The Great Grid Upgrade

Sea Link

Preliminary Environmental Information Report

Volume: 1

Part 1 Introduction

Appendix 1.4.F Outline Schedule of Environmental Commitments and Mitigation Measures

Version A

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1.4.F Outline Schedule of Environmental Commitments and Mitigation Measures

1.4.F.1 Introduction

1.4.F.1.1 As described in **Part 1 Chapter 5 PEIR Approach and Methodology**, mitigation measures required to avoid or reduce the potential significant adverse effects of the Proposed Project have been categorised as follows:

- Embedded Measures: those that are intrinsic to and built into the design in order to reduce the environmental effects of the Proposed Project. These include:
  - Sensitivity routing and sitting of infrastructure and temporary works;
  - Environmental Commitments associated with certain environmental receptors within the draft Order Limits;
- Control and Management Measures: these are good practice measures that are included within the Code of Construction Practice (CoCP) and other control and management plans (such as Construction Traffic Management Plans);
- Mitigation Measures: these are additional topic and site-specific measures, over and above embedded measures, that have been applied to mitigate or offset any likely significant effects.

1.4.F.1.2 This appendix sets out the schedule of environmental commitments and additional mitigation measures that have been identified through the preliminary environmental assessments presented in the Preliminary Environmental Information Report (PEIR) to avoid or reduce likely significant effects.

1.4.F.1.3 This appendix should be read alongside the following documents:

- **Volume 2, Part 1, Appendix 1.4.A Outline Code of Construction Practice (CoCP);**
- **Volume 2, Part 1, Appendix 1.4.B Outline Construction Traffic Management Plan (CTMP) for the Suffolk Onshore Scheme;**
- **Volume 2, Part 1, Appendix 1.4.C Outline Construction Traffic Management Plan (CTMP) for the Kent Onshore Scheme**.

1.4.F.1.4 This appendix is supported by the following figures:

- **Figure 1.4.F.1 Location of Environmental Commitments**

1.4.F.1.5 This document will be kept under review as the design of the Proposed Project develops and will be updated alongside the production of an Environmental Statement (ES) and submitted as part of the application for development consent.

1.4.F.2 Environmental Commitments

1.4.F.2.1 The schedule of Environmental Commitments sets out commitments to certain environmental receptors within the draft Order Limits.

1.4.F.2.2 Design measures, for example the sensitive routeing of underground lines, have been critical in avoiding or reducing a number of potential environmental effects.

1.4.F.2.3 Where the design of the Proposed Project has been unable to resolve potentially significant effects, further spatial commitments within the draft Order Limits have been identified. These are referred to as Environmental Commitments and are presented in Table 1.4.F.1, Table 1.4.F.2 and Table 1.4.F.3, below. this appendix. Each environmental commitment have been given a unique code to make it easy to identify the specific location within Figure 1.4.F.1.

Table 1.4.F.1 Suffolk Onshore Scheme - environmental commitments

Code	Relevant topic	Commitment
EC-SO-PW-001	All	The preferred installation method for the Suffolk Landfall is a trenchless technique to minimise the loss of habitat within the Site of Special Scientific Interest (SSSI): Leiston – Aldeburgh and North Warren RSPB Reserve
EC-SO-LV-001	Landscape	Retention of mature oak tree within draft Order Limits
EC-SO-LV-002	Landscape	Retention of mature oak tree and protection of root zone
EC-SO-EC-001	Ecology	Ensure the construction swathe is located beyond the tree canopy and root protection zone of Great Wood CWS
EC-SO-EC-002	Ecology	Ensure the construction swathe is located beyond the tree canopy and root protection zone of Grove Wood CWS

Table 1.4.F.2 Kent Onshore Scheme - environmental commitments

Ref	Relevant topic	Commitment
EC-KT-PW-001	All	The preferred installation method for the Kent Landfall is a trenchless technique to minimise the loss of habitat within Sandwich Bay to Hacklinge Marshes Site of Special Scientific Interest (SSSI).
EC-KT-EC-001	Ecology	Maintain a suitable buffer between the converter station and substation construction and the Sandwich Bay to Hacklinge Marshes SSSI.
EC-KT-EC-002	Ecology	Ensure the haul route is located beyond the tree canopy and root protection zone of the Sandwich Bay to Hacklinge Marshes SSSI boundary.

