



# White Cross Offshore Wind Farm: Updated Outline Construction Environment Management Plan (OCEMP)

**WHX001-FLO-CON-ENV-PLN-0010**



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## Glossary of Acronyms

Acronym	Definition
<b>ALO</b>	Agricultural Liaison Officer
<b>CEMP</b>	Construction Environmental Management Plan
<b>COSHH</b>	Control of Substances Hazardous to Health
<b>CTMP</b>	Construction Traffic Management Plan
<b>EA</b>	Environment Agency
<b>ECOW</b>	Environmental / Ecological Clerk of Works
<b>EIA</b>	Environmental Impact Assessment
<b>EMS</b>	Environmental Management System
<b>EPSL</b>	European Protected Species Mitigation Licence
<b>ES</b>	Environmental Statement
<b>EU</b>	European Union
<b>HSE</b>	Health Safety and Environment
<b>IMCA</b>	International Marine Contractors Association
<b>IMO</b>	International Maritime Organization
<b>IOPP</b>	International Oil Pollution Prevention Certificate
<b>km</b>	Kilometre
<b>LIA</b>	Lighting Impact Assessment
<b>LPA</b>	Local Planning Authority
<b>MCA</b>	Maritime and Coastguard Agency
<b>MHWS</b>	Mean High Water Springs
<b>MMMP</b>	Marine Mammal Mitigation Protocol
<b>MMO</b>	Marine Management Organisation
<b>MPCP</b>	Marine Pollution Contingency Plan
<b>MW</b>	Megawatt
<b>NDC</b>	North Devon Council
<b>NG</b>	National Grid
<b>NE</b>	Natural England
<b>OCEMP</b>	Outline Construction Environment Management Plan
<b>OCSIP</b>	Outline Cable Specification and Installation Plan
<b>OLEMP</b>	Outline Landscape and Ecological Management Plan
<b>PEMMP</b>	Project Environmental Monitoring and Mitigation Plan
<b>PPG</b>	Pollution Prevention Guidance
<b>SAC</b>	Special Area of Conservation
<b>SMP</b>	Soil Management Plan
<b>SOPEP</b>	Shipboard Oil Pollution Emergency Response Plan
<b>SPD</b>	Supplementary Planning Document
<b>SSSI</b>	Site of Special Scientific Interest
<b>SUDS</b>	Sustainable Urban Drainage Systems
<b>TBT</b>	Toolbox Talk
<b>TCPA</b>	Town and Country Planning Act

Acronym	Definition
<b>TMCo</b>	Traffic Management Co-ordinator
<b>UK</b>	United Kingdom
<b>UXO</b>	Unexploded Ordnance
<b>WSI</b>	Written Scheme of Investigation

## Glossary of Terminology

Defined Term	Description
<b>Applicant</b>	White Cross Offshore Windfarm Limited
<b>Department for Business, Energy and Industrial Strategy (BEIS)</b>	Government department that is responsible for business, industrial strategy, science and innovation and energy and climate change policy and consent under Section 36 of the Electricity Act.
<b>Environmental Impact Assessment (EIA)</b>	Assessment of the potential impact of the proposed Project on the physical, biological and human environment during construction, operation and decommissioning.
<b>Export Cable Corridor</b>	The area in which the export cables will be laid, either from the Offshore Substation or the inter-array cable junction box (if no offshore substation), to the NG Onshore Substation comprising both the Offshore Export Cable Corridor and Onshore Export Cable Corridor.
<b>Floating substructure</b>	The floating substructure acts as a stable and buoyant foundation for the WTG. The WTG is connected to the substructure via the transition piece and the substructure is kept in position by the mooring system.
<b>Generation Assets</b>	The infrastructure of the Project related to the generation of electricity within the windfarm site, including wind turbine generators, substructures, mooring lines, seabed anchors and inter-array cables.
<b>Landfall</b>	Where the offshore export cables come ashore.
<b>Mean high water springs</b>	The average tidal height throughout the year of two successive high waters during those periods of 24 hours when the range of the tide is at its greatest.
<b>Mean low water springs</b>	The average tidal height throughout a year of two successive low waters during those periods of 24 hours when the range of the tide is at its greatest.
<b>Mitigation</b>	<p>Mitigation measures have been proposed where the assessment identifies that an aspect of the development is likely to give rise to significant environmental impacts and discussed with the relevant authorities and stakeholders in order to avoid, prevent or reduce impacts to acceptable levels.</p> <p>For the purposes of the EIA, two types of mitigation are defined:</p> <ul style="list-style-type: none"> <li>• Embedded mitigation: consisting of mitigation measures that are identified and adopted as part of the evolution of the project design, and form part of the project design that is assessed in the EIA</li> <li>• Additional mitigation: consisting of mitigation measures that are identified during the EIA process specifically to reduce or eliminate any predicted significant impacts. Additional mitigation is therefore subsequently adopted by WCOWL as the EIA process progresses.</li> </ul>
<b>Mooring System</b>	The equipment (mooring lines and seabed anchors) that keeps the floating substructure in position during operation through a fixed connection to the seabed.
<b>National Grid Onshore Substation</b>	Part of an electrical transmission and distribution system. Substations transform voltage from high to low, or the reverse by means of the electrical transformers.
<b>National Grid Connection Point</b>	The point at which the White Cross Offshore Windfarm connects into the distribution network at East Yelland substation and the distributed electricity network. From East Yelland substation electricity is transmitted to Alverdiscott where it enters the national transmission network.



<b>Defined Term</b>	<b>Description</b>
<b>Offshore Development Area</b>	The Windfarm Site (including wind turbine generators, substructures, mooring lines, seabed anchors, inter-array cables and Offshore Substation Platform (as applicable)) and Offshore Export Cable Corridor to MHWS at the Landfall (up to MHWS). This encompasses the part of the project that is the focus of this application and Environmental Statement and the parts of the project consented under Section 36 of the Electricity Act and the Marine and Coastal Access Act 2009.
<b>Offshore Export Cables</b>	The cables which bring electricity from the Offshore Substation Platform or the inter-array cables junction box to the Landfall (up to MHWS)
<b>Offshore Infrastructure</b>	All offshore infrastructure including wind turbine generators, substructures, mooring lines, seabed anchors, Offshore Substation Platform and all cable types (export and inter-array). This encompasses the infrastructure that is the focus of this application and Environmental Statement and the parts of the project consented under Section 36 of the Electricity Act and the Marine and Coastal Access Act 2009.
<b>Offshore Substation Platform</b>	A fixed structure located within the Windfarm Site, containing electrical equipment to aggregate the power from the wind turbines and convert it into a more suitable form for export to shore.
<b>Onshore Export Cables</b>	The cables which bring electricity from MLWS at the Landfall to the White Cross Onshore Substation and onward to the National Grid (NG) grid connection point at East Yelland.
<b>Onshore Export Cable Corridor</b>	The proposed onshore area in which the export cables will be laid, from MLWS at the Landfall to the White Cross Onshore Substation and onward to the NG grid connection point at East Yelland.
<b>Onshore Infrastructure</b>	The combined name for all infrastructure associated with the Project from MLWS at the Landfall to the NG grid connection point at East Yelland. The onshore infrastructure will form part of a separate planning application to the Local Planning Authority (LPA) under the Town and Country Planning Act (TCPA) 1990.
<b>the Offshore Project</b>	The Offshore Project for the offshore Section 36 and Marine Licence application includes all components offshore of MHWS. This includes the infrastructure within the windfarm site (e.g. wind turbine generators, substructures, mooring lines, seabed anchors, inter-array cables and Offshore Substation Platform (as applicable)) and all infrastructure associated with the export cable route and landfall (up to MHWS) including the cables and associated cable protection (if required).
<b>the Onshore Project</b>	The Onshore Project for the onshore TCPA application includes all elements onshore of MLWS. This includes the infrastructure associated with the offshore export cable (from MLWS), landfall, Onshore Export Cable and associated infrastructure and new Onshore Substation (if required).
<b>the Project</b>	the Project is a proposed floating offshore windfarm called White Cross located in the Celtic Sea with a capacity of up to 100MW. It encompasses the project as a whole i.e. all onshore and offshore infrastructure and activities associated with the Project.
<b>White Cross Offshore Windfarm Limited</b>	White Cross Offshore Windfarm Ltd (WCOWL) is a joint venture between Cobra Instalaciones Servicios, S.A., and Flotation Energy Ltd.
<b>White Cross Offshore Windfarm</b>	Up to 100MW capacity offshore windfarm including associated onshore and offshore infrastructure.

Defined Term	Description
<b>White Cross Onshore Substation</b>	A new substation built specifically for the White Cross project. It is required to ensure electrical power produced by the offshore windfarm is compliant with NG electrical requirements at the grid connection point at East Yelland.
<b>Windfarm Site</b>	The area within which the wind turbines, Offshore Substation Platform and inter-array cables will be present.
<b>Wind Turbine Generators (WTG)</b>	The wind turbine generators convert wind energy into electrical power. Key components include the rotor blades, nacelle (housing for electrical generator and other electrical and control equipment) and tower. The final selection of project wind turbine model will be made post-consent application.
<b>Works completion date</b>	Date at which construction works are deemed to be complete and the windfarm is handed to the operations team. In reality, this may take place over a period of time.

## Outline Construction Environmental Management Plan

### 1. Introduction

1. This document presents an updated Outline Construction Environmental Management Plan (OCEMP) for the White Cross Offshore Windfarm (the Project). There are potential environmental sensitivities associated with the Project, which need to be identified and considered before construction of its associated infrastructure takes place. These potential effects are outlined in the Project's Environmental Statement (ES), including embedded mitigation in the form of good practice that will require adherence to during the construction phase as a minimum standard. A description of the proposed development is presented in **Chapter 5: Project Description** of the **Onshore** and **Offshore ES**. The Onshore Project infrastructure and the Offshore Project infrastructure are shown in **Figure 5-1** and **Figure 5-2** respectively.
2. This document is provided as an update to the CEMP that were submitted with the applications (**Appendix 5.A: Outline Construction Environmental Management Plan** of the **Offshore ES**, and **Appendix 5.B: Outline Construction Environmental Management Plan** of the **Onshore ES**) in order to address comments and requests for clarification or further information that were received by regulators and stakeholders.
3. White Cross Offshore Windfarm Limited (WCOWL), henceforth the 'Applicant', recognises from feedback received during the Environmental Impact Assessment (EIA) consultation and stakeholder engagement process, that the provision of an updated Project OCEMP is required. The OCEMP adds value by demonstrating the linkages between the ES, site activities, and likely conditions associated with the consents under the Town and Country Planning Act 1990 (TCPA, 1990), Section 36 of the Electricity Act 1989 (Section 36) and Marine Licences.

### 2. Purpose

4. The purpose of the OCEMP is to set out the typical framework of the CEMP for both the onshore and offshore elements of the Project. It outlines the controls and processes that will be developed and adopted in the CEMP to mitigate environmental impacts and manage environmental risks throughout the construction phase of the Project, and measures set out to comply with consent conditions. The document is based on the Applicant's minimum requirements, industry good practice and relevant legislation (at the time of preparation) and is intended for both internal and public use (the latter via inclusion in Environmental Statements and Planning Submissions). The document also addresses comments from consultation feedback by various stakeholders following submission of the Onshore and Offshore ES's.

