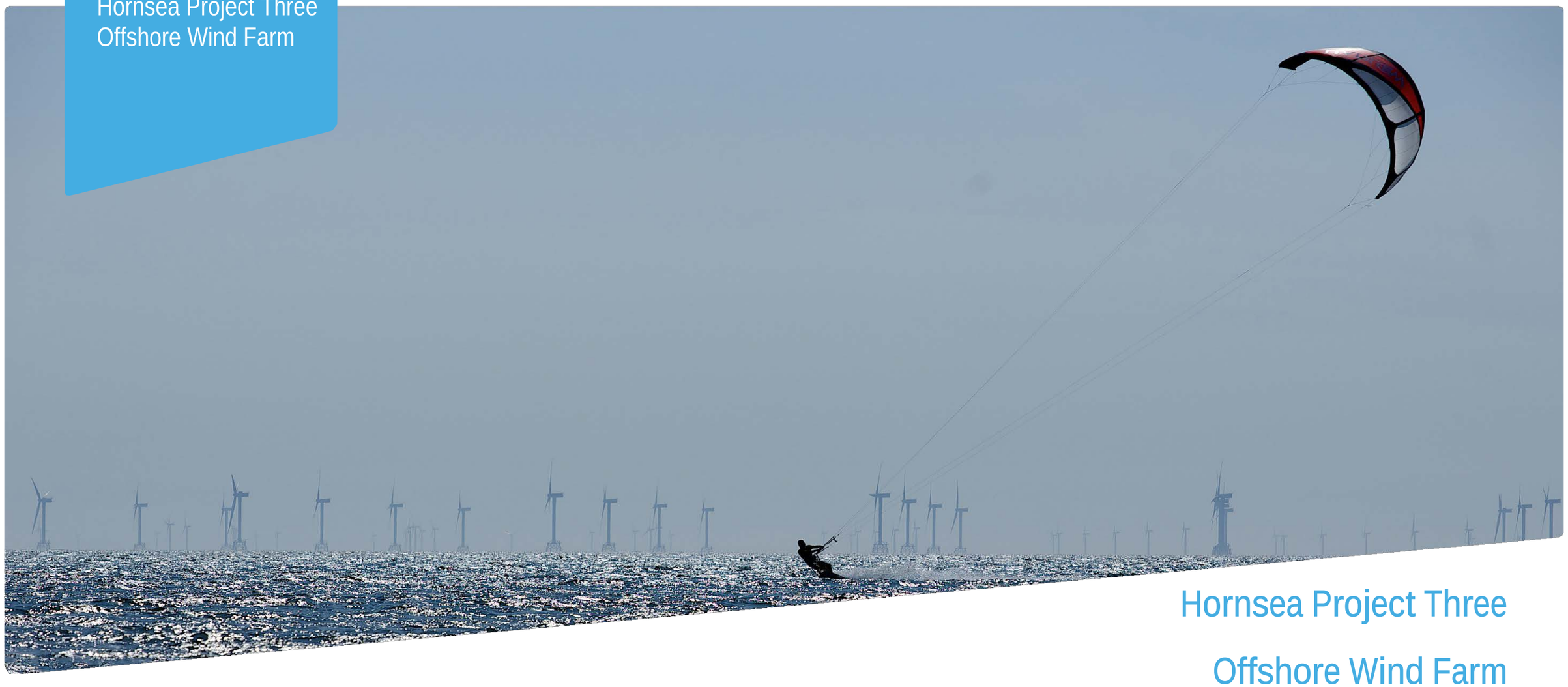
Hornsea Project Three
Offshore Wind Farm



Hornsea Project Three

Offshore Wind Farm

Environmental Statement:
Volume 4, Annex 3.4 - Site Waste Management Plan

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Hornsea 3
Offshore Wind Farm

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Environmental Impact Assessment

Environmental Statement

Volume 4

Annex 3.4 – Site Waste Management Plan

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Glossary

Term	Definition
BREEAM	BREEAM was first launched in 1990 and is the most widely used environmental assessment method for buildings. BREEAM New Construction Manual (2011) is a performance based assessment method and certification scheme for new buildings. Its primary aim is to mitigate the life cycle impacts of new buildings on the environment in a robust and cost effective manner. This is achieved through measuring and evaluating the performance of a building against best practice using a number of criteria across a range of environmental issues. Performance is quantified using a credit system according to the measures implemented, which is ultimately expressed as a single certified BREEAM rating. Construction waste and resource efficiency are two of those issues.
Onshore elements of Hornsea Three	Hornsea Three landfall area, onshore cable corridor, the onshore HVAC booster station, the onshore HVDC converter/HVAC substation and the interconnection with the Norwich Main National Grid substation.
Site Waste Management Plan	A plan which encourages the effective management of materials and ensures construction waste is considered from design through to completion.