Table 1.4.F.3 Marine Scheme - environmental commitments

Ref	Relevant topic	Commitment
EC-KT-001	All	At the Kent Landfall, the preferred installation method is a trenchless technique that will drill beneath the ground surface to avoid the need to trench the cables through the saltmarsh.
EC-SO-001	All	At the Suffolk Landfall, the preferred installation method is a trenchless technique.

1.4.F.3 Mitigation Measures

1.4.F.3.1 Table 1.4.F.4, Table 1.4.F.5, Table 1.4.F.6 and Table 1.4.F.7 present the additional mitigation that has been identified during the assessment of preliminary environmental effects process as being necessary to avoid or reduce significant impacts on the environment. These mitigation measures have been identified in the PEIR topic chapters as being required and will be kept under review (along with the proposed securing mechanism) and confirmed within the application for development consent.

Table 1.4.F.4 Project-wide - mitigation

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Landscape / Ecology	The Proposed Project has committed to deliver net gain by at least 10% or greater in environmental value (including biodiversity) on this project.	Secured through a Design Principles document
Agriculture and soils / Health and wellbeing	The Proposed Project will be designed in accordance with National Grid design standards and will be compliant with the guidelines and policies relating to electric and magnetic fields stated in National Policy Statement EN-5 (Department of Energy and Climate Change, 2011b), including the International Commission on Non-Ionizing Radiation Protection guidelines (1998)	Secured through a Design Principles document
All	The Proposed Project will be designed to comply with design safety standards including National Electricity Transmission System Security and Quality of Supply Standards and the suite of National Grid policies and processes which contains details on design standards required to be met when designing, constructing and operating its project.	Secured through a Design Principles document
Climate	• The use of materials with a low embodied carbon; • The use of low carbon construction techniques; and • Designing the Proposed Project to be resilient to any significant impacts of climate change	Secured through a Design Principles document

Table 1.4.F.5 Suffolk Onshore Scheme – mitigation

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Landscape and visual	The design of the Saxundham Converter Station, in terms of the building form and the external materials, will be developed alongside consultation and stakeholder feedback. A Design Code for this building will be provided with the application for development consent. The Design Code will provide guidance regarding the design intent and design principles that will be adopted and embedded into the detailed proposals of this structure. These include: • Locating the Saxmundham Converter Station as far as practicable within the southern extent of the site, away from the B1119 and the gateway approach into Saxmundham and to maximise the opportunity for landscape integration planting and screening to improve landscape fit and minimise visual impact (see **Figure 1.4.3 Saxmundham Converter Station Indicative Landscaping Strategy**); • Consideration of the orientation and massing of the Saxmundham Converter Station in order that existing landscape features can be retained and enhanced (woodland, hedgerow planting); and • Designing and arranging the converter station to be sympathetic to their surroundings and be integrated into the landscaped setting of the site. Buildings to be clad in appropriate materials and colours designed to appear recessive within the landscape, to help integrate the building into the landscape and views.	Secured through a Design Principles document
Landscape and visual	The temporary works within the AONB associated with the landfall and HVDC would be fully reinstated in accordance with Control and Management Measures.	Secured through a Design Principles document
Landscape and visual	An outline landscape strategy has been prepared for Saxmundham Converter Station and co-location for the PEIR which provides a collaborative approach to delivering landscape and biodiversity mitigation as well as BNG (the latter to be developed post PEIR). They are presented on **Figure 1.4.3 Saxmundham Converter Station Indicative Landscaping Strategy** and **Figure 1.4.5 Saxmundham Converter Station Indicative Landscaping with Co-location**. This outline strategy has been developed in recognition of the local landscape policies and landscape character, considering the opportunities for	Secured through a Design Principles document and Landscape and Ecological