5. The CEMP is considered to be an iterative document that develops throughout the pre-construction and construction phases of a project. The CEMP will be prepared by the Principal Contractor(s) appointed by the Applicant for the Project element(s) that they have been awarded. Principal Contractor(s) will be responsible for the construction of the main infrastructure associated with the Project including the Onshore Export Cable and Onshore Substation, and Offshore Export Cable, Wind Turbine Generators (WTGs), semi-submersible floating platforms, mooring system, inter-array cables and the Offshore Substation Platform (OSP). These may be managed as individual projects or as a framework.
6. The Principal Contractor(s) are required to operate an Environmental Management System (EMS) based on the requirements of BS EN ISO 14001:2015, which describes the processes and procedures by which the environmental issues are managed in line with the relevant legislation and standards, pollution prevention and continual improvement.
7. The Principal Contractor(s) are likely to have their own internal management system requirements and CEMP templates, so the actual project CEMP may vary from what is set out within this document. Additionally, there may be individual CEMPs covering different phases of both the Onshore and Offshore Projects. The exact structure of the Project CEMP documentation will be confirmed following detailed design and contract award in line with the construction programme.
8. Additional information with regard to the Applicant's environmental management requirements and project specific requirements will be set out in the Applicant's infrastructure contract documents (including the ES, and therefore this Document), development planning conditions and the Company's Environmental Policy.
9. Compliance with the Applicant's environmental management requirements will be audited as part of the Applicant's annual environmental audit programme.
10. Typical contents for a Project CEMP are set out below. Outline content for each section is described in:
  - **Section 3: Legislative and Regulatory Compliance**
  - **Section 4: Project Description and Environmental Sensitivities**
  - **Section 5: Management of Key Environmental Issues**
  - **Section 6: Construction Programme and Working Hours**
  - **Section 7: Environmental Management Structure and Responsibilities**
  - **Section 8: Environmental Incident Response and Contingency**
  - **Section 9: Site Inspections and Environmental Monitoring**
  - **Section 10: Training and Awareness**
  - **Section 11: Communication and Reporting**

- **Section 12: Sub-Contractor Management**
- **Section 13: Sustainable Construction**

### **3. Legislative and Regulatory Compliance**

#### **3.1 Town and Country Planning Act 1990**

11. Planning permission, from the Local Planning Authority (LPA), North Devon Council (NDC), under TCPA 1990 is required for the Onshore Project infrastructure (landward of MLWS). The Town and Country Planning Act 1990 will be the key permission to be adhered to for the Onshore Project and the planning conditions will need to be taken into consideration during the development of the CEMP.
12. The Principal Contractor(s) must ensure that all relevant planning conditions for the Onshore Project are complied with.

#### **3.2 Section 36 application conditions**

13. For the offshore elements of the Project (seaward of MHWS) consent is required under the Section 36 of the Electricity Act 1989 and a Marine Licence under the Marine and Coastal Access Act 2009 (MCAA 2009). These permissions are being sought from the Marine Management Organisation (MMO).
14. Specific limits for emissions to air, discharges to the marine environment and working practices (such as seasonal exclusions) are contained within these consents / licenses and may not be breached at any time. The Section 36 Application and Marine Licence will set out the key permissions to be adhered to for the Offshore project.
15. The Principal Contractor(s) must ensure that all relevant planning conditions for the Offshore Project are complied with.
16. Planning conditions will be reviewed by the Project team on a periodic basis, to ensure that the conditions are being complied with.

#### **3.3 Legal compliance**

17. It is the Applicant's policy to minimise the impact of its construction activities on the environment by complying with all relevant environmental legislation and good practice. To ensure that the Applicant is aware of the requirements of current environmental legislation and good practice, a Project Legal Register will be maintained by the Applicant's Environment and Consents Team (ECT).
18. The **Onshore** and **Offshore ES** identified the legal requirements which the Project has to comply with. The environmental legislation is covered in **Chapter**

**3: Policy and Legislative Context** of both the **Onshore** and **Offshore ES** and topic specific legislation presented in the technical chapters of the ES (Onshore: **Chapter 8 to 24** and Offshore: **Chapter 8 to 26**).

19. The Principal Contractor(s) will be required to ensure that all relevant environmental legislation and good practice are complied with on site. Adequate records of environmental information and audits to demonstrate compliance with both legal and Project environmental requirements, will be required to be maintained by the Principal Contractor(s).
20. The Principal Contractor(s) will be responsible for applying for and obtaining any permits/licenses related to the construction activities. Specific consents and licenses will be applied for to the relevant Government bodies such as Natural England (NE), the Lead Local Flood Authority and the Environment Agency (EA). Additional Marine Licenses may also be required from the MMO for activities offshore, this will be determined in consultation with the MMO following detailed design.
21. Specific limits for emissions to air, discharges to the marine environment and working practices (such as seasonal exclusions) are contained within these consents/licenses and shall not be breached at any time. The Applicant will assess compliance with relevant environmental legislation as part of the Applicant's environmental audit programme.

### 3.4 Guidance

22. Good Practice Guidance/Industry Standards such as Pollution Prevention Guidance (PPG) Notes and other guidance documents available from the EA and MMO websites will be followed. As requested within the MMO's Scoping Opinion (Case reference: EIA/2022/00002), PPG5 – Works and maintenance in or near water<sup>1</sup> and PPG6 – Working at construction and demolition sites will be adhered to<sup>2</sup>.
23. Key reference material in the CEMP should also include a register of Planning Consent / Marine License / Permit Conditions and a Project Legal Register.

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[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/485199/pmho1107bnkg-e-e.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/485199/pmho1107bnkg-e-e.pdf)

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[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/485215/pmho0412bwfe-e-e.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/485215/pmho0412bwfe-e-e.pdf)

#### **4. Project Description and Environmental Sensitivities**

24. **Chapter 5: Project Description** of both the **Onshore** and **Offshore ES** provide descriptions of the Project and sets out the Project Design Envelope. The Onshore Development Area is shown in **Figure 4.1** and the Offshore Development Area is shown in **Figure 4.2**.