Acronyms

Unit	Description
BREEAM	Building Research Establishment Environmental Assessment Methodology
CL:AIRE	Contaminated Land: Applications in Real Environments
CoP	Code of Practice
Defra	Department for Environment Food and Rural Affairs
EA	Environment Agency
SWMP	Site Waste Management Plan

Units

Unit	Description
m^2	Metre (area)
m^3	Metres (volume)
tonnes	Tonnes (weight)

1. Introduction

1.1 Background and Purpose of Site Waste Management Plan

1.1.1 Purpose of the Site Waste Management Plan

1.1.1.1 This document comprises a Site Waste Management Plan (SWMP) for the construction of the Hornsea Project Three offshore wind farm (hereafter referred to as 'Hornsea Three').

1.1.1.2 The purpose of the SWMP is to meet the requirements of the Overarching National Policy Statement for Energy (EN-1), as part of the Government's policy on hazardous and non-hazardous waste which is intended to protect human health and the environment by producing less waste and by using it as a resource wherever possible.

1.1.1.3 SWMPs were introduced by the Site Waste Management Plan (England) Regulations 2008 and despite the regulations being repealed in 2013, SWMP continue to be regarded as a best practice tool in achieving better waste management on construction projects.

1.1.1.4 According to EN-1, applications for a proposed development must consider the types and quantities of waste that would be generated in all phases of a development and identify how the waste would be managed. EN-1 requires developers to prepare a SWMP that identifies the waste management arrangements for all types of waste and provide information on the proposed systems that would be used. The application must demonstrate that the waste hierarchy has been applied and that the volume of waste generated and the volume of waste sent for disposal would be minimised (see Section 4 of the SWMP for further details).

1.1.1.5 It is also intended that on the basis of the above, this SWMP provides statutory and non-statutory consultees with sufficient information to understand the types and volumes of wastes likely to be generated from the construction of Hornsea Three and how the wastes will be managed.

1.2 Structure and Scope of the SWMP

1.2.1.1 The scope of the SWMP considers waste generated during the construction phase of Hornsea Three and is in line with the approach set out in the repealed SWMP Regulations and EN-1. It considers the type and volume of waste that is likely to be generated from the construction of the onshore elements of Hornsea Three (i.e. the Hornsea Three landfall area, onshore cable corridor, the onshore HVAC booster station and HVDC converter/HVAC substation and interconnection with the Norwich Main National Grid substation) together with the compounds, storage areas, accesses and main compound.

1.2.1.2 The SWMP only considers waste generated by Hornsea Three onshore and intertidal construction activities; it does not consider wastes from the offshore construction activities. Offshore waste is considered in the volume 4, annex 3.2: Dredging and Disposal Site Characterisation (which deals with the disposal of dredged material from sandwave clearance and drill arisings from foundation installation). Post consent, a Project Environmental Management and Monitoring Plan will be prepared that will set out details of waste management and disposal arrangements for offshore wastes.

1.2.1.3 During the operation phase, the volume of wastes generated from the routine maintenance of the onshore HVAC booster station and HVDC converter/HVAC substation will be minimal. Any waste generated as a result of the maintenance visits/inspections will be transported by a registered waste carrier to an appropriately licensed waste management facility.

1.2.1.4 In particular, this SWMP sets out:

- The waste regulation framework;
- The types of waste that will be generated during construction;
- How the waste will be managed during construction – i.e. will it be reduced, re-used or recycled?; and
- The methods used to measure and record the quantity of waste generated from Hornsea Three.

1.2.1.5 The SWMP has been prepared to accompany the Development Consent Order (DCO) application for Hornsea Three and is based on the information currently available. The SWMP will be updated post-consent as detailed design progresses and will be reviewed and updated during the construction phase as required. The principal contractor will be responsible for updating the SWMP and will make the SWMP available to the local authorities during the construction period on request.

2. Regulatory Framework

2.1 Definition of Waste

2.1.1.1 For the purpose of this document the definition of "waste" is taken from Article 3(1) of the revised European Waste Framework Directive (2008/98/EC), which states that waste is '*any substance or object which the holder discards or intends or is required to discard'.*

2.1.1.2 '"*Discard" includes the recovery and recycling of a subject or object as well as its disposal. The decision on whether something is discarded must take account of all the circumstances (for example, the nature of the material, how it was produced and how it will be used) and have regard to the aims of the Waste Framework Directive, which is* 'the protection of human health and the environment against harmful effects caused by the collection, transport, treatment, storage and tipping of waste'.

