




## **Cambois Connection – Onshore Scheme**

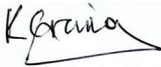
### **Volume 3 Appendix 5.2 Outline Construction Environmental Management Plan (OCEMP)**

	<b>Cambois Connection – Marine Scheme</b>	Doc No:
	<b>Appendix 5.2: (Outline) Construction Environmental Management Plan</b>	A100796-S01-A-REPT-004
Classification: Final		
Status: Final		Rev: A01


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### Approval for Issue

Approver's name	SIGNATURE	DATE
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## Acronyms

Acronym	Description
AC	Alternating Current
ACoW	Archaeological Clerk of Works
BNG	Biodiversity Net Gain
BSI	British Standards Institute
BBWF	Berwick Bank Wind Farm
BBWFL	Berwick Bank Wind Farm Limited
BNG	British National Grid
CIRIA	Construction Industry Research and Information Association
CDM	Construction Design Management
CEMP	Construction Environmental Management Plan
CEM	Consents and Environment Management
COSSH	Control of Substances Hazardous to Health
DC	Direct Current
DMP	Dust Management Plan
EIA	Environmental Impact Assessment
EMS	Environmental Management System
ES	Environmental Statement
ESO	Electricity System Operator
EU	European Union
GPP	Guidelines on Pollution Prevention
HDD	Horizontal Directional Drilling
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
HGV	Heavy Goods Vehicles
INNS	Invasive Non-Native Species
LCRM	Land Contamination Risk Management
LPA	Local Planning Authority
LVIA	Landscape Visual Impact Assessment
MHWS	Mean High Water Springs

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MLWS	Mean Low Water Springs
MMO	Marine Management Organisation
MD-LOT	Marine Directorate Licensing and Operations Team
NCC	Northumberland County Council
NRMM	Non-Road Mobile Machinery
OCEMP	Outline Construction Environmental Management Plan
OCSP	Offshore Converter Station Platform
PAMP	Public Access Management Plan
PEF	Project Environmental File
PPCP	Pollution Prevention and Control Plan
PPE	Personal Protective Equipment
PPG	Pollution Prevention Guidelines
SSER	SSE Renewables
SWCN	Special Waste Consignment Notes
SWMP	Site Waste Management Plan
TBT	Toolbox Talks
TP	Travel Plan
UK	United Kingdom
WTN	Waste Transfer Note


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## Units


Unit	Description
GW	Giga watt (power)
km	Kilometre (distance)
nm	Nautical mile (distance)

## Glossary

Term	Description
Berwick Bank Wind Farm (BBWF)	Refers to the offshore wind farm from which the Cambois Connection (the Project) will export part of the generated electricity. The array area boundary for BBWF is shown in Figure 1-1. The consent applications for BBWF are currently being determined.
Cambois Connection (the Project)	Offshore Export Cables, Onshore Export Cables, an onshore converter station and associated onshore grid connection at the existing National Grid ESO, Blyth substation near Cambois in Northumberland. The purpose of this infrastructure is to facilitate the export of a portion of the green electricity from BBWF, allowing the BBWF to reach its full generation capacity by 2030.
EIA Regulations	Collectively, this term is used to refer to the suite of Environmental Impact Assessment Regulations which are of relevance to the Marine Scheme and to the Onshore Scheme. For the Marine Scheme, this is The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended). For the Onshore Scheme, this is the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended).
Environmental Impact Assessment	Assessment of the likely significant effects of a plan, project or activity on the receiving environment.
Firth of Forth	Estuary or Firth of the River Forth in Scotland which flows into the North Sea and is flanked by Fife to the north and West Lothian, City of Edinburgh and East Lothian to the south.
Grid Substation	Refers to the point at which electricity is connected into the UK transmission network. For the Onshore Scheme, this is the National Grid ESO substation at Blyth.
Habitats Directive	The Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora.
Habitats Regulations	The Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017, which are collectively referred to as the 'Habitats Regulations'.


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Horizontal Directional Drilling	Horizontal Directional Drilling or 'HDD' refers to a trenchless method of drilling generally used for installation of underground utilities which does not require any direct works, and which can aid installation of crossings with sensitive or challenging features and obstructions.
High Voltage Alternating Current (HVAC)	Refers to high voltage electricity in alternating current ('AC') form. The GB's transmission and distribution network infrastructure consists of AC form.
High Voltage Direct Current (HVDC)	Refers to high voltage electricity in direct current ('DC') form. In relation to transmission, HVDC is often selected for longer transmission infrastructure on the basis that losses are typically lower when compared to transmission infrastructure utilising alternating current.
Intertidal	The area of seabed located between Mean High Water Springs and Mean Low Water Springs.
Landfall	Area and activities associated with the Offshore Export Cables carrying power from BBWF to the shore and which connect the offshore and onshore infrastructure. The Landfall includes areas and activities that extend beyond both MLWS and MHWS.
Local Planning Authority	Local Planning Authority (or 'LPA') refers to the local government body legally empowered to exercise terrestrial (onshore) planning functions for a given area. In the case of the Project, this is Northumberland County Council (NCC).
Marine Licence	A licence granted under the Marine and Coastal Access Act 2009.
Marine Scheme	Activities required as part of the Project extending seawards below Mean High Water Springs
Marine Scheme in English waters	Activities required as part of the Marine Scheme located within English territorial waters (MHWS – 12 nm) and English offshore waters (12 – 200 nm).
Marine Scheme in Scottish waters	Activities required as part of the Marine Scheme located within Scottish offshore waters (12-200 nm).
Maximum Design Parameters	The maximum range of design parameters of each Marine Scheme asset.
Mean High Water Springs	Monthly tides are defined as 'Springs' or 'Spring tides' when the tidal range is at its highest and 'Neaps' or 'Neap tides' when the tidal range is at its lowest. The height of Mean High Water Springs (MHWS) is the average throughout the year, of two successive high waters, during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides).
Mean Low Water Springs	The height of Mean Low Water Springs (MLWS) is the average throughout a year of the heights of two successive low waters during periods of 24 hours (approximately once a fortnight).

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Term	Description
National Site Network	Formerly referred to as Natura 2000 this now refers to the national site network within the UK territory. It is comprised of the protected sites that were designated under the European Union (EU) Nature Directives (Habitats Directive (as defined) and certain elements of the Wild Birds Directive (Directive 2009/147/EC)) until the UK's exit of the EU, and any further sites designated under the Habitats Regulations (as defined).
Offshore Converter Station Platform (OCSP)	Power generated by the wind turbines is transferred to the Offshore Converter Station Platform (OCSP) via the inter array cables. The electricity generated by the wind turbines is HVAC. The OCSPs are then used to convert the HVAC electricity into HVDC electricity for exporting to the onshore converter station.
Offshore Export Cable	High voltage cable used for exporting power from the offshore converter station platforms located within the array area of BBWF to Onshore Export Cables at the Landfall.
Offshore Export Cable Corridor	The area within which the Offshore Export Cables will be located. This area will be refined post consent following detailed engineering design.
Onshore Converter Station	Infrastructure used to convert electricity from Direct Current (DC) to Alternating Current (AC)
Onshore Export Cable	High voltage cable used for exporting power produced by BBWF between the Offshore Export Cables and the onshore converter station.
Onshore Scheme	Activities required as part of the Project extending landwards above Mean Low Water Springs
Project Design Envelope	A series of maximum design parameters which are defined for the Marine Scheme, and which are considered to be the worst case for any given assessment.
Special Waste	“Special waste” is any waste which contains properties that might make it harmful to human health or the environment.
Transition Joint Bay	A concrete structure where Offshore Export Cables and Onshore Export Cables are spliced together.
Waste Hierarchy	The hierarchy sets out, in order of priority, the waste management options to be considered by the producer: 1) prevention; 2) preparing for reuse; 3) recycling; 4) recovery (e.g. energy recovery); and 5) disposal.



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# 1. Introduction

## 1.1. Overview

1. Berwick Bank Wind Farm Limited (BBWFL) is a wholly owned subsidiary of SSE Renewables (SSER) (hereafter referred to as ‘the Applicant’). The Applicant is proposing the development of Offshore Export Cables, Onshore Export Cables, an Onshore Converter Station and associated grid connection at Blyth in Northumberland, known as ‘the ‘Project’). The onshore components of the Project, landward of Mean Low Water Springs (MLWS) comprise the Onshore Scheme, which is the subject of this Environmental Statement (ES).
2. The purpose of this infrastructure is to facilitate the export of green energy from the generation assets associated with the Berwick Bank Wind Farm (BBWF), located in the outer Firth of Forth. A separate application for developing a grid connection to Branxton, East Lothian, has been included as part of the Applicant’s application for consent for BBWF, currently being determined separately<sup>1</sup>. The Project will enable the BBWF to reach full generating capacity (4.1 gigawatts (GW)) by 2030.
3. The Project comprises two distinct proposals, or ‘Schemes’, the Marine Scheme and Onshore Scheme:
  - **Marine Scheme:** The Applicant is proposing the construction, operation and maintenance, and decommissioning of up to four high voltage direct current (HVDC) Offshore Export Cables from up to two Offshore Converter Station Platforms (OCSPs)<sup>2</sup> within the BBWF array area to MHWS of the Landfall location near Cambois, Northumberland. The Marine Scheme includes all aspects of the Project seaward of MHWS; and
  - **Onshore Scheme:** The Applicant is proposing the construction, operation and maintenance, and decommissioning of a cable Landfall (down to MLWS), including up to four onshore HVDC cables (Onshore Export Cables), an Onshore Converter Station, high voltage alternating current (HVAC) grid cables and works to integrate into the existing National Grid Blyth substation. The Transition Joint (TJB) would also be located landward of MHWS. The Onshore Scheme includes all aspects of the Project located landward of MLWS.
4. This Outline Construction Environmental Management Plan (OCEMP) refers to the construction of the Onshore Scheme.
5. The CEMP will be updated and finalised post consent in line with any relevant planning conditions and for submission to Northumberland County Council (NCC). The full CEMP will form part of the induction which is mandatory for all employees, contractors and visitors attending the Site. All employees and contractors shall familiarise themselves with the content of the CEMP.
6. The CEMP will be a key document assisting the Applicant and Principal Contractor in complying with set planning conditions and relevant legislation, policy, and guidance. The CEMP will be a live document, updated as required throughout the planning and construction process.