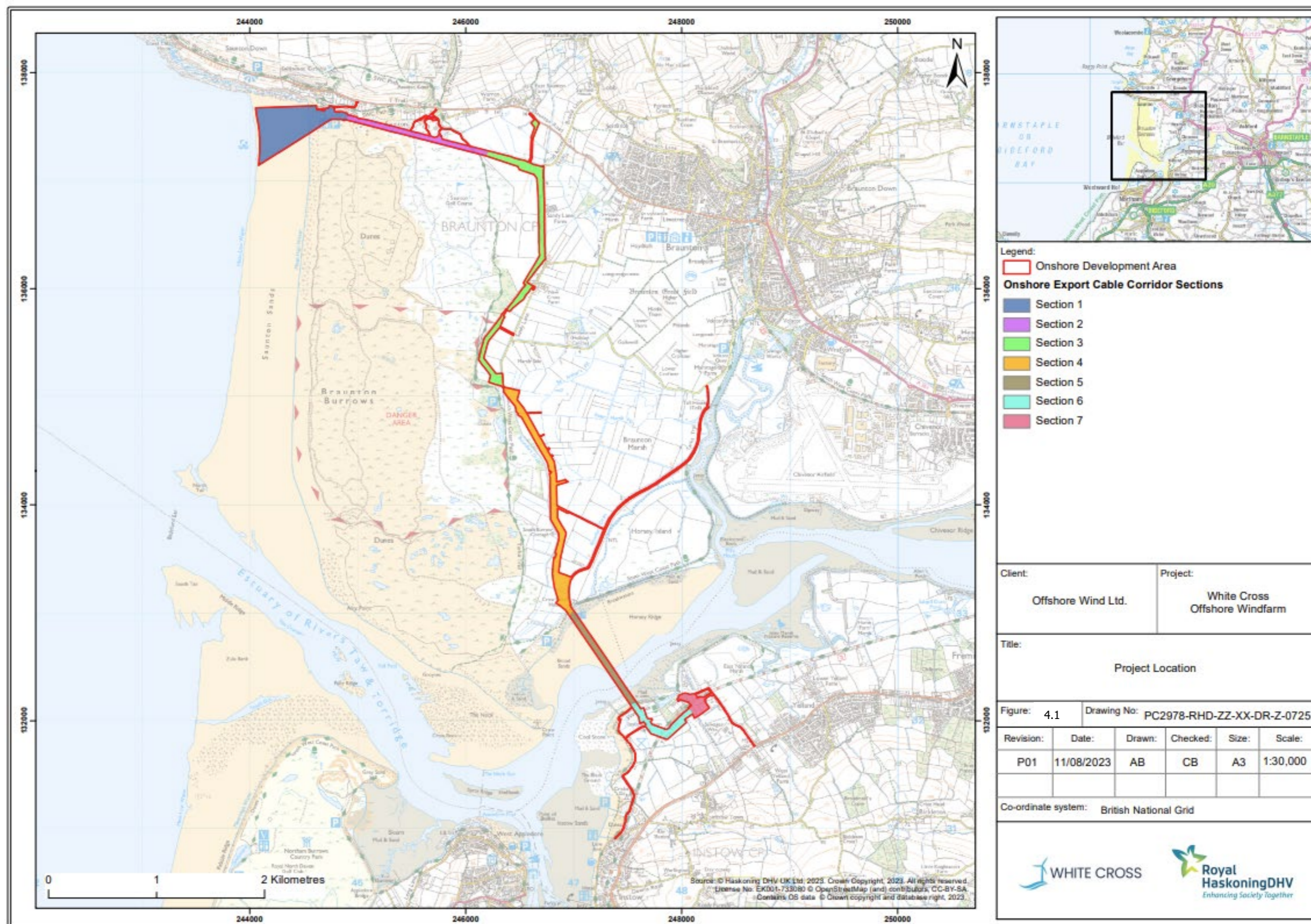


Figure 4-1 Onshore Development Area



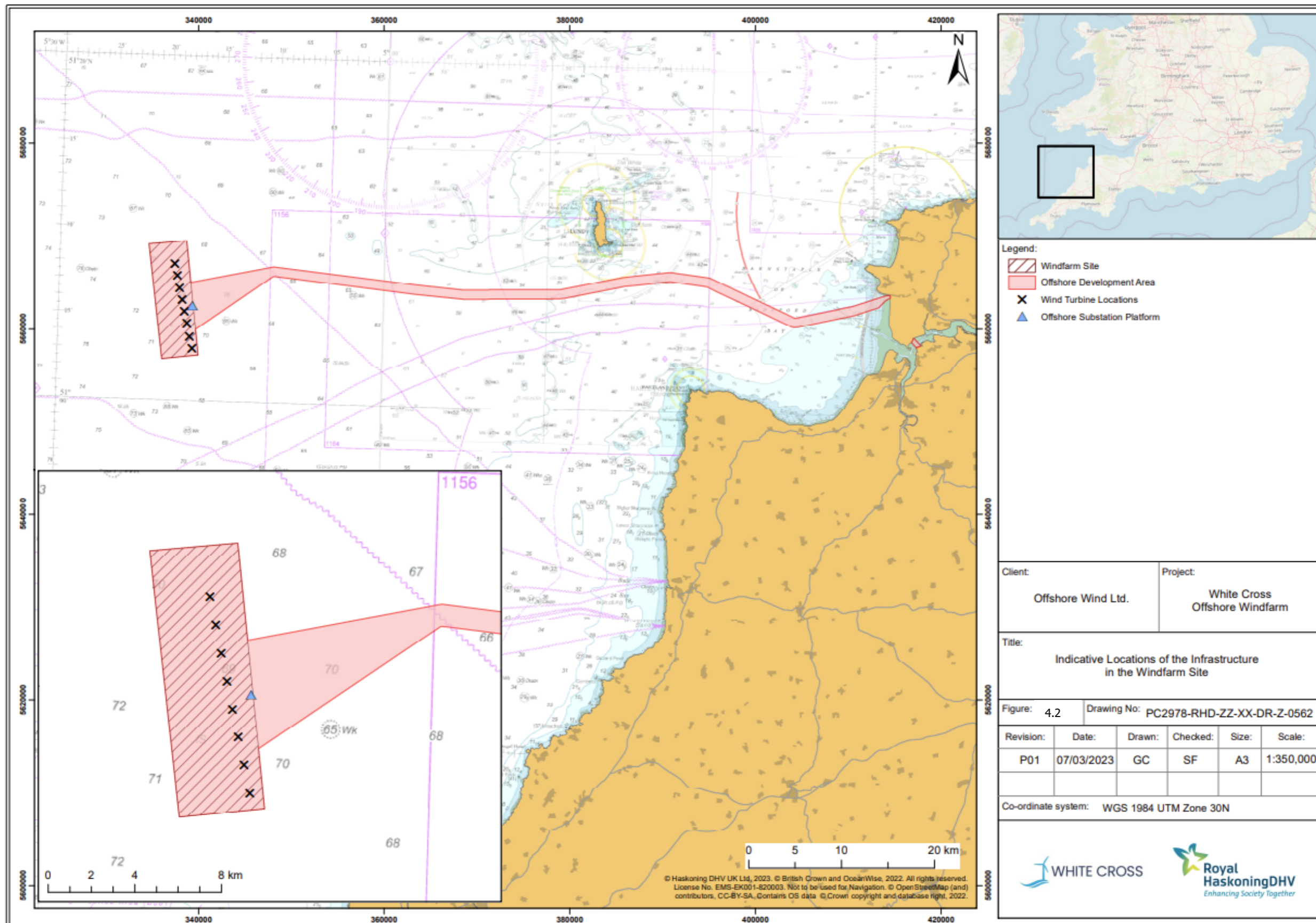


Figure 4-2 Offshore Development Area

25. Following the final detailed design phase, this section of the CEMP will set out information with regard to the detailed design and the associated environmental sensitivities. In particular, sensitive ecological, archaeological or human receptors, such as protected habitats, protected wrecks, constraints from other infrastructure, site layout plans, and the scope of works to be undertaken, will be considered.
26. An **Outline Cable Specification and Installation Plan** (OCSIP) (Document ref. WHX001-FLO-CON-ENV-PLN-0007) has been produced for the Offshore Project, following statutory consultation with the MMO, which must be included in the CEMP drafted by the Principal Contractor(s). This document provides details on:
  - The outline impact parameters of cable installation including a summary of the proposed landfall cable installation process
  - Commitments made by the Project related to cable installation
  - WCOWL's cable burial and protection decision making process
  - Proposed Sandwave Clearance Plan
  - Proposed Cable Protection Plan
  - WCOWL's commitment to monitor seabed recovery and carry out remediation following cable installation, if it is required
  - Personnel requirements and responsibilities.
27. There may be conditions attached to the subsequent Marine Licence that will formally outline the requirements of the OCSIP.
28. The Principal Contractor(s) for the construction of the Project will also be required to prepare an Aspect and Impacts Register as part of their EMS.

## 5. Management of Key Environmental Issues

29. This section should refer to relevant associated environmental documents which form part of the Principal Contractor(s) EMS and project/site specific documentation that is required to be developed as part of the CEMP.
30. The controls and procedures to be adopted to mitigate the environmental impacts associated with the development would cover the following issues:
  - Noise and vibration
  - Terrestrial ecology
  - Marine ecology
  - Offshore ornithology
  - Invasive and Non-Native Species
  - Terrestrial archaeology and cultural heritage

- Marine archaeology and cultural heritage
  - Dropped object(s) in the marine environment
  - Wastewater discharges
  - Oils, fuel, and chemicals
  - Waste management and circular economy
  - Traffic management
  - Vessel management
  - Surface water management
  - Soil Management
  - Water Abstraction
  - Emissions to Air
  - Unexploded Ordnance (UXO) risk
31. It is recognised that some of the issues identified above relate only to the terrestrial environment or marine environment, whilst others will apply to both the onshore and offshore construction activities. Two separate OCEMP documents were produced and submitted for the individual Offshore Project ES and Onshore Project ES, which have been combined together in this updated OCEMP for completeness. This updated document supports a request for further information from the consenting governing bodies and is to be submitted with the ES Addendum report.
32. The updated construction programme and Project working hours are outlined in **Section 6**, and the requirements for Method Statements and Risk Assessments in **Section 7.1**.
33. **Chapters 8: Marine Geology, Oceanography, and Physical Processes to 26: Major Accidents and Disasters** in the ES for the Offshore Project, and **Chapters 8: Marine and Coastal Processes to 24: Major Accidents and Disasters** in the ES for the Onshore Project, outline the conclusions of the EIA process for the issues presented in this section. A brief overview of some of the key issues for each item is provided below. However, it must be noted that the list of issues identified above is not exhaustive and will be specific to the final design of the Project. Furthermore, the key issues will be re-examined following the planning application and Section 36 and Marine Licence determination period.

## 5.1 Noise and vibration

34. There is the potential for noise and vibration to be generated during the construction process, especially from onshore heavy plant and machinery and offshore piling or potential UXO removal. Measures will be required to be implemented on site to minimise any effects and a programme of monitoring may be required.

35. Within **Chapter 18: Noise and Vibration** (Section 22.4.1), of the **Onshore ES**, receptors that may be sensitive to noise and vibration effects are identified, along with proposed mitigation measures. It is the responsibility of the Principal Contractor(s) to have in place adequate control measures to avoid and minimise noise and vibration impacts during the construction phase. The final CEMP will include a Construction Noise and Vibration Management Plan (CNVMP) detailing measures to mitigate impacts from noise and vibration. Proposed mitigation within **Chapter 18: Noise and Vibration** includes:
- Production of Construction Noise and Vibration Management Plan (CNVMP)
  - Commitment to Best Practicable Means (BPM) implemented during the construction phase
  - Temporary screening / acoustic barrier sheeting at the Landfall and along the proposed construction haul road
  - Traffic management measures specified in **Construction Traffic Management Plan** (CTMP). A CTMP (Document ref. FLO-WHI-REP-0016-23) is included in **Appendix 19.B** of the **Onshore ES**.
36. **Chapter 21: Noise and Vibration** of the Offshore Project's ES identifies receptors that are potentially sensitive to noise and vibration impacts together with mitigation measures, which must be implemented.
37. For offshore construction, it is likely that a risk assessment for European Protected Species (cetaceans and marine turtles) will be required to be incorporated into the CEMP.
38. For offshore construction projects involving piling / foundation works or UXO detonation in the marine environment, a specific noise and vibration mitigation and monitoring plan to mitigate potential impacts on marine mammals/fish will be required. In addition, an updated **Draft Marine Mammal Mitigation Protocol** (MMMP) (Document ref. WHX001-FLO-CON-CAG-PLN-0001), submitted as **Appendix V** of the **ES Addendum**, details further how risk of underwater noise causing auditory injury to marine mammals and marine turtles will be further reduced, such as by having a soft-start and ramp-up procedure for machinery. Noise abatement measures, such as employing bubble curtains during noise-generating works where required, may also be implemented.
39. A separate MMMP will be prepared and submitted to support an application for a Marine Licence for offshore UXO clearance (see **Section 5.18** below).
40. An Outline Underwater Noise Monitoring Plan (UNMP) (WHX001-FLO-CON-ENV-PLN-0006) has been provided as part of the **Further Environmental Information** submission.

## 5.2 Terrestrial Ecology

41. **Chapter 16: Onshore Ecology and Ornithology** within the Onshore Project ES identifies areas of conservation/protection and sets out appropriate mitigation (**Section 16.3.6**).
42. It is the responsibility of the Principal Contractor(s) to have in place adequate controls measure to avoid and minimise impacts on the flora and fauna and any protected species. The CEMP will provide details of the extent and location of the standoff, with individual method statements for key species of concern such as bats, Great Crested Newts (GCN), nesting and overwintering birds and reptiles. Sensitive habitat areas with vulnerable species will be marked out for avoidance, with works completed under supervision of an appointed Environmental / Ecological Clerk of Works (ECoW). Following consultation with key stakeholders, embedded mitigation will also cover species such as otters and badgers, with precautionary pre-construction surveys and having fencing in place to deter mammals during the construction works.
43. Disturbance to the Taw Torridge SSSI will be avoided by using a trenchless drilling technique. Use of bailey bridges and lightweight aluminium trackway will be considered for Braunton Marsh SSSI to avoid botanically diverse grassland and swamp areas. This will also be applied to wider areas along the haul road, to minimise vehicle impacts and ground disturbance, as well as use of low ground bearing pressure plant. As such, the features of the SSSI and SAC would not be directly affected by the proposed crossing works and no change to Braunton Barrows SAC/ SSSI is predicted.
44. Precautionary measures to ensure legal compliance will be incorporated within the CEMP as detailed in **Section 16.3.6 of Chapter 16: Onshore Ecology and Ornithology** of the **Onshore ES**. These include pre-construction surveys, habitat manipulation and vegetation clearance. The Principal Contractor(s) will employ an ECoW prior to the commencement of works to ensure that the specified protection and mitigation measures are appropriately implemented. WCOWL acknowledges an application for a European Protected Species Mitigation Licence (EPSL) may be required in the future specifically for works impacting species such as GCN and bats, although this would be determined from the pre-construction surveys. EPSL method statements would be agreed with Natural England and included in the CEMP.
45. Lighting of habitats suitable for foraging or commuting bats will be avoided, and where the use of lighting is necessary within the Onshore Development Area, then the lighting will be minimised during the period when bats are active. Lighting within construction compounds will be limited to early morning or early evening during winter months when bats are less active, of low level specification

and angled downwards and away from sensitive receptors to minimise light pollution. Appropriate lighting for construction compounds is likely to be Portable Construction Tower Lighting with floodlights mounted up to 8.5m high, with warmer colour temperature (3000 Kelvins or lower) and peak wavelengths higher than 550 nanometers to avoid light components most disturbing to bats. Detail is provided in the **Lighting Impact Assessment** (LIA) (Document ref. WHX001-FLO-CON-ENV-ASS-0001) included in **Appendix O** of the **ES Addendum**. Further detail on lighting requirements will be outlined in the CEMP such as switching off lighting when areas are not in operation, use of motion detection-operated lighting where appropriate so that light is only emitted for the period required and varying lighting levels in accordance with criticality of tasks (subject to risk assessment). An updated LIA will be prepared following detailed design, this will include an assessment of the construction phase impacts and be used to inform the mitigation measures in the final CEMP.