2.1.1.3 Guidance on the interpretation of the Waste Framework Directive definition of waste is taken from Defra's published '*Guidance on the legal definition of waste and its application*', which provides a practical guide to help organisations make decisions about whether a material is a waste or not.

2.1.1.4 The document also takes into account CL:AIRE's Definition of Waste: Development Industry Code of Practice (CoP) (CL:AIRE, 2011). The CoP sets out good practice for the development industry to use when:

- '*Assessing on a site specific basis whether excavated materials are classified as waste or not; and*
- *Determining on a site specific basis when treated excavated waste can cease to be waste for a particular use*'.

2.1.1.5 The CoP will be taken into account by the Environment Agency (EA) in deciding whether to regulate materials as waste. If materials are dealt with in accordance with the CoP, the EA considers that those materials are unlikely to be waste if they are used for the purpose of '*land development'.*

2.1.1.6 The scope of the CoP relates to 'excavated materials' which include:

- Soil, both topsoil and subsoil, parent material and underlying geology;
- Ground based infrastructure that is capable of reuse within earthworks projects (e.g. road base, concrete floors);
- Made ground; and
- Stockpiled excavated materials that include the above.

2.2 Legislation and Guidance

2.2.1.1 The legislative framework for the management of construction wastes comprises the following:

- Environmental Protection Act 1990;
- Environment Act 1995;
- Hazardous Waste (England and Wales) Regulations 2005 (as amended);
- Revised Waste Framework Directive (2008/98/EC);
- Landfill Directive (1999/31/EC);
- Environmental Permitting (England and Wales) Regulations 2016 (as amended);
- Waste Management (England and Wales) Regulations 2006;
- Waste (England and Wales) Regulations 2011 (as amended);
- Waste Duty of Care: Code of Practice (Defra 2016); and
- Norfolk Core Strategy and Minerals and Waste Development Management Policies Development Plan Document (adopted 2010).

2.2.1.2 The framework of waste management legislation in the UK is currently shaped by the Waste Framework Directive. The Directive is transposed into UK law by the Waste (England and Wales) Regulations 2011 (as amended). These regulations require all businesses and organisations that produce waste to take all reasonable measures to prevent waste, to apply the waste hierarchy (refer to Section 4.1) when transferring waste using the definitions in Article 3 of Directive 2008/98/EC, and include a declaration on their waste transfer notes or consignment notes to that effect. Standard Industry Classification (SIC) Codes 2007 (Office for National Statistics 2009) of the waste producer must also be provided in the waste transfer note. The SIC is a system for classifying industries by a four-digit code.

2.2.1.3 Hazardous Waste (England and Wales) Regulations 2005 (as amended) set out the requirements for controlling and tracking the movement of hazardous waste and bans the mixing of different types of waste. Under the Regulations "mixing" includes mixing of different categories of hazardous waste, non-hazardous wastes or any other substance or material.

2.3 Key Obligations

2.3.1 Duty of Care

2.3.1.1 A key requirement of section 34 of the Environmental Protection Act 1990 is that the waste producer is responsible for ensuring that their waste is collected by an appropriately licensed waste carrier and managed at a suitably licensed facility. These requirements are set out in the 'Waste Duty of Care Code of Practice'. To meet these requirements, waste materials arising from the construction of Hornsea Three will only be transported by waste carriers and hazardous waste carriers holding a valid registration with the Environment Agency. Each consignment of waste removed from the construction site will be accompanied by a waste transfer note (or hazardous waste consignment note as appropriate), which correctly describes the waste using the European Waste Catalogue code, identifies the waste carrier and where the waste will be transported to. Requirements for transferring waste and registered waste carriers are set out in Part 8 and 9 of the Waste (England and Wales) Regulations 2011. The waste will only be transferred to facilities that have the benefit of a registered waste exemption, or an environmental permit. Periodic audits would be undertaken of these facilities. Prior to construction commencing, the Undertaker and principal contractor will sign the declaration in Appendix A to confirm that waste from the construction of Hornsea Three will be managed in accordance with the duty of care requirements.

2.3.2 Pre-treatment of Wastes

2.3.2.1 Inert, non-hazardous and hazardous wastes destined to be landfilled will be pre-treated prior to disposal in accordance with the EU Landfill Directive (1999/31/EC). Treatment can comprise physical, thermal, chemical or biological processes providing that they change the characteristics of the waste in order to reduce its volume or hazardous nature or to facilitate its handling or recovery.