Relevant topic	Description of mitigation measures	Proposed securing mechanism
	local landscape and biodiversity enhancement. It will continue to be developed as part of the iterative process of design and assessment. The principles of the outline landscape strategy, which will inform the future design development for DCO submission, seek to: • Respond to both the immediate landscape pattern of the site as well as the wider landscape character; • Strengthen the existing landscape framework of the site, extending and enhancing the woodland planting along the western and southern boundaries with native woodland planting to provide structural screening to the converter station(s); • Introduce native hedgerow and tree planting along sections of the B1119 to partially screen views of the converter station(s) whilst maintaining some views of the planted edge of Saxmundham (identified in the Saxmundham Neighbourhood Plan as an important aspect of the setting and in views when approaching along the B1119 from the east); • Enhance the historic setting of Wood Farm listed building; • Advanced planting to establish areas of mitigation planting prior to construction commencing; and • Monitoring and maintenance of new planting and seeding to ensure successful establishment.	Management Plan (LEMP)
Ecology	Where feasible and necessary, the most potentially disturbing elements of trenchless installation will take place between September and February, to minimise disturbance of breeding nightjar and woodlark in the adjacent Sandlings SPA.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Install visual and noise disturbance mitigation (e.g. close-board fencing) along the boundary between the construction or decommissioning compound and trenchless crossing west of the North Warren RSPB Reserve, and both the Reserve and Sandlings SPA, should noise modelling for the DCO indicate this is necessary.	Secured through the CEMP (anticipated to be a requirement of the DCO)

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Ecology	Implement similar noise and visual disturbance screening measures elsewhere on the construction or decommissioning site if feasible and identified as being necessary to protect specific features e.g. bat roosts, badger setts, or otter holts.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Where sections of hedgerow are removed, and are ecologically worth preserving, they should be removed in sections, retaining intact root balls where possible. This will speed up the restoration process.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Where ditches and watercourses are identified as environmentally sensitive the crossing technology, design, installation and decommissioning works will be assessed to mitigate the potential impacts of the works. Mitigation could be through the reduction in width of the construction swathe, the inclusion of ecology mitigation factors within the design such as mammal passes, the use of trenchless crossing techniques and/or the introduction of staged clearance and construction works.	To be confirmed in ES
Ecology	Where it is necessary to cross watercourses using open cut methods, removal of riparian vegetation and damage to the banks will be kept to the minimum required, will not obstruct the passage of wildlife, and will be restored on cessation of works. .	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology Water Environment	Implement measures to ensure no significant hydrological impact on water levels in North Warren RSPB Reserve.	To be confirmed in ES
Ecology	Consider the feasibility of maintaining continuous cropping of arable land within the LoD, and allowing acid grassland to grow tall within the LoD, prior to and during construction to discourage woodlark from nesting close enough to the construction or decommissioning to be disturbed, until works in that area are complete.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Consider undertaking potentially disturbing (noisy) maintenance activities during August and September, where practicable, reducing risk of disturbance of breeding or non-	Secured through the CEMP (anticipated to

