

XLINKS' MOROCCO-UK POWER PROJECT

Appendix B - Outline Site Resource and Waste Management Plan

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XLINKS' MOROCCO – UK POWER PROJECT

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Glossary

Term	Meaning		
Applicant	Xlinks 1 Limited.		
Construction Environmental Management Plan	A document detailing the overarching management principles for construction, which includes construction-related environmental management measures, pollution prevention measures, the selection of appropriate construction techniques and monitoring processes.		
Converter Site	The Converter Site is proposed to be located to the immediate west of the existing Alverdiscott Substation Site in north Devon. The Converter Site would contain two converter stations (known as Bipole 1 and Bipole 2) and associated infrastructure buildings and landscaping.		
Converter station	Part of an electrical transmission and distribution system. Converter stations convert electricity from Direct Current to Alternating Current, or vice versa.		
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.		
HVAC Cable Corridors	The proposed corridors (for each Bipole) within which the onshore High Voltage Alternating Current cables would be routed between the Converter Site and the Alverdiscott Substation Site.		
Landfall	The proposed area in which the offshore cables make landfall in the United Kingdom (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Cornborough Range, Devon, between Mean Low Water Springs and the transition joint bays inclusive of all construction works, including the offshore and onshore cable routes, and landfall compound(s).		
Mean High Water Springs	The height of mean high water during spring tides in a year.		
Onshore HVDC Cable Corridor	The proposed corridor within which the onshore High Voltage Direct Current cables would be located.		
Onshore Infrastructure Area	The proposed infrastructure area within the Order Limits landward of Mean High Water Springs. The Onshore Infrastructure Area comprises the transition joint bays, onshore HVDC Cables, converter stations, HVAC Cables, highways improvements, utility diversions and associated temporary and permanent infrastructure including temporary compound areas and permanent accesses.		
Order Limits	The area within which all offshore and onshore components of the Proposed Development are proposed to be located, including areas required on a temporary basis during construction (such as construction compounds).		
Proposed Development	The element of Xlinks' Morocco-UK Power Project within the UK. The Proposed Development covers all works required to construct and operate the offshore cables (from the UK Exclusive Economic Zone to Landfall), Landfall, onshore Direct Current and Alternating Current cables, converter stations, and highways improvements.		
Site Resource and Waste Management Plan	A site resource and waste management plan aims to establish and estimate how much waste is produced by the Proposed Development and sets out how resources will be managed and waste controlled at all stages during construction activities.		
Xlinks' Morocco UK Power Project	The overall scheme from Morocco to the national grid, including all onshore and offshore elements of the transmission network and the generation site in Morocco (referred to as the 'Project').		

Acronyms

Acronym	Meaning			
CEP	Circular Economy Package			
CIRIA	Construction Industry Research and Information Association			
CL:AIRE	Contaminated Land Application in Real Environments			
DCO	Development Consent Order			
Defra	Department for Environment Food and Rural Affairs			
EIA	Environmental Impact Assessment			
HVAC	High Voltage Alternating Current			
HVDC	High Voltage Direct Current			
MHWS	Mean High Water Springs			
On-CEMP	Onshore Construction Environmental Management Plan			
SIC	Standard Industry Classification			
SRWMP	Site Resource and Waste Management Plan			
UK	United Kingdom			

Units

Units	Meaning
%	Percent
kg	Kilogram
m	Metre
m ³	Cubic metre

1 OUTLINE SITE RESOURCE AND WASTE MANAGEMENT PLAN

1.1 Introduction

- 1.1.1 This Outline Site Resource and Waste Management Plan (oSRWMP) is provided as an appendix to the Outline Onshore Construction Environmental Management Plan (On-CEMP) (document reference 7.7), which has been prepared for the United Kingdom (UK) elements of Xlinks' Morocco-UK Power Project (the 'Project'). For ease of reference, the UK elements of the Project are referred to as the 'Proposed Development'.
- 1.1.2 This document sets out the key management measures that will be implemented during the construction phase of the onshore elements of the Proposed Development. These elements occur landward of Mean High Water Springs (MHWS) and comprise of the following.
 - Converter stations: two independent converter stations, known as Bipole 1 and Bipole 2, to convert electricity from Direct Current (DC) to Alternating Current (AC) before transmission to the national grid.
 - Onshore High Voltage Alternating Current (HVAC) Cables: these cables would connect the converter stations to the national grid.
 - Onshore High Voltage Direct Current (HVDC) Cables: these cables would link the converter stations to the Landfall.
 - Highways improvements: improvements to the existing road network to facilitate access during construction, operation and maintenance, and decommissioning, including road widening, and new or improved junctions.
 - Temporary and permanent utility connections: temporary and permanent utility connections to the construction compounds and the Converter Site.
 - Permanent utility diversions: permanent diversion of existing utility services within the Onshore Infrastructure Area.
 - Landfall: the site at Cornborough Range where the offshore cables are jointed to the onshore cables. This term applies to the entire area between MHWS and the transition joint bays, within the Order Limits. This includes all construction works, including the offshore and onshore cable routes, and compound(s) at Landfall.
- 1.1.3 In addition to these elements, the Outline SRWMP also considers the temporary construction compounds, storage areas, landscaping and mitigation areas, and accesses required to support the construction of the Proposed Development.
- 1.1.4 The relevant planning authority for the Landfall and Onshore Infrastructure Area is Torridge District Council and Devon County Council (at the county level).

1.2 Purpose of the Outline Resource and Site Waste Management Plan

- 1.2.1 The draft Development Consent Order (DCO) (document reference 3.1) includes a requirement for the preparation of a final On-CEMP. The final On-CEMP(s) will be supported by a series of management plans including a SRWMP(s), which must be submitted to and approved by the relevant planning authority prior to the commencement of onshore works.
- 1.2.2 The purpose of this Outline SRWMP is to:
 - demonstrate how waste and the use of resources will be considered during the construction phase of the Proposed Development;
 - ensure compliance with legal requirements for managing waste, including the completion of duty of care paperwork;
 - set out measures for managing waste and resources during construction to meet legislative and policy requirements, including the waste hierarchy principle; and
 - identify the roles and responsibilities for implementing the measures in the SMWP.
- 1.2.3 This is an outline document that is based on the design set out in Volume 1, Chapter 3: Project description of the Environmental Statement (document reference 6.1.3).
- 1.2.4 The Outline SRWMP should be read in conjunction with the Outline On-CEMP (document reference 7.7) and its other supporting appendices.

1.3 Scope of this Outline Resource and Site Waste Management Plan

- 1.3.1 The scope of this Outline SRWMP applies to the onshore site preparation and construction activities of the Proposed Development located landward of Mean HIgh Water Springs (MHWS). The plan does not apply to activities associated with offshore works (i.e. seaward of MHWS).
- 1.3.2 Onshore preliminary activities will be undertaken prior to the commencement of construction. These works comprise the following:
 - pre-archaeological investigations;
 - early planting or landscaping works, where appropriate;
 - ecological and archaeological mitigation;
 - environmental surveys and monitoring;
 - site clearance (including vegetation clearance and site levelling)
 - investigations for the purpose of assessing ground conditions such as:
 - pre-entry soil surveys; and
 