3. Identification of Waste Arisings

3.1 Waste Types

3.1.1.1 At a strategic level, the key waste streams generated from the construction of the onshore elements of Hornsea Three can be classified as:

- INERT – wastes that will not cause adverse effects to the environment when disposed of, or do not decompose and they have no potentially hazardous content when placed in a landfill. Examples of inert wastes are rocks, concrete, mortar, glass, uncontaminated soils and aggregates;
- NON- HAZARDOUS – wastes that will decompose when buried resulting in the production of methane and carbon dioxide. Examples of non-hazardous wastes include timber, paper and cardboard; and
- HAZARDOUS – wastes that are harmful to human health or the environment (for example, pollution of watercourses) if they are incorrectly contained, treated or disposed of. Hazardous wastes may have one or more of the following properties: explosive, corrosive, flammable, highly flammable, infectious, oxidising or sensitising.

3.1.1.2 Table 3.1 contains the general List of Waste Categories (also known as waste classification codes) for construction wastes. The waste codes for each waste type will be provided on each waste transfer note that will accompany every movement of waste from the Hornsea Three construction areas.

Table 3.1: List of waste categories for construction wastes.

17 Construction and demolition wastes (including excavated soil from contaminated sites – it should be noted that wastes types generated may not be restricted to this list)
17 01 Concrete, bricks, tiles and ceramics
17 01 01 Concrete
17 01 02 Bricks
17 01 03 Tiles and ceramics
17 01 06* Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances
17 01 07 Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02 Wood, glass and plastic
17 02 01 Wood
17 02 02 Glass
17 02 03 Plastic

17 Construction and demolition wastes (including excavated soil from contaminated sites – it should be noted that wastes types generated may not be restricted to this list)
17 02 04* Glass, plastic and wood containing or contaminated with dangerous substances
17 03 Bituminous mixtures, coal tar and tarred products
17 03 01* Bituminous mixtures containing coal tar
17 03 02 Bituminous mixtures other than those mentioned in 17 03 01
17 03 03* Coal tar and tarred products
17 04 Metals (including their alloys)
17 04 01 Copper, bronze, brass
17 04 02 Aluminium
17 04 03 Lead
17 04 04 Zinc
17 04 05 Iron and steel
17 04 06 Tin
17 04 07 Mixed metals
17 04 09* metal waste contaminated with dangerous substances
17 04 10* Cables containing oil, coal tar and other dangerous substances
17 04 11 Cables other than those mentioned in 17 04 10
17 05 Soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 03* Soil and stones containing dangerous substances
17 05 04 Soil and stones other than those mentioned in 17 05 03
17 05 05* Dredging spoil containing dangerous substances
17 05 06 Dredging spoil other than those mentioned in 17 05 05
17 05 07* Track ballast containing dangerous substances
17 05 08 Track ballast other than those mentioned in 17 05 07
17 06 Insulation materials and asbestos-containing construction materials
17 06 01* Insulation materials containing asbestos
17 06 03* Other insulation materials consisting of or containing dangerous substances
17 06 04 Insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 06 05* Construction materials containing asbestos
17 08 Gypsum-based construction material
17 08 01* Gypsum-based construction materials contaminated with dangerous substances

17 Construction and demolition wastes (including excavated soil from contaminated sites – it should be noted that wastes types generated may not be restricted to this list)
17 08 02 Gypsum-based construction materials other than those mentioned in 17 08 01
17 09 Other construction and demolition wastes
17 09 01* Construction and demolition wastes containing mercury
17 09 02* Construction and demolition wastes containing PCB (for example PCB-containing sealants, PCB-containing resin-based floorings, PCB-containing sealed glazing units, PCB-containing capacitors)
17 09 03* Other construction and demolition wastes (including mixed wastes) containing dangerous substances
17 09 04 Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03

* Denotes hazardous waste entry

3.2 Estimated Waste Arisings

3.2.1 Waste Types

3.2.1.1 The groupings of inert, non-hazardous and hazardous have been split into the key waste types based on the available design information. Where appropriate, the wastes are described according to the general List of Waste Categories for construction wastes. The list of wastes given in Appendix B is not exhaustive and may be extended as the detailed design and construction philosophy develops after consent.

3.2.2 Completing SWMP Data Sheets

3.2.2.1 The indicative types of waste to be generated from the construction of the onshore elements of Hornsea Three are identified in Appendix B. The forecast is a useful planning tool to record the types of waste that will be generated. Targets can then be set for different waste types and entered into a Waste Estimates Data Sheet (see Appendix C). This identifies how the waste types will be managed during the project (i.e. re-used on site, recycled off site etc).

3.2.2.2 Once construction is underway, the principal contractor will complete the Waste Management Data Sheet (see Appendix D). These sheets will be updated every time waste is removed from the site and will record:

- The types and quantities of waste produced;
- The types and quantities of waste that have been re-used/ recycled/ recovered/ landfilled or otherwise disposed of on or off site;
- The identity of the person removing the waste;
- The registration number of the waste carrier;
- A copy of or reference to the written description of the waste; and
- Details of the site where the waste is taken to and whether it holds a permit or is exempt.

