XLINKS MOROCCO-UK POWER PROJECT

Preliminary Environmental Information Report

Volume 1, Appendix 3.2: Outline Onshore Construction Environmental Management Plan

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Glossary

Term	Meaning
Alverdiscott Substation Connection Development	The development required at the existing Alverdiscott Substation site, which is envisaged to include development of a new 400 kV substation, and other extension modification works to be confirmed by National Grid Electricity Transmission.
Annoyance (dust)	Loss of amenity due to dust deposition or visible dust plumes, often related to people making complaints, but not necessarily sufficient to be a legal nuisance, as defined by the Institute of Air Quality Management.
Applicant	Xlinks 1 Limited.
Biodiversity Net Gain	An approach to development that leaves biodiversity in a better state than before. Where a development has an impact on biodiversity, developers are encouraged to provide an increase in appropriate natural habitat and ecological features over and above that being affected to ensure that the current loss of biodiversity through development will be halted and ecological networks can be restored.
Construction Traffic Management Plan	A document detailing the construction traffic routes for heavy goods vehicles and personnel travel, protocols for delivery of Abnormal Indivisible Loads to site, measures for road cleaning and sustainable site travel measures.
Converter Site	The Converter Site is proposed to be located to the immediate west of the existing Alverdiscott Substation site in north Devon. The Converter Site would contain two converter stations (known as Bipole 1 and Bipole 2) and associated infrastructure, buildings and landscaping.
Converter station	Part of an electrical transmission and distribution system. Converter stations convert electricity from Direct Current (DC) to Alternating Current (AC), or vice versa.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
HVAC Cables	The High Voltage Alternating Current (HVAC) cables which would bring electricity from the converter stations to the new Alverdiscott Substation Connection Development.
HVDC Cables	The High Voltage Direct Current (HVDC) cables which would bring electricity to the UK converter stations from the Moroccan converter stations.
Landfall	The proposed area in which the offshore cables make landfall in the United Kingdom (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Cornborough Range, Devon, between Mean Low Water Springs and the Transition Joint Bay inclusive of all construction works, including the offshore and onshore cable routes, and landfall compound(s).
Mean Low Water Springs	The height of mean low water during spring tides in a year.
National Landscape	An area of land designated for its natural features of outstanding beauty. The land is protected by the Countryside and Rights of Way Act 2000, in order to conserve and enhance its natural beauty. Previously referred to as an Area of Outstanding Natural Beauty.
Onshore Infrastructure Area	The proposed infrastructure area within the Proposed Development Draft Order Limits landward of the transition joint bays, which contains the onshore HVDC Cables, Converter

Term	Meaning
	Site, the Alverdiscott Substation Connection Development, highway works, utility diversions and onshore HVAC Cables.
Preliminary Environmental Information Report	A report that provides preliminary environmental information in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This is information that enables consultees to understand the likely significant environmental effects of a project, and which helps to inform consultation responses.
Proposed Development	The element of the Xlinks Morocco-UK Power Project within the UK, which includes the offshore cables (from the UK Exclusive Economic Zone to landfall), landfall site, onshore Direct Current and Alternating Current cables, converter stations, road upgrade works and, based on current assumptions, the Alverdiscott Substation Connection Development.
Proposed Development Draft Order Limits	The area within which all offshore and onshore components of the Proposed Development are proposed to be located, including areas required on a temporary basis during construction (such as construction compounds).
Protected species	A species of animal or plant which it is forbidden by law to harm or destroy.
Receptor	The element of the receiving environment that is affected.
Runoff	Runoff occurs when there is more water than land can absorb. The excess liquid flows across the surface of the land.
Site Waste Management Plan	A site waste management plan aims to establish and estimate how much waste is produced by the Proposed Development and sets out how resources will be managed and waste controlled at all stages during construction activities.
Written Scheme of Investigation	A plan detailing the protocol for any archaeological investigation to be carried out prior to the construction of the Proposed Development, including procedures for field survey and watching briefs.
Xlinks Morocco UK Power Project	The overall scheme from Morocco to the national grid, including all onshore and offshore elements of the transmission network and the generation site in Morocco (referred to as the ‘Project’).

Acronyms

Acronym	Meaning
AIL	Abnormal Indivisible Load
CEMP	Construction Environmental Management Plan
CoPA	Control of Pollution Act
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EMS	Environmental Management System
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicles
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IAQM	Institute of Air Quality Management
LEMP	Landscape and Ecological Management Plan
LGV	Light Goods Vehicles

Acronym	Meaning
MLWS	Mean Low Water Springs
On-CEMP	Onshore Construction Environmental Management Plan
PEIR	Preliminary Environmental Information Report
PPP	Pollution Prevention Plan
PRoW	Public Right of Way
SWMP	Site Waste Management Plan

Units

Units	Meaning
km	Kilometre
mm	Millimetres
mph	Miles per hour

1 OUTLINE ONSHORE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

1.1 Introduction

Background

1.1.1 This document forms Volume 1, Appendix 3.2: Outline Onshore Construction Environmental Management Plan (On-CEMP) of the Preliminary Environmental Information Report (PEIR) prepared for the United Kingdom (UK) elements of the Xlinks Morocco-UK Power Project (the 'Project'). For ease of reference, the UK elements of the Project are referred to as the 'Proposed Development'.

1.1.2 A separate Outline Offshore CEMP has been developed and is provided as Volume 1, Appendix 3.3 of the PEIR. The Outline Offshore CEMP covers the offshore construction activities that would occur up to (and including) the landfall.

1.1.3 This Outline On-CEMP presents the framework and outline of measures to manage potential environmental impacts that occur from the construction of the onshore elements only. These elements occur landward of Mean Low Water Springs (MLWS) and comprise:

- The landfall (focusing on landward of MLWS);
- The Onshore High Voltage Direct Current (HVDC) Cable Corridor;
- The Converter Site, which contains two converter stations;
- Highways Improvements (e.g. road widening, junction improvements, etc.)
- High Voltage Alternating Current (HVAC) cables; and
- The Alverdiscott Substation Connection Development.

1.1.4 In addition to these elements, the Outline On-CEMP considers the temporary construction compounds, storage areas and accesses required to support the construction of the onshore elements of the Proposed Development.

1.1.5 The relevant local planning authorities are Torridge District Council and Devon County Council.

Purpose of the On-CEMP

1.1.6 The purpose of this Outline On-CEMP is to set out a written set of standards and measures that will be implemented during the construction process to ensure a consistent and effective approach to managing potential environmental impacts in order to minimise nuisances to communities and to safeguard the environment. The measures include strategies, control measures and monitoring procedures for managing the potential environmental impacts and limiting disturbance from construction activities as far as reasonably practicable.

1.1.7 This is an outline document that is based on the design assessed in the PEIR (see Volume 1, Chapter 3: Project Description of the PEIR).

1.1.8 This Outline On-CEMP incorporates legislative requirements, current standards and best practice measures to define the standards of construction practice that contractors will be required to adopt and implement. However, compliance with this Outline On-CEMP will not absolve Xlinks 1 Limited ('the Applicant'), Principal Contractor(s) or subcontractors from compliance with all legislation and byelaws relating to construction activities.

Scope of the Outline On-CEMP

1.1.9 The Outline On-CEMP applies to all of the construction activities of the Proposed Development landward of MLWS. For the purpose of this Outline On-CEMP, the term 'construction' includes site preparation works, waste removal, all related engineering, construction and restoration activities.

1.1.10 The final On-CEMP(s) will be in general accordance with the principles established in the Outline On-CEMP and will be agreed with the relevant authority prior to commencing the relevant stage of the onshore works (above MLWS).

Implementation of the Outline On-CEMP

Final On-CEMP(s)

1.1.11 This Outline On-CEMP is based on design information available at the time of the PEIR. It is a 'live' document that will be updated as appropriate during the EIA process and will be updated for the submission of the Environmental Statement (ES), the Development Consent Order (DCO) application and during the Examination Period following further engagement with stakeholders.

1.1.12 In the event that the Proposed Development is granted development consent, a final On-CEMP(s) would be prepared following the principles established in this Outline On-CEMP and agreed with the relevant local planning authority prior to the commencement of construction.

1.1.13 All construction staff will be required to follow the final On-CEMP(s) and implement the measures to control the environmental impacts during construction. The requirement to comply with the procedures of the final On-CEMP(s) will be as included in the contract conditions for each element of the works, including the supply chain as appropriate.