<sup>1</sup> BBWF is subject to a separate consenting process. An application for consent under Section 36 of the Electricity Act 1989 (as amended) was submitted to MD-LOT and accepted in December 2022. The Branxton onshore infrastructure is subject to a separate planning application submitted to East Lothian Council and accepted in March 2023.

<sup>2</sup> It is important to note that whilst the Marine Scheme boundary overlaps with the BBWF array area, this is only to accommodate the Offshore Export Cables and supporting works for the Project; no OCSPs or generation assets are included within the scope of the Marine Scheme.

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## 1.2. Purpose


7. The aim of this OCEMP is to present the main mitigation and control measures that will be utilised to provide robust environmental management throughout the construction period to avoid or reduce as far as practicable the adverse effects of the Onshore Scheme. On confirmation of Principal Contractor, the CEMP will be updated to reflect specific proposed construction methods and the document reviewed and agreed with NCC before construction works begin. The CEMP will therefore evolve and is subject to refinement, amendment, and expansion as necessary.
8. Throughout the planning and construction phases of the Onshore Scheme, the CEMP will be subject to continual review as appropriate, for example:
  - At reserved matters stage;
  - To address any conditions stipulated in the Planning Permission;
  - To address any relevant update in current legislation;
  - To confirm it reflects good practice during construction;
  - To confirm it incorporates the findings of any pre-construction site investigations and surveys; and
  - To accommodate the working practices of the appointed Principal Contractor.

## 1.3. Content

9. This outline document sets out minimum standards to be adopted when constructing the Onshore Scheme. It also provides information about the associated Management Plans which should be read in conjunction with the finalised CEMP. These will include the following plans:
  - Noise and Vibration Management Plan;
  - Emergency Flood Response Plan;
  - Environmental Management Plan;
  - Decommissioning Plan,
  - Dust Management Plan;
  - Landscape Management Plan;
  - Site Waste Management Plan;
  - Soils Management Plan;
  - Habitat Management and Monitoring Plan;
  - Reptile Protection Plan;
  - Bird Protection Plan;
  - Travel Plan;
  - Public Access Management Plan; and,
  - Construction Traffic Management Plan.

## 1.4. Written Scheme of Investigation Site and Surroundings

10. The Onshore location is provided in the Environmental Impact Assessment (EIA) Report Volume 4 Figure 1.1. The extent of the Planning Application Boundary (hereafter referred to as “the site”) is situated near Blyth, Northumberland. The centre of the site is OSGB36, British National Grid (BNG) NZ 29909, 83696. The site is approximately 188ha in size.
11. The Site comprises land to the north of Blyth and to the East of East Sleekburn and includes a mix of coastal amenity, new and legacy industrial uses, and residential areas. Moving westwards from the beach, Cambois Links are found at the back of the sand dunes, followed by railway tracks and a road. The road forms part of a small residential area, flanked by the Cambois Coastline to the east, and a larger brownfield construction area to the west. This area is the Site of the former Blyth Power Station


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(closed in 2001), situated on the Northern bank of the river Blyth, between the tidal estuary and the North Sea.

12. The proposed landfall is located Cambois North Beach. The onshore cable corridor extends for approximately 2.1 km between the landfall and the Onshore Converter Station.
13. The proposed Onshore Converter Station location is situated adjacent to the NSL Onshore Converter Station, with Brock Lane bordering the Site towards the south. The HVAC cables will be located in a corridor (approximately 1.5 km) these cables will connect the Onshore Converter Station to Blyth substation, which is located next to Blyth Port. The western site boundary lies adjacent to the A189; however, the view from the road to the site is also well screened.
14. Further details are provided within EIA Report Volume 2, Chapter 5.

## 1.5. Onshore Scheme Description

15. The Onshore Scheme comprises the following buildings and infrastructure, which have been considered in this OCEMP:
  - Landfall works at Transition Joint Bays;
  - HVDC onshore export cables within a cable corridor between the Landfall and the new Onshore Converter Station for a cable corridor length of up to 2.1 km;
  - A new Onshore Converter Station;
  - HVAC onshore grid cables from the Onshore Converter Station to the National Grid Blyth substation within a cable corridor length of up to 1.5 km; and
  - Associated ancillary infrastructure.
16. Further details on each infrastructure component are provided in the EIA Report Volume 2, Chapter 5.

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## 2. Document Control


17. The CEMP is a “live” document and will be subject to periodic review and updating as appropriate. The document is intended for use by the Applicant and their contractors specifically involved in the construction of the Onshore Scheme. When this document is amended, the document control table will be updated (Table 1) and it will be issued to all personnel specified on the distribution list below (Table 2), which will be updated with relevant details at the stage of submission of the full CEMP.

**Table 2.1 Document Control**

Status	Date Issued	Prepared by	Summary of Alterations
Version 1.0	October 2023	SSER Renewables	Outline CEMP

**Table 2.2 Distribution List**

Organisation	Contact Name	Email	Telephone Number
Applicant – Berwick Band Wind Limited (BBWFL)	TBC	TBC	TBC
Principal Contractor	TBC	TBC	TBC
Ecological Clerk of Works (ECoW)	TBC	TBC	TBC
Archaeological Clerk of Works (ACoW)	TBC	TBC	TBC
Environment Agency (EA)	TBC	TBC	TBC
Northumberland County Council (NCC)	TBC	TBC	TBC

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## 3. Responsibilities

### 3.1. Environmental Policy and Management Systems


18. All construction work will be undertaken in accordance with the CEMP which will be drafted having consideration of good practice guidance including, but not limited to:
- Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors CIRIA (C532) (CIRIA, 2001);
  - Development and flood risk: guidance for the construction industry (C624) (CIRIA, 2004);
  - CIRIA – SuDS Manual (C753) (CIRIA, 2015);
  - The Environment Agency’s approach to groundwater protection, version 1.2, February 2018 (EA, 2018); and
  - Code of Practice for Assessing and Managing Flood Risk in Development, BS8533 (BSI, 2017).
19. All construction work will be undertaken in accordance with the Construction Design and Management Regulations 2015 (CDM Regulations) which requires contractors to make sure the client is aware of the client duties under CDM 2015 before any work starts.
20. The Principal Contractor will ensure that copies of their environmental policies are clearly displayed on site notice boards during the construction period. All employees are expected to comply with the requirements of the Environmental Policy and the requirements of the Environmental Management System (EMS) under a suitable accreditation such as ISO14001.
21. The Applicant and the Principal Contractor expect their employees and support staff (contractors, sub-contractors, suppliers etc.) to actively promote and administer a strong environmental culture. To achieve this, a number of initiatives will be implemented during the construction phase from Day One. This will include the use of environmental inductions, poster campaigns to raise awareness of topical subjects (such as seasonal activities and timings) and toolbox talks (TBT) involving all members of the project team and site workforce.
22. As part of the EMS for the site, a Project Environmental File (PEF) will be maintained by the Principal Contractor. Within this PEF, a legislation register will be stored which will be reviewed periodically and updated as necessary. Any changes to relevant environmental legislation will be disseminated to project management immediately, after which the method statements of any affected construction activities will be amended as necessary.

### 3.2. Consents and Licences

23. A register of required consents and licences will be held in the PEF, including the relevant reference numbers, and responsible/named competent persons.

### 3.3. Roles and Responsibilities

24. It is the responsibility of all staff involved with the Onshore Scheme, including the Applicant, Principal Contractor, and sub-contractors, to correctly implement the CEMP and the environmental mitigation contained within.
25. The key environmental responsibilities during the construction phase of the Onshore Scheme are summarised below:
- **The Applicant** – responsible for developing the Onshore Scheme in accordance with the planning conditions and that all environmental mitigation measures stated within the

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Commitments Register at Chapter 16 of the Environmental Statement (ES) and the CEMP are implemented.


- **Principal Contractor** – responsible for complying with the planning conditions, regularly reviewing and updating the CEMP and ensuring that all staff and sub-contractors abide by and implement the CEMP. The Principal Contractor will be responsible for the implementation of the CEMP and all the environmental mitigation measures outlined in the Commitments Register at Chapter 16 of the ES.
- **Consents and Environment Manager** – A Consents and Environment Manager (CEM) will be appointed as part of the Applicant’s or Principal Contractor’s team. They shall have overall responsibility for the management of the construction phase. The Applicant and Principal Contractor will ensure that a suitable, independent person with appropriate knowledge and experience of similar scale or type of projects will be employed.