3.2.2.3 The SWMP will be reviewed during the construction process to check progress in meeting the reuse/recycling targets and to identify if any changes are required to the waste management measures.

3.2.2.4 On completion of construction, a comparison of the estimated waste arisings (Appendix C) and the actual waste management data (Appendix D) will be undertaken (see paragraph 5.1.3.1). Any differences between the estimated and reported waste arisings will be used to assess the effectiveness of the waste minimisation and management measures as part of a lessons learnt exercise.

3.2.3 Setting Targets to Divert Waste from Landfill

3.2.3.1 A target has been set to reuse, recycle or recover 70% of overall construction waste generated by Hornsea Three. This target is in line with the target in the Waste (England and Wales) Regulations 2011 (as amended) and the Waste Framework Directive. This target is also in line with the good practice target set in the Building Research Establishment Environmental Assessment Methodology BREEAM New Construction Manual (BRE Global Ltd, 2018).

3.2.3.2 Further targets will be set to reduce, reuse or recycle key waste materials (for example, topsoil and stone) on and/or off the construction areas where applicable. Preliminary material targets are included in Appendix B. These targets will be re-visited and further targets will be added as the detailed design and the construction philosophy progress, typically post consent. The setting of targets allows the performance of the SWMP to be monitored and evaluated at the end of the construction period.

3.2.3.3 A target benchmark for resource efficiency will be set for the construction of the HVDC converter/HVAC substation and HVAC booster station. This would follow the construction resource efficiency benchmark set in the BREEAM New Construction Manual (BRE Global Ltd, 2018), which is 13.3 m^3 (or 11.1 tonnes) of non-hazardous construction waste generated per 100 m^2 (gross internal floor area).

3.2.3.4 The targets will be incorporated into the contract specifications with the principal contractor post-consent.

4. Management of Wastes from Hornsea Three Arisings

4.1 Waste Hierarchy

4.1.1.1 Construction waste generated from the development of Hornsea Three will be managed according to the principles of the waste hierarchy. The waste hierarchy ranks waste management options according to what is best for the environment. It gives top place to waste prevention. When waste has been generated, priority is given to preparing it for re-use, then recycling, then recovery, and last of all disposal (for example, landfill). The waste hierarchy is a key element of sustainable waste management and is a legal requirement of the revised EU Waste Framework Directive and the Waste (England and Wales) Regulations 2011.

4.1.1.2 Defra has published guidance on how the waste hierarchy should be applied to a range of common wastes (Defra, 2011). It summarises the findings of current scientific research on the environmental impacts of various waste management options for a range of materials and products. The guidance states that for most materials the waste hierarchy ranking applies. However, the evidence suggests that for some materials, the preferred waste management option (i.e. with the lowest environmental impact) does not follow the waste hierarchy order. This is true for lower grades of wood, where energy recovery options are more suitable than recycling.

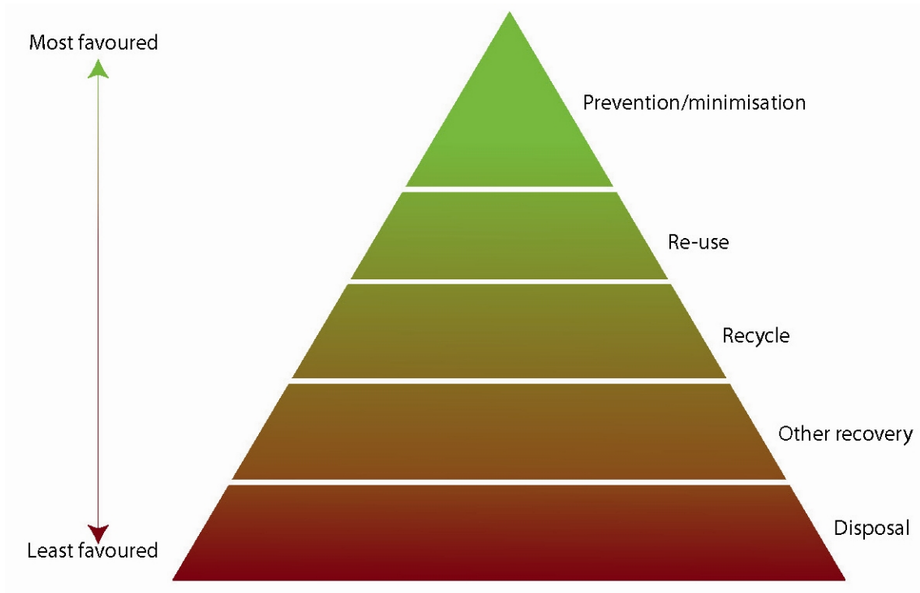

Figure 4.1: Waste Hierarchy

4.1.2 Prevention

4.1.2.1 Waste can be minimised during the detailed design stage and during construction. The following design measures will be implemented:

