and the overall condition of the grassland. Other relevant indicators relating to the sward that may require remedial action during the contract period or in the future will also be recorded; and
- if remedial action is required, the ECoW will agree action with a suitably qualified ecologist and areas identified will be re-seeded.

Long-Term Management

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

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

- species-rich and flower-rich grassland will receive one cut annually in September. Cuttings will be removed to appropriate storage areas on site;
- grassland within visibility splays will be maintained at the required height where necessary, with less frequent management to allow a taller and more diverse sward at the back of the verges behind the required visibility splays;
- visual inspections during the growing season. Where any areas not already subject to removal of cuttings are identified as having a decline in habitat condition or species diversity, a targeted cut and collect management regime will be implemented on a temporary basis;
- control of undesirable species (e.g. arable weeds) and injurious weeds to prevent colonisation and domination of the grassland using a selective herbicide (where appropriate and managed in accordance with locality e.g. applying appropriate buffers to watercourses or grasslands managed for invertebrates);
- riparian margins adjacent to grassland areas may be left for a year or more between cuts to provide dense ground level cover for fauna, including amphibians, small mammals, and invertebrates; and
- for marginal areas (species-rich grassland), if ground nesting birds are absent, plots may be scarified or 50% cut between mid-June and mid-July, with arisings removed to appropriate storage areas on site.

6.8 Pond creation

6.8.1 The ponds will require periodic (e.g. every five years) maintenance to retain the necessary storage volume, but this is not incompatible with water vole interest; it is standard to have to undertake some management of features supporting water voles. If water voles did colonise the balancing ponds a licence from Natural England might be needed each time the works were undertaken, depending on where the nests/burrows were precisely located compared to the clearance works.

6.9 Riparian enhancement of River Stour corridor

6.9.1 Riparian vegetation needs little management, and these scrapes do not have to retain a given area of open water. As such no long-term management is proposed. However, there will be annual checks for the first five years following planting to ensure that the desired species have established, to undertake any remedial planting, and to identify and if necessary eradicate any invasive species that colonise.

6.10 Golden plover and skylark habitat enhancement

6.10.1 The 10 ha of arable land at Great Stonor would be managed in the following manner:

- In the majority of years of a crop rotation (for example, two years out of a three year roatation) bare cultivated ground (created either by ploughing or minimum tillage methods such as tines, cultivators or light discs[6]) will be maintained for as long as possible between October and December.
- As part of any crop rotation on these fields it is likely that a mixture of Spring crops and Winter crops will be grown. Spring crops will be sown by preference (particularly Spring cereals) as these lead to suitably bare soils in the Winter, which are favoured by golden plover and other wintering birds.
- When Spring cereals are sown, stubble will be retained in the fields until the end of November to render it favourable for grain-eating birds and small mammals, and the land will then be cultivated to render if favourable for golden plover.
- Where Winter crops are to be sown, planting will be delayed as long as possible into the early Winter, maximising the availability of bare ground which is favourable for golden plovers.
- Where Winter crops are to be sown, skylark plots will be created in Winter for nesting to take place during the Spring/Summer. The skylark plots will be created at a rate of four plots per hectare. The creation process will follow government guidance: https://www.gov.uk/countryside-stewardship-grants/skylark-plots-ab4
- Where the ground is bare some recultivating during the extended bare ground period may be useful to bring soil invertebrates to the surface.
- The management will minimise pesticide (herbicide and insecticide) use as much as possible. An absolute prohibition on pesticide use is being investigated, but to ensure that continued farming viability, is not compromised, a specific ban on soil

[6] Ploughing is good because it brings the most soil invertebrates to the surface, but excessive ploughing could exhaust the soil invertebrate resource. Therefore, the preference would be for one pass with a plough per autumn/winter followed by minimum tillage methods for subsequent cultivations in that season.

applied insecticides (including seed treatments) is considered to be sufficient, as this will ensure no harm to the soil biota. Insecticides will not be applied to the Spring cereal crop after around mid-March, until it is harvested. Insecticides that affect soil invertebrates will not be applied.