26. The CEM will:

- Programme any required pre-construction surveys and samples into the construction schedule and continue with any monitoring to be undertaken during construction as required. These will then be the responsibility of the ECoW (Ecological Clerk of Works);
- Progress any discharge of conditions, especially those that require access agreements to be in place to allow for pre-commencement sampling or surveying to be undertaken;
- Require that all necessary consents are in place before work starts and compliance with consents;
- Require that all mitigation measures and commitments are implemented properly and effectively;
- Supervise construction processes with potential for environmental consequences such as trenchless technology operations and installation of temporary site drainage;
- Require compliance with the topic-specific Management Plans by, for example, undertaking spot checks and audits on the timing of Heavy Goods Vehicles (HGVs) and abnormal load deliveries, speed checks on the approach to site and along access tracks throughout the site, and observations of works in sensitive areas (if not already undertaken by a specific ECoW);
- Undertake weekly audits/site checks;
- Require that environmental and waste requirements are included on requisitions and in subcontracts and orders;
- Require oil, including diesel, to be stored in properly bunded tanks/drip trays;
- Report incidents and non-conformances to the Applicant, Principal Contractor, and relevant authorities in line with the reporting procedure in this CEMP;
- Include environmental performance, review of contract objectives and targets (including environmental), review of incidents and non-conformances at the project review meetings;
- Require that employees and subcontractors implement the controls outlined in the finalised and approved CEMP and any other appropriate plans, mitigation measures or commitments;
- Require that employees and subcontractors receive induction training (including project environmental issues) and toolbox talks, as appropriate;
- Require that personnel needed for audits are available when required; and
- Verify actions resulting from corrective action requests and observations raised during audits are completed by the deadlines.

27. The CEM will also act as the main point of contact between the:

- Regulators such as NCC and the Environment Agency;
- Local stakeholders;
- Local communities; and


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- The public and visitors to the area.
28. The CEM will be the focal point for queries, comments, and questions on project progress meetings, reporting and communication on critical activities of the Onshore Scheme. This will include communicating when pre-construction works are likely to commence and then keeping the local communities and stakeholders aware of the continuing activities which will occur during the construction phase including regular updates on progress.
  29. Once the Principal Contractor is appointed and the construction programme confirmed, the CEM will communicate this programme to the community and facilitate meetings as required.
  30. The CEM will require that records of communication (including verbal communication) are kept, and that regular reporting is provided to NCC, the Environment Agency and the local communities.
    - **Ecological Clerk of Works (ECoW)** – reports to the CEM and is responsible for monitoring the implementation of the landscape and ecological mitigation measures on site prior to, during and post-construction. The ECoW will be a Suitability Qualified Ecologist.
    - **Archaeological Clerk of Works (ACoW)** – employed to oversee the archaeological programme of works and will be responsible for the production of the Written Scheme of Investigation.
    - **All construction staff** – responsible for understanding the requirements of the CEMP and the environmental sensitivities of the Onshore Scheme. All staff have an obligation to abide by the CEMP and the relevant environmental legislation.

### 3.4. Subcontractor Management

31. The project will engage various subcontractors to carry out project construction related activities. These subcontractors are responsible for performing all work in conformance with relevant environmental legislation, the requirements of the CEMP, and contractual environmental requirements.
32. Subcontractors are required to develop suitable, adequate, and effective method statements that explicitly define the measures to be taken to manage significant environmental risks associated with their scope of works. No works will be permitted to commence until such method statements have been developed and approved by the CEM. Additionally, subcontractors are required to provide sufficient and competent resources to monitor conformance with their own defined method statements.
33. The Principal Contractor will conduct monthly Environmental Reviews which will assess the environmental performance of subcontractors.




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## 4. Programme of Works

34. The current indicative construction programme for the Onshore Scheme outlines the key construction activities and the timescales within which these activities are planned to take place. On-site activities will not necessarily be ongoing for the entire duration of each indicated timescale. This construction programme indicates commissioning by 2030.


35. The indicative outline construction programme includes the following:

- Commencement of construction expected in Q4 2025 and completion of construction expected in Q4 2029;
- Site preparation/ enabling works for an estimated duration of up to 15 months;
- Landfall construction for an estimated duration of up to 24 months;
- Onshore Cable (HVAC and HVDC) installation for an estimated duration of up to 18 months;
- Onshore Converter Station construction for an estimated duration of up to 18 months; and,
- Outfall installation for an estimated duration of up to 9 months.

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## 5. Safety

36. Site specific risk assessments and method statements will be undertaken in accordance with the applicable legislation prior to the commencement of construction activities; to identify any potential risks, assess their likelihood and significance, and to identify mitigation measures to be implemented for the safety of workers and the general public.
37. Site security during the construction phase will be strict. Access to the site will be prevented by the use of temporary fencing to prevent unauthorised access. Compounds for the temporary storage of equipment or materials will be provided, with segregation of materials (hazardous or otherwise) as required, and designated re-fuelling areas. These will be locked with restricted access. Security staff will be utilised as appropriate.
38. The Applicant will require, through conditions of contract, that adequate arrangements are in place for the discharge of all duties under the Construction (Design and Management) (CDM) Regulations 2015.
39. A Health and Safety Plan will be prepared by the Principal Contractor which will set out how all health and safety matters on site are to be managed and how risks are to be identified and managed in accordance with current good practice and legal requirements.

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## 6. Security

40. A Permit to Work system (or equivalent) will be introduced during construction so that only authorised construction personnel are allowed within the construction area and that an accurate record of site-based personnel is available in case of emergency.
41. The Principal Contractor will ensure that the construction sites are secure. Access to the site will be limited to specified entry points only and all personnel entrances and exits will be recorded and monitored for both security and health and safety purposes.
42. Visitors to the Site during construction will be required to report to the construction reception office (location to be confirmed) and will only be permitted to access the construction area under escort by appropriately authorised staff or following successful completion of specific safety induction training.
43. All working areas will be appropriately fenced off from members of the public and to prevent animals from straying onto working areas.

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## 7. Construction Operations

### 7.1. Site Access

44. Prior to the commencement of construction, a Construction Traffic Management Plan (CTMP) will be prepared, in consultation with NCC Highways Department. This will set out all construction access arrangements, including agreed access points, delivery routes and times.
45. Where required, temporary access routes will be constructed within the development area to facilitate construction vehicle access to the Landfall, Onshore Converter Station, HVDC and HVAC cable routes. Public Road Improvements (PRIs) may be required along sections of the existing public road network to accommodate the construction and abnormal load traffic. These improvements are likely to consist of road alignment improvements, street furniture removal and road widening, including any other measures considered necessary and as agreed with NCC. Following construction, the areas will be reinstated to their original condition, unless otherwise forming part of the final permanent development.
46. Potential construction access points have been identified in locations to reduce impacts on the local road network as far as practicable. Temporary access roads within the Site will be formed of crushed stone / hard standing / tarmac or tracked and will be maintained for the duration of the construction period as required. Following construction, the temporary surface will be removed, and the previous land use reinstated.
47. There will be a variety of vehicles requiring access to the Site throughout the construction period. These will include flatbed trucks for the delivery of construction materials and equipment, plant such as excavators, bulldozers, cranes, HGVs, cars and vans for use by construction staff.
- 48.
49. Estimated construction traffic volumes for the Onshore Scheme have been used to inform the Traffic and Transport Assessment (refer to Volume 2, Chapter 12 for further information). The Applicant will require that all vehicles be routed in consultation with NCC and relevant stakeholders, to reduce disruption and disturbance to local residents as far as practicable.

### 7.2. Construction and Delivery Hours

50. Planning permission will be sought for 24-hour, 7 days per week construction working hours. The 24-hour construction period is anticipated to be only necessary for the trenchless technique (e.g., HDD) crossing solutions. This is on the basis that the trenchless installations (drilling and ducting) need to be completed as a continuous activity from the entry point to the exit point. Predominantly, this is to maintain integrity of the borehole (i.e., reduce risk of collapse), but also to allow for the operations to be continuously monitored to avoid exceedance of agreed settlement limits as part of the planned methodology.
51. Once the boreholes are drilled (and ducts installed) the ducts will maintain the borehole integrity. Dependant on the location of the trenchless crossing the cable installation may also need to be completed in a single operation, and back grouted to fully encapsulate the cables within the ducts. Whilst 24-hour working is generally necessary at these locations, this shall be reviewed with the relevant stakeholders and asset owners at detailed design stage. At this stage, opportunities to reduce these working times shall be considered and adopted where feasible.
52. To reduce queues forming due to temporary lane closures, the following will be implemented:
  - Require that the works are undertaken in as short a timeframe as practicable, through conditions of contract, to include night-time working if deemed acceptable by NCC;

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- Adopt a co-ordinated approach with the type and operation of the temporary control measure selected, to give greater green time to the direction with the greatest flow, such as known shift change over periods or to be able to react to changes in traffic accordingly; and
- Provide a hardstrip on the edge of the carriageway (for each open lane) through the work area to allow vehicles to pull over and allow an emergency vehicle to pass through.

53. All other construction works would maintain 0700 – 1900hrs working times.

### 7.3. Construction Site Housekeeping

54. Good construction site housekeeping practice will be applied at all times. As far as reasonably practicable, the layout of the site will be designed using the following principles:

- All work areas will be secured;
- Any fuels or liquid materials will be stored and banded in compliance with the relevant regulations;
- Signage and boundary fences, where required, will be regularly inspected, repaired, and replaced as necessary;
- All working areas will be kept in a clean and tidy condition;
- Wheel washing and dust suppression facilities will be provided when and where required; All practicable 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 will be removed at frequent intervals;
- Construction waste susceptible to spreading by wind or liable to cause litter will be stored.


in secure containers;

55. The Principal Contractor shall take all necessary and practicable precautions to prevent the occurrence of smoke emissions or fumes from site plant or stored fuel oils for safety reasons and to prevent, as far as is reasonably practicable, such emissions or fumes drifting into residential areas, nearby workplaces, or areas of public open space. In particular:

- Plant shall be well maintained, regularly serviced and measures taken so that engines are not left running for long periods when not directly in use;
- Plant which emits visible emissions after warm-up shall be taken out of service and either repaired or replaced; and
- Vehicle exhausts will be directed away from the ground and other surfaces and preferably upwards to avoid road dust being re-suspended to the air and should be positioned at a sufficient height for adequate local dispersal of emissions.
- The Principal Contractor will ensure that all construction vehicles will conform to at least Stage V emissions standards;
- Open fires will not be permitted on site; and
- All works, at all phases of the Onshore Scheme, will be undertaken in accordance with Pollution Prevention Guidelines (PPG), CIRIA guidance and Guidance on Pollution Prevention (GPP) and Department for Environment, Food and Rural Affairs Guidance on Pollution Prevention for Businesses.