1.1.14 During the construction process, the implementation of the measures within the final On-CEMP(s) will be monitored to ensure the measures are implemented correctly and that the measures remain effective. The accompanying management plans are necessary documents for the implementation of the final On-CEMP(s) and the measures will be updated in discussion with the local planning authority, where necessary. During construction it will be necessary for the final On-CEMP(s) to be adhered to in addition to the accompanying documents, which are the management plans listed in **Table 1.1**.

Accompanying Documents to Support the On-CEMP

1.1.15 The final On-CEMP(s) will be supported by a series of management plans. **Table 1.1** sets out the management plans that would append the final On-CEMP(s), which would be secured by a DCO requirement.

Table 1.1: Documents to support the implementation of the final On-CEMP(s)

Document	Purpose of the Document	Status
Pollution Prevention Plan (PPP)	To set out details of emergency procedures and provide good practice guidance for pollution prevention.	Outline version of the Plan to be appended to the Outline On-CEMP for the DCO application.
Construction Drainage Strategy	The Construction Drainage Strategy will ensure that existing land drainage is maintained during construction. The strategy will identify specific drainage measures for each area of land based on information identified and recorded by a land drainage consultant prior to construction	Draft measures to be incorporated in the Outline On-CEMP for the DCO application.
Bentonite Breakout Plan	To set out the procedures and measures for minimising the potential for and management of a bentonite breakout, including a response plan should breakout occur.	Outline version of the Plan to be appended to the outline On-CEMP for the DCO application.
Dust Management Plan	To set out dust control measures in line with Institute of Air Quality Management (IAQM) guidance.	Draft measures included in this Outline CEMP. Outline version of the Plan to be appended to the Outline On-CEMP for the DCO application.
Site Waste Management Plan	To manage all waste generated and resource use during the construction phase of the Proposed Development.	Outline version of the Plan to be appended to the outline On-CEMP for the DCO application.
Soil Management Plan	To set out measures to conserve soil resources; avoid damage to soil structure; maintain soil drainage during construction; and identify principles for the reinstatement of the soil profile following the construction.	Outline version of the Plan to be appended to the outline On-CEMP for the DCO application.
Biosecurity Protocol	To set out the measures for managing biosecurity risks, including invasive species, diseases and pathogens.	A detailed Biosecurity Protocol would be developed as part of the final On-CEMP(s).
Construction Lighting Strategy	To set out construction lighting requirements and the measures to control light spill.	Draft measures to be incorporated in the Outline On-CEMP for the DCO application.

1.1.16 The construction activities of the Proposed Development would also be managed through management plans that will sit outside the final On-CEMP(s). These plans and the measures they will contain are set out below:

- An Outline Construction Traffic Management Plan (CTMP), which sets out details of routes for construction traffic; delivery timings and logistics; location of wheel wash facilities. The document will also cover workforce travel.
- An Outline Landscape and Ecological Management Plan (LEMP) which would set out the mitigation and management measures relevant to onshore ecology and nature conservation. In addition, the plan would set out the landscape strategy for the implementation and any long-term maintenance and management. This will be developed in consultation with the relevant authorities.
- An Outline Onshore and Intertidal Written Scheme of Investigation (WSI) is to provide further consideration of archaeology and the scope of work to be undertaken to mitigate those direct physical impacts on the historic environment such as:

  - Procedures if previously unidentified heritage assets are discovered during construction (a “chance find” procedure);
  - Completion of archaeological evaluation (geophysical surveys, trial trenching etc.) where required; and
  - Archaeological watching brief during topsoil stripping (where required).
- The Onshore Crossing Schedule which details the techniques and procedures that will be deployed at crossing points during the construction phase.
- An Outline Public Right of Way (PRoW) Management Plan detailing how PRoW access will be managed during the construction phase.

Training

1.1.17 All construction staff will receive training on their responsibilities for minimising the risk to the environment and implementing the measures set out in the final On-CEMP(s).

1.1.18 The Principal Contractor(s) will ensure that contractors employ an appropriately qualified and experienced workforce. The Principal Contractor(s) will also be responsible for identifying the training needs of their personnel to enable appropriate training to be provided. Training will include daily site briefings and toolbox talks to provide the necessary knowledge on health, safety and environmental topics, and the relevant environmental control measures pertinent to the construction activities to be carried out that day.

1.1.19 The briefings will be attended by all personnel working on the site at the time involved in the activities concerned.

1.2 Project Description

Site Location

1.2.1 The onshore elements of the Proposed Development are proposed to be located within the Onshore Infrastructure Area. The Onshore Infrastructure Area covers an area of approximately 3 km^2 and is wholly located within the local authority area of Torridge District Council and Devon County Council, in north Devon, and extends from the Alverdiscott Substation site to the landfall at Cornborough Range.

Site Context

Landfall

1.2.2 The proposed landfall for the Proposed Development is located at Cornborough Range on the north Devon coast, to the south-west of Cornborough and approximately 4 km west of Bideford. This part of the Proposed Development lies within the North Devon Coast National Landscape and the Heritage Coast. The Mermaid’s Pool to Rowden Gut SSSI is also situated along the coastline.

Onshore Infrastructure Area

1.2.3 The Onshore Infrastructure Area is located in an area that is predominantly rural. The settlements of Abbotsham, Bideford, Ford, Littleham, Landcross, East-the-Water, Gammaton Moor, Woodtown and Stony Cross are situated close to the Onshore Infrastructure Area. The existing Alverdiscott Substation is located within the Onshore Infrastructure Area and there are existing 132 kV and 11 kV overhead lines that cross the Draft Order Limits and connect to the existing Alverdiscott Substation.

1.2.4 The Onshore Infrastructure Area includes parts of the North Devon National Landscape and Kynoch's Foreshore Local Nature Reserve. The Taw-Torridge Estuary Site of Special Scientific Interest (SSSI) is also situated approximately 1.3 km north of the Onshore Infrastructure Area.

1.2.5 The River Torridge flows through the central extent of the Onshore Infrastructure Area, with other watercourses also present along the route, including Kenwith Stream and multiple unnamed ordinary watercourses.

1.2.6 The Flood Map for Planning (GOV.UK, 2019) indicates the Onshore Infrastructure Area is located within Flood Zones 1, 2 and 3. The majority of the Onshore HVDC Cable Corridor is located within Flood Zone 1. Areas along the Onshore HVDC Cable Corridor within proximity to watercourses (including the River Torridge) are located within Flood Zones 2 and 3. Temporary construction compounds are located wholly within Flood Zone 1

Key Elements

1.2.7 The key onshore components of the Proposed Development include the following:

- Landfall:
  - Landfall site: this is where the offshore cables are jointed to the onshore cables. This term applies to the entire landfall area between Mean Low Water Springs and the Transition Joint Bays. This includes all construction works, including the offshore and onshore cable corridors and landfall construction works compound.
- Onshore Elements:
  - Converter Site: which would contain two converter stations (known as Bipole 1 and Bipole 2) immediately west of the Alverdiscott Substation site, as well as associated infrastructure (e.g., access roads, security fencing, etc.) and landscaping to provide visual screening.
  - Highway improvement works: improvements to the existing road network to facilitate access during construction and operation and maintenance, including road widening, and new or improved junctions.
  - High Voltage Alternating Current (HVAC) Cables: underground cable connection between the proposed converter stations and the envisaged new 400 kV substation development at the existing Alverdiscott Substation site (referred to as the 'Alverdiscott Substation Connection Development'). The HVAC cables would be situated within the boundaries of the Converter Site and Alverdiscott Substation site.
  - Onshore High Voltage Direct Current (HVDC) Cables: underground cable connection of approximately 14.5 km between the proposed converter

stations and the Transition Joint Bays at the landfall. The Onshore HVDC Cables would be located within the Onshore HVDC Cable Corridor.

- Other works to facilitate the development, including permanent road improvement works, temporary and permanent utility connections, permanent utility diversions and temporary construction compounds, drainage and access. The Proposed Development also includes opportunities for environmental mitigation, compensation and enhancement.
- Biodiversity Net Gain (BNG) offsetting: BNG planting, comprising Atlantic rainforest, scrub, and species-rich grassland.

1.2.8 The onshore HVDC cables and the HVAC cables will be completely buried underground for their entire length. It is anticipated that the only visible parts of the Onshore HVDC Cable Corridor would be maintenance covers and above ground cable markers. It is anticipated that the offshore cables would be buried in the seabed or laid on the seabed with protection.

1.2.9 No new overhead pylons will be installed as part of the Proposed Development. However, the Proposed Development would require the diversion of existing utilities, including 132 kV overhead lines (OHLs), 11 kV OHLs, gas and water assets.