- Using pre-fabricated materials for on-site assembly;
- Buildings/structures designed to standard dimensions of blocks or frames to avoid off-cuts;
- Topsoil and subsoil generated from the site preparation works at the onshore HVAC booster station and HVDC converter/HVAC substation will be retained on site where possible to be used in the site restoration and landscaping; and
- Internal materials and fittings will be pre-cut to reduce the need for site cutting.

4.1.2.2 Waste will also be minimised by improving wastage rates when ordering materials. Waste allowances are generally included within material orders to take into account design waste and construction process waste. These waste allowances are often generic and not project specific and therefore, run the risk of being inaccurate. This can lead to a surplus of materials, which typically ends up being discarded (i.e. waste). A system will be put in place to enable the accurate estimates of material requirements (and waste allowances) at the detailed design stage.

4.1.2.3 On appointment of the construction team, the Buyer will discuss the purchasing requirements with the Site Manager to identify priorities and review the quotations received. Materials will be checked against the material specifications as part of the quality control system. Where possible, hazardous materials will be substituted for less hazardous alternatives.

4.1.2.4 Waste minimisation measures will be implemented by the principal contractor and Site Manager during construction in order to achieve the waste allowance targets. These measures include:

- Topsoil generated from the construction of the onshore cable corridor will be used as backfill to reinstate the trenches;
- A logistic system which allows 'just-in-time' deliveries to minimise the length of time materials are stored on site and co-ordinate with other trades;
- Providing suitable and secure storage for materials where 'just-in-time' deliveries cannot be set up;
- Mechanical systems and machinery will be considered for moving materials to reduce the risk of damage; and
- Programming and monitoring construction activities to avoid overlap of incompatible trades working in the same area and to reduce the potential for waste to be generated from replacing damaged work.

4.1.3 Preparing for Re-Use

4.1.3.1 The installation of the onshore cable corridor will require the construction of a temporary haul road and temporary compounds and storage areas. The haul road will be constructed of on average 600 mm depth of permeable crushed gravel aggregate with a geotextile membrane. For the compounds, a depth of 300 mm permeable aggregate would be used.

4.1.3.2 On completion of the cable installation works, the haul road will be dismantled (i.e. the gravel and membrane would be removed). The use of the geotextile membrane underneath the gravel will allow a greater proportion of the aggregate to be recovered as it would be easy to segregate from the underlying soil. Where possible, opportunities to re-use the aggregate to construct other elements of Hornsea Three would be investigated (e.g. to construct other sections of haul road, or compounds or the access road for the onshore HVDC converter/HVAC substation or onshore HVAC booster station). Landowners may also be given the option of re-using the stone on their land for maintaining farm tracks. Alternatively, the aggregate will be transported to a local waste management facility for re-use on construction projects elsewhere. Where possible, durable geotextile underlay/protective matting will be selected to allow its re-use on other projects.

4.1.3.3 Opportunities to reduce packaging or implement take-back schemes for packaging and unused materials will also be discussed with the suppliers.

4.1.4 Recycling

4.1.4.1 Wastes generated during the construction process will be segregated into waste types to facilitate off-site recycling (for example, metals, wood, plastic). Layout of the main compound, as well as the compounds at the onshore HVAC booster station, HVDC converter/HVAC substation and landfall areas will be designed to allow sufficient space for separate containers of key waste materials to be stored. These containers will be clearly labelled and construction staff will be given training on waste segregation.

4.1.4.2 Green waste generated during site preparation works will be composted off-site. Opportunities will be investigated to retain woody material on site for ecological habitats, however this would be subject to agreement with landowners.

4.1.4.3 The principal contractor will consider the use of recycled materials where possible, subject to client approval, cost and availability (for example, recycled aggregate and secondary aggregates for use in concrete, or granular fill).

4.1.5 Disposal

4.1.5.1 All waste that cannot be reused, recycled or recovered will be collected by the licensed waste management contractor and disposed of at a permitted site suitable for the type of waste. Burning of surplus material or material arising from the site construction of Hornsea Three will not be permitted.

4.1.6 Invasive species

4.1.6.1 If Japanese Knotweed (or other invasive species) is discovered on the site it will be managed in accordance with Natural England and Defra guidance (www.gov.uk/guidance/prevent-the-spread-of-harmful-invasive-and-non-native-plants) and the Environment Agency's code of practice (Environment Agency, 2007 Managing Japanese Knotweed on Development Sites: The Knotweed Code of Practice).