46. Measures to mitigate impacts during construction on bats are set out within **Chapter 16: Onshore Ecology and Ornithology** (**Table 16.10** and **Table 16.11**) of the **Onshore ES**. Where hedgerow removal is required to provide visibility splays, temporary mitigation at these locations will include installation of 'fake hedges' (i.e. Heras fencing panels covered with netting) as mitigation for commuting bats to provide the linear-shelter-navigable flight lines function of a hedge. These will be in place throughout the construction period during the active period for bats (April to October). Hedgerows will also be coppiced to allow rapid recovery and regrowth of hedgerow on completion of the works.
47. Additional detail of mitigation measures in relation to the section of hedgerow to be removed adjacent to Saunton Road is provided in **Appendix I: Approach to Bat Mitigation at Saunton Road** of the **ES Addendum**.
48. Vegetation clearance will only be carried out under ECoW supervision and outside of the nesting bird season wherever possible. Replacement tree planting will be undertaken with similar native species where the cable route works necessitates felling of individual trees. The **Arboricultural Impact Assessment** (Document ref. FLO-WHI-REP-0016-20) included in **Appendix 16.R** of the **Onshore ES** identifies all affected trees within the cable route. Individual trees and woodland will be avoided, wherever possible and protected during the construction works.
49. An **Outline Landscape and Ecological Management Plan** (OLEMP) (Document ref. WHX001-FLO-CON-ENV-PLN-0001) is included in **Appendix N** of the **ES Addendum**, outlining specific mitigation and maintenance requirements for replacement tree and hedgerow planting (**Section 5.2.2**).
50. Precautionary mitigation management will be carried out in a selected field at Braunton marshes to ensure suitable alternative habitat is available for

overwintering birds around the Taw Estuary during construction. This area will be secured as mitigation through a formal agreement between WCOWL and the landowner and the effectiveness of the proposed roost habitat will be monitored during the construction works as detailed in the **Approach to Lapwing Mitigation** included in **Appendix K** (Contractor Document ref. PC2978-RHD-ZZ-XX-RP-Z-0780) of the **ES Addendum**. The area surrounding the proposed drilling compound on the south side of the estuary will be screened to minimise disturbance to over-wintering bird grounds, and works will be undertaken outside the winter period where possible.

51. The cable route has been designed to avoid ponds and habitats suitable for GCN and vegetation clearance work within 250m of breeding ponds is minimal and limited to sub-optimal habitats. Reptiles will also be considered in the CEMP with staged habitat manipulation works to be carried out at a suitable time of year and in suitable weather conditions to temporarily displace reptiles and amphibians from the proposed construction footprint. Works will be carried out under supervision of an ECoW, including pre-construction surveys and checks, with translocation if required.

### 5.2.1 Hedgerow Removal

52. Prior to the commencement of any works to a hedgerow, an ECoW will be present on site to ensure that the specified protection and mitigation measures are appropriately implemented. Replacement planting of removed hedgerows and trees will be implemented during the first suitable period following completion of the construction works as detailed in the OLEMP. Where possible hedgerows which require management to enable construction access will be coppiced to a height below 0.4m rather than removed, and those which require removal will be reinstated. Gaps in hedges will be present initially until the new planting matures.
53. The species list for re-instatement will be of UK and local provenance species, such as hawthorn, blackthorn, field maple *Acer campestre*, dog-rose *Rosa canina*, hazel *Corylus avellana*, dogwood *Cornus sanguinea*, crab apple *Malus sylvestris* and holly *Ilex aquifolium*. Replanting of hedgerow trees will use either pedunculate oak *Quercus robur* or a like for like replacement if other native species are to be removed, as appropriate. It is likely that the reinstatement will increase the range of species present in some sections of hedgerow which are currently species poor.
54. Ecological enhancement will involve reinstating pre-existing gaps in hedgerows within the Onshore Development Area.

### 5.3 Marine Ecology

55. The **Offshore ES** identifies areas of conservation / protection and sets out mitigation as appropriate. The CEMP should include the measures to be adopted. This will enable communication of awareness of any sensitive areas (such as Bideford to Foreland Point Marine Conservation Zone) and potential protected features (e.g., reefs) to the project team. The procedures to be adopted in the event of an incident in proximity to these features should also be set out in the CEMP.
56. The Principal Contractor(s) CEMP will align with the **Project Environmental Monitoring and Mitigation Plan** (PEMMP) (Document ref. WHX001-FLO-CON-ENV-PLN-0003) which has been provided in outline as part of the **Further Environmental Information** submission. It will be required to consider, and make mitigation provisions for, potential seabed and sediment movement impacts. The CEMP will also set out requirements for monitoring benthic habitats as appropriate.

### 5.4 Offshore Ornithology

57. The CEMP will include the final procedures to be adopted within vessels transit corridors to minimise disturbance to bird species during construction activities. The PEMMP will include procedures for the operation and maintenance phase. Potential impacts on bird species during construction will be mitigated through:
- Restricting vessel movements where possible to existing navigation routes
  - As far as possible maintaining direct transit routes
  - Where it is necessary to go outside of established navigational routes, avoid rafting birds either en-route to the Offshore Development Area from port and/or where possible avoid disturbance to areas with consistently high bird densities
  - Avoidance of over-revving of engines (to minimise noise disturbance)
  - Briefing of vessel crew on the purpose and implications of these vessel management practices
58. The Project Team would make maintenance vessel operators aware of the importance of the species and the associated mitigation measures through tool box talks.

### 5.5 Invasive and Non-Native Species

59. An **Outline Invasive and Non-Native Species (INNS) Management Plan** (Document ref. WHX001-FLO-CON-ENV-PLN-0009) is provided as part of the **Further Environmental Information** submission. This will be further developed post-consent as the final design of the Project is finalised and will be submitted for approval before the start of construction. It is expected that the



approval of the final INNS Management Plan will be a condition of the planning permission and Marine License, if approved.

60. A final INNS Management Plan will include the following measures:
- A plan of all INNS known locations and extents
  - A protocol for removing INNS and for managing the waste generated
  - Good site practice and avoidance measures to prevent the spread of invasive species during works particularly at or near to watercourses
  - A requirement for an ECoW and details of their responsibilities with respect to non-native invasive species
  - A requirement to report the location of any new INNS encountered during construction with appropriate standoffs implemented.

## 5.6 Terrestrial Archaeology and Cultural Heritage

61. **Chapter 17: Onshore Archaeology and Cultural Heritage** within the **Onshore ES** identifies sites of potential archaeological importance, and these will be identified in the Written Scheme of Investigation (WSI) with appropriate mitigation, such as establishment of exclusion and buffer zones clearly marked out. The CEMP should include the measures to be adopted to communicate awareness of sensitive archaeological sites to the Project team and procedures to be adopted in the event of an unanticipated find.
62. An **Outline Onshore Written Scheme of Investigation** (WSI) (Document ref. FLO-WHI-REP-0016-21) is included in **Appendix 17.E** of the **Onshore ES**.
63. The Principal Contractor(s) are required to prepare site specific WSIs and final pre-construction and construction mitigation WSIs and be agreed with and approved by the relevant planning authority in consultation with Devon County Council Historic Environment Team (DCC HET) (and Historic England (HE), as required) in the post-consent stages of the project.

## 5.7 Marine Archaeology and Cultural Heritage

64. The Offshore Project's ES identifies sites, wrecks, etc. of potential archaeological importance and these are also presented in the **Outline Written Scheme of Investigation** (WSI) (Document ref. FLO-WHI-REP-0002-16) included in **Appendix 16.B** of the **Offshore ES**, with appropriate mitigations such as establishment of exclusion and buffer zones clearly marked out. The CEMP should include the measures to be adopted to communicate awareness of sensitive archaeological sites to the project team and the procedures to be adopted in the event of an unanticipated find.
65. The Offshore Project's Archaeological WSI, once developed, will require referencing in the CEMP.

## 5.8 Dropped Objects in the Marine Environment

66. A Dropped Objects into the Marine Environment Plan or similar should feature as a component of the Principal Contractor(s) CEMP. This may be a specific condition of consent.
67. This procedure should detail the proposed recovery for both floating and non-floating objects and the reporting and documenting of the incident to the project Team and the regulator. The procedure will be required to be reviewed by the Project team prior to the Principal Contractor(s) commencing work.

## 5.9 Wastewater Discharges

68. The Principal Contractor(s) will be responsible for obtaining any permits from the regulator associated with the use of septic tanks or other effluent/washout water treatment facilities. In addition, they will be responsible for monitoring and recording specified volumetric, quality or reference conditions, to demonstrate compliance.
69. The HDD drilling fluid comprises bentonite as the primary base (a natural mined clay) which will be delivered to site as a dried and finely ground inert powder, and rehydrated in a mix tank with potable water. The fluids handling system will be bunded to mitigate any drilling fluid releases. A mud reception pit, situated at the entry point of the HDD will create a first holding area for the drilling fluid. From there, the drilling fluid will be transported by slurry pumps to the recycling unit to separate drilling fluid from cuttings. Recycled drilling fluid will be stored in tanks to be used in each drilling/reaming phase. The **Outline Bentonite Management Plan** (Document ref. WHX001-FLO-CON-ENV-PLN-0012) outlines the specific onshore mitigation / remediation measures in the unlikely event of bentonite frac-out (deemed low risk), such as having sandbagging, silt fencing and annular pressure monitoring in place during the HDD drilling works.
70. Waste sludge from septic tanks and effluents from cesspits and sewage holding tanks must be removed by a suitably licenced and registered waste carrier in accordance with Duty of Care requirements.
71. Monitoring records in relation to the disposal of grey water, foul water, bilge water or ballast water during the construction phase must be retained.
72. For offshore construction, any wastewater discharges to sea must comply with current legislation, regulatory limits and good practice such as effluent discharges, ballast waters, bilge waters and deck runoff. Controls for discharges should be included in the CEMP. All vessels involved with construction and operation of the Offshore Project will be required to comply with the International Convention for the Prevention of pollution from Ships (MARPOL)73/78.

73. Monitoring records in relation to the disposal of grey water, foul water, bilge water or ballast water during the construction phase must be retained.

### 5.10 Oils, Fuels, and Chemicals

74. It is the responsibility of each Principal Contractor to have in place adequate controls for the delivery, storage and use of fuels, oils and chemicals on site, and other materials as required. This includes checks that chemicals to be used offshore comply with relevant regulations.
75. The Principal Contractor(s) must consider the delivery, storage, and handling of hazardous materials, in particular oils and fuels, taking into account the legal requirements and good practice guidelines.
76. Oils and chemicals must be clearly labelled, and the Principal Contractor(s) should retain an up-to-date hazardous substance register. Activities involving the handling of large quantities of hazardous materials, such as deliveries and refuelling, should have detailed method statements in place and be undertaken by designated and trained personnel. A **Chemical Risk Assessment** (Document ref. WHX001-FLO-CON-ENV-RSA-0001) has been prepared for the Offshore Project following consultation with the MMO provided, which must be included in the Principal Contractor(s) CEMP.
77. Oil and fuel storage tanks must be robust and provide adequate secondary containment and be located in designated areas taking into account security, the location of sensitive receptors and pathways such as drains and watercourses, and safe access and egress for plant and manual handling.
78. Spill response materials should be provided nearby and be readily accessible, with project personnel trained in spill response.
79. Should any unexpected ground contamination be encountered, the Principal Contractor(s) are responsible for material being segregated and disposed of accordingly with appropriate material classification sampling / testing. WCOWL acknowledges that remediation of any such contaminated land may be controlled by a planning condition and subject to a Remediation Plan and a Material Management Plan (MMP) as agreed with the LPA.
80. Offshore, vessels of more than 400 gross tonnes should maintain an oil record book and the sulphur content of fuels must comply with MARPOL Annex VI requirements in relation to Sulphur Emission Control Areas (SECAs) and hold a valid International Oil Pollution Prevention Certificate (IOPP). A Marine Pollution Contingency Plan (MPCP) will be developed post consent.

81. Within the port, fuel and chemical management will be developed following discussions with the port authority. It will be required to be documented in the CEMP and in alignment with the port authority’s Oil Spill Contingency Plan.

### 5.10.1 Control of Substances Hazardous to Health (COSHH)

82. The Principal Contractor(s) are responsible for ensuring that all materials ordered or brought to site listed as hazardous under the Control of Substances Hazardous to Health (COSHH) Regulations are accompanied with a hazardous information sheet. The Principal Contractor(s) will comply with the COSHH Regulations.