1.2.10 In addition to the permanent components, temporary onshore infrastructure would be required for the construction phase, including construction compounds, welfare and site offices, utility connections, haul roads and construction drainage.

1.2.11 Further information is detailed within Volume 1, Chapter 3: Project Description, of the PEIR.

1.3 Approach to Construction

General Approach

1.3.1 The Proposed Development will be constructed in an environmentally sensitive manner and will meet the requirements of all relevant legislation, codes of practice and standards as identified in the DCO, ES and any updates to legislation or standards adopted at the time of construction, to limit the adverse impacts on the local community and environment as far as reasonably practicable.

Health and Safety

1.3.2 Appropriate industry standards will be adopted and implemented for the health, safety and welfare of the construction staff on the Proposed Development. Arrangements will also be put in place to discharge duties under the Construction (Design and Management) Regulations 2015.

1.3.3 A Health and Safety Plan for the onshore works will be prepared by the Principal Contractor(s) post consent. The Health and Safety Plan will set out how the health and safety risks to construction workers, visitors and the public are identified and managed in accordance with legal requirements and best practice for the onshore works.

Environmental Management System

1.3.4 Each Principal Contractor is to be British Standard (BS) EN ISO 14001:2015 (Environmental Management System (EMS)) certified. The construction of the Proposed Development will operate under an EMS, which will provide the process for which environmental management is undertaken to ensure that the relevant findings of the ES are addressed during the construction phase, as well as ensure compliance with relevant legislation and standards. The EMS will set out the following:

- The procedures to be implemented to monitor compliance with environmental legislation and other relevant requirements.
- The processes for the management of risk associated with construction activities.
- The key environmental aspects of the construction works and how they will be managed.
- Staff competence and training requirements.
- Record-keeping arrangements (e.g., records of monitoring, including but not limited to results of routine site inspections, environmental surveys and equipment testing records).
- Monitoring the effectiveness of the measures included within the final On-CEMP(s), as approved by the relevant local planning authorities in consultation with the relevant stakeholders.

1.3.5 As part of the EMS, the Principal Contractor(s) is required to plan their works in advance to ensure that commitments set out in the final On-CEMP(s) are complied with. This will be documented in the method statements for the key construction activities and completed checklists/written observations from site walkovers by the Construction Supervisor.

1.4 Legal and Regulatory Requirements

1.4.1 A primary function of the final On-CEMP(s) is to ensure all construction site personnel are aware of their legal duties and environmental responsibilities during the construction of the Proposed Development. A framework of legislation has been produced within **Annex A**. The list is not exhaustive and does not absolve the Principal Contractor requiring the construction staff and sub-contractors from complying with other relevant legislation. The legislation register will be reviewed and updated during the construction process.

1.4.2 Specific construction-related activities may be subject to regulatory controls through the provision of consents, licenses or permits, including a protected species licence.

Best Practice Guidance

1.4.3 Construction activities will be undertaken in accordance with the following best practice guidelines:

- Best Practicable Means under Section 72 Control of Pollution Act (CoPA) (1974) as amended;

- British Standard BS 10175 (British Standards Institution (BSI), 2011 and amended 2017) (BSI 10175:2011+A2:2017);
- Environmental Protection Act 1990: Part 2A - Contaminated Land Statutory Guidance (Department for Environment, Food and Rural Affairs (Defra), 2012);
- Groundwater Protection Position Statements (Environment Agency, 2017 and amended 2018);
- Land Contamination: Risk Management (Environment Agency, 2019);
- CIRIA C741 Environmental Good Practice on Site (2015);
- Institute of Air Quality Management (2024) Assessment of dust from demolition and construction;
- British Standards Institution (BSI) (2014) British Standard 5228: Code of practice for noise and vibration control on construction and open site. Part 1: Noise +A1:2014; and
- British Standards Institution (BSI) (2014) British Standard 5228: Code of practice for noise and vibration control on construction and open site. Part 2: Vibration.

1.5 Roles and Responsibilities

Project Team

1.5.1 Whilst the key roles of the construction project team will not be assigned until post consent, the environmental roles required to implement the final On-CEMP(s) include the following.

Primary Management

Project Management Team

1.5.2 The Applicant's onshore project management team will be responsible for coordinating the works on behalf of the Applicant, ensuring that the measures in the final On-CEMP(s) are being implemented and giving necessary direction to Principal Contractor(s) (e.g., setting contractual obligations).

Principal Contractor(s)

1.5.3 The Principal Contractor(s) will be responsible for coordinating the works within each Principal Contractor(s) respective contracts.

Secondary Management

Site Manager

1.5.4 The Site Manager has overall responsibility for the construction areas and will be responsible for the following:

- compliance with the final On-CEMP(s), procedures and legislation;

- compiling and reporting on sustainable construction objectives at progress meetings;
- managing specialist environmental subcontractors and service providers;
- ensuring that environmental issues are covered during all induction training sessions;
- reporting to the Project Management Team on all environmental incidents;
- ensuring environmental quality standards are adhered to and monitoring compliance during construction works; and
- ensuring that liaison with the environmental regulators is maintained as appropriate.

Environmental Co-ordinator

1.5.5 The Environmental Co-ordinator will be responsible for the interface between the environmental specialists and engineers including the following:

- coordinating and attending necessary meetings and consultations relating to environmental and sustainable construction aspects of the work;
- ensure that the commitments from statutory procedures, including the Examination process, are included in the final On-CEMP(s) and detailed environmental design;
- report on site environmental monitoring; and
- maintain all CEMP documents and management systems as working documents undertaking reviews and updates as necessary; and obtaining the relevant licences and consents.

Construction Supervisor

1.5.6 The Construction Supervisor will assist the Site Manager/Supervisor in the preparation of the method statements and will be responsible for overseeing construction activities on a day-to-day basis to ensure all environmental commitments are met.

Health and Safety Manager

1.5.7 The Health and Safety Manager will be responsible for identifying and managing health and safety risk for the onshore works, in accordance with legal requirements and best practice, which will be set out in the Health and Safety Plan prepared post-consent.

Technical Roles

Clerk of Works

1.5.8 The Clerk of Works will be the site representative and will be responsible for overseeing construction activities to ensure all environmental commitments are met and compliance with the conditions of all licences and permits.

Ecological Clerk of Works

1.5.9 The Ecological Clerk of Works (ECoW) will report on ecological matters and will be responsible for undertaking pre-construction surveys and monitoring. The ECoW will be the primary point of contact for ecological matters and will assist with site induction and tool-box talks, where necessary, to ensure ecological constraints are identified to all staff. It is anticipated that the ECoW will work with the Site Manager and report to the Environmental Coordinator.

Agricultural Liaison Officer

1.5.10 The Agricultural Liaison Officer will be appointed in time for commencement of pre-construction activities and will be the prime contact for ongoing engagement about practical matters with landowners, occupiers and their agents before and during the construction process.

1.5.11 The Agricultural Liaison Officer (or their company) will be contactable within the core working hours during the construction phase to landowners, agents and occupiers and will provide 24-hour team or company contact details for use in the event of emergency.

Community Liaison Officer

1.5.12 The Community Liaison Officer will be the dedicated contact for liaising with residents and local businesses and will be responsible for implementing the Communications Plan.

Archaeological Clerk of Works

1.5.13 The Archaeological Clerk of Works will report on archaeological matters and will be responsible for undertaking the roles as set out in the Outline Onshore and Intertidal WSI.

1.6 General Requirements

1.6.1 This section sets out the general requirements for the construction phase of the onshore elements of the Proposed Development. These requirements are relevant to ensure that the construction standards and measures are adhered to.

Construction Programme

1.6.2 Subject to gaining development consent, construction is anticipated to commence in 2026 and be completed by 2032. Certain advance works (e.g., archaeological investigation, species surveys and mitigation) may take place in advance of the main construction phase.

1.6.3 A detailed construction schedule will be developed as the design of the Proposed Development progresses.

1.6.4 Further details are provided in Volume 1, Chapter 3: Project Description, of the PEIR.

Working Hours

Core Working Hours

1.6.5 Normal construction working hours would be Monday to Friday 07:00-19:00 and Saturday 07:00-13:00. No working will be undertaken on Sundays or Bank Holidays, except in exceptional circumstances.

1.6.6 Up to an hour before and after the normal construction working hours, there will be mobilisation and demobilisation activities, including but not limited to:

- arrival and departure of the workforce at the site and movement around the main Proposed Development that does not require the use of plant;
- site inspections and safety checks; and
- site housekeeping that does not require the use of plant.