Relevant topic	Description of mitigation measures	Proposed securing mechanism
	breeding birds using RSPB North Warren Reserve or breeding nightjar and woodlark using Sandlings SPA.	be a requirement of the DCO)
Ecology	Where areas of acid grassland are to be trenched, and where space allows, explore cutting the best quality grassland as turves and storing them to one side in order that they can be restored after trenching is complete.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Plant permanent new woodland and hedgerows, to achieve biodiversity net gain but also to compensate for the temporary removal of plantation, woodland and hedgerow sections for cable installation and the haul route. Areas to be confirmed once surveys complete.	Secured through a Design Principles document and LEMP
Ecology	Create other habitat of long-term value to fauna, particularly farmland birds, as far as practicably possible, such as through securing permanent wide grassed field margins and crop regimes favourable to farmland birds and creating areas of species-rich structurally diverse grassland, to compensate for the permanent loss of farmland habitat due to the proposed Saxmundham Converter Station, and the temporary loss required for cable installation and the haul route. Areas and details to be confirmed once surveys are complete.	Secured through a Design Principles document and LEMP
Ecology	Where practicable, permanent bridges constructed over the River Fromus, would be designed to achieve a height:width ration of 0.7. Using this height:width ratio, the soffit of a 4m wide bridge would need to be 2.8m above the water level to allow sufficient light to penetrate.	Secured through a Design Principles document
Traffic and transport	Further consultation will be held with Suffolk County Council (SCC) Highways and PRoW Officers at ES stage, to identify appropriate mitigation for any permanent PRoW diversions (e.g. 7975, 8903 and 8904) should these be required to accommodate any substations and/or converter stations.	To be confirmed in the ES
Traffic and transport	An Outline PRoW Management Plan will be prepared at ES stage to identify the management and mitigation measures to be implemented to avoid any significant effects on PRoW (e.g. as a result of any diversions or closures) during all phases of the Proposed Project.	Secured through an Outline PRoW Management Plan

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Traffic and transport	The ES will include a review of full Personal Injury Accident (PIA) data (to be obtained from SCC Highways), to identify any collision clusters/patterns, confirm receptor sensitivity levels (Road Safety and Hazardous/Large Loads) and determine whether any further mitigation measures are required to safely manage construction vehicles travelling to/from the Proposed Project.	To be confirmed in the ES
Traffic and transport	The ES will be supported by updated traffic count data for the surrounding highway network to provide updated baseline traffic flows for the road link and road junction receptors. The assessment work will be updated accordingly, to determine whether any of further mitigation measures are required to safely manage construction vehicles travelling to/from the Proposed Project.	To be confirmed in the ES
Air Quality	As a result of the preliminary construction dust assessment detailed in **Appendix 2.9.A Construction Dust Assessment and Methodology**, a number of mitigation measures have been identified (Table 2.9.A.13, **Appendix 2.9.A Construction Dust Assessment and Methodology**) to reduce the impact on human health and ecology. These have been incorporated in the Outline CoCP.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Air Quality	Any additional mitigation measures associated with construction vehicle and Non-Road Mobile Machinery (NRMM) emissions other than those measures described in the Outline CoCP will be determined in the ES following detailed assessment.	To be confirmed in the ES
Noise and vibration	Application of BPM (e.g. screening) to reduce levels of noise and vibration from potentially significant construction activities.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Noise and vibration	Saxmundham Converter Station will include appropriate noise mitigation measures in the design (e.g. plant selection, and transformer noise enclosures).	Secured through a Design Principles document

Table 1.4.F.6 Kent Onshore Scheme – mitigation

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Landscape and visual	Design Principles will be developed and will include detailing the design intent and design principles that will be adopted and embedded into the design of the Saxmundham Converter Station. These include: • Locating the converter station and substation as close to the existing infrastructure at Richborough Energy Park and limiting the incursion into the wider marsh landscape, to improve landscape fit and minimise visual impact; • Consideration of the orientation and massing of the converter station and substation in order that existing landscape features can be retained (drainage ditches and SSSI woodland); and • Designing the converter station buildings be sympathetic to their surroundings and be integrated into the landscaped setting of the site. Buildings will be clad in appropriate material and colours designed to appear recessive within the landscape, to help integrate the buildings into the landscape and views	Secured through a Design Principles document
Landscape and visual	An outline landscape strategy has been prepared for Minster Converter Station and co-location for the PEIR which provides a collaborative approach to delivering landscape and biodiversity mitigation as well as BNG (the latter to be developed post PEIR). The outline landscape strategy will continue to be developed. The principles of the outline landscape strategy, which will inform the future design development for DCO submission, seek to: • Respond to both the immediate landscape pattern of the site as well as the wider landscape character; • Use native woodland planting to provide screening to the 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; • Reinforce the pattern of drainage ditches with appropriate marginal planting and establishing a sensitive interface with the wider marsh landscape; • Provide connectivity with wider blue and green infrastructure networks;	Secured through a Design Principles document and LEMP