4.2 Storage of Waste

4.2.1.1 Waste storage areas will be provided at the main compound, the landfall construction compound and within the compounds at the onshore HVAC booster station, HVDC converter/HVAC substation and landfall areas. Smaller waste storage areas will be provided in the secondary compounds along the onshore cable corridor as required.

4.2.1.2 Each skip/container will be clearly marked to indicate the intended contents and will be suitable for the storage of the specified contents. All skips/containers will be covered to prevent the escape of waste by windblow or vandalism. If liquid waste is being stored, an appropriate bund and drip pans will be in place.

4.2.1.3 Storage areas will be located away from potential contaminant pathways such as soakaways and drains, trial pits, excavations and trenches.

4.2.1.4 Any hazardous waste will be stored safely in a designated area away from non-hazardous and inert wastes and labelled accordingly.

4.3 Registered Carriers

4.3.1.1 Construction waste generated by Hornsea Three will only be transported by companies registered with the EA and with valid waste carrier licences as required by the 'Waste Duty of Care Code of Practice' and legislation (i.e. Environmental Protection Act section 34 and the Waste (England and Wales) Regulations 2011).

5. Implementation of the SWMP

5.1 Roles and Responsibilities

5.1.1.1 Although the construction team has not been appointed at the time of writing this plan, the key roles and associated responsibilities with regard to this SWMP are outlined below. The Construction (Design and Management) Regulations 2015 also identify the legal duties, responsibilities and obligations of all the major roles within the construction team.

5.1.2 Undertaker

5.1.2.1 The Undertaker will be responsible for the following:

- Appointing onshore principal contractors for the purpose of the SWMP Regulations;
- Ensuring that this SWMP is implemented effectively;
- Giving necessary direction to contractors (for example, setting contractual obligations); and
- Reviewing, revising and refining this SWMP (where necessary) in conjunction with the principal contractor.

5.1.3 Principal Contractor

5.1.3.1 The principal contractor is generally appointed by the Undertaker and has the overall responsibility for:

- Updating and delivering this SWMP on behalf of the Undertaker;
- Ensuring all procedures in this SWMP are followed;
- Ensuring all contractors are suitably qualified and experienced in implementing the measures within this SWMP. These measures will be contained within the terms of contracts to ensure understanding and accountability;
- Ensuring that all legal and contractual requirements relating to this SWMP are met by ensuring adequate plans/procedures, licences and certificates are in place, and that they can be achieved;
- As a requirement of the SWMP the principal contractor will regularly (not less than every six months) review this SMWP to ensure that it accurately reflects the progress of the project and update where necessary;
- Establish procedures for the regular review and recording of the quality of the works as part of its Quality Management System;
- Maintain records relevant to this SWMP; and
- Within three months of work being completed, the principal contractor must confirm that this SWMP has been monitored (and updated) on a regular basis throughout the project; compare the actual waste quantities against the estimated quantities of each waste type; and provide an explanation of any deviation from this plan. This information will be provided within a Close Out report.

5.1.4 Contractors/Sub Contractors

5.1.4.1 Contractors and sub-contractors will be responsible for carrying out the waste management tasks in this SWMP.

5.2 Training

5.2.1.1 A training regime will be implemented to ensure that all relevant members of the onshore construction teams, including sub contractors' personnel receive focused SWMP training to ensure their competence in carrying out their duties on the project.

5.2.1.2 Any SWMP training will be additional to the mandatory training requirements on site Health and Safety.

5.2.2 Environmental Induction

5.2.2.1 A general site induction will be developed to introduce all site personnel to the environmental issues connected with the SWMP, important environmental controls associated with the day to day operation of the project and effective delivery of the SWMP (for example, waste storage arrangements, appropriate waste segregation). A full register of induction attendance will be maintained on site.

5.2.2.2 Onshore construction staff will be briefed on the SWMP and the waste management procedures to be followed.

5.2.3 Toolbox Talks and Method Statement Briefings

5.2.3.1 Toolbox talks and method statement briefings will be given to onshore construction teams as work proceeds and will cover the types of wastes produced at each key build stage, and the SWMP controls related to specific activities undertaken during the works (for example, recycling of concrete). A full register of toolbox talks and method statement briefing attendance will be maintained on site.

5.2.4 Training Records

5.2.4.1 All training records will be maintained and filed on site. The records will include the content of the courses (induction and toolbox training), record of attendance and schedule of review.