1.6.7 In certain circumstances, specific works may have to be undertaken outside of the core working hours (e.g., Horizontal Directional Drilling (HDD) (or other trenchless technology), emergency works, etc.). In these instances, the relevant local authority will be informed in writing.

Continuous Working Hours

1.6.8 In certain circumstances, specific works may have to be undertaken on a continuous working basis (00:00 to 00:00, Monday to Sunday). During this period, the contractor may undertake activities that require continuous working hours, which will be notified to the relevant local authority in writing. Where relevant, Section 61 (of the Control of Pollution Act 1974) consents will be obtained. These activities include, but may not be limited to:

- HDD (or other trenchless technology) operations. These activities may require 24-hour machinery operation, dependent on the ground conditions;
- continuous concrete pours;
- converter station component installation;
- oil filling of transformers at the converter stations;
- jointing operations along the Onshore HVDC Cable Corridor; and
- testing and commissioning.

Activities Outside of Core Working Hours

1.6.9 It may be beneficial to carry out several activities outside of the core working hours such as delivery and unloading of Abnormal Indivisible Loads (AILs)/construction plant delivery or works within the highway/footpaths. Further details will be included within an Outline CTMP and Public Right of Way (PRoW) Management Plan.

1.6.10 Advanced notice will be provided for activities outside of the core working hours and, where necessary, agreed with the relevant local authority.

Emergency Works

1.6.11 Emergency works may also be undertaken outside of the core working hours. If emergency works are required, the relevant local authority and highways authority will be notified as soon as reasonably practicable. Alongside the notification, an explanation of the emergency and the works required in response will be provided.

General Site Layout and Good Housekeeping

1.6.12 A good housekeeping policy will be applied to the construction site at all times. As far as reasonably practicable, the following principles will be applied:

- all working areas will be kept in clean and tidy conditions;
- adequate welfare facilities will be provided for construction staff;
- smoking will not be permitted within the construction site, a designated smoking area may be provided equipped with containers for smoking waste.
- open fires on site will be prohibited at all times;
- all necessary measures will be taken to minimise the risk of fire and the Principal Contractor will comply with the requirements of the local fire authority;
- waste from the construction site will be stored securely to prevent wind blow; and
- waste (particularly food waste) will be removed from the welfare facilities on a weekly basis.

Site Induction

1.6.13 A site induction will be provided for all personnel prior to working or visiting onsite. As well as covering safety issues, the site induction will highlight the environmental constraints onsite, environmental protection measures, and good practice measures.

1.6.14 Specific toolbox talks will be included where relevant to cover specific environmental topics and the associated mitigation covered in **Section 1.8** of this Outline On-CEMP. The Principal Contractor(s) will be responsible for ensuring all personnel working onsite have been properly inducted.

Site Security, Screening and Fencing

1.6.15 Construction compounds will be secured with fencing and lockable gates to restrict unauthorised access. All temporary working areas will be clearly marked and secured with appropriate fencing. Security at the Converter Site will be carefully managed during construction.

1.6.16 The type of temporary fencing to be used will be dependent on the land use. Fencing will be installed as part of the early construction works and will typically consist of:

- security fencing for temporary construction compounds;
- post and rope for arable land;

- post and rail for horse fields; or
- post mesh and wire/barbed wire for cattle and sheep.

1.6.17 All boundary fences/screens will be maintained in a tidy condition and will be fit for purpose.

1.6.18 All temporary screening and fencing will be removed as soon as reasonably practicable after completion of the works.

1.6.19 Where possible, access to construction areas will be limited to specified entry points and all personnel entries/exits will be recorded for security and health and safety purposes.

1.6.20 Where the haul road meets a public highway, it will be gated or otherwise secured, where feasible and necessary, to prevent unauthorised access. Further details relating to construction traffic will be included within the Outline CTMP, which will be developed and submitted as part of the DCO application.

Lighting

1.6.21 External lighting of the construction areas will be designed and positioned to ensure:

- the necessary levels of lighting for safe working are provided; and
- the light spillage or pollution are minimised to avoid disturbance to nearby residents and wildlife.

1.6.22 In accordance with the Bat Conservation Trust recommendations, lighting will be directed away from features with potential for roosting, foraging and commuting bats.

Management of Construction Waste

1.6.23 Waste from the construction of the Proposed Development will be managed in accordance with the principles of the waste hierarchy (i.e., avoid, reduce, reuse, recycle, recover and disposal). A Site Waste Management Plan (SWMP) will append the final On-CEMP(s) for the application for development consent. The SWMP will be updated during the detailed design process and will be maintained during the construction process to record the movement of waste from the construction areas.

1.6.24 The SWMP will be prepared in line with the CL:AIRE (Contaminated Land: Applications in Real Environments) Definition of Waste: Development Industry Code of Practice (CL:AIRE, 2011). All waste will be transported and managed by appropriately licenced contractors and subject to the duty of care requirements.

Construction Workforce and Access

1.6.25 During construction, the A39 would be used as the primary artery for construction access, which would connect construction vehicles to the A386, B3236, and Barnstaple Road into Manteo Way. These roads would be utilised for construction traffic before leading vehicles onto temporary haul roads along the cable corridor. Temporary internal haul routes would be constructed along sections of the cable corridor to remove frequent vehicle movements from the public highway.

1.6.26 Access would be required for Heavy Goods Vehicles (HGVs), AILs for certain items (drill rigs, transformers, cable drums, large cranes or construction plant) and for construction workforce traffic.

1.6.27 Access to the Converter Site during construction may similarly utilise the Onshore HVDC Cable Corridor. In addition, the Converter Site will be accessed via A39, exiting to Barnstaple Street, east of the River Torridge, before passing through East-the-Water to Gammaton Road. There would be a requirement for some road widening in order to safely access the Converter Site.

1.6.28 The construction workforce is expected to be up to 400 full time employment workers, for a construction programme of up to 72 months.

1.6.29 Measures will be implemented to minimise dust, mud and debris associated with the movement of construction vehicles.

Construction Drainage

1.6.30 There will be a number of pollution prevention and flood response measures which will be incorporated to ensure the potential for any temporary effects on water quality or flood risk are reduced as far as practicable. Pollution prevention and flood control measures are detailed within **section 1.8**.

Pest Control

1.6.31 The risk of pest/vermin infestation will be reduced by ensuring that food waste (from the welfare facilities) or other putrescible waste is stored appropriately and regularly collected (i.e., weekly) and effective preventative pest control measures are implemented. Any pest infestations will be dealt with promptly and notified to the relevant authorities as soon as practicable.

Emergency Planning and Procedures

1.6.32 Emergency procedures will be developed by the Principal Contractor taking into account the anticipated hazards of the construction site. The procedures will include measures for dealing with actual or suspected pollution incidents involving spillages of oils or chemicals, discharge of silty water or other pollutants to watercourses; floods; fire (emissions to air) and firewater runoff; and the discovery of potentially contaminated land.

1.6.33 General control measures will include the provision of emergency equipment such as spill kits, absorbent materials, drain covers and oil booms and the need for staff training in emergency procedures. Equipment will be located at the construction compound and other appropriate locations.

1.6.34 In the event of an actual or suspected pollution incident, the Principal Contractor(s) will implement the measures from the Pollution Control Plan and report the incident to the Environment Agency.

1.6.35 The Pollution Control Plan will also contain emergency phone numbers and the method of notifying local authorities and statutory authorities (e.g. the Environment Agency). The procedures will be displayed at the construction site and all staff will be required to follow them. In the event of an emergency, members of the public will be able to contact the Project Management Team via the contact details on the site entrance or the website.

Pollution Prevention

1.6.36 The Principal Contractor(s) will develop and implement appropriate measures to control the risk of pollution due to construction works, materials and extreme weather events. An Onshore Pollution Prevention Plan (PPP) will accompany the application for development consent, which recognises the risk of pollution from construction activities and presents pro-active management practices to ensure that any pollution that may occur is minimised, controlled, reported to the relevant parties and remediated.

Communications

1.6.37 A Community Liaison Officer will be provided as the main point of contact for landowners to provide construction updates and to resolve any queries that arise during construction. The Principal Contractor(s) will adopt a proactive approach to communications. They will provide a dedicated point of contact to manage communications with local residents, local businesses, emergency services and the local authority. The approach will include the following steps:

- A site notice board will be erected at the entrance of the construction site that meets statutory requirements and sets out key facts about the construction programme, where further information could be found and the contact details for the key members of the construction team.
- Information regarding the Proposed Development (including key information on the construction programme and areas of works) will be added to the website and will be updated regularly.
- Occupiers of nearby properties will be informed of particularly noisy construction activities, works to be undertaken outside the normal working hours, or the arrival of any abnormal loads.
- Local residents or businesses will be given advance notice of temporary disruption to services, if any.