Relevant topic	Description of mitigation measures	Proposed securing mechanism
	• Protect existing vegetation wherever possible; • Consider opportunities for advanced planting to provide early establishment of woodland planting; • 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 within the site; and • Monitoring and maintenance of new planting and seeding to ensure successful establishment.	
Ecology	The construction or decommissioning phases of the Proposed Project will avoid direct land take from either Sandwich Bay to Hacklinge Marshes SSSI or non-statutory site TH12 (Woods & Grassland, Minster Marshes)	Secured through a Design Principles document
Ecology	Replant removed hedgerow sections, and restore riparian corridors where affected, within five years of removal.	Secured LEMP
Ecology	Where sections of hedgerow are removed, and are ecologically worth preserving, they shall be removed in sections retaining intact root balls where possible. This will speed up the restoration process.	Secured through a Design Principles document
Ecology	Where ditches and watercourses are identified as environmentally sensitive the crossing technology, design, installation and decommissioning works will be assessed to mitigate the potential impacts of the works. Mitigation could be through the reduction in width of the construction swathe, the inclusion of ecology mitigation factors within the design such as mammal passes, the use of trenchless crossing techniques and/or the introduction of staged clearance and construction works	To be confirmed in ES
Ecology	Consider using line markers on earth wires and/or conductors for the new section of overhead line across the River Stour, to reduce bird collision risk.	To be confirmed in ES
Ecology	As far as practicable, consider undertaking maintenance activities outside of the non-breeding season, reducing risk of disturbance of (for example) golden plover using fields along the River Stour.	To be confirmed in ES

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Ecology	Where feasible and necessary, the most potentially disturbing construction or decommissioning activities at the proposed Minster Converter Station and Minster Substation will take place between July and February to minimise disturbance of any breeding birds in the SSSI	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Annually monitor the presence of nesting Cetti's warbler and kingfisher within the watercourses within Kent Onshore Scheme boundary during construction (as territory distribution may change) and take steps (such as removing habitat outside the nesting season, and introducing buffer zones or noise barriers during the nesting season) to ensure that no disturbance of nesting pairs occurs.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Implement (if noise modelling indicates it is required) noise barriers such as close board fencing between the proposed Minster Converter Station and Minster Substation construction or decommissioning and the SSSI.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Implement similar noise and visual disturbance screening measures elsewhere on the construction or decommissioning site if feasible and identified as being necessary to protect specific features e.g. bat roosts, badger setts, or otter holts.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Where it is necessary to cross watercourses using open cut methods, the removal of riparian vegetation and damage the banks will be kept to the minimum required, will not obstruct passage of wildlife, and will be restored on cessation of works.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Ecology	Investigate opportunities to deliver long-term improved habitat (for example, in the form of seasonally flooded grassland and new riverside scrapes) to offset the permanent loss of fields currently used by non-breeding golden plover, and to enhance the Stour corridor. This would contribute towards enhancing the Lower Stour Wetlands Biodiversity Opportunity Area. Any such habitat creation would need to be compatible with, and augment, Natural England's existing habitat restoration proposals for the Stour corridor. Areas involved are to be confirmed once surveys are complete.	To be confirmed in ES