6. Audit, monitor and review

6.1 Site Inspection

6.1.1.1 Regular inspections of the onshore construction works will be undertaken by the principal contractor (or appropriately trained member of the construction staff) to ensure the continued compliance of site operations with the provisions of this SWMP and control measures outlined in relevant method statements.

6.2 Monitoring of the SWMP

6.2.1.1 Appropriate Duty of Care paper work for the movements of waste (for example, waste transfer notes) will be retained on site. Volumes (m^3 or tonnes) and waste types will be recorded for all wastes sent for reprocessing, recycling or disposal. Records will also be kept of waste re-used/recycled on site.

6.2.1.2 A separate SWMP Close Out Report will be compiled by the principal contractor or undertaker at the end of the construction process that summarises performance of the project against the targets set in the SWMP. The report will identify any deviations from the SMWP and discuss lessons learnt.

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Appendix A SWMP declaration.

Name of Developer	
Contact	
Principal Contractor	
SWMP Prepared By	
Date	
Project Details	
Estimated Build Cost of the Project	

Declaration	
All waste from the site will be dealt with in accordance with the duty of care in section 34 of the Environmental Protection Act 1990 and the duty of care provisions in the Waste (England and Wales) Regulations 2011 (formerly the Environmental Protection (Duty of Care) Regulations 1991). Materials will be handled efficiently and waste managed appropriately.	
Signature of the Developer	Signature of Principal Contractor

Appendix B Key Waste Forecasts

Construction Element	Material	Type of Waste	EWC Code	Estimated Quantity[1]	Target for re-use/recycle %
Construction of Hornsea Three - Onshore					
Landfall	Subsoil	Non-hazardous	17 05 04		100%
Onshore Cable Corridor	Topsoil Subsoil	Non- hazardous	17 05 04		100%
	Green waste		20 02 01		100% 100%
	Cable		17 04 11		70%
	Bentonite – drilling muds		01 05 99		70%
Jointing Pits	Subsoil	Non-hazardous	17 05 04		100%
Haul Road(s)	Stone	Non-hazardous	17 05 04 or 03		70%
Secondary Compounds	Stone	Non-hazardous	17 05 04 or 03		70%
HVDC converter/HVAC substation	Topsoil Subsoil	Non-hazardous	17 05 04		100%
	Green waste		20 02 01		100%
	Packaging waste		15 01 01 15 01 02		70%
	Concrete		17 01 01		70%
	Metal		17 04 07		70%
	Cable		17 04 11		70%
HVAC booster station	Topsoil Subsoil	Non-hazardous	17 05 04		100%
	Green waste		20 02 01		100%
	Packaging waste		15 01 01 15 01 02		70%
	Concrete		17 01 01		70%
	Metal		17 04 07		70%
	Cable		17 04 11		70%

Construction Element	Material	Type of Waste	EWC Code	Estimated Quantity[1]	Target for re-use/recycle %
Staff welfare areas	Paper and cardboard	Non-hazardous	20 01 01		100%
	Glass		20 01 02		100%
	Plastic		20 01 39		70%
	Food waste		20 01 08		70%

[1] The estimated quantity of waste types will be confirmed during detailed design.

Appendix C Indicative Waste Estimates Data Sheet Template (To be completed pre construction).

Waste Category & Type	EWC Code	Source of waste	Re-used on site (m^3)	Re-used off site (m^3)	Recycled on site (m^3)	Recycled off-site (m^3)	Recovered on site - use off site (m^3)	Sent to a Permit exempt site (m^3)	Sent to landfill site for disposal (m^3)
INERT									
Sub TOTAL			0.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-HAZARDOUS									
Sub TOTAL			0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAZARDOUS									
Sub TOTAL			0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL VOLUMES			0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix D Indicative Waste Management Data Sheet Template (To be completed each time waste is removed off site/re-used on site).

Waste Category & Type	EWC Code	Date	Waste Transfer Note Y/N	Name of person collecting waste	Waste carrier registration number	Name & location of waste site	Permitted or exempt site	Permit number	Re-used on site (tonnes)	Re-used off site (tonnes)	Recycled on site (tonnes)	Recycled off-site (tonnes)	Recovered on site - use off site (tonnes)	Landfill (tonnes)	Load cost £	Cost per tonne £
INERT																
Sub TOTAL									0.00	0.00	0.00	0.00	0.00	0.00		
NON-HAZARDOUS																
Sub TOTAL									0.00	0.00	0.00	0.00	0.00	0.00		
HAZARDOUS																
Sub TOTAL									0.00	0.00	0.00	0.00	0.00	0.00		
TOTAL VOLUMES									0.00	0.00	0.00	0.00	0.00	0.00		

Total Waste Landfilled	Weight (tonnes)
Inert	
Non-Hazardous	
Hazardous	
Total	0.00