1.6.38 A complaints procedure will be implemented during the construction phase. Complaints will be investigated and, where required, further mitigation may be implemented, in consultation with the relevant stakeholders if applicable. All complaints will be logged and the response will be recorded. This information will be made available to Torridge District Council and Devon County Council.

1.7 Environmental Aspects Register

1.7.1 An outline of the Environmental Aspects and Impacts register is provided in **Table 1.2**. The register summarises sensitive receptors and the potential impacts that could arise due to the proposed construction works based on the information submitted in the PEIR. It has been provided to reflect how the final On-CEMP(s) and accompanying management plans will provide the appropriate control measures to adhere to in order to reduce the effects on sensitive receptors during construction of the Proposed Development landward of MLWS.

1.7.2 Measures to mitigate these impacts are discussed in the Environmental Control Plans (see **section 1.8**) within this Outline On-CEMP. The register will be updated as required during detailed design and will provide useful information for the construction teams when preparing their method statements.

Table 1.2: Environmental Aspects and Impacts Register

Environmental Topic	Sensitive Receptors	Potential Impacts During Construction	Environmental Control Plans
Ecology and Nature Conservation	• Statutory and locally designated sites. • Hedgerows. • Watercourses with wooded banks. • Protected species including dormice, otters, bats, breeding birds, wintering and migratory birds.	• Temporary and permanent loss of habitat. • Disturbance of protected species. • Damage to retained habitats. • Spread of invasive non-native species.	• Reinstatement of hedgerows on a 'like-for-like' basis. • Timing and methods of vegetation clearance. • Limiting lighting and noise disturbance due to construction activities. • Further surveys/monitoring. • Biosecurity protocol.
Surface Water and Groundwater Environment	• Water bodies (Main rivers and ordinary watercourses). • Groundwater bodies. • Designated sites (Mermaid's Pool to Rowden Gut SSSI and Taw-Torridge Estuary SSSI). • Nitrate Vulnerable Zones. • Field drainage.	• Increased risk of flooding. • Pollution of surface and groundwater. • Impacts to existing field drainage. • Damage to flood defences.	• Flood control measures. • Pollution control measures. • Use of trenchless methods to avoid watercourses, designated sites, and flood defences. • Implementation of effective buffers between construction works and receptors.
Transport and Access	• Users of the local highway network, footways, and cycleways.	• Traffic delays as a result of construction vehicles. • Impacts on the safety of users of the highway network.	• Development and use of construction haul roads. • Construction Traffic Management Plan. • Management of Abnormal Load deliveries.
Noise and Vibration	• Residential receptors.	• Noise and vibration disturbance from construction activities. • Noise due to increased traffic flows.	• Best Practicable Means.
Air Quality	• Nearby residents . • Ecological receptors.	• Deposition of dust affecting designated sites and habitats. • Potential dust nuisance to human receptors. • Deposition of construction dust on nearby roads.	• Dust control measures set out in a Dust Management Plan in line with IAQM guidance.

Environmental Topic	Sensitive Receptors	Potential Impacts During Construction	Environmental Control Plans
Land Use and Recreation	• Local residents and users of Public Rights of Way. • Agricultural land.	• Disruption and reduced access to agricultural land. • Disruption and reduced access to recreational resources (e.g. PRoW, cycle routes, village greens, etc.).	• Soil Management Plan. • Measures to maintain operation of farm holdings. • PRoW Management Plan.
Landscape and Visual Impact	• North Devon Biosphere Reserve and the North Devon Coast National Landscape • Local residents and users of PRoWs. • Landscape character.	• Temporary disruption in the tranquillity and natural darkness in the area. • Impacts to views and visual amenity.	• LEMP. • Appropriate lighting measures to minimise light spillage and disturbance.
Historic Environment	• Buried archaeology. • Heritage assets (e.g. Scheduled Monuments, Listed Buildings, etc.).	• Impacts to the setting of heritage assets. • Damage to or permanent loss of buried archaeological assets. • Impacts to the character of the historic landscape.	• An Outline WSI, which will detail survey and archaeological mitigation requirements.

1.8 Environmental Control Plans

Ecology and Nature Conservation

Objectives

1.8.1 To minimise the impact of construction works on protected species and designated sites and to minimise the loss of nature conservation features such as hedgerows, woodland and mature trees.

Management Measures

1.8.2 An Outline LEMP will be prepared and submitted with the application for development consent. A LEMP will be developed in accordance with the Outline LEMP. The plan will include details of mitigation planting at the converter site, including the number, location, species and details of management and maintenance of planting.

1.8.3 The LEMP will also include requirements and measures relating to ecology and nature conservation. It will include but not be limited to the following:

- a series of pre-commencement ecological surveys, to understand conditions prior to construction (this provides an opportunity to address any changes prior to any works).
- requirements and management measures relating to ecology and nature conservation.
- methodologies required for removal and reinstatement of hedgerows or other habitats to be reinstated.
- methods required to prevent disturbance to or to comply with protected species licensing as relating to dormice (or any other species found to require licensing as a result of pre-commencement surveys).
- details and specifications for an ECoW, including duties, responsibilities and reporting structure.

1.8.4 An ECoW will be appointed by the Principal Contractor(s) to oversee enabling works and construction where necessary. The ECoW will be a suitably experienced professional ecologist. The ECoW will review results of protected species surveys prior to the commencement of works in different areas and will contribute to the preparation of crossing method statements where they could impact on sensitive environmental features such as a watercourse.

Habitats

1.8.5 Where hedgerow habitat removal is unavoidable, impacts would be reduced as far as possible by reducing the sizes of gaps in hedgerows or other features of value and, if possible, utilising existing gaps and gateways.

1.8.6 Hedgerows impacted during construction will be reinstated on a ‘like-for-like’ basis, as soon as practicable. Where feasible, hedgerow bank materials will be stored and re-used to form the reinstated banks for hedgerows, including viable woody species stools. Hedgerow reinstatement will include replanting with

suitable species mixes tailored to replicate and enhance the diversity of the existing hedgerows, using appropriate native species of local provenance. A suitably experienced hedging contractor familiar with creation of Devon hedgerows will be appointed to complete this work.

1.8.7 All vegetation requiring removal will be undertaken outside of the bird breeding season. If this is not reasonably practicable, the vegetation requiring removal will be subject to a nesting bird check by a suitably qualified ecological clerk of works. If nesting birds are present, the vegetation will not be removed until the young have fledged or the nest failed. Following removal and works, habitat reinstatement would be carried out to renewed opportunities for bird nesting, once re-established.

1.8.8 Agricultural habitats would be temporarily disturbed during construction. However, topsoil and subsoil would be stored separately during construction for replacement in the correct sequence, and care would be taken with regard to levels of soil compaction. Soil management measures will be detailed within a Soil Management Plan.

1.8.9 Good practice air quality management measures will be applied where ecological receptors are present within 50 m, as described in Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction (2024).

Protected Species

Dormice

1.8.10 A licence under Regulation 55 of the Conservation of Habitats and Species Regulations 2017 (as amended) would be required from Natural England prior to the commencement of construction. All construction works would be carried out in accordance with the Method Statement approved by Natural England as part of the licensing process. A draft licence application and Method Statement will be produced and developed as part of the DCO application.

1.8.11 Clearance works would be carried out at times when the risk of injury to individual dormice are minimised, taking into account dormouse ecology and behaviour. The upstanding vegetation will be cut and removed during the winter period when dormice are hibernating in nests at ground level, with grubbing out of roots and hedge banks undertaken from May to September, when dormice would be active and using the tree canopy.

1.8.12 Construction areas would be carefully searched by a suitably licensed ecologist prior to clearance operations. If any dormice are encountered, they would be moved to suitable, safe locations beyond the working areas but within their existing range (in accordance with guidance in the Dormouse Conservation Handbook).

1.8.13 Prior to the construction phase, habitat reinforcement, e.g., dormouse nest boxes, would be implemented beyond the areas of habitat removal. This would be applied in areas where any dormice displaced by the habitat clearance is likely to go.

1.8.14 Once the construction phase is completed, the reinstatement and enhancement of any dormouse habitat would be undertaken.

Otters and Water Voles

1.8.15 On the basis of the survey findings, no mitigation for water voles is required. An updated survey would be undertaken prior to construction. If water voles are identified in watercourses affected by the construction works, measures for their protection would be agreed upon with Natural England.