### 7.4. Pre-Construction Enabling Works

56. Prior to any enabling or pre-construction works, no topsoil stripping will be undertaken without the written permission of NCC in consultation with relevant stakeholders.

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57. All groundworks, clearing land and reprofiling will take into consideration the Guidance contained within the following documentation which provides guidance on the application of environmental standards and good management practice techniques in relation to large scale construction sites and pollution control:

- Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors CIRIA (C532) (CIRIA, 2001);
- Development and flood risk: guidance for the construction industry (C624) (CIRIA, 2004);
- CIRIA – SuDS Manual (C753) (CIRIA, 2015);
- The Environment Agency’s approach to groundwater protection, version 1.2, February 2018 (EA, 2018); and
- Code of Practice for Assessing and Managing Flood Risk in Development, BS8533 (BSI, 2017).

## 7.5. Construction Compound

58. Temporary site infrastructure is expected to consist of, but not be limited to, boundary fencing, security lighting, temporary construction site facilities (welfare cabins, stores, skips, etc.), and storage for Control of Substances Hazardous to Health (COSHH) substances. Power for the temporary facilities during the construction phase will comprise temporary connection to the local grid and mobile diesel generator. The type and exact location will be selected by the Principal Contractor and confirmed in a later revision to this document.


59. The Construction Compounds will meet standard good management practices which include but are not limited to:

- Compound design and layout will align with standards for distances from watercourses;
- Appropriate temporary drainage and settlement ponds to manage anticipated surface water run-off from the compound area;
- Bunds will be used where required to meet the requirements of the Guidance on Pollution Prevention for Businesses and CIRIA guidance and oil storage regulations;
- Fuel and oil stored at the site in an appropriately bunded area with a minimum of 110% capacity and with all filling and draw points contained within the bunding area;
- Adequate parking will be provided so that the safety and efficient operation of the public highway is not reduced;
- Welfare facilities will be provided to minimise the need for offsite trips by staff during the working day;
- Compound design and layout will ensure that dust emission sources are located away from sensitive receptors; and
- If compound lighting is required, it will be designed to reduce light pollution as far as practicable to the surrounding area.

## 7.6. Welfare Facilities

60. Workers’ Safety Information Sheets and COSHH safety data sheets will be kept on site. Where portable generators are used, industry good practice will be followed to reduce noise and pollution from such generators as far as practicable.

61. Prior to construction, the Principal Contractor will prepare the arrangements for welfare provision and will be responsible for the maintenance of the facilities throughout the construction of the Onshore Scheme. The nature and scale of facilities required will be in proportion to the size and location of the Onshore Scheme. Facilities will include:

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- Toilets;
- Washing facilities;
- Changing rooms, drying rooms and lockers; and
- Canteen and kitchen facilities.

62. All foul waste will be disposed of by an appropriate contractor to a suitably licenced facility. It is expected that a suitably sized storage tank will be provided and will be periodically pumped out by a specialist contractor so that the water could be disposed of at a suitably licenced waste facility. The risk of infestation by pests or vermin will be reduced as far as practicable by the appropriate collection, storage and regular collection of waste, the prompt treatment of any pest infestation and effective preventative pest control measures. Wastewater facilities will be arranged with appropriate sewerage provisions included within these facilities and all necessary consents obtained from NCC and the Environment Agency.

## 7.7. Artificial Lighting

63. At night and during periods of darkness, directional security lighting will be used. Lighting will be selected and sited to reduce visual intrusion to local communities, residences, and environmental receptors, as far as practicable, whilst maintaining the safe and efficient operation of the Onshore Scheme.

64. Temporary flood lighting for working hours during winter months and for construction compound security. 24-hour lighting also required for trenchless technology construction activities. Construction lighting required with the lights of construction traffic adding to lighting levels.


65. The Principal Contractor will comply with the requirements of the Environmental Protection Act 1990 (UK Government, 1990), as well as implementing relevant measures set out in the Guidance Notes for the Reduction of Obtrusive Light GN01:2011 (Institute of Lighting Professions, 2011). Measures to reduce the impacts of artificial lighting include:

- Unnecessary lighting will be avoided and, following completion of the task, lighting will be switched off and/or removed. All lighting will be switched off during daylight hours;
- All lighting will be designed to avoid visual intrusion and/or light spillage. Lighting will be positioned and directed to avoid nuisance to residents and wildlife and/or causing distractions to drivers on adjacent roads. Lighting will also avoid spillage onto neighbouring habitats; and
- Where mobile lighting relies on portable diesel generators for power, the containment of the diesel will be monitored to check for leaks and spills. Spill kits will be made available, and staff provided with appropriate training on their use.

## 7.8. Storage of Plant and Materials

66. Fuel, equipment, and construction materials will be stored appropriately so as to reduce the risk of pollution as far as practicable. The following measures will be implemented to prevent spillage of hazardous materials:

- Development of a Spill Response Plan and provision and maintenance of spill response equipment.
- Storage of hazardous materials no less than 20 m away from a watercourses/drainage gully.
- Completion of a COSHH assessment for hazardous materials.
- Development of a COSHH Register documenting materials stored and handling requirements.
- Segregation of COSHH raw material stores and COSHH waste stores.

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- Storage of hazardous material containers on secondary containment systems that will contain 110% of the contents of the largest container or 25% of the total, whichever is greater.
- Protection of hazardous materials in locked containers to reduce the ingress of rainwater as far as practicable and secure them against accidental damage.
- Staff training in the use of spill kits and the correct disposal of used material.
- Maintenance of a log of any incidents; and
- Inspection of all construction plant and machinery on a daily basis to check for fuel and oil leaks and, where necessary, drip trays or plant nappies will be used to collect leaks.

## 7.9. Wheel Washing

67. The Principal Contractor will implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable) to reduce debris on the public road network. The Principal Contractor will 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.


## 7.10. Parking

68. Parking for construction workers, deliveries and site visitors will be accommodated within the Onshore Scheme and will not impact on the public road network.

## 7.11. Site Demobilisation

69. After the main construction activities have been finalised, permanent fencing will be installed where necessary, temporary infrastructure will be removed, and temporary compounds will be restored to previous land use.



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## 8. Communication

### 8.1. Internal Meetings and Communication


70. Weekly internal construction meetings shall be held during the construction phase. These meetings shall include environmental matters and shall be attended by the CEM and ECoW. Any issues resulting from daily or weekly audits shall be discussed with appropriate corrective actions agreed. A 'weekly look ahead' shall be provided at the construction meeting where any environmental constraints or special requirements can be discussed and agreed in advance.
71. The CEM will attend any critical path or construction activities which have the potential to affect the local community and need to be communicated.
72. Environmental performance meetings will be arranged as necessary. These meetings will be attended as appropriate by the CEM, ECoW and representatives of the workforce. Notes of the meetings will be made available to all interested parties.
73. Site Environmental Notice Boards will display the Environmental Policy of the Applicant and the Principal Contractor, Emergency Contacts List, relevant statutory and non-statutory advice and guidance; and any other relevant information. These Environmental Notice Boards will be situated in prominent positions in the main reception area of the Onshore Scheme construction office.
74. A stakeholder communications plan will also be developed and implemented which will include details on proposed community engagement before work commences on site.

### 8.2. External Meetings

75. The CEM will arrange and attend meetings with relevant statutory bodies as necessary together with the ECoW.

### 8.3. Community Liaison

76. At the earliest possible stage, the Applicant will actively engage with local residents to discuss the programme of work, learn of any concerns they may have, and determine how the Principal Contractor can reduce the impacts of construction on local residents as far as practicable. The CEM will be the first point of contact for any queries and/or grievances regarding the construction of the PD and will be responsible for:
  - Recording all queries and/or issues raised;
  - Responding in an appropriate and timely manner,
  - Liaising with NCC and regulatory bodies as necessary in connection to any complaints; and
  - Monitoring any actions that need to be implemented.

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## 9. Environmental Training

### 9.1. Inductions

77. All construction personnel and sub-contractors will receive an Environmental Induction. No personnel, including sub-contractors, will be permitted to undertake any work on site without undertaking a site induction. The site induction will evolve to reflect changes in the CEMP as the Onshore Scheme develops. Environmental topics covered in the induction shall include, but will not be limited to:

- Water Resources;
- Pollution Prevention;
- Emergency Response Procedures;
- Waste Management and Housekeeping;
- Duties and Responsibilities;
- Relevant Procedures;
- Ecologically and Ornithological Sensitive Areas and Times;
- Incident and Non-Conformance Reporting;
- Consents, Licenses and Compliance;
- Legislation; and
- Environmental Good Practice.

### 9.2. Toolbox Talks

78. TBT on specialised topics shall supplement the Environmental Induction course. TBTs shall be used to highlight issues of concern and to disseminate any new information or responsibilities. They will also be used as a means of providing basic environmental training to crews on a specialised topic, e.g., water management. The TBTs also offer site personnel the opportunity to provide feedback.