### 5.11 Waste management and circular economy

83. Waste generated during the excavation, demolition and construction of the Onshore Project will be managed by the Principal Contractor(s) in accordance with the waste hierarchy. The waste hierarchy requires the producer/holder of a waste to demonstrate that the priorities outlined in **Table 5.1** have been considered in the priority order, and to determine the most suitable waste management option for all wastes prior to removal from site. The Applicant will aim to prevent, reuse, recycle and/or recover waste where practical and economically feasible prior to considering disposal.

*Table 5.1 The Waste Hierarchy*

Waste Hierarchy	Relevant activity
<b>Prevention</b>	Using less material in design and manufacture, keeping products for longer, re-use, using less hazardous materials.
<b>Preparing for re-use</b>	Checking, cleaning, repairing, refurbishing, whole items, or spare parts.
<b>Recycling</b>	Turning waste into a new substance or product, includes composting if it meets quality protocols.
<b>Other recovering</b>	Includes anaerobic digestion, incineration with energy recovery, gasification and pyrolysis which produce energy (fuels, heat, and power) and materials from waste, some backfilling.
<b>Disposal</b>	Landfill and incineration without energy recovery.

*Table reproduced from Defra website: <https://www.gov.uk/waste-legislation-and-regulations>*

84. The final design of the Onshore Project will consider sustainability principals to make sure that over ordering on materials such a substation components, cement bound sand, ducting, tape, tiles and cables is kept to a minimum. As part of the preliminary design of the Onshore Project for the planning application estimates on the likely material quantities to be used during the construction phase have been provided by the engineering team. These quantities will be further refined as the project moves through the detailed design and will be

monitored through the use of a Quantity Surveyor during the construction phase of the Onshore Project.

85. The drilling fluid used during HDD comprises bentonite as the primary base (a mined clay) which is delivered to site as a dried and finely ground powder. The drilling fluids system consists of a generator, mix and recycling units, high pressure mud pump, 150mm slurry pumps (for drilling fluid), holding tanks, mud reception pits and is typically bunded to mitigate any drilling fluid releases. The usual method of disposal for the cuttings is to landfill, however given bentonite is nutritious to plants potential options for re-use may be explored locally such as offering this to farmers as a topdressing for their fields.
86. During construction the Principal Contractor(s) will be responsible for the collection, storage and disposal of any waste produced as part of the Project and will be required to prepare a Site Waste Management Plan (SWMP) in line with legislation, good practice and the PEMMP. The SWMP will be developed post-consent to ensure the proper handling and protocols are in place to deal with any generated wastes. The Plan will record the following information, as a minimum:
  - The types and quantities of waste generated
  - The management approach for each waste type (Reuse, Recycle, Recover, Dispose) including any treatment
  - The storage arrangements for each waste type
  - The site waste monitoring and reporting arrangements
  - Waste carrier details and waste management/disposal facilities.
87. Adoption of a CL:AIRE Industry Code of Practice to manage the re-use and disposal of excavated soils within the Onshore Development Area would also be incorporated as an additional mitigation measure in the CEMP, this would aid in maximising sustainability and provide an audit trail to demonstrate the appropriate use of materials. A MMP will be drafted in advance of any construction works, this would include chemical screening criteria in order to ensure that imported and/or reused materials are chemically suitable for use. If materials identified as containing asbestos are identified, then a specialist contractor would be employed to aid in its removal from Onshore Project Area, in line with current legislation. The Waste Audit Statement presented in **Annex 1** provides details on auditing to be carried out around waste disposal which must be adhered to.
88. Duty of care requirements in relation to the storage, transfer and disposal of all waste must be complied with.

89. The waste management principles outlined above, also apply to vessels, in particular the requirement to have a compliant Garbage Management Plan and Garbage Record Book; vessel operators are required to liaise with port operators to facilitate appropriate segregation/disposal of waste.
90. Circular economy principles will be considered, where practical and economically feasible, specifically the priority area of circular construction and adopting circular economy interventions such as:
  - adopting circular design principles and construction processes, particularly the opportunity to create a physical and virtual resource recovery and material exchange hub to make better use of material wasted in construction
  - supporting the growth of regional specialist circular products and services in the construction industry.

## 5.12 Traffic management

91. **Chapter 19: Traffic and Transport** of the **Onshore ES** identified that during the construction phase for onshore aspects of the development, there will be traffic movements within the site boundary in addition to associated traffic movements on the local road network, including heavy goods vehicles, which may give rise to significant environment effects. Measures to address associated impacts are set out in the CTMP (**Appendix 19.B** of the **Onshore ES**) and will be developed into a full CTMP which will be part of the CEMP.
92. The list below sets out the implementation of each of the measures that will be implemented by the Applicant, Principal Contractor(s) and the Traffic Management Coordinator (TMCo). The exact details and associated timescales will be established in consultation with Devon County Council as part of the preparation of the final CTMP:
  - Appointment of a TMCo
  - Obtain technical approval for construction of accesses and crossings
  - Implement direction signing
  - Establish monitoring systems:
    - Delivery booking system
    - Highway condition
    - Unique vehicle identifier
    - Telephone reporting system.
  - Agree scope of and undertake pre-commencement highway condition surveys.
  - Agree and implement measures for each access to control the deposition of detritus on the public highway
  - Inspect the highway for detritus and request regular cleansing as required.

- Monitoring of CTMP measures:
  - HGV trips
  - Accidents and near misses
  - Employee mode share
  - Complaints.
- Produce monthly monitoring reports
- Update condition surveys and agree any remedial works.

## 5.13 Vessel Management

93. For offshore construction, it is likely that a specific Project Vessel Coordination Plan will be developed. Vessels will be subject to inspections and audits as described in **Section 8** below. Vessel movements within the site will be monitored and directed as required by the Principal Contractor(s).

### 5.13.1 Vessel Welfare Facilities

94. Vessel welfare facilities will be provided for site operatives under the Construction (Design and Management) Regulations 2015 including sanitary conveniences, washing facilities, drinking water, changing rooms and accommodation for clothing not worn during working hours and rest facilities.

## 5.14 Surface Water Management

95. **Chapter 14: Water Resources and Flood Risk** within the Onshore Project ES identifies considers impacts to water resources and flood risk and sets out appropriate mitigation (**Section 16.3.6**). The **Flood Risk Assessment** (Document ref. FLO-WHI-REP-0016-18), included in **Appendix D** of the **ES Addendum**, provides an assessment of flood risk and the measures to reduce flood risk within the Onshore Development Area.

96. For onshore construction sites, the CEMP should include a detailed surface water management design/drainage plan for the Onshore Project. The plan should detail the surface water management measures to be implemented during the works. The detailed design should be supported by the rationale for selecting the chosen mitigation measures, together with associated calculations and methodologies for sizing. Land Drainage Consent will be sought for temporary or permanent works within Ordinary Watercourses and consultation undertaken with the LLFA. Where appropriate, the principles of Sustainable Urban Drainage Schemes (SUDS) should be applied.

97. During construction, the haul road will be bound by parallel drainage channels (one on each side) to intercept drainage within the working width. Depending upon the precise location, water from the channels will be infiltrated or

discharged into the local drainage network via temporary interceptor drains and / or silt traps. Mitigation measures and pollution prevention controls must be maintained and monitored on a regular basis. A record of inspections of mitigation measures and any required maintenance carried out by the Contractor must be maintained. Other mitigations such as marking out of sensitive areas, TBTs, ECoW supervision and use of low ground bearing pressure plant or trackway / bogmats will be detailed in the CEMP.

98. The Principal Contractor(s) will include for provision of an Agricultural Liaison Officer (ALO) and/or local specialised drainage contractor to manage impacts on agricultural drainage during construction including maintaining and/or reinstating land drainage systems, and developing pre- and post-construction drainage plans. The CEMP will detail the approach to pre- and post-construction drainage plans on agricultural fields.

### 5.15 Soil Management

99. **Chapter 15: Land Use** within the **Onshore ES** identifies considers impacts to soils, agricultural land and agricultural drainage, and provides an assessment of potential impacts and the measures to mitigate effects within the Onshore Development Area.
100. The measures to mitigate impacts to soils and agricultural land will be set out in a Soil Management Plan (SMP) to be produced pre-construction, and that will form part of the final CEMP. The SMP will include the following measures:
  - Construction method statements for topsoil stripping and soil handling
  - Appropriate storage and handling of soils according to their characteristics and in appropriate weather conditions
  - Restrict movements of heavy plant vehicles, or use of low ground pressure plant and equipment
  - Minimising excavation footprints (where possible)
101. Engagement and consultation with landowners will be undertaken by the Principal Contractor(s) and their ALO. Agreements will be implemented to cover areas such as maintaining access for farm vehicles, the timing of construction works, and the measures within the SMP.
102. Measures to mitigate the impacts on agricultural drainage are set out in **Section 5.14** above.

### 5.16 Water Abstraction

103. For onshore construction sites, abstraction of water may be required for potable supply or for use during site activities, such as concrete batching or washing.



The Principal Contractor(s) are responsible for obtaining from the regulator (such as the Environment Agency), in advance of use, any permits for the use of abstracted water during the construction related activities and for monitoring and recording associated abstraction rates or other licence requirements to demonstrate compliance.

## 5.17 Emissions to Air

104. For onshore construction sites, the CEMP will consider the potential for dust nuisance to arise. The Principal Contractor(s) are responsible for implementing appropriate mitigation measures to suppress dust and minimise emissions to air during the construction works. Measures to address potential emissions to the air are set out in **Chapter 13: Air Quality (Section 13.3.6)** of the **Onshore ES** and include:

- Best practice measures as recommended by the Institute of Air Quality Management (IAQM)
- Non-Road Mobile Machinery (NRMM) measures

For offshore construction and operations, vessel emissions must comply with MARPOL Annex VI requirements in relation to ozone depleting substances regulations, nitrogen oxide, sulphur oxide and particulate and volatile organic compounds. Where relevant, vessels shall have a valid International Air Pollution Prevention (IAPP) certificate.

### 5.17.1 IAQM Best Practice Measures

105. These measures will be secured within the final CEMP.

- Communications:
  - Develop and implement a stakeholder communications plan that includes community engagement before work commences on site
  - Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager
  - Display the head or regional office contact information.
- Dust Management:
  - Develop and implement a Dust Management Plan (DMP) (this will form part of the CEMP), which may include measures to control other emissions, to be approved by the LPA and expected to be a planning condition. The level of detail will depend on the risk and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken
  - Make the complaints log available to the Local Authority when asked
  - Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the logbook
  - Hold regular liaison meetings with other high risk construction sites within 500m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes
  - Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the LPA when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100m of site boundary, with cleaning to be provided if necessary. Additionally, following consultation with key stakeholders, dust monitoring as well as nitrates monitoring (considered a risk from increased site traffic movements), may be undertaken of vegetation within the Braunton Burrows SAC boundary and the Taw-Torridge Estuary SSSI, to monitor potential smothering of sensitive foliage / flora species. Mitigation may include use of low-pressure water hosing of the foliage (to be detailed in the final CEMP).
  - Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the LPA when asked
  - Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions
  - Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible
  - Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site
  - Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period
  - Avoid site runoff of water or mud
  - Keep site fencing, barriers and scaffolding clean using wet methods
  - Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
- Manage stockpiles to prevent wind whipping
  - Ensure all vehicles switch off engines when stationary - no idling vehicles
  - Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable

- Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the LPA, where appropriate)
- Produce a CTMP to manage the sustainable delivery of goods and materials. Further details provided in **Appendix 19.B: Outline Construction Traffic Management Plan** of the **Onshore ES**
- Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing). Further details provided in **Chapter 19: Traffic and Transport**
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate
- Use enclosed chutes and conveyors and covered skips
- Minimise drop heights from handling equipment and use fine water sprays on such equipment wherever appropriate
- Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods
- Avoid bonfires and burning of waste materials.
- Construction:
  - Ensure sand and other aggregates are stored in appropriate manner to minimise dust generation for example the use of bunded areas
  - Avoid scabbling (roughening of concrete surfaces) if possible
  - Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery
  - For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.
- Earthworks:
  - Manage earthworks and exposed areas/soil stockpiles to stabilise surfaces
  - Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
- Trackout:

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site
- Avoid dry sweeping of large areas
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable
- Record all inspections of haul routes and any subsequent action in a site logbook
- Install hard surfaced haul routes where practicable, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned
- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits
- Locate access gates at least 10m from receptors where possible.