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Ecology	Plant permanent new woodland and hedgerows, to achieve biodiversity net gain but also to compensate for permanent loss of woody habitat due to the proposed Minster Converter Station, and the temporary removal of hedgerow sections for cable installation and the haul route. Areas involved are to be confirmed once surveys are complete.	Secured through a Design Principles document and LEMP
Ecology	Where bridges need constructing over the River Stour or Minster Stream, they will be designed to achieve a height:width ratio of 0.7 where possible. . Using this height:width ratio, the soffit of a 4m wide bridge would need to be 2.8m above the water level to allow sufficient light to penetrate.	Secured through a Design Principles document
Cultural Heritage	The use of planting or other screening to remove or reduce potential impacts on the setting of heritage assets.	Approval of Design Principles document and LEMP
Traffic and transport	Further consultation will be held with KCC Highways and PRoW Officers at ES stage, to identify appropriate mitigation for any permanent PRoW diversions (e.g. TE26 and EE42) should these be required to accommodate the overhead lines and pylons to the north and south of the River Stour once a preferred option has been selected.	To be confirmed in the ES
Traffic and transport	An Outline PRoW Management Plan will be prepared at ES stage to identify the management and mitigation measures to be implemented to avoid any significant effects on PRoW (e.g. as a result of any diversions or closures) during all phases of the Proposed Project.	Secured through an Outline PRoW Management Plan
Traffic and transport	The ES will include a review of full PIA data (to be obtained from KCC Highways), to identify any collision clusters/patterns, confirm receptor sensitivity levels (Road Safety and Hazardous/Large Loads) and determine whether any further mitigation measures are required to safely manage construction vehicles travelling to/from the Proposed Project.	To be confirmed in the ES
Traffic and transport	The ES will be supported by updated traffic count data for the surrounding highway network to provide updated baseline traffic flows for the road link and road junction receptors. The assessment work will be updated accordingly, to determine whether further mitigation measures are required to safely manage construction vehicles travelling to/from the Proposed Project.	To be confirmed in the ES

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Air Quality	As a result of the preliminary construction dust assessment outlined in **Appendix 3.9.A Construction Dust Assessment and Methodology**, a number of mitigation measures have been identified (Table 3.9.A.13, Appendix 3.9.A Construction Dust Assessment and Methodology) to reduce the impact on human health and ecology. These have been incorporated into the Outline CoCP.	Secured through the Dust Management Plan and CEMP
Air Quality	Any additional mitigation measures associated with construction vehicle, generator and NRMM emissions other than those measures described in the Outline CoCP will be determined in the ES following detailed assessment.	To be confirmed in the ES.
Noise and vibration	Application of BPM (e.g. screening) to reduce levels of noise and vibration from potentially significant construction activities.	Secured through the CEMP (anticipated to be a requirement of the DCO)
Noise and vibration	Minster Converter Station and Minster Substation will include appropriate noise mitigation measures in the design (e.g. plant selection, and transformer noise enclosures).	Secured through a Design Principles document

Table 1.4.F.7 Offshore Scheme – mitigation

Relevant topic	Description of mitigation measures	Proposed securing mechanism
All Marine	Compliance with MGN661 Navigation - Safe and responsible anchoring and fishing practices - In line with guidance provided by the UKHO and International Convention for the Safety of Life at Sea (SOLAS) it is recommended that fishing vessels should avoid trawling over installed subsea infrastructure.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)
Physical Environment	Where rock placement is required to protect an exposed or shallow buried cable, the height and width of these berms will be kept to a practical and safe minimum, typically a height of up to 1 m, with a width of up to 7 m for post-lay berms, and a height of 0.5 m, with a width of 4 m for pre-lay berms. Heights may increase to 1.5 m and widths to 10 m if both pre-and post-lay rock berms are used at any one location.	Secured through a Design Principles document