- No public recreational access will be permitted to the area.
- There will be no topping, grazing, or application of any fertilisers, manure, or lime.
- There will be no application of herbicides to the area, apart from those containing the following permitted active ingredients:
- amidosulfuron;
- clodinafop-propargyl;
  - fenoxaprop-P-ethyl;
- pinoxaden; and
- tri-allate.

6.10.2 The above management measures are to be secured by a management agreement with the landowner/farmer or, if an agreement cannot be reached with the landowner/farmer, the DCO includes compulsory acquisition powers that would allow National Grid to 'step in' to ensure the required management is delivered.

7. Monitoring

7.1 Pre and Post Construction Monitoring and Reporting

7.1.1 Monitoring is required in order to determine that the functions documented within this oLEMP are being achieved and to determine whether any remedial management action may be required. The baseline against which the effects of the actions resulting from the monitoring can be compared against comprises the pre-construction baseline data. This baseline data was collected in 2023/2024 and will therefore require updating prior to construction, as by operation (from 2031 at the earliest) this data will be over four years old and out of date. Updates would require a similar set of surveys to be undertaken as those undertaken to inform the baseline, where relevant ecological receptors have been identified. These surveys will include surveys of breeding and non-breeding birds, bats, dormice, riparian mammals, and badger.

7.1.2 A post-construction monitoring programme and reporting procedure will be formalised, agreed with the relevant planning authority and included within the detailed LEMP, prior to construction works commencing.

7.1.3 Post-construction monitoring and reporting programmes will be established for some habitats and species following completion of construction works, where agreed with the relevant planning authority. Results from the post-construction monitoring will feed into the management plan and, if required, management may be amended accordingly.

7.1.4 The area of Golder Plover and skylark habitat enhancement will be monitored annually for the first five years, to confirm use by golden plover and skylark and inform any amendment of management prescriptions, with the primary objective to be confirming use by non-breeding golden plover to a level similar to that recorded around the Minster Converter Station and Substation. Subsequent monitoring will be every five years in perpetuity (typically defined as 80 years) or until the Minster Converter Station and Substation are decommissioned and returned to agriculture, whichever is the sooner. The subsequent monitoring will consist in a check to ensure management is still in line with requirements.

7.2 Adaptive Management Monitoring

7.2.1 The adoption of an adaptive management programme for the landscape planting is proposed to achieve optimum levels of plant growth and growing conditions and ultimately provide greater confidence that effective screening will be achieved by the tree planted areas. It will also allow flexibility to adapt to future climate changes and trends with regard to species selection and maintenance requirements. Monitoring will be undertaken throughout the implementation and maintenance and management periods to ascertain progress of tree growth to inform the subsequent steps to be taken as part of the adaptive management programme.

7.2.2 The species mixes and recommended height of species at year 15 which has been agreed with stakeholders is contained in Table 2.1 of **Application Document 6.3.3.1.A ES Appendix 3.1.A Landscape and Visual Impact Assessment and Photomontage Methodology**.

7.2.3 The LEMP will define the adaptive management programme in agreement with the relevant planning authority. New activities or adaptions to the management and maintenance regime will respond to the results of monitoring and changes as a result of climate change. It will comprise a landscape aftercare supervision structure that specifically addresses the quality and annual growth of different planting areas, with monitoring against agreed objectives. It will provide mechanisms to target specific measures to improve any areas where planting is not establishing satisfactorily. These measures could include replacement of failed trees and shrubs with different species if repeated failure of species is occurring and other remediation measures to improve growth including but not limited to watering, targeted weeding and soil analysis.

7.3 Non-Compliance Procedure

7.3.1 The ECoW will be responsible for undertaking the inspections during and post construction to check compliance with the LEMP. All incidents and non-conformance with the LEMP, will be reported and investigated, with the necessary procedures identified in the LEMP.

7.4 Change Process

7.4.1 The LEMP will identify the process if in the future it is necessary to amend aspects of the LEMP once it has been approved. Changes would not alter any underlying commitments, mitigation or methodologies which would be set out in the LEMP. An example may be where a preconstruction survey identifies that a measure already committed to is no longer required in the LEMP. This change process will be fully set out in the LEMP in discussion with stakeholders.