1.8.16 In terms of otters, the cable route has avoided a habitat of significant value, where practicable. However, the route would pass through some areas of suitable habitat and cross several watercourses. Where the cable route crosses the River Torridge, HDD would reduce the potential impact as far as possible by passing under the river and associated terrestrial habitats. Construction work sites, including HDD and other tunnelling compounds, would be located a suitable distance away from areas of habitat of high potential value to otters to minimise disturbance levels.

1.8.17 To minimise potential disturbance to otters, compounds within 15 m of watercourses will be screened with solid fencing on sides adjacent to the watercourse, and a review of any working lighting will be undertaken to ensure that light-spill does not fall onto currently unlit sections of watercourse during the construction period.

1.8.18 Prior to construction, an updated survey will be undertaken for all minor watercourses affected by the proposed works. If a new holt or place of rest is found, an appropriate mitigation strategy would be formulated in discussion with Natural England. If no suitable alternative to works would affect such a holt or place of rest, a Natural England development licence for otters would be required before works can commence.

Bats

1.8.19 For hedgerows known to be used by high numbers of bats or rarer species, temporary structures would be used to replicate the linear feature's canopy, where hedgerows have been removed leaving gaps of greater than 10 m, and left in place overnight during the construction activity. This structure would be placed within the gap and left overnight. These would be formed of suitable materials such as 'Heras' fencing panels adorned with camouflage netting and stoutly anchored to the ground. Contractors would be made aware of the importance of carrying out this task, through briefing at site inductions and toolbox talks. It would not be necessary to undertake this measure during the winter period (November to February inclusive) when bats are inactive.

1.8.20 Lighting outside the standard construction working hours will be restricted to that necessary for individual tasks and will be directional to avoid light spill onto areas where lighting is not required.

1.8.21 A single tree with a roost used by small numbers of soprano pipistrelles has been identified adjacent to the HDD work site situated to the south west of the Torridge Estuary. Measures to reduce disturbance to this roost will be implemented, including the following:

- fencing around the HDD work site to control lighting and disturbance.
- directional lighting to avoid light spillage.

- Artificial bat roosting facilities would be provided in alternative trees (i.e. five bat boxes are proposed to provide alternative roosting possibilities close to the existing roost, based upon survey observation, and within the flight route of bats using the affected roost).

1.8.22 This approach will be taken for any other roosts identified in previously un-surveyed locations or during pre-commencement surveys.

Badgers

1.8.23 No active badger setts have so far been identified within the Onshore HVDC Cable Corridor or would be directly affected by it. Therefore, at the time of writing, no license is required and no mitigation specific to badgers is required.

1.8.24 The area within the Proposed Development Draft Order Limits will be subject to continued monitoring on a four monthly basis for a full year immediately prior to commencement of construction, to review whether badgers have excavated and commenced to inhabit any new setts in locations which might be affected by the proposed construction works.

1.8.25 In the event that newly-occupied setts were identified in locations where they would be damaged or disturbed by the construction works, a license would be applied for under the Protection of Badgers Act 1992. This would require an appropriate mitigation package to include sufficient details to understand if the sett to be affected a main sett, annexe, subsidiary or outlier and whether an artificial sett within the existing territory of the badger social group would be required. Methods to create this, if required, along with methods of exclusion of badgers from the sett and measures to permanently or temporarily close the sett, would be required.

1.8.26 Measures to ensure that construction works are carried out in a tidy fashion, with good standards of handling potentially harmful materials, would prevent access by badgers to these materials. Similarly, ensuring that open excavations are left with suitable plank ‘escape routes’ or alternatively covered where necessary would also prevent badgers from becoming trapped in deep excavations.

Reptiles

1.8.27 Areas of high potential value to reptiles, which could be affected by construction works, would be subject to phased habitat degradation in order to encourage reptiles to evacuate the construction areas prior to the commencement of works.

1.8.28 Immediately prior to clearance of remaining vegetation and earthworks, an update survey would be required to ensure that any present reptiles are temporarily removed to good (not degraded) habitat either side of the works, where they would remain until construction is complete with habitat reinstatement.

Invasive Species

1.8.29 A detailed Biosecurity Protocol will be developed and agreed with relevant statutory consultees. The Biosecurity Protocol would form part of the final On-CEMP(s) and would contain measures to the limit spread and/or introduction of Invasive Non-Native Species during construction.

Surface Water and Groundwater Environment

Objectives

1.8.30 To minimise the risk of surface water flooding during the construction phase, to prevent pollution of surface watercourses and to minimise the impact on local surface water features.

Management Measures

Flood Control Measures

1.8.31 To manage impacts to field drainage, the contractor will develop a field drainage strategy in consultation with the landowners affected. It may be necessary to install additional field drainage on either side of the Onshore HVDC Cable Corridors and HVAC cables to ensure the existing drainage of the land is maintained during and after construction.

1.8.32 Fences, walls, ditches and drainage outfalls will be retained at the landfall and along the Onshore HVDC and HVAC Cable Corridor, where reasonably practicable. Where it is not reasonably practicable to retain them, any damage will be repaired and reinstated as soon as reasonably practical. The Environment Agency must be notified if damage occurs to any Environment Agency main river or related flood infrastructure.

1.8.33 Where required, trenched techniques may be used for minor ditches or smaller watercourses that are frequently dry. In these cases, measures will be implemented to protect water quality and flow and these will be detailed within the final On-CEMP(s).

Pollution Control Measures

1.8.34 The construction phase would incorporate pollution prevention measures to ensure that the potential for any temporary effects on water and groundwater quality are reduced as far as practicable. Such measures would be implemented including but not limited to the following:

- Storage of stockpiled materials on an impermeable surface to prevent leaching of contaminants and use of covers when not in use to prevent materials being dispersed and to protect from rain;
- The implementation of dust suppression measures during construction to minimise nuisance dust emissions during the works;
- A construction and then operational drainage strategy would be implemented to minimise surface water runoff and pollution;
- Bulk storage areas to be secured and provided with secondary containment (in accordance with the Oil Storage Regulations and best practice);
- Storage of oils and chemicals away from existing watercourses, including drainage ditches or ponds;
- Use of a documented spill procedure and use of spill kits kept in the vicinity of chemical/oil storage;

- The disposal of solid waste, including surplus spoil, would be managed to maximise the environmental and developmental benefits from the use of surplus material and to minimise any adverse effects of disposal. In general, the principles of the waste management hierarchy, reduce-reuse-recycle would be applied;
- Potential waste arising from excavation would be sampled and analysed to determine the waste classification required to establish relevant waste streams, suitability for reuse/recycle and disposal/storage requirements;
- All waste generated would be disposed of by a suitably licensed waste contractor; and
- All construction work will be undertaken in accordance with the Outline CEMP, and good practice guidance including, but not limited to:
  - control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors CIRIA (C650) (CIRIA, 2001);
  - CIRIA – Sustainable Drainage Systems (SuDS) Manual (CIRIA, 2015);
  - no discharge to surface watercourses will occur without permission from the Environment Agency (SuDS Manual); and
  - wheel washers and dust suppression measures to be used as appropriate to prevent the migration of pollutants (SuDS Manual).

1.8.35 Horizontal Directional Drilling (HDD) (or other trenchless methodology) is to be used to cross Kenwith Stream, River Torridge and Jennets Reservoir Tributary. HDD (or other trenchless methodology) is also to be used to cross the shingle bar at Cornborough Range.

1.8.36 The Onshore HVDC Cables will be installed at least 1.5 m beneath the hard bed of any watercourses. Depths of construction will be confirmed via site investigations during detailed design and to be confirmed with the EA and LLFA. Where Environment Agency flood defences are present at trenchless crossings, a minimum 1.5 m vertical clearance will be maintained between the hard bed of the watercourse and the landward toe of those flood defences, and to be confirmed with Environment Agency and Local Lead Flood Authority.

1.8.37 HDD (or other trenchless technology) entry and exit points will be located at least 8 m away from Environment Agency ordinary watercourses, 8 m from Environment Agency surface watercourses or the landward toe of the surface watercourse flood defences, and 16 m from a tidal Main River or sea defence structure.

1.8.38 The following buffers will be maintained between watercourses and temporary working areas for the Onshore HVDC Cable Corridor, HVAC Cables, temporary compounds, the Converter Site, and the Alverdiscott Substation Connection Development:

- 8 m away from the banks of ordinary watercourses,
- 8 m from EA Main Rivers and the landward toe of associated formal and informal flood defences (non-tidal) and
- 16 m from tidal EA Main Rivers and the landward toe of associated formal and informal flood defences.

1.8.39 The same buffer will be maintained for the permanent converter stations.

1.8.40 Furthermore, a Bentonite Breakout Plan will be developed, which sets out the procedures and measures for minimising the potential for and management of a bentonite breakout, including a response plan should breakout occur.

1.8.41 An Outline Pollution Prevention Plan (PPP) will be prepared and submitted with the application for development consent. A PPP will be developed in accordance with the Outline PPP and will include details of emergency spill procedures. Good practice guidance detailed in the EA's Pollution Prevention Guidance notes (including Pollution Prevention Guidance notes 01, 05, 08 and 21) will be followed where appropriate, or the latest relevant available guidance.

1.8.42 Consents/permits relating to dewatering activities that may affect surface water and / or groundwater are to be obtained as and when required during the construction phase of the Project. The conditions of the consent will be specified to ensure that construction does not result in significant alteration to the hydrological regime or an increase in fluvial risk.

Geology and Ground Conditions

1.8.43 Ground investigation will be completed within areas where potentially significant sources of contamination have been identified either within, or in close proximity to, the Proposed Development Draft Order Limits. Where ground investigation identifies potential risks to sensitive receptors from any contamination identified, then a remediation strategy would be prepared. The strategy would comprise the following:

- implementation plan setting out the objectives and requirements of the remediation or mitigation measures to be incorporated into construction techniques/design of the Proposed Development to minimise any impact;
- validation sampling to confirm that remediation objectives have been met and/or mitigation measures implemented; and
- verification report.

1.8.44 The scope of the remediation strategy would be agreed with the Environment Agency/relevant local planning authority prior to its implementation. The verification report would also be sent to the Environment Agency/relevant local planning authority for approval.

1.8.45 A Discovery Strategy will be prepared to detail the procedure should any previously unknown contamination be discovered. The discovery strategy would comprise a watching brief that would be undertaken by suitably trained personnel during construction activities such as ground clearance and earthworks.

1.8.46 Appropriate Personal Protective Equipment will be used and relevant good working practices applied to avoid potential risk to human health including from any potential ground contamination, in line with relevant available guidance.

1.8.47 All construction personnel conducting intrusive works, in any part of the site, would attend a toolbox talk regarding explosives safety & awareness. This should comprise part of the standard site induction briefing and would form a component of the Health and Safety Plan for the site adhering to the requirements of CDM regulations 2015. All personnel working on site would be briefed on UXO recognition and made aware of the possible risks. They would be informed of the actions to take to alert the site manager and to keep people and equipment away from the hazard.

Traffic and Transport

Objectives

1.8.48 To maintain highway safety and minimise adverse effects on local communities and highway users.

Management Measures

Traffic Management

1.8.49 The access roads for HGVs and Light Goods Vehicles (LGVs) will be the A39, the A386, Barnstaple street and Gammaton road, in addition to local lanes. The Principal Contractor will ensure that access to neighbouring sites is not blocked by the construction works at any time.

1.8.50 Haul road(s) will be installed within the temporary working area of the Onshore HVDC Cable Corridor to minimise impacts during construction on agricultural land.

1.8.51 The original highway will be reinstated after construction work is completed at all vehicle accesses where accommodation works are undertaken to allow the movement of vehicles between the Onshore Infrastructure Area and the highway. The design of HGV access points, including visibility standards and, where necessary, temporary speed restrictions on the adjacent highway will be agreed with the relevant highway authorities.

Construction Traffic Management Plan

1.8.52 Prior to the commencement of material traffic movements, a CTMP for the construction of the Proposed Development, will be prepared in consultation with Devon County Council. The CTMP will set standards and procedures for:

- managing the numbers and routing of Heavy Goods Vehicles (HGVs) during the construction phase;
- managing the movement of employee traffic during the construction phase; and
- details of measures to manage the safe passage of HGV traffic via the local highway network.

1.8.53 The CTMP will set out that a pre-entry condition survey will be undertaken before the start of works and after the substantial completion of works on minor highway links and new junctions used by HGVs to access the Onshore Infrastructure Area. Any damage to the highway that has been demonstrably caused by construction traffic associated with the Proposed Development will be repaired.

1.8.54 The CTMP will set out restrictions on HGV operating hours along those sections of the highway network that provide access to local schools. The CTMP will restrict HGV movements along the A386 through Bideford during school drop-off and pick-up times.

1.8.55 The CTMP will set out restrictions on construction HGV movements through the Barnstaple Road/Manteo Way junction to limit these to no more than 10 during the peak hours.

1.8.56 Traffic management measures would be identified and implemented at points where cable trenches are cut across highways or where existing access rights are affected.

1.8.57 Furthermore, wheel cleaning methods will be required at appropriate locations where it is necessary to eliminate the risk of mud and debris on the highway. The CTMP will also set out measures to minimise dust and dirt from the movement of construction vehicles.

1.8.58 The CTMP will include provision of appropriate parking facilities for construction workers.

Abnormal Loads

1.8.59 A route for AILs will be identified. The route timing and method of transport of AILs will be discussed and agreed with the relevant highway and bridge authorities, as well as the police, to minimise delays to other road users.

1.8.60 It is expected that a number of AILs comprising large components such as transformers will be transport to the Onshore Infrastructure Area. The heavy haulage contractor appointed to undertake this work will be required to comply with statutory regulations in terms of consulting with the relevant highways and bridge authorities and the police.

1.8.61 The timing of AIL deliveries will be discussed with the relevant highway authorities to minimise delay for other road users and to minimise risk to highway users, where possible. The timing of AIL deliveries to the Onshore Infrastructure Area will be discussed to minimise delays to other road users, where possible.

1.8.62 The routeing of AIL deliveries will be agreed with the relevant highway authorities. The delivery of AILs will typically be undertaken in convoy and under escort. Where AILs require the full width of the carriageway or for unusual manoeuvres at junctions, appropriate temporary road closures and traffic management will be put in place as appropriate to maintain the safety of other road users.

Noise and Vibration

Objectives

1.8.63 To control and limit noise and vibration levels, so far as is reasonably practicable, to minimise disturbance to sensitive receptors.

Management Measures

1.8.64 To manage noise generating construction activities, all works will be carried out in accordance with the following principles:

- Construction works will be undertaken in accordance with the best practicable means (as defined in Section 72 of the Control of Pollution Act 1974), to minimise noise and vibration effects. Noise control measures will be consistent with the recommendations of the current version of BS 5228 'Code of Practice for Noise and Vibration Control on Construction and Open Sites'.
- Best Practicable Means including the following:
  - The use of quieter alternative methods, plant and/or equipment, where reasonably practicable.

- The use of site hoardings, enclosures, portable screens and/or screening nosier items of plant, where reasonably practicable.
- Maintaining and operating all vehicles, plant and equipment in an appropriate manner, to ensure that extraneous noise from mechanical vibration is kept to a minimum.
- Plant and vehicles to be fitted with mufflers/silencers that are maintained in good working order.
- The use of silenced equipment as far as possible and low impact type compressors and generators fitted with lined and sealed acoustic covers.
- Ensuring engines are switched off when machines are idle.

Air Quality

Objectives

1.8.65 To minimise the generation of dust near sensitive receptors during construction.

Management Measures

General Measures

1.8.66 The Principal Contractor(s) will inform site personnel about the need to minimise dust as well as about the health hazards of exposure to excessive dust. Their training will include advice relating to the commitments made in the detailed final On-CEMP(s).

1.8.67 A Dust Management Plan (DMP) will be informed by the IAQM Guidance on the assessment of dust from demolition and construction (IAQM, 2024) below and will be produced in line with the requirements for the onshore elements of the Proposed Development. The DMP will be approved by the Local Authority.

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 Proposed Development Draft Order Limits. This may be the environment manager/engineer or the site manager.
- Display the head or regional office contact information.

Dust Management Plan

- Develop and implement a Dust Management Plan (DMP) (which may include measures to control other emissions). 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. The DMP may include monitoring of dust.

Site Management

- 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 log book.
- Hold regular liaison meetings with other high risk construction sites within 500 m of the Proposed Development Draft Order Limits, 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.

Preparing and Maintaining the Site

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. Use screening intelligently where possible – e.g., locating site offices between potentially dusty activities and the receptors.
- Where deemed reasonably required, erect solid screens or barriers around the site boundary.
- Where reasonably practicable, fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extended period.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean.
- 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, ensure they are appropriately covered.
- Depending on the duration that stockpiles will be present and their size - cover, seed, fence or water to prevent wind whipping.