### **5.17.2 NRMM measures**

106. The following mitigation measures specific to NRMM will be secured within the final CEMP submitted post-consent.
107. NRMM and plant should be well maintained. If any emissions of dark smoke occur, then the relevant machinery should stop immediately, and any problem rectified.
108. In addition, the following controls should apply to NRMM:
- All NRMM should use fuel equivalent to ultralow sulphur diesel (fuel meeting the specification within EN590:2004) where practicable
  - All NRMM should comply with the appropriate NRMM regulations
  - All NRMM would be fitted with Diesel Particulate Filters (DPF) conforming to defined and demonstrated filtration efficiency (load/duty cycle permitting)
  - The ongoing conformity of plant retrofitted with DPF, to a defined performance standard, should be ensured through a programme of onsite checks
  - Fuel conservation measures should be implemented, including instructions to (i) throttle down or switch off idle construction equipment; (ii) switch off the engines of trucks while they are waiting to access the site and while they are being loaded or unloaded and (iii) ensure equipment is properly maintained to ensure efficient fuel consumption.
109. Consideration should also be given to the siting of NRMM within the working area. Where practicable, locating generators and plant at the greatest distance from receptors will reduce the potential for air quality effects.

## 5.18 UXO Risk

110. **Chapter 24: Major Accidents and Disasters** of the **Onshore ES** considers the risk of Unexploded Ordnance (UXO) across the Onshore Development Area. UXOs are remnants of past military activities that may still pose a significant threat to the safety and well-being of construction personnel and the surrounding environment.
111. An Unexploded Ordnance Risk Mitigation Strategy will be developed pre-construction. This will include the requirements for surveys and assessments of the construction site, identifying potential UXO presence or historical activities to be undertaken by the Principal Contractor(s). In the event of any suspected or confirmed UXO findings, the Principal Contractor(s) will be required to implement appropriate emergency response measures to be detailed in a UXO specific Emergency Response Plan, such as notifying relevant authorities, establishing exclusion zones, and engaging specialised personnel for safe removal and disposal. This approach aims to safeguard the construction workforce, local communities, and the environment, ensuring a secure and responsible construction process.
112. **Chapter 26: Major Accidents and Disasters** of the **Offshore ES** considers the risk of Unexploded Ordnance (UXO) during offshore construction. Pre-construction surveys will be undertaken to identify any potential hazards within the Windfarm Site and Offshore Export Cable Corridor. These will include geophysical surveys and magnetometer surveys to identify the presence of UXOs.
113. An UXO Risk Mitigation Strategy will be developed pre-construction to set out a comprehensive approach to effectively mitigating UXO risk; this is likely to consider migration, burial, vibration, noise, and route optimisation. Where UXO removal is required, consent will be sought from the MMO and a Marine Licence application submitted. This will include all appropriate mitigation such as a UXO specific MMMP.

## 6. Construction Programme and Working Hours

114. Works are to be carried out in line with the revised construction programme, as set out in Section 5.1.1 of the ES Addendum. The onsite offshore construction will now commence in 2028, a delay of 1-2 years against the indicative offshore construction programme provided in Section 5.8.1 of Chapter 5: Project Description of the Offshore ES. All onsite offshore construction activities will be undertaken during the calmer months of spring/summer when conditions offshore are more suited to construction activities. The first activity will be installation of the offshore substation in Q2 2028, followed by the installation of

the offshore export cable and pre-lay of the anchors and moorings in Q3 2028. The offshore and onshore export cables will then be jointed in the TJB in Q4 2028 as the final activity of landfall, Onshore Cable Pull. The floating WTGs, which will have been assembled and integrated offsite, will be towed to the Windfarm Site for installation (i.e., from Q2 2029). The final commissioning of the WTGs will then be undertaken to be completed ready for first power at the start of Q4 2029.

115. The start of the onshore construction has also been delayed by 2 years with a new start date September 2027 for the first phase of the works at landfall, and for the early/enabling works for the onshore substation. The start of the onshore export cable installation is now programmed for Q3 2027 with the enabling and early works being completed first from October 2027 to February 2028.
116. The main phase of the onshore export cable installation works will then commence in March 2028 following the description and sequence as described in Section 5.6.3 of Chapter 5: Project Description of the Onshore ES. The final phase of the installation of the onshore export cable will be the pull of the cable through the already installed ducting beneath Braunton Burrows/Saunton Sands Golf Course. The River Taw Estuary crossing will now be undertaken Q1-Q3 2028 alongside the installation of the onshore export cable, providing additional mitigation for the potential impacts on wintering birds along the Taw/Torridge Estuary Site of Special Scientific Interest (SSSI).
117. The bringing forward of the River Taw Estuary crossing also allows the overall onshore construction programme to be reduced with the installation of the onshore export cable completed within a single year, with reinstatement to be completed by November 2028. The construction of the onshore substation will be completed by the end of 2028, with the installation and testing of the electrical equipment undertaken in Q1/Q2 of 2029 ahead of first power at the end of 2029.
118. The standard working hours for the Onshore Project will be Monday to Friday 07.00-19.00, and Saturday 07.00-13.00. There will be no working on Sunday or Bank Holidays.
119. The construction programme may be refined in the pre-construction stage as detailed design progresses, and contracts are awarded.

## **7. Environmental Management Structure and Responsibilities**

120. The Principal Contractor(s) are required to outline the environmental management roles and responsibilities for the Project in this section. This includes identification of key site staff, their environmental management responsibilities and how these links with other members of the Project team, such as the Project Manager, the project Health and Safety/Environmental

Manager(s) and/or Advisors and environmental specialists such as an ECoW, Traffic Management Co-ordinator (TMCo), Agricultural Liaison Officer (ALO), Archaeological Coordinator, Environmental Liaison Officer, Fisheries Liaison Officer, Ornithologists and Marine Mammal Observers.

121. An organisational chart depicting the environmental management arrangements will illustrate the Project's environmental management structure. The contact details for the individuals listed should also be included in this section or attached as an appendix to the CEMP.
122. The Applicant will employ Principal Contractor(s) who will be responsible for environmental management on site, including the preparation of onsite environmental documentation. Associated EMS and project / site specific documentation that is required to be taken into consideration in developing the CEMP include, but are not limited to:
  - Contract requirements (such as environmental standards)
  - Principal Contractor(s) EMS requirements
  - Project Environmental Monitoring and Mitigation Plan (PEMMP)
  - Project Emergency Response Plan
  - Project Health and Safety Plan
  - Project Environmental Statement
  - Marine Licence conditions
  - Risk registers
  - Project Legal Register.
123. The Construction Design and Management (CDM) Regulations of 2015 are a comprehensive set of legal guidelines implemented in the United Kingdom to ensure the safe and efficient management of construction projects. These regulations aim to prioritise health and safety considerations throughout the entire project lifecycle, from the design stage to completion and beyond. The CDM Regulations outline the roles and responsibilities of all parties involved, including clients, designers, contractors, and workers, in fostering a proactive safety culture. By encouraging collaboration, risk assessment, and proper planning, the CDM Regulations seek to reduce accidents, injuries, and health hazards within the construction industry, ultimately contributing to the delivery of successful and secure projects.
124. The different roles and summary of duties set out in the CDM regs 2015 include:
  - Commercial clients – Organisations or individuals for whom the construction project is carried. Done as part of a business. Main duties include:
    - Making suitable arrangements for managing a project
    - Ensuring sufficient resources and time are allocated

- Ensuring other duty holders are appointed as appropriate
  - Ensuring the principal designer and principal contractor(s) carry out their duties
  - Ensuring welfare facilities are provided.
- Domestic clients – People who have construction work carried out on their own home.
  - Designers – Organisations or individuals who as part of a business, prepare or modify designs for a building, product or system relating to construction work.
  - Principal designers – Designers appointed by the client in projects involving more than one contractor. They can be an organisation or an individual with sufficient knowledge, experience and ability to carry out the role.
  - Principal contractor(s) - Contractors appointed by the client to coordinate the construction phase of a project where it involves more than one contractor. Main duties include:
    - Plan, manage, monitor and coordinate health and safety in the construction phase of a project
    - Ensure suitable site inductions and reasonable steps to prevent unauthorised access are in place
    - Ensure workers are consulted and engaged in securing their health and safety
    - Ensure welfare facilities are provided.
  - Contractors - Those who carry out the actual construction work, contractors can be an individual or a company.
  - Workers - Those working for or under the control of contractors on a construction site.

## 7.1 Method Statements and Risk Assessments

125. It is the responsibility of the Principal Contractor(s) to have in place approved method statements and risk assessments for works being carried out on-site. Where relevant, the method statement should cross reference applicable environmental risk assessments. The risk assessments should identify environmental hazards and outline subsequent control measures. Control measures should be developed, implemented and monitored to ensure that any impact on the environment is avoided or minimised. Approval for these method statements with the relevant authorities may be required.
126. Key personnel involved in the work activities should be given a method statement briefing by the Principal Contractor(s) or Contractor(s), in the form of a TBT. The TBT should outline the risks involved and the control measures that personnel are expected to comply with. It is expected that individuals sign a method



statement attendance briefing record sheet, acknowledging receipt of the information; these records should be maintained by the Principal Contractor(s). TBTs should also be used to inform sub-Contractors of other environmental sensitivities as appropriate.

## **8. Environmental Incident Response and Contingency**

127. The Principal Contractor(s) are required to include in this section the environmental incident response and contingency procedure. It is essential that any environmental incidents (including dropped objects into the marine environment) are reported and managed correctly to allow their impact to be reduced to a minimum and appropriate mitigation measures are implemented to avoid future occurrences.

### **8.1 Emergency Response Plan**

128. Principal Contractor(s) will be required to have an environmental emergency response plan. This will be in addition to individual management plans already in place for day-to-day operations. The plan should identify the key personnel who can respond promptly in the event of an environmental incident, including a response flow chart with details around how to report and respond to an environmental incident, including the measures available to contain / clean up an incident (e.g., local spill kits, waste reception facilities), manage dropped objects in the marine environment and offsite emergency response resources. The plan needs to include the protocol of how to deal with flood events and ensure that the project is signing up to the EA flood warning system for the area.
129. The Principal Contractor(s) must ensure that all staff including any sub-Contractors are trained in the Project's environmental emergency response procedures, so that they are able and prepared to respond to an incident promptly and effectively on-site. Where appropriate, the Applicant may request environmental emergency response plans to be tested on-site by the Principal Contractor(s).
130. Potential impacts from frac-out and drill fluid release will be considered within the CEMP. The Principal Contractor(s) will, wherever possible use drilling fluids that are on the PLONOR list (Poses Little Or No Risk), the list is controlled and maintained by The Centre for Environment, Fisheries and Aquaculture Science (CEFAS). Products on the list are safe for discharge into the offshore or onshore environment, engagement with the relevant statutory bodies is still required but vastly reduced. The Principal Contractor(s) will be required to have an environmental emergency response plan that includes the response to potential frac out incidents.