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Appendix A Figures

Legend

- Order Limits
- Minster Converter and Substation Limits of Deviation
- Permanent Access Route
- Attenuation ponds
- Existing Public Right of Way
- Saxon Shore Way
- Existing ditches and drainage channels
- Native Woodland Planting
- Species Rich Neutral Grassland
- Riparian Planting
- Native Hedgerow

0 50 150 250

nationalgrid

Scheme: SEA LINK

Document Title: Figure 1 Minster Converter and Substation Outline Landscape Mitigation

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SG	07/01/25	RM	07/01/25	BS	13/09/2024

Document Ref:	Scale:	Format:	Sheets:	Rev:
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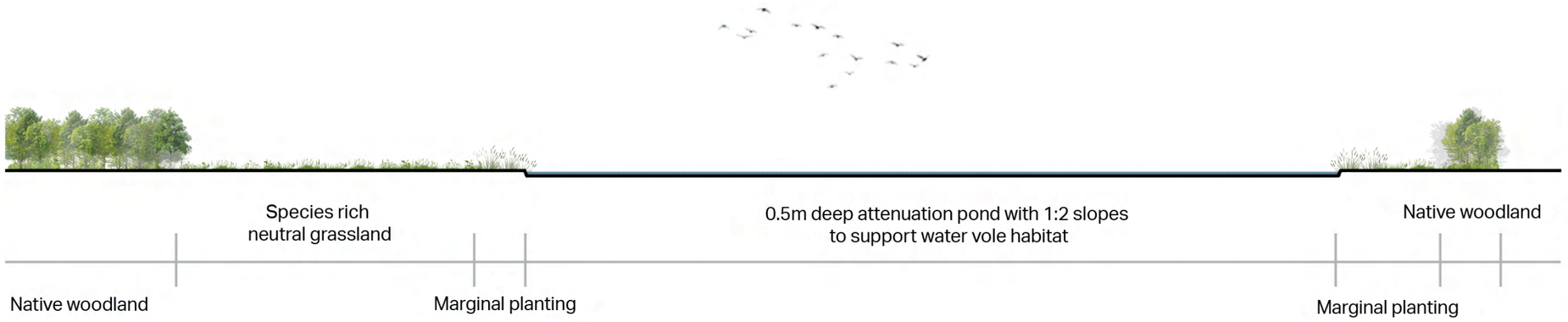

MINSTER SECTION A-A

Illustrative section through attenuation pond at year 15

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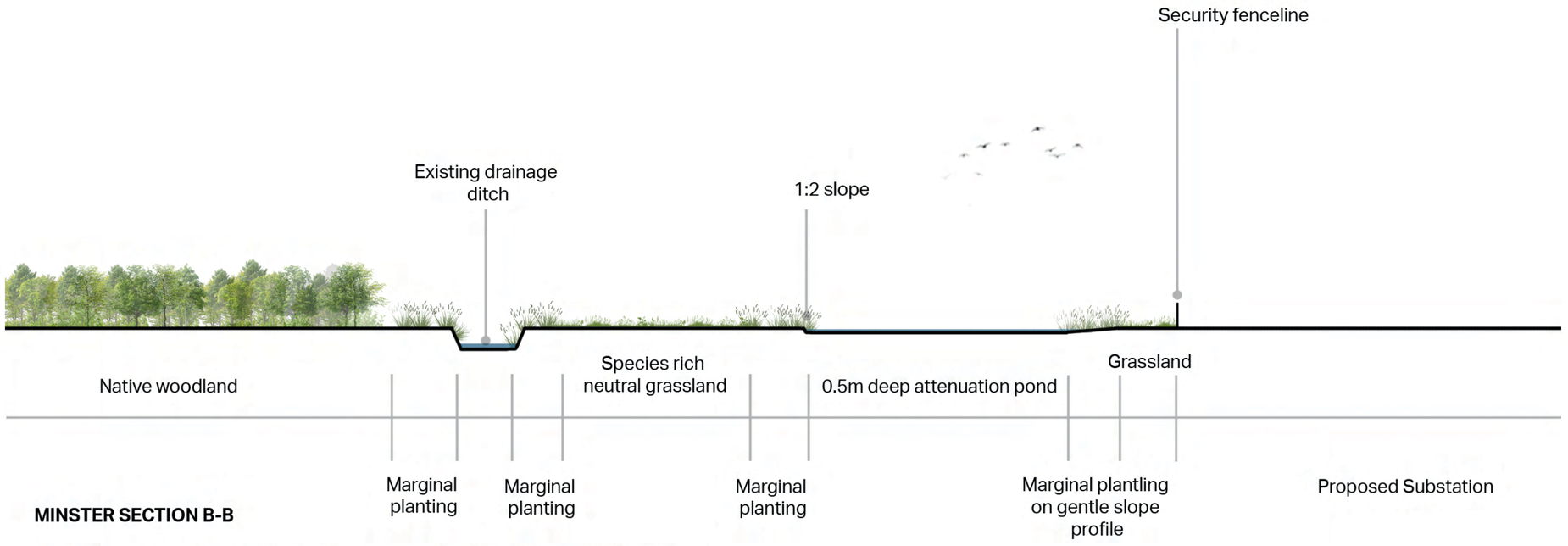