79. TBTs will be provided routinely, but also when:


- There is a change to legislation, which requires an operational change;
- Site inspections or audits have identified corrective actions which require rolling out;
- Work is being undertaken in particularly sensitive areas; and
- When there are significant changes in environmental conditions, e.g., heavy rainfall.
- To inform all personnel of the presence of Invasive non Native Species (INNS) and the working methods to be adopted in these areas;

80. Records of all TBTs undertaken, including attendance, will be maintained.

### 9.3. Specialist Training

81. Specialist training for specific members of the construction crews will be provided as required. This may include, but will not be limited to:

- Environmental Incidents;
- Water management;
- Waste Representatives;
- Working near and in water; and
- Fuel Tanker Drivers and Refuellers.

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## 10. Incident Response

### 10.1. Environmental Incidents and Corrective Actions

82. All environmental incidents and near misses shall be reported and investigated by the CEM, reporting to the Applicant and Principal Contractor. Incidents will be recorded and those that, in the judgement of the CEM and/or ECoW, are deemed significant, will be reported to the Applicant and Principal Contractor as soon as practicable. The Principal Contractor will comply with SSE Incident Reporting procedures including a 30 minute incident reporting line requirements. Where relevant, the appropriate authorities (e.g., Natural England or the Environment Agency) shall be informed immediately. Copies of incident investigation reports shall be supplied by the CEM to the Principal Contractor and the Applicant and action taken to prevent recurrence.
83. All corrective action, incident and near miss report forms shall be held in a register maintained at the construction site office base.
84. Any incident that may result in a significant adverse environmental impact, will be reported immediately to the Environment Agency and NCC together with details of date, time, location, type, potential impact, and person calling.
85. A Flood Emergency Response Plan will be developed to ensure safe working and evacuation at all times.

### 10.2. Complaints Procedure

86. The Principal Contractor will provide contact details to which all written complaints should be addressed. All complaints will be addressed by the CEM.
87. The Applicant will introduce a system for the logging and recording of any complaints that will be collated and make a copy available to the Principal Contractor, CEM and the relevant department of NCC. Any complaints received will be acknowledged within 24 hours during all hours when works, including deliveries, are taking place. The CEM shall ensure that all complaints receive a written response, to include details of any action undertaken if such action is deemed appropriate. The CEM shall provide the Applicant with a monthly report that details all complaints, and the actions taken.

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# 11. Environmental Monitoring

## 11.1. Overview


- 88. Environmental monitoring will be undertaken during construction works to check compliance with set conditions and applicable environmental legislation.
- 89. The CEM, ECoW and Principal Contractor will review all operations to ensure compliance with the CEMP. Should deficiencies or opportunities for improvement be identified, the CEM, ECoW and the Principal Contractor will agree the actions required and the timescale for implementation with the staff responsible. The Principal Contractor will be responsible for recording all deficiencies, the action taken to remedy the deficiency and the success of such action. They will report to the Applicant and to statutory bodies as required.

## 11.2. Inspections and Audits

- 90. The CEM will undertake a programme of weekly environmental inspections and monthly environmental audits to record performance and identify any corrective actions required.
- 91. Provision will be made to carry out appropriate environmental inspections and monitoring of the Principal Contractor’s environmental performance in the form of monthly audits. Formal audits will be against an audit checklist which will provide a mechanism to monitor and assess legislative standards, licence conditions and any other provisions agreed with statutory undertakers.
- 92. Where problems are identified, corrective actions will be identified by the CEM and Principal Contractor and will be implemented by the Principal Contractor within a defined time frame. The CEM and/or ECoW will inform the Principal Contractor and Applicant of any work that they feel should be stopped in order to avoid an unacceptable impact on the environment, in particular a breach of environmental legislation.


## 11.3. Specific Environmental Monitoring

- 93. Monitoring of specific environmental parameters will be carried out as necessary and requirements for environmental monitoring will be reviewed as further consents and licences are received and consultations completed.
- 94. Table 3 presents the key parameters that may require environmental monitoring and where further details will be provided post consent and on appointment of a Principal Contractor.


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**Table 2.1 Key Parameters That Require Monitoring**

Environmental Monitoring	Phase	Purpose	Frequency	Responsibility	Where further details will be provided
Daily Site Inspections	Pre-Construction and Construction	Inspection and maintenance of routine activities including the appropriate storage of materials, litter picks and general housekeeping so that environmental considerations are appropriately managed	Daily	Principal Contractor	CEMP
Waste Monitoring	Pre-Construction and Construction	Waste generated within the construction areas shall be monitored as part of its classification so that the appropriate treatment, handling, management, and disposal measures are applied.	Daily	Principal Contractor	Waste Management Plan
Gas Monitoring to determine presence of mine gas	Pre-Construction and Construction	Determine whether mitigations against mine gas are required	During any site investigation.	Principal Contractor	CEMP
Dust / PM <sub>10</sub> effects during construction	Pre-Construction and Construction	To ensure that mitigation measures are appropriate and being applied rigorously and to provide early warning of increased dust emissions to inform the cessation or modification of activities	Daily on-site and off-site inspections, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority.	Principal Contractor	Dust Management Plan

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Environmental Monitoring	Phase	Purpose	Frequency	Responsibility	Where further details will be provided
		prior to impacts occurring and make the log available to the local authority.			
Construction noise and vibration on nearby residential receptors	Pre-Construction and Construction	A combination of daily observations and monitoring and regular water quality sampling on a periodic basis or ad hoc depending on circumstances. The exact programme is to be determined by the Principal Contractor in consultation	Monitoring to be undertaken during sensitive periods and where predicted construction noise and vibration are predicted to be close to threshold limits	Principal Contractor	Noise and Vibration Management Plan
Operational noise on nearby residential receptors	Pre-Construction and Construction		Monitoring to be undertaken during sensitive periods and where predicted construction noise and vibration are predicted to be close to threshold limits	Principal Contractor	Noise and Vibration Management Plan

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## 12. Environmental Management Plans

95. Onshore environmental specific mitigation measures are provided in the ES within relevant technical chapters in Volume 2, Chapters 7-15. Chapter 16 of the ES provides a schedule of all mitigation. The Applicant and the Principal Contractor will adhere to these mitigation measures during construction of the Onshore Scheme.
96. The following sections provide further information on the topic specific Outline Management Plans and mitigation which may be implemented by the Principal C. These will be updated by the Principal Contractor within the full management plans to be included within the CEMP and agreed with NCC.

### 12.1. General Site Good and Practice


97. Reasonable precautions to avoid injury or harm to protected and notable species during the construction phase will be taken, these include but are not limited to:
- Capping pipes;
  - Covering excavations / providing ramps to allow animals to escape;
  - Appropriate storage of chemicals in line with chapter 11: Hydrology and Hydrogeology; and
  - Implementation of site speed limits and other traffic management controls
  - Wherever practicable, vegetation which could support nesting birds will be cleared outside the main bird breeding season (March to August inclusive) to avoid damage to, or destruction of nests. Where this is not practicable vegetation to be cleared will be checked for active nests by the ECoW prior to clearance. If active nests are found vegetation clearance in the applicable area will be delayed until the relevant nesting attempt(s) has finished.

### 12.2. Pre-Construction Surveys

98. Due to the time that will have elapsed since the previous surveys and the possibility that protected species activity within the site could have changed in the intervening period, pre-construction surveys will be undertaken, the results of which will inform the need for further mitigation (if required) in respect of working practices, or consultation with Natural England and NCC County Ecologist, if required.

### 12.3. Emergency Flood Response Plan

99. A Flood Emergency Response Plan will be developed to ensure safe working and evacuation at all times. This plan will set out the following:
- Cable entrance and exit points to be sealed with an appropriate waterproofing material to mitigate flood risk potential water ingress into cable ducting;
  - Surface water flowing into the trenches and work areas during the construction period to be pumped via settling tanks or ponds to remove sediment and potential contaminants, before being discharged into local ditches or drains via temporary interceptor drains. Where gradients on site are significant, cable trenches to include a hydraulic brake (bentonite or natural clay seals) to reduce flow rates along trenches and hence reduce local erosion;
  - Any field drainage intercepted during the cable installation to either be reinstated following the installation of the cable through agreement with the appropriate stakeholders; and
  - Stockpiles present along the HVDC/HVAC cable routes to have gaps / trickle points which permit surface water conveyance.

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## 12.4. Environmental Management Plan

100. An Environmental Management Plan (EMP) (or similar document) will be produced and will detail how the site will be managed throughout Operation and Decommissioning phases to avoid negative impacts on the environment. The EMP will contain good practice and pollution prevention procedures in line with the prevailing future guidance and legislation.

## 12.5. Woodland Retention Plan

101. A woodland retention plan will be produced detailing where areas of priority woodland are to be retained. It will also present Landscape and Visual Impact Assessment (LVIA) receptors and in relation where key screening woodland should be positioned.

## 12.6. Landscape and Ecological Management Plan

102. A Landscape and Ecological Management Plan will detail habitat creation and enhancement as a result of temporary habitat loss within the Onshore Converter Station Zone not being reinstated in the same manner as within the Landfall/HVDC and HVAC zones owing to the fact that after construction is completed, the area will be subject to habitat creation and enhancement.

103. Further details of proposed habitat creation and management at the converter station will be provided within an LEMP, at the detailed design stage.

## 12.7. Decommissioning Plan

104. Provision of a decommissioning plan in advance of decommissioning works will be a condition of the planning consent, to include protection of ecological features, based on up-to-date survey information and relevant guidance in place at the time of decommissioning.