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Physical Environment	Depth of Burial Monitoring surveys: Ideally the first monitoring survey should take place annually after the as-built survey until a trend is established (or no major changes observed) after which this interval may be relaxed to 2-5 years. It might be the case that only certain areas require more frequent assessment, but this can only be determined after several surveys have been undertaken to establish any trends.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)
Marine Archaeology	Where sensitive routeing and siting of infrastructure and temporary works around marine heritage assets is not possible, anomaly investigation will be undertaken to confirm the nature and value of the seabed anomaly. Methods of ground truthing assessment could include ROV or diver survey and could be undertaken in conjunction and in coordination with other surveys associated with the Offshore Scheme, for example unexploded ordnance (UXO) or obstruction surveys. All relevant information and data derived from such surveys should be assessed by a suitably qualified, experienced and accredited marine archaeological consultant, and in accordance with the associated WSI.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)
Marine Archaeology	Alongside the additional pre-consent surveys planned during Summer 2023, any further marine geophysical or geotechnical surveys undertaken, for instance post-consent or post-construction, will be archaeologically assessed and interpreted by a suitably qualified, experienced and accredited marine archaeological geophysicist or geoarchaeologist. Work will be undertaken in accordance with the associated WSI (**Volume 2, Appendix 4.7.B Written Scheme of Investigation**) and accompanying Method Statements. The results of such surveys will be integrated with previous interpretations and reported on accordingly to inform the EIA process. It is also recommended that archaeological specialists are included in the design of any geophysical and geotechnical surveys to ensure that opportunities are maximised where possible.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)
Marine Archaeology	Watching briefs will be utilised in the intertidal or marine areas where any intrusive works are planned. These could include pre-lay grapnel runs or intertidal cable-laying in an excavated trench. The proposed methodology will be presented in a Method Statement and agreed through consultation with the Regulator, the MMO, and the Archaeological Curator, Historic England, for marine works and the respective local authority curatorial bodies that serve Suffolk and Kent for works in the intertidal zone; and	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Marine Archaeology	Once the design of the Offshore Scheme has been confirmed, it may be possible to ascertain measures to protect heritage assets that could be indirectly impacted, for instance by scouring, exposure or erosion, caused by direct impacts to the seabed. For instance, 'physical buffers' may be placed around a heritage asset to protect it from scour. The proposed methodology for such works will be outlined in a Method Statement and approved by the Archaeological Curator, Historic England and the Regulator, the MMO.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)
Marine Navigation	• Notification of regular services including ferry operators - Engagement with regular runners and specifically ferry operators ensures awareness of the installation details which minimises disruption; • Vessel Traffic Service (VTS) – Existing shore-side systems which range from the provision of simple information messages to ships, such as position of other traffic or meteorological hazard warnings, to extensive management of traffic within a port or waterway; • Adverse Weather Guidelines - Issued by Ports in response to forecast bad weather. Potentially limits collisions, disruption and sub-surface interactions by deterring vessels from navigating anchoring fishing etc near hazards in bad weather; and • Operations Weather Envelope limits - Installation operations monitor weather conditions and evaluate critical minimum operational envelope for relevant activities.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)
Ornithology	There will be Health, Safety and Environment (HSE) procedures implemented, with strict limits on weather conditions, equipment maintenance and personnel to further reduce the risk of any accidental spills/releases. Furthermore, in the event of a spill, a response will be made swiftly.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)
Ornithology	With the exception of trenchless installation techniques at landfall, all other construction works will be timed to ensure the overwintering period of the red-throated diver is avoided in the months of January – March.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)

Relevant topic	Description of mitigation measures	Proposed securing mechanism
Ornithology	Existing shipping lanes will be utilised for vessel transiting routes to avoid additional disturbance, where practicable.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)
Ornithology	Vessel operators will be made aware of the importance and sensitivity of the species to disturbance. Vessels will avoid rafting birds and areas with high densities of birds, where practicable.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)
Ornithology	Artificial lighting on vessels will be directional and only used when necessary, noting that health and safety requirements will need to be met for safe working practices.	Secured through the Marine CEMP (anticipated to be a requirement of the DCO)

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