MINSTER SECTION B-B

Illustrative section through attenuation pond and existing drainage ditch at year 15

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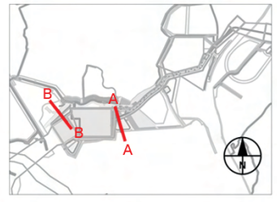
Legend

Notes

Refer to application document 7.5.7.2.1 Minster Converter Station and Substation Outline Landscape Mitigation for planting areas



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Scheme: SEA LINK

Document Title: FIGURE 2 MINSTER CONVERTER AND SUBSTATION ILLUSTRATIVE CROSS SECTIONS

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Minster

Brook Lane

Ebbsfleet Lane North

Richborough Way

Minster Stream

Ebbsfleet Farmhouse/Great Oaks Small School

Ebbsfleet Lane

River Stour

River Stour

River Stour

River Stour

Minster Stream

Richborough Way

Esri Community Maps Contributors, Esri UK, Esri, TomTom, Garmin, Foursquare, GeoTechnologies

Legend

- Order Limits
- Minster Converter and Substation Limits of Deviation
- Permanent Access Route
- Attenuation ponds
- Existing Public Right of Way
- Saxon Shore Way
- Potential Early Planting
- Post Construction Planting

Notes

Areas of early planting to be agreed as part of the detailed LEMP with contractor and relevant stakeholders

0 50 150 250

nationalgrid

Scheme:	SEA LINK
Document Title:	Figure 3 Minster Converter and Substation Outline Landscape Mitigation-Timing of Planting

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SG	13/09/2024	RM	13/09/2024	BS	13/09/2024

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Legend

- Kent Onshore Scheme Boundary
- Scrape Locations[1]

1: Precise scrape locations are subject to change

Rev	Date	Description	GIS	Chk	App
0	10/02/2025	OUTLINE LANDSCAPE AND ECOLOGY MANAGEMENT PLAN	EB	DF	JR

nationalgrid

Scheme: SEA LINK

Document Title: MINSTER CONVERTER AND SUBSTATION ENHANCEMENT AREAS

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EB	10/02/2025	DF	10/02/2025	JR	10/02/2025

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Legend

Kent Onshore Scheme Boundary

Golden Plover and Skylark Habitat Enhancement Area

0 50 100 150 200 250 m

Maxar, Microsoft

Rev	Date	Description	GIS	Chk	App
0	10/02/2025	OUTLINE LANDSCAPE AND ECOLOGY MANAGEMENT PLAN	EB	DF	JR

nationalgrid

Scheme: SEA LINK

Document Title: MINSTER CONVERTER AND SUBSTATION ENHANCEMENT AREAS

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EB	10/02/2025	DF	10/02/2025	JR	10/02/2025

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FIGURE 4	1:3,000	A3	1	0

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