131. For offshore activities, a Marine Pollution Contingency Plan (MPCP), which should form an integral component of the CEMP, will also be required to be developed for the Offshore Project. All vessels should carry relevant plans (e.g. MPCP) on board in hard copy.
132. Vessels working on behalf of the Offshore Project will be required to have a Shipboard Oil Pollution Emergency Response Plan (SOPEP) in accordance with International Maritime Organization (IMO) and Maritime and Coastguard Agency (MCA) guidelines or an Oil Pollution Plan if under 400GT.

## **8.2 Reporting**

133. The Principal Contractor(s) are responsible for reporting and recording all environmental incidents and near misses to the project Team, the EA and the Health and Safety Executive (where required) in line with the their Environmental Management System(s).
134. Principal Contractor(s) are required to produce performance monthly reports to demonstrate how the health, safety and environmental objectives and targets are being met.

## **8.3 Nonconformance**

135. If an environmental incident or deviation from the EMS procedures should occur, it shall be thoroughly investigated by the Principal Contractor(s) to establish the root cause and prevent any recurrence. The Principal Contractor(s) are required to outline the procedure for managing nonconformances and the process of implementing corrective actions. Dependent on the severity of the incident, the Project team may wish to manage or assist with the investigation process.

## **9. Site Inspections and Environmental Monitoring**

136. The Principal Contractor(s) are responsible for establishing a programme of performance and compliance monitoring for the = Project. This should be documented in the CEMP and include, but not necessarily be restricted to, the following sections listed below.
137. A programme of environmental monitoring such as for water quality, noise, vibration, archaeology, vessels, scour, and ecological surveys may be required as part of consent conditions. This will be incorporated into specific project plans, such as the CEMP, for the construction period.
138. Where appropriate, the scope of monitoring shall be agreed prior to construction with the appropriate authorities.

139. The Principal Contractor(s) are required to include a monitoring process for complying with environmental permits and consents (e.g.. water quality monitoring protocol as will be agreed with the EA).
140. The Principal Contractor(s), or appointed delegates, will undertake environmental site inspections on weekly basis. These site inspections should be undertaken by a competent person which should, as a minimum, and where relevant, cover the key issues outlined within this document. Weekly inspections should be complimented by daily / monthly audits to ensure legal compliance, and compliance with Project environmental monitoring / mitigation plans.
141. The Principal Contractor(s) are responsible for ensuring the close out of any actions identified during the inspections. Records of the inspections carried out should be retained onsite by the Principal Contractor(s) and a copy provided to the Applicant; any remedial actions required must also be recorded.

## **9.1 Environmental Audits**

142. Environmental audits should comprise both internal and external audits.
143. The Principal Contractor(s) are responsible for developing and implementing an audit programme to audit construction sites on a periodic basis. An audit checklist will be used by the Principal Contractor(s) and the Applicant to ensure that a standard approach is applied consistently. The Principal Contractor(s) environmental audits shall be carried out by experienced auditors, either from within the Principal Contractor(s) environmental team, or via delegated specialists.
144. All actions raised from the audits shall be logged in line with the company audit procedure. Any nonconformances or actions identified during the audit should be tracked, and closed out in a timely manner with a closing date assigned when the action is complete.
145. Vessel inspections will be based on the International Marine Contractors Association (IMCA) standards, IMCA M 189/S 004 (Marine Inspection Check List for Small Boats) or IMCA M 149 (Common Marine Inspection Document). A log of all vessel audits and associated close out actions should be maintained.

## **10. Training and Awareness**

146. A range of mechanisms are used for training and raising awareness of project environmental issues; these include environmental inductions, TBTs, environmental notice boards, and environmental bulletins and alerts.
147. The Principal Contractor(s) must ensure that all staff including any sub-contractors are trained in the Onshore Project's environmental emergency

response procedures, so that they are able and prepared to respond to an incident promptly and effectively on-site. Where appropriate, the Applicant may request environmental emergency response plans to be tested on-site by the Principal Contractor(s).

## 10.1 Project/ Site / Vessel Inductions

148. All site personnel will be required to have a site / vessel induction that includes an environmental component. Designated on-site / vessel personnel from the Principal Contractor(s) Project team will be responsible for preparing and delivering the site induction and maintaining documented attendee records for the on-site personnel.

149. It is expected that the environmental management contents of site / vessel inductions will include reference to compliance with:

- Environmental management contacts
- Relevant planning / license conditions
- Site specific environmental sensitivities
- Waste management arrangements
- Water and wastewater management
- Hazardous material management
- Fuel, oil and chemical management
- Environmental emergency response
- Reporting of incidents and complaints
- UXO risk management
- Construction traffic management.

## 10.2 Toolbox Talks (TBTs)

150. TBTs are considered to be an effective method for the dissemination of information relating to work activities. Environmental TBTs will be required to be delivered by the Principal Contractor(s) to on-site / vessel personnel as required. They also in part be delivered by the relevant member of the project team as well as the health, safety and environment (HSE) team. TBTs are an opportunity for the Principal Contractor(s) to disclose any other environmental sensitivities that the sub-Contractors must be aware of.

151. It is the responsibility of the Principal Contractor(s) to ensure that all personnel attending the TBT have signed a TBT attendance sheet; TBT attendance sheets are likely to be inspected during environmental audits.

### **10.3 Environmental notice board**

152. The Principal Contractor(s) is required to display, in an appropriate and prominent location, copies of relevant environmental management information, including but not limited to the following:

- Environmental policies
- Key contacts details, including Principal Contractor(s) environmental management representative
- Environmental bulletins
- Site location plans showing ecologically/archaeologically sensitive areas, key management areas and location of contingency materials/features
- Emergency response contact details
- Emergency response flowchart.

## **11. Communication and Reporting**

### **11.1 Meetings**

153. Regular health, safety and environment (HSE) meetings are required to be held on all construction sites, including vessels, and are likely to comprise representatives from the Applicant's project team, the Principal Contractor(s), and key sub-contractors. Minutes of meetings will be recorded, and standard agenda items will include items such as: status of outstanding items, reports of environmental incidents or complaints, stakeholder engagement, TBTs issued/delivered, and key findings of environmental inspections and audits. All reporting will be undertaken as stated in Health, Safety, Environmental and Quality minimum requirements document.

154. The Principal Contractor(s) are expected to convene regular project team meetings to convey environmental information to the Project team, including sub-contractors and to raise awareness of environmental issues.

### **11.2 Community complaints**

155. The Applicant values its relationship with the communities and businesses that surround the Project. All work shall be carefully planned to minimise disturbance to the local communities.

156. The Principal Contractor(s) must have a procedure in place to report public complaints and ensure that any complaints are reported to the Project team and investigated promptly.

157. The Principal Contractor(s) must have a procedure in place to report public complaints within the CEMP.

### 11.3 Community liaison and land use

158. A public / community relations plan will be developed for the Project by the Applicant / Principal Contractor(s). The purpose of the plan, which must be developed in liaison with the Project team, should set out the approach to community liaison for the duration of the Project works. For the Onshore Project an ECoW will be appointed, as required. For the Offshore Project, Fisheries Liaison and Environment Liaison Officers will be appointed for the duration of the works, as required.
159. The Principal Contractor(s) needs to outline the process and measures that will limit and manage the timing of construction activities at Landfall up to Mean High Water Springs (MHWS) with the potential to affect public use of Saunton Sands Beach. These measures will include:
- Communication and engagement activities to ensure that visitors to Saunton Sands are aware of the timing and extent of construction activities in the nearshore/intertidal zone
  - Maintaining access to Saunton Sands during construction – no closure of the beach
  - Providing safety marshals and traffic management for the protection of the public
  - Apply health and safety requirements proportionately: for example, balance the need for fencing/hoarding/barriers in nearshore/intertidal zone to protect swimmers and surfers from accessing construction and/or maintenance works with the need to maintain access to Saunton Sands.
160. The Onshore Project has the opportunity to enhance community safety at Saunton Sands by providing resources and by increasing capacity for human intervention if people are attempting or considering self-harm. It is acknowledged that a self-harm event, leading to injury or fatality, is low probability but that it would also be very serious.
161. The additional enhancement would comprise of signs that provide information about safety and sources of help for those considering self-harm; and training for safety marshals to train increased awareness about self-harm and actions to take. The CEMP will include water safety risk assessment and water safety plans and relevant training for safety marshals and other operation and maintenance workers.
162. The Principal Contractor(s) must observe public rights of way and maintenance of flood defences where project activities may impact on these issues. A **Public Rights of Way Strategy** is provided in **Appendix 15.A** of the **Onshore ES**.

163. WCOWL has been liaising with the local landowners / businesses to ensure appropriate compensation is arranged for to account for any losses during construction. Further consultation will be undertaken with farmers occupying the marshland as detailed design and work plans progress with the aim to address any specific concerns around livestock, and those with crops. Plans and mitigations will be outlined and managed under the CEMP for the duration of the works and in agreement with the LPA.

#### **11.4 Stakeholder engagement**

164. Reference should also be made to any reporting requirements in relation to stakeholders set out under the TCPA (1990) and the Section 36 Consent and / or Marine Licences. Interactions with stakeholders such as Natural England, the EA, LPA, etc. should also be covered in this section.

### **12. Sub-Contractor Management**

165. The CEMP and PEMMP will set out how the Principal Contractor(s) manage their sub-Contractors. This may range from the selection and assessment processes through to the assessment of performance on site.

166. For example, expectations of Principal Contractor(s) working on behalf of the Applicant are primarily detailed in this and the following documents:

- Contract Schedules including specific environmental requirements
- Environmental Policy
- Project Environmental Statement.

### **13. Sustainable Construction**

167. The Sustainable Construction guidance issued by the Institute of Environmental Management and Assessment (2008) states the following: "Application of sustainable development to the construction industry, whereby the construction and management of a development is based on principles of resource efficiency and the protection/enhancement of natural and built heritage. Sustainable construction comprises such matters as site planning and design, material selection, resource and energy use, recycling, and waste minimisation". (Institute of Environmental Management and Assessment, 2008).

168. During the design phase, sustainable construction should be considered when planning out the construction phase of the Project. The Principal Contractor(s) are required to outline in this section how the sustainable construction principles are embedded during the construction phases of the Project.

## 14. References

Institute of Environmental Management and Assessment (2008) Environmental Management Plans Practitioner, Volume 12. Available at: <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwic37H1xqf9AhVRsKQKHQSWB7sQFnoECBgQAQ&url=https%3A%2F%2Fwww.iema.net%2Fdownload-document%2F7014&usg=AOvVaw37vBz691GKel7dL9wojy1G>. [Accessed February 2023]

Environment Agency (2014) Pollution Prevention Guidance. Available at: <https://www.gov.uk/government/collections/planning-practice-guidance>. [Accessed February 2023].

Health and Safety Executive (2015). Construction (Design and Management) Regulations 2015. <https://www.hse.gov.uk/construction/cdm/2015/summary.htm>. [Accessed July 2023].



## Annex 1: Waste Audit Statement

### 1. Introduction

169. This Waste Audit Statement has been produced by the Applicant in order to address the North Devon Council (NDC) requirement for details in relation to waste management regarding the proposals for the Onshore Project.
170. The purpose of this document is to provide a draft of the Waste Audit Statement and to demonstrate that appropriate waste management measures will be developed and implemented during all phases of the Onshore Project.