## 12.8. Standard Industry Practice

105. All construction work will be undertaken in accordance with the CEMP which will be drafted having consideration of good practice guidance including, but not limited to:

- Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors CIRIA (C532) (CIRIA, 2001);
- Development and flood risk: guidance for the construction industry (C624) (CIRIA, 2004); CIRIA – SuDS Manual (C753) (CIRIA, 2015);
- The Environment Agency’s approach to groundwater protection, version 1.2, February 2018 (EA, 2018); and
- Code of Practice for Assessing and Managing Flood Risk in Development, BS8533 (BSI, 2017).


106. All construction work will be undertaken in accordance with the Construction Design and Management) Regulations 2015 (CDM Regulations) which requires contractors to make sure the client is aware of the client duties under CDM 2015 before any work starts.

## 12.9. Outline Pollution Prevention and Contingency Plan

### 12.9.1. Introduction

107. This section provides an overview of what will be included within the Pollution Prevention and Contingency Plan (PPCP). Standard industry practice and mitigation measures, comprising relevant



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Defra Guidance on Pollution Prevention for Businesses and CIRIA guidance, would be followed to reduce any potential risks of ground pollution. The measures would be secured as part of the CEMP.

108. Post-consent, the PPCP will be prepared by the Principal Contractor and in consultation with NCC and the Environment Agency, for submission to NCC. This will include emergency procedures in the event of a pollution incident.

### 12.9.2. Plant and Machinery

109. Standard industry practice and mitigation measures, comprising relevant Pollution Prevention Guidelines and CIRIA guidance, would be followed to reduce any potential risks of ground pollution. The measures would be secured as part of the CEMP.

- The construction phase will incorporate measures to prevent pollution should contamination be caused (while unlikely with prevention measures in place), including emergency spill response procedures, clean up and control of any potentially contaminated surface water runoff, and investigation, assessment and remediation where required for any impacts caused;
- Induction training on risks associated with fuel and oil spills for site staff;
- Fuel and oil spill kit carried by all vehicles associated with refuelling operations;
- Fuel and oil stored at the site in an appropriately bunded area with a minimum of 110% capacity and with all filling and draw points contained within the bunding area;
- Any refuelling of machinery to be undertaken in designated areas where spillages can be easily contained;
- Regular routine maintenance on vehicles; and,
- Spill procedures will be documented, and spill kits kept in the vicinity of potentially hazardous materials storage areas where present.


110. Any visual signs of contamination encountered through construction due to historical impacts should be reported, investigated and risk assessed. Where deemed necessary the contamination would be monitored and/or remediated with verification as per Land Contamination Risk Management (LCRM) guidance Environment Agency 2023. Further detail is provided below for mitigation of contaminative material.

### 12.9.3. Contamination Mitigation

111. Standard industry practice and mitigation measures, comprising relevant contaminated land guidelines would be followed to reduce any potential risks from contaminated land and in order to mitigate the potential impacts associated with excavation of potentially contaminative material. The measures would be secured as part of the CEMP:

112. Standard industry practice Contamination Commitments and mitigation measures, comprising relevant contaminated land guidelines would be followed to reduce any potential risks from contaminated land. A Site Waste Management Plan (SWMP) will be developed to monitor waste arising and ensure adherence to duty of care and waste legislation. All works will be carried out in accordance with LCRM guidance; BS5930: 1999 (The Code of Practice for Site Investigations) and BS10175:2001 (Investigation of Potentially Contaminated Sites); Hazardous Waste (England and Wales) Regulations 2005. This includes the following measures:

- Should areas of potential concern occur in close proximity to the Onshore Scheme the onshore cable routes will be micro-sited where possible to maintain a buffer;
- The Onshore Scheme will identify the procedures to be followed should an area of contamination be encountered. Areas where these materials are found will be photographed and annotated on a site drawing. Where necessary, works on site at that location will cease until any identified

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contamination has been assessed in accordance with the Part IIA of the EPA and the Contaminated Land (England) Regulations 2006. This assessment will be undertaken by a competent person in accordance with the LCRM guidance Environment Agency 2023.

- Construction workers will follow good site practice and hygiene rules;
- Personal protective equipment (PPE), including nitrile gloves, protective overalls, safety goggles and facemasks will be worn where appropriate, especially by those workers who are likely to be coming into contact with soil or water, such as those carrying out hand digging activities; and
- Adopt appropriate safe working practices that consider the potential for hazardous ground gases ingress and accumulation in confined spaces. The use of gas protection measures, such as impermeable membranes and ventilation, may be required if any permanent structures are to be in proximity to identified sources of ground gases such as a landfill site.
- All works will be carried out in accordance with BS5930: 1999 (The Code of Practice for Site Investigations) and BS10175:2001 (Investigation of Potentially Contaminated Sites) and future updates and revisions to these documents:
- Use of the waste hierarchy to determine the most sustainable option for all surplus soils that are generated on site;
- Re-instatement of topsoil;
- Inclusion of excavated subsoil that is suitable for use within the design as landscaping material at the converter substation to minimise offsite movements;
- Segregation of waste subsoil for offsite management from subsoil suitable for reinstatement on site;
- Identification of suitable local schemes that are suitable for offsite reuse or recycling of surplus subsoil;
- Any wastes found to be hazardous, will be stockpiled or stored separately from any non-hazardous stockpiles. Appropriate action will be taken in accordance with the Hazardous Waste (England and Wales) Regulations 2005; and
- Use of a Site Waste Management Plan (SWMP) to monitor wastes arisings and to ensure adherence to duty of care and wastes legislation on site and also the anticipation of sustainable waste management practices by maximising waste prevention, reuse and recycling for material destined for offsite waste management. This will actively discourage sending waste to landfill.


#### 12.9.4. Control of Substances Hazardous to Health

113. All COSHH materials will be stored and handled in accordance with the COSHH Regulations 2002 (UK Government, 2002). A secure COSHH store will be set up within the construction site compound. COSHH assessments and Material Safety Data Sheets shall be held with the COSHH materials. A COSHH register shall be created and maintained on-site. All site personnel and subcontractors will be made aware of the COSHH requirements through site inductions and specific toolbox talks. Daily site inspections will be used to review and monitor the storage and issue of materials.

#### 12.9.5. Pollution Incident Response

114. As part of the PPCP, the Principal Contractor will incorporate incident response measures. These measures will include:

- A suitably trained emergency environmental crew will be provided by the Principal Contractor to deal with pollution incidents in conjunction with other safety-related incidents as required; and
- An emergency contact list and spill response flowchart shall be displayed on notice boards and on fuel bowsers.

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## 12.10. Outline Construction Noise and Vibration Management Plan


115. A Noise and Vibration Management Plan (NVMP) will be produced and will detail how noise levels across the site will be managed throughout the Construction phase and comply with relevant planning conditions and guidance.

116. The following standard mitigation measures will be implemented by the Principal Contractor to minimise noise impacts:

- All construction activity will be undertaken in accordance with good practice as described by BS 5228-1: 2009.
- All construction staff must show consideration to the sensitive receptors, including residential neighbours, and must not generate unnecessary noise when walking to and from the construction sites, or when leaving and arriving at work;
- SMART reversing alarms will be used;
- All personnel involved in the works will receive training and advice on noise minimisation and general good site practice through site-specific training and briefings;
- All materials (including waste materials) shall be handled, stored, and used in a manner that minimises noise. This will include the efficient handling of materials to avoid unnecessary double handling and minimising drop heights.
- Wherever practicable, materials will be lowered and not dropped from height, and;
- Plant and equipment:
  - Plant will be certified to meet relevant legislation and should be no noisier than would be expected based on the noise levels as stated in BS 5228-1: 2009 Noise and Vibration Control on Construction and Open Sites;
- Localised acoustic screening, where identified as necessary, providing partial line of sight/preventing any line of sight between noise source and receiver;
- Reduction of simultaneous use of plant where practicable;
- Re-positioning plant as far away from NSRs as reasonably practicable;
- Not using particularly noisy items of plant pieces at night as far as reasonably practicable;
- Limiting or eliminating certain works during more sensitive periods where practicable;
- Use of electric or hybrid construction plant as far as reasonably practicable; and,
- Providing residents with prior warning of when construction operations are going to be taking place in relatively close proximity to their properties.

117. Plant would comply with the following requirements where appropriate;

- Semi-static equipment is to be sited and oriented as far as is reasonably practicable.
- away from noise sensitive receptors and will have localised screening if deemed necessary;
- All plant will be regularly serviced, maintained, and operated in accordance with manufacturers' instructions;
- Machines that are intermittently used will be shut down in the intervening periods.
- between work or throttled down to a minimum;
- Engine compartments will be closed when equipment is in use;
- Site inductions will highlight the need for vehicle horns and alerts to only be used when absolutely necessary;
- Reduction of simultaneous use of plant;
- Re-positioning plant as far away from NSRs as reasonably practicable;
- Not using particularly noisy items of plant pieces at night as far as reasonably practicable;
- Limiting or eliminating certain works during more sensitive periods; and

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- Use of electric or hybrid construction plant where practicable.
- The Principal Contractor will comply with the requirements of the Control of Pollution Act 1974 (with particular reference to Part III), the Environmental Protection Act 1990, the Health and Safety at Work Act 1974 and the Control of Noise at Work Regulations 2005;
- All trade contractors will be made familiar with current noise legislation and the guidance contained in BS 5228-1: 2009 (Parts 1 and 2) which will form a pre-requisite of their appointment;
- Deviation from approved method statements will be permitted only with prior approval from the Principal Contractor and other relevant parties. This will be facilitated by formal review before any deviation is undertaken; and
- Contact details which the public may use shall be provided by the Principal Contractor.