Operating Vehicle/Machinery and Sustainable Travel

- 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 15 mph on surfaced and 10 mph on un-surfaced 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 local authority, where appropriate)
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
- Implement a Construction Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

Operations

- 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.
- Use enclosed chutes, conveyors and covered skips, where practicable.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or 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.

Waste Management

- Avoid bonfires and burning of waste materials.

High Risk Measures Specific to Trackout

- 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 practicable.
- Record all inspections of haul routes and any subsequent action in a site log book.
- Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site).
- 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.
- Access gates to be located at least 10 m from receptors where possible.

Medium Risk Measures Specific to Construction

- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.

Land Use and Recreation

Objectives

1.8.68 To maintain the quality of agricultural land and minimise disruption to recreational access (e.g. PRoWs).

Management Measures

1.8.69 The following measures will be adopted as part of the Proposed Development during the construction phase:

Soil Management

1.8.70 The preparation of a detailed Soil Management Plan which would form part of the final On-CEMP(s). Measures to be adopted as part of the plan would include:

- Separate stripping and storage of identified topsoil and subsoil resources to prevent mixing of soil materials which can reduce overall soil quality.
- Location of topsoil and subsoil heaps to avoid cross-contamination of materials and the trafficking of soil heaps by construction traffic.
- Maintenance of topsoil and subsoil heaps to reduce potential losses of soil materials throughout the duration of storage.
- Control of the timing of soil handling operations to reduce potential soil damage through handling in unsuitable conditions.
- Choice of soil handling machinery and method for its use, to reduce potential for soil compaction and soil damage.
- Implementation of appropriate soil aftercare following reinstatement of land in accordance with the Outline Soil Management Strategy.
- Careful supervision of soil handling operations on site to ensure that recognised good practice is effectively implemented on site.

Farm Holdings

1.8.71 The application of measures to maintain the operation of the farm holdings, including:

- The maintenance and reinstatement, where reasonably practicable, of existing water supplies and drainage systems during the construction process.
- The maintenance of access routes across individual fields, where reasonably practicable, where these are severed during construction.
- The maintenance of farm access routes, wherever reasonably practicable, between fields within a farm holding
- Appropriate fencing of the Onshore Infrastructure Area, dependent upon the nature of the individual farm holding affected.
- Appropriate construction practices to be implemented to ensure that the potential risk for the spread of animal and plant diseases is reduced as far as practicable.

- Timing of construction works, where feasible, to minimise disruption to landowners/farming practice, through agreement with landowners

Public Rights of Way

1.8.72 The preparation of an Outline PRoW Management Plan to include measures to manage impacts to the PRoW network affected during construction.

Landscape and Visual

Objectives

1.8.73 To minimise the disturbance to landscape character and visual receptors during construction.

Management Measures

1.8.74 An Outline LEMP will be prepared and submitted with the application for development consent. An LEMP will be developed in accordance with the Outline LEMP. The plan will include details of mitigation planting at the converter site, including the number, location, species and details of management and maintenance of planting.

1.8.75 As identified within **paragraph 1.6.21**, appropriate lighting will be used to minimise light spillage and pollution, and minimise the disturbance to adjoining residents and occupiers of buildings and wildlife. Furthermore, construction compounds may employ hoardings at the perimeter or at task specific locations.

Historic Environment

Objectives

1.8.76 To avoid/minimise the effect of the Proposed Development on the setting of the existing heritage assets and archaeological remains during construction.

Management Measures

1.8.77 An Outline Written Scheme of Investigation (WSI) will be prepared and submitted with the application for development consent. A WSI for Onshore Archaeology will be developed in line with an Outline WSI for Onshore Archaeology. The onshore WSI will detail the survey and archaeological mitigation requirements in advance of and during construction. In addition, the ongoing programmes of geophysical survey and archaeological trial trenching will be completed.

1.9 Monitoring Plan

1.9.1 A monitoring plan will be developed post consent to monitor the performance of environmental mitigation and measures implemented during construction. The plan will be based on the monitoring principles set out in the ES and will reflect all mitigation requirements as set out in the ES, licences/consents.

1.9.2 The objective of the monitoring would be to:

- Determine if the environmental measures have achieved or are achieving their intended purpose;
- Identify any successes, failures or weaknesses in the implementation of those measures;
- Identify remedial measures required to achieve the environmental requirements; and
- To ensure that the agreed environmental commitments as set out within the final On-CEMP(s) are being implemented.

Inspections

1.9.3 Monitoring of site operations with respect to environmental protection will be carried out on a day-to-day basis by site management. Weekly environmental inspections will be carried out and recoded by site construction staff on a rota basis. Health and safety, environmental and quality managers will also carry out regular inspections and audits. Any environmental investigations required will be carried out by the Site Environmental/Compliance Manager.

1.10 Environmental Records

1.10.1 All environmental documents and records will be maintained and stored within the Applicant's data management system. Hardcopies of key environmental documentation will be maintained on site in their most current version. These will include:

- Environmental Statement;
- Environmental Risk Register;
- Onshore Construction Environmental Management Plan(s);
- Emergency Response Plan;
- Construction Traffic Management Plan;
- Site Waste Management Plan (and Waste Transfer Notes);
- All environmental permits and consents
- Remediation Plan (where required);
- Construction Drainage Strategy;
- Onshore Pollution Prevention Plan;
- Flood Management Plan;
- LEMP, including the requirements of the ECoW; and
- Monitoring Plan.

1.11 References

British Standards Institution (BSI) (2014) British Standard 5228: Code of practice for noise and vibration control on construction and open site. Part 1: Noise +A1:2014; and

British Standards Institution (BSI) (2014) British Standard 5228: Code of practice for noise and vibration control on construction and open site. Part 2: Vibration.

CIRIA C741 Environmental Good Practice on Site (2015);

CIRIA (2001) 'Control of Water Pollution from Construction Sites – Guidance for Contractors' and CIRIA (2015) 'Environmental Good practice on Site'.

CoPA, (1974) *Control of Pollution Act 1974*. [online] Available at: https://www.legislation.gov.uk/ukpga/1974/40/section/72 [Accessed 18 Mar. 2024].

Defra, (2012) Environmental Protection Act 1990: Part 2A. (2012). Available at: https://assets.publishing.service.gov.uk/media/5a757dfa40f0b6360e47489d/pb13735cont-land-guidance.pdf.

GOV.UK (2019). *Flood map for planning - GOV.UK*. [online] Service.gov.uk. Available at: https://flood-map-for-planning.service.gov.uk/.

Groundwater Protection Position Statements (Environment Agency, 2017 and amended 2018);

Institute of Air Quality Management (2024) Assessment of dust from demolition and construction;

Land Contamination: Risk Management (Environment Agency, 2019);

Traffic Signs Manual Chapter 8, Part 1: Design (2009). Part 2 Operations (2009) and Part 3: Update (2016).

ANNEXES

Annex A: Regulatory Legislation

Ecology and Nature Conservation:

- Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Environment Act 2021
- The Protection of Badgers Act 1992
- Conservation of Habitats and Species Regulations 2017 (referred to as The Habitat Regulations);
- Countryside and Rights of Way Act (CRoW) Act 2000 (as amended);
- The Hedgerow Regulations 1997
- Natural Environment and Rural Communities (NERC) Act 2006.

Historic Environment

- Ancient Monuments and Archaeological Areas Act 1979
- The Hedgerow Regulations 1997

Surface Water and Groundwater Environment

- The Environment Act 2021;
- The Contaminated Land (England) Regulations 2006
- Environmental Damage (Prevention and Remediation) (England) Regulations 2015
- The Flood and Water Management Act 2010;
- The Land Drainage Act 1991;
- The Environmental Protection Act 1990
- Groundwater (England and Wales) Regulations 2009
- The Environmental Permitting (England and Wales) Regulations 2016;
- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017;
- The Flood Risk Regulations 2009
- The European Floods Directive 2007;
- Water Resources Act 1991;
- The Water Act 2014.

Traffic and Transport

- The Infrastructure Act 2015; and
- The Highways Act 1980.

Noise and Vibration

- Control of Pollution Act 1974
- The Control of Noise (Code of Practice for Construction and Open Sites) Order 2015

Air Quality

- Ambient Air Quality Directive (2008/50/EC)
- Air Quality Standards (England) Regulations 2010
- IAQM (2024); Assessment of dust from demolition and construction;

Land Use

- Countryside and Rights of Way Act (CRoW) 2000.

Landscape and Visual

- Environment Act 1995
- Countryside and Rights of Way Act (CRoW) 2000
- Environment Act 2021
- National Parks and Access to the Countryside Act 1949