### 2. Policy

171. Devon County Council (DCC) have produced the Devon Waste Plan 2011-2031<sup>3</sup> and a Supplementary Planning Document (SPD) on Waste Management and Infrastructure<sup>4</sup> which sets out the requirement for a Waste Audit Statement for 'major development' applications<sup>5</sup>. The SPD provides guidance to local planning authorities and developers to assist in implementation of three of the Waste Plan's policies dealing with waste prevention, waste management infrastructure and the protection of waste management capacity:
- Policy W4: Waste Prevention and Policy
  - Policy W10: Protection of Waste Management Capacity
  - W21: Making Provision for Waste Management.
172. This Waste Audit Statement will be updated and resubmitted to NDC for approval once the detailed design of the Onshore Project is complete. A condition that a revised Waste Audit Statement be produced, and that all works will be undertaken in accordance with the approved Waste Audit Statement will likely be attached to the consent for the Onshore Project following the example as set out in Appendix C of the SPD.

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<sup>3</sup> <https://www.devon.gov.uk/planning/planning-policies/minerals-and-waste-policy/devon-waste-plan/>

<sup>4</sup> <https://www.devon.gov.uk/planning/planning-policies/minerals-and-waste-policy/supplementary-planning-document/>

<sup>5</sup> The Onshore Project is considered 'major development' as it has a site area of 1 hectare or more as defined in Appendix A of the SPD.

### 3. Structure of Waste Audit Statement

173. This statement includes all information outlined in the waste audit template provided in Appendix B of the SPD. In line with Appendix B of the SPD, the Waste Audit Statement provides:

- Description of the site
- Steps to be taken to minimise waste the amount of waste generated during excavation, demolition and construction
- Type and volume of the waste to be generated during excavation, demolition and construction
- Steps to be taken to achieve the re-use and recycling percentages
- Type and volume of the waste to be generated during operation
- How waste collection and sustainable waste management principles are incorporated into the development.

### 4. Waste Audit Statement

#### 4.1 Project and Site Description

174. The Onshore Project comprises the construction of the following onshore infrastructure assets (landward of Mean Low Water Springs):

- Onshore export cables (approximately 8km)
- White Cross Onshore substation
- Temporary main construction compound and temporary construction compounds
- Transition Joint Bay, jointing bays and link boxes
- Access roads and haul roads
- Grid connection works within the existing East Yelland substation.

175. The Onshore Project includes approximately 8km of export cable which crosses a variety land uses as follows:

- Saunton Sands Beach and Car Park
- Saunton Golf Course
- Arable farmland
- Field boundaries and drainage ditches
- Sandy Lane
- River Taw / Taw Estuary
- Pastural Fields
- Tarka Trail
- Infrastructure such as roads.

## 4.2 Step to minimise generation of waste during excavation, demolition and construction

176. Waste generated during the excavation, demolition and construction of the Onshore Project will be managed by the Principal Contractor(s) in accordance with the waste hierarchy. The waste hierarchy requires the producer/holder of a waste to demonstrate that the priorities outlined in **Table 5.1** have been considered in the priority order, and to determine the most suitable waste management option for all wastes prior to removal from site. The Applicant will aim to prevent, reuse, recycle and/or recover waste where practical and economically feasible prior to considering disposal.

*Table 4.1 The Waste Hierarchy*

Waste Hierarchy	Relevant activity
<b>Prevention</b>	Using less material in design and manufacture, keeping products for longer, re-use, using less hazardous materials.
<b>Preparing for re-use</b>	Checking, cleaning, repairing, refurbishing, whole items, or spare parts.
<b>Recycling</b>	Turning waste into a new substance or product, includes composting if it meets quality protocols.
<b>Other recovering</b>	Includes anaerobic digestion, incineration with energy recovery, gasification and pyrolysis which produce energy (fuels, heat, and power) and materials from waste, some backfilling.
<b>Disposal</b>	Landfill and incineration without energy recovery.

*Table reproduced from Defra website: <https://www.gov.uk/waste-legislation-and-regulations>*

177. The design of the Onshore Project will consider sustainability principals to make sure that over ordering on materials such a substation components, cement bound sand, ducting, tape, tiles and cables is kept to a minimum. As part of the preliminary design of the Onshore Project for the planning application estimates on the likely material quantities to be used during the construction phase have been provided by the engineering team. These quantities will be further refined as the project moves through the detailed design and will be monitored through the use of a Quantity Surveyor during the construction phase of the Onshore Project.

178. The Onshore Project has been designed with an operational lifetime of at least 25 years in order to align with the operational lifetime of the infrastructure from the Offshore Project, such as the wind turbine generators. Therefore, the materials to be used will be of a long-life span designed to be used for the minimum 25 years.

179. The SPD does not require that a Waste Audit Statement be produced for the decommissioning stage of projects, therefore any measures to be implemented during decommissioning are outside the scope of this Waste Audit Statement. However as set out within the **Chapter 5: Project Description** of the **Onshore ES** the decommissioning could be subject to a separate consenting process, which would likely require the production of a Waste Audit Statement in accordance with the relevant policy, legislation and guidance at the time. An **Outline Decommissioning Programme** (WHX001-FLO-CON-ENV-PLN-0011) has been provided as part of the **Further Environmental Information** submission, this will be updated post-consent and will address waste management.

### 4.3 Type and volume of the waste to be generated during excavation, demolition and construction

180. Demolition is not required as part of the Onshore Project due to its nature and therefore has not been considered further.

181. Excavation is identified as a 'waste' generating activity. It is considered that excavation during the Onshore Project will mainly comprise of the excavation of site soils to facilitate the installation of infrastructure, for example the excavation of the trenches for the installation of the export cable.

182. Soils produced during the excavation will be re-used to backfill the subsequent excavation, or elsewhere on site, for example landscaping in the construction of the Onshore Substation to create the building platform to provide the required finished floor level to mitigate the flood risk. Excess excavated material, where the cable installation replaces the ground volume, will be removed from site either for re-use or recycling where no on-site re-use is possible (subject to waste classification testing).

183. Construction has the potential to create a variety of waste streams such as excess building materials, packaging or general waste generated from on-site activities. This includes the aggregates used for the construction of the temporary compounds, haul roads and other working area which will need to be removed before reinstatement. Material required for the creation of temporary haul roads and construction compounds is Type 1 stone aggregate, which has to be imported and will be sourced locally from one of the local quarries in North Devon to minimise traffic. This aggregate material would be disposed of off-site as inert waste. However, the Project is currently investigating proposals to substitute stone material with aluminium trackway for the haul routes, which would greatly reduce the

amount of material required to be imported and therefore disposed of, as well as traffic numbers.

184. At this stage the values some of these construction waste streams are not known, and without the detailed design would be difficult to estimate. However all the management of all construction waste streams will be undertaken in accordance with a Site Waste Management Plan (SWMP) which will be produced by the Principal Contractor(s) (see **Section 4.6** below).
185. Indicative values of the known waste streams these have been summarised in **Table 4.2**. An updated Waste Audit Statement will be provided once the design has been progressed sufficiently to provide further estimates.

*Table 4.2 Construction Waste*

Material	Quantity						
	Total estimated amount (tonnes)	% to be re-used on-site	% to be re-used off-site	% to be recycled on-site	% to be recycled off-site	% to be recovered	% to be landfilled
<b>Inert (waste that does not undergo any significant physical, chemical, or biological transformations (for example concrete, bricks, rubble))</b>							
<b>Aggregate</b> <ul style="list-style-type: none"> <li>• (Construction Consolidation Site Landfall HDD Compound</li> <li>• Haul Road</li> <li>• HDD compounds</li> <li>• HDD installation</li> <li>• Landfall transition bays</li> <li>• Joint Bays</li> <li>• Substation – Compound and Access Road)</li> </ul>	32553	15			85		
<b>Excavated materials</b> <ul style="list-style-type: none"> <li>• (Cable Trench</li> <li>• Substation access road</li> </ul>	81821	34			66		

Material	Quantity						
<ul style="list-style-type: none"> <li>• Substation building platform</li> <li>• Landfall Transitions Bay</li> <li>• Joint Bays)</li> </ul>							
<b>Non-Hazardous</b>  (waste which does not cause harm to human health or the environment)	<p>Estimated amounts of non-hazardous waste are unknown at this stage. An updated Waste Audit Statement will be provided once the project design is sufficiently progressed.</p> <p>Bentonite waste volumes displaced from the proposed HDD drilling process are currently estimated to be <b>3817 tonnes</b></p>						
<b>Hazardous</b>  (Waste which contains substances or has properties that might make it harmful to human health or the environment)	<p>Estimated amounts of hazardous waste are unknown at this stage. An updated Waste Audit Statement will be provided once the project design is sufficiently progressed. The CEMP will include specific measures that are protective of controlled waters in relation to the storage of fuels, oils, lubricants, wastewater, and other chemicals during the works.</p>						

#### **4.4 Steps to be taken to achieve the re-use and recycling percentages**

186. The excavated material generated during the construction phase will be properly segregated and stored, as set out in the OCEMP, in order that it can be re-used to backfill the excavations or elsewhere on site. Where it can't be re-used will be taken off-site for recycling using a local appropriately licensed site.
187. The aggregates used during the construction will be re-used where possible on the site, for example to provide the subbase materials for the permanent access road and substation permanent compound. The aggregates that can not be re-used will be recycled using a local appropriately licensed site.
188. Methods and commitments for preparing other construction waste streams for re-use and recycling on site are not known at this stage. Re-use and recycling will be undertaken on site where possible. The nearest suitable facility for hazardous waste or waste not re-used or recycled on site will be provided in an updated version of the Waste Audit Statement to be submitted and approved in advance of construction.

#### **4.5 Type and volume of the waste to be generated during operation**

189. On the basis of what is proposed during its operational phase it is unlikely that there will be waste generated. This has therefore not been considered further nor has the requirements for access for waste disposal vehicles or storage requirements.
190. Any waste that is generated, for example from the maintenance or servicing of the export cables and/or substation equipment, will be managed in accordance with the waste hierarchy (see **Table 5.1**). Given that any such waste will likely be of a high value, such as substation equipment or components, where prevention is not possible the majority of the waste will likely be re-used or recycled.

#### **4.6 Waste Collection and Sustainable Waste Management Principles**

191. During construction the Principal Contractor(s) will be responsible for the collection, storage and disposal of any waste produced as part of the Onshore Project and will be required to prepare a Site Waste Management Plan (SWMP) in line with legislation, good practice. The SWMP will be developed post-consent to ensure the proper handling and protocols are in place to deal with any generated wastes. The Plan will record the following information, as a minimum:
  - The types and quantities of waste generated



- The management approach for each waste type (Reuse, Recycle, Recover, Dispose) including any treatment
  - The storage arrangements for each waste type
  - The site waste monitoring and reporting arrangements
  - Waste carrier details and waste management/disposal facilities.
192. Adoption of a CL:AIRE Industry Code of Practice to manage the re-use and disposal of excavated soils within the Onshore Development Area would also be incorporated as an additional mitigation measure in the CEMP, this would aid in maximising sustainability and provide an audit trail to demonstrate the appropriate use of materials. A Materials Management Plan will be drafted in advance of any construction works, this would include chemical screening criteria in order to ensure that imported and/or reused materials are chemically suitable for use. If materials identified as containing asbestos are identified, then a specialist contractor would be employed to aid in its removal from Onshore Project Area, in line with current legislation.
193. Circular economy principles will be considered, where practical and economically feasible, specifically the priority area of circular construction and adopting circular economy interventions such as:
- adopting circular design principles and construction processes, particularly the opportunity to create a physical and virtual resource recovery and material exchange hub to make better use of material wasted in construction
  - supporting the growth of regional specialist circular products and services in the construction industry.