118. Monitoring, inspections, and reporting would include:

- The site log/ Daily Progress Report maintained by the Principal Contractors will include record of daily activities, mitigation measures, complaints, weather conditions etc.;
- Areas at risk from excessive noise activities will be inspected daily by the Principal Contractor;
- All complaints will be recorded and investigated, and any corrective actions implemented. Additionally, should any complaints arise regarding vibration they will be investigated, and monitoring measurements taken and analysed, with techniques modified where required; and
- Contact details will be established to provide the opportunity for the local community to raise their concerns if issues with site activities, such as noisy conditions, are causing a nuisance. These contact details will be provided by the Principal Contractor prior to commencing works.

119. Converter Station Construction will include the following:

- If required, based on noise modelling to be completed at the detailed design stage, measures would be put in place to avoid disturbance to birds on the Sleek Burn from construction activities within the converter station site, including impact/percussive piling. These would include relevant noise reduction measures outlined in Table 13-22 (Chapter 13) and, if necessary, a timing restriction on impact/percussive piling during the winter period (October to March inclusive).

## 12.11. Outline Construction Dust Management Plan


### 12.11.1. Overview

120. This section outlines what will be included within the Construction Dust Management Plan.

121. The Construction Dust Management Plan aims to ensure that the construction of the Onshore Scheme is carried out such that emissions of dust and other pollutants, including odour, are limited.

122. The key activities that will generate air pollution are the use of mechanical plant and vehicles, and earthworks. Plant equipment and vehicles will generate exhaust emissions which may impact local air quality (CO<sub>2</sub>, CO, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>x</sub> etc.). Dust will be generated through earthworks, such as ground-breaking, top-soil removal and storage.

123. Construction dust is not typically associated with human health effects as most dust particles are too big to be inhaled, but can cause eye, nose and throat irritation and lead to annoyance if deposited on cars, windows, and other property. Under Part III, Section 79 (Statutory nuisance and inspections therefor) of the Environmental Protection Act 1990, dust can be a statutory nuisance. However, there are no statutory standards for dust deposition which can be used to assess whether a nuisance has occurred, principally due to the normal variability of atmospheric dust, and the wide range of monitoring methods that seek to characterise the dust. Standards are therefore commonly adopted on a “custom and practice” basis (i.e., relevant to specific monitoring methods).

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### 12.11.2. Dust Management Measures

124. Proportionate mitigation, as recommended by the Institute of Air Quality Management, is proposed in order to minimise, or where possible remove potential impacts. The measures are grouped into those which are highly recommended and those which are desirable. The following details the extent of controls required to ameliorate impacts associated with dust/particle matter (PM10) generated from construction activities:

#### Highly Recommended:

##### 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.
- Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. 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.

##### Construction:

- Sand and other aggregates are to be stored in bunded areas and 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.
- Avoid scabbing (roughening of concrete surfaces) if possible.
- Require, though conditions of contract, bulk cement, and other fine powder materials to be delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.


##### Earthworks:

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
- Use Hessian, mulches or tackifiers where it is not practicable to re-vegetate or cover with topsoil, as soon as practicable.
- Only remove the cover in small areas during work and not all at once.

##### Monitoring:

- 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 local authority 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.
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority 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.
- Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with Northumberland County Council (NCC). Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.

##### Operating vehicle / Machinery and Sustainable Travel:

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- All vehicles are to 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 local authority, where appropriate).
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
- Implement a 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.
- An adequate water supply is to be available on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where practicable and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Equipment is to be 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.

#### Preparing and Maintaining the Site:

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is practicable.
- 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 practicable, unless being re-used on site. If they are being re-used on-site cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.


#### 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 offsite, 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 reduced as far as practicable. It is important to understand the interactions of the off-site transport deliveries which might be using the same strategic road network routes.

#### Trackout:

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Cover vehicles entering and leaving sites to prevent escape of materials during transport.



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- 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, 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 where reasonably practicable).
- Provide 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 10m from receptors where practicable.

Waste management:

- Avoid bonfires and burning of waste materials.

**Desirable:**

Construction:

- Avoid scabbling (roughening of concrete surfaces) if possible.

For smaller supplies of fine power materials seal bags after use and store appropriately to prevent dust.


### 12.11.3. Non-Road Mobile Machinery Dust Management

Proportionate mitigation, as recommended by relevant guidance is proposed in order to minimise, or where possible remove potential impacts associated with Non-Road Mobile Machinery (NRMM).

The measures include:

- Plan site layout so that NRMM are located away from receptors, as far as is practicable;
- Ensure all vehicles switch off engines when stationary avoiding idling vehicles where practicable;
- 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 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 local authority, where appropriate);
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials;
- Ensure all equipment complies with the latest (Stage V) emission standards or has suitable dispensation; and
- Where feasible, ensure further abatement plant is installed on NRMM equipment, e.g., Diesel Particulate Filters (DPFs).

As per Defra's Local Air Quality Management (LAQM).TG(22), following application of the above controls, impacts associated with NRMM emissions on sensitive receptors are unlikely to be significant. Furthermore, impacts associated with NRMM emissions are anticipated to be temporary (given the nature of construction works), with no long-term deterioration of conditions.

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## 12.12. Soil Management Plan

125. A Soil Management Plan (SMP) will be developed and will be produced in advance of construction. The SMP will provide further details of mitigation measures and standard industry practice handling techniques during stripping, handling and reinstatement to safeguard soil resources to allow for their protection, conservation and appropriate reinstatement following the construction of the onshore works. Following construction, land not required through the operational phase will be reinstated so that it can return to agricultural or recreational use. The land take for the Onshore Scheme will be kept to the minimum necessary for safe construction and operation of the works required for the Onshore Scheme.

126. All construction work will be undertaken in accordance with DEFRA Construction Code of Practice for the Sustainable Use of Soil on Construction Sites (2009).

127. Following construction, land not required through the operation phase will be reinstated to allow for the land to return to its pre-development use, where applicable and where no permanent project infrastructure is required.

128. The following measures would be secured as part of the CEMP.

- Standard industry practice will be undertaken to excavate, handle and replace to reduce the risk of degradation to soils such as:
- No trafficking of vehicles/plant or storage of materials to take place outside designated working areas. Heavy plant and vehicles to be restricted to specific routes;
- The soils (topsoil and subsoils) will not unnecessarily be trafficked or trampled by vehicles, which will operate on the 'basal'/non-soil layer where possible;
- No trafficking of vehicles or plant on reinstated soils (topsoil or subsoil);
- Plant and machinery to only work when ground or soil surface conditions enable their maximum operating efficiency (i.e., when machinery is not at risk of being bogged down due to wetness);
- Plant and machinery will be maintained in good working order; low ground pressure and tracked vehicles will be used where practicable when working directly on bare or vegetated soils (this reduces the intensity of ground compaction);
- Stripping areas are to be protected from in flow of water and ponding. Wet areas will be drained in advance of stripping;
- Where practicable, soils will only be moved when they are in a dry and friable condition, based on field assessment of the soils' wetness in relation to its lower plastic limit;
- Transportation of soils to be kept to the lowest practicable level to reduce the risk of contamination between fields;
- No mixing of topsoil with subsoil, or of soil with other materials

## 12.13. Outline Site Waste Management Plan


### 12.13.1. Introduction

129. Use of a SWMP to monitor wastes arisings and ensure adherence to duty of care and wastes legislation on site and the anticipation of sustainable waste management practices by maximising waste prevention, reuse and recycling for material destined for offsite waste management. This will actively discourage sending waste to landfill.

130. SWMP will be prepared by the Principal Contractor and will set out the practices to be put in place the control of waste on site, in a matter not detrimental to the local and wider environment. This encompasses the minimisation of waste and the removal of waste from site where necessary. The SWMP will set out measures for compliance with the Duty of Care responsibilities as prescribed in Section 34 of the Environmental Protection Act 1990 including;

- Implementation of the waste hierarchy;



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- Classification and segregation of waste;
- Waste storage; and
- Waste documentation and transport.

131. It is anticipated that the construction of the Onshore Scheme may give rise to the following types of waste:

- wood;
- domestic (e.g., glass, paper, cardboard, plastics, food, sewage);
- metal (e.g., wire, steel);
- soil;
- hazardous substances (e.g., paint, oil, aerosols, batteries); and
- aggregates (e.g., concrete, stone).

### 12.13.2. Strategy for Waste Reduction

132. The Principal Contractor will employ the following strategy to achieve maximum reuse and reduce landfill waste:

- Sub-contractors will be contractually obliged to comply with the SWMP as part of their tender;
- All staff will be required to engage in site inductions and environmental awareness campaigns;
- Waste management will be incorporated into the design process, including planning for high volumes of waste, consideration of suitable manufacturers and appropriate storage measures;
- The Principal Contractor will identify and segregate waste streams;
- The Principal Contractor will reuse and recycle where possible;
- The Principal Contractor will use suitable storage methods for all materials; and,
- Unauthorised waste disposal will be treated as an environmental incident and the Pollution Incidence Response will be implemented. Under no circumstances will waste material be burned or buried on the Onshore Scheme site.

### 12.13.3. Development Water Management Specifics

#### Classification and Segregation of Waste

133. The SWMP will list all the site waste streams as identified and classified by the Principal Contractor in line with the methods and categories set out in the Waste Classification Technical Guidance WM3 (SEPA et al. 2017). The identified waste streams will be segregated and the storage and management of each will be set out within the SWMP including measures for special waste and organic material.


134. “Special waste” is any waste which contains properties that might make it harmful to human health or the environment.

135. Special waste could arise during construction from the following sources:

- Maintenance of plant and machinery;
- Oily water waste; and
- Environmental spill recovery (small amounts only; larger volumes taken away directly for disposal).

136. Measures will be set out within the SWMP so that:

- All special waste will be segregated by type from other waste streams;
- All waste oil will be stored in a bunded facility until such times that it is collected; and
- Used filters, rags and absorbents will be stowed in the special waste container in drums or waste oil bags.

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#### 12.13.4. Organic Matter Management

137. Any spoil from excavations must be stored on areas of hardstanding, short grassland, or bare ground adjacent to the works. If anything needs to be stored on vegetation (long grassland or scrub) then the spoil must be wrapped to prevent animal ingress and the ECoW will be required to check the area first.

138. The waste organic material resulting from site clearance will be managed in-line with a Waste Hierarchy, thus helping to reduce potential environmental issues pertaining to this process as far as practicable.

#### 12.13.5. Storage of Waste

139. The SWMP will outline measures regarding waste storage to reduce the risk of waste escaping, litter and / or pollution as far as practicable, such as:

- All waste will be stored at the location in which it is generated, or within a designated central waste storage area;
- These designated waste storage areas will be isolated from surface water drains and areas that discharge directly to the water environment;
- Waste will be stored in suitable containers of sufficient capacity to avoid loss, overflow, or spillage;
- Storage of liquid wastes will be on impermeable bunds that hold the capacity of the container;
- Waste will be segregated by waste stream and storage containers will be clearly signed with the waste that they will hold e.g., wood, metal, plastics, or other appropriate waste stream;
- Storage containers will be secure, covered, or enclosed;
- There will be separate containers for special waste;
- Skips will be monitored, and action taken if waste levels are too high; and
- Burning of waste will be prohibited.

#### 12.13.6. Waste Reduction Measures


The following measures will be implemented to reduce the environmental impacts of construction waste arising from the Onshore Scheme as far as practicable.

Elimination:

- The Onshore Scheme will aim to avoid the creation of waste through the detailed design stages. The control of design will reduce the risk of late-stage changes which will require rework and therefore reduce overall waste.

Reduction:

- The Principal Contractor will undertake accurate measurement and ordering of required materials to reduce the volume of waste generated during construction (e.g., ordering standardised sizes to reduce onsite cutting);
- Order materials on a just-in-time basis to reduce onsite storage time;
- The Principal Contractor will ensure the effective and appropriate storage of materials to protect against damage and adverse weather conditions;
- Require, through conditions of contract, suppliers to have a take-back option for packaging and surplus;
- Maintain good communication with suppliers to reduce the amount of packaging included in deliveries;
- The Principal Contractor will ensure the use of enclosed containers to store waste susceptible to spreading by wind or liable to cause litter; and

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- Remove general waste at frequent intervals and keep the site kept clean and tidy.
- Waste Storage, handling, and segregation:
  - Store wastes in areas a suitable distance (i.e., 20m) away from surface or foul drains and watercourses;
  - Segregate all construction wastes, at a minimum, into hazardous and non-hazardous waste streams;
  - Segregate construction wastes into dry recyclables;
  - Cover waste containers if there is a risk that wastes may be blown out or the wastes contained therein are water sensitive (e.g., plasterboard wastes);
  - Store waste oils in suitable sized bunding;
  - Use waste signage such as labels that specify waste contents; and
  - Secure waste containers. Skips should be lockable if the site is insecure or vulnerable to theft and vandalism.

Re-Use:

- Consider re-using uncontaminated excavated material arising during construction;
- Consider re-using rubble and concrete as backfill, subsoil in landscaping areas and timber offcuts as temporary form work; and
- Where practicable, the Principal Contractor will purchase reclaimed or recycled materials or procure materials from sustainable sources.

Recycling:


- The Principal Contractor will designate areas or containers for materials which can be recycled such as plastics, timber, steel, general waste, dry recyclables, batteries, aerosols, etc.
- Off-site Disposal of Site Waste Streams:
  - Use of Non-Hazardous Waste Transfer Notes (WTNs) for the off-site disposal of all non-hazardous wastes;
  - Use of Special Waste Consignment Notes (SWCNs) for the off-site disposal of all hazardous wastes;
  - Retain all WTNs for at least two years and SWCNs for at least three years;
  - Only use licensed waste carriers to transport wastes from site and obtain documentation to demonstrate registration;
  - Obtain full copies of the Waste Management Licences or Exemptions for the disposal locations of site waste streams;
  - Waste contractors will be checked periodically (bi-annually) to ensure they maintain valid licences; and
  - Contact the CEM immediately in the event that site wastes are not taken to a licensed waste disposal or recycling facility.

Keep Legislative Records:

- Retain copies of all relevant permits or licences for both carriers and disposal sites;
- Record contact details for all waste carriers and disposal sites;
- Keep audit reports;
- Maintain recycling receipts for non-hazardous waste; and
- Record a description of all waste removed from site including volume and consignment route number.

Monitoring:

- Track the volumes of waste produced using key performance indicators (KPIs) and compare this against targets which will be set at the beginning of the project.

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### 12.13.7. Contaminated Waste

140. If contaminated soils are recorded or suspected during the works, then works should cease and advice sought from the CEM. Any contaminated waste material produced in this area must be disposed of appropriately by an experienced company licenced to deal with contaminated waste.

### 12.14. Travel Plan

141. A Travel Plan (TP) will include demand management measures to be adopted.

### 12.15. Public Access Management Plan

142. A Public Access Management Plan (PAMP) would set out detailed proposals for the management of Public Right of Way crossings including any temporary closure / diversions.

### 12.16. Construction Traffic Management Plan

143. A Construction Traffic Management Plan (CTMP) will set out the traffic management measures to be implemented during construction of the Onshore Scheme and how the movement of construction traffic will be monitored. This could include agreed routeing and timing of HGVs, driver awareness training and on-site protocols to maintain safety.

144. A Travel Plan (TP) will include demand management measures to be adopted.

145. Prior to construction, a final CTMP will be prepared to provide details of access junctions, routing plans, and safety measures identifies the traffic management measures required to support the Onshore Scheme.


146. The measures which will be identified will relate to:

- Traffic Management;
- Abnormal Loads;
- Access;
- Construction Traffic Movements; and
- Road Signage.

147. Generic measures will be discussed with relevant stakeholders and may include:

- the formation of a Traffic Management Group to help advise of progress, issues and feedback public comments;
- measures to ensure the maintenance and condition of public roads, cycleways and public rights of way do not deteriorate due to the construction traffic, including agreement of monitoring arrangements with relevant stakeholders;
- procedures for driver training (e.g., to protect pedestrians and non-motorised traffic) and appropriate use of technology to remove blind spots;
- procedures to be followed for the temporary or permanent closure or diversion of roads, public rights of way or accesses;
- permitted access routes and accesses for construction traffic;
- procedures to address any highway incidents or vehicle breakdowns relating to construction traffic; and
- monitoring requirements.

Prior to the commencement of the works a full CTMP will be produced in consultation with relevant stakeholders.

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## 12.17. Habitat Management

### 12.17.1. Sensitive Habitats

148. The following sensitive habitats will be avoided:

- Direct impacts on Northumberland Shore SSSI and priority sand dune habitats will be avoided via the use of trenchless techniques such as HDD under the beach and sand dunes.
- Priority woodland habitat to the west of the converter station zone and certain other areas of woodland within the site (as shown in Figure XXX, Volume 3 of Onshore ES) will be avoided at the detailed design stage.
- Intertidal habitats in the Sleekburn, where lying within the Site boundary, will all be avoided.

149. Measures to protect retained habitats during the construction phase will be implemented, including erection of temporary protective fencing demarcating the working footprint and policing by the ECoW.

150. All areas of habitat subject to temporary loss or disturbance will be reinstated to a similar standard. Details of habitat restoration to be set out in the detailed habitat plans to be provided at detailed design stage.

151. Due to the time that will have elapsed since the previous surveys and the possibility that protected species activity within the site could have changed in the intervening period, pre-construction surveys will be undertaken, the results of which will inform the need for further mitigation (if required) in respect of working practices, in consultation with Natural England, if required.

### 12.17.2. Species Protection Plans (Reptile and Bird)

152. A Reptile Protection Plan would be produced and included as part of the CEMP and would provide further details of the proposed mitigation measures during construction that would be implemented to prevent killing or injury of reptiles.

153. A Bird Protection Plan will be produced providing further details of proposed mitigation measures toward bird protection as part of the CEMP.

### 12.17.3. Biodiversity Net Gain


154. In accordance with the mitigation hierarchy, Biodiversity Net Gain (BNG) should ideally be delivered on-site, near to where negative impacts occur, wherever practicable. Providing BNG on-site may also enable BNG to be constructively added to other mitigation proposals, such as habitat-based mitigation for protected species. However, land ownership constraints may limit the scope to provide sufficient enhancement to meet a 10% net gain target within the red line boundary.

155. If 10% gain cannot be achieved within the RLB at the detailed design stage, locations / mechanisms will be identified off-site. Possible locations will be identified as soon as possible if required, to enable further work to establish their potential feasibility to be completed. In many cases this is likely to involve the completion of habitat surveys and condition assessment to establish the baseline value of any areas to be enhanced.

156. Offset areas located off-site would also be subject to a minimum 30 year monitoring and management plan.

### 12.17.4. Biosecurity

157. The following measures will be deployed:

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- Reasonable precautions to avoid the spread of INNS during the construction phase will be taken, these include but are not limited to:
- Pre-construction checks for INNS will be carried out prior to commencing works;
- Wherever practicable, all areas where INNS have been identified will be clearly demarcated with a suitable buffer with signs;
- Toolbox Talks to inform all personnel of the presence of INNS and the working methods to be adopted in these areas;
- Boot wash facilities when leaving area to avoid spread; and
- Pressure washing of all vehicles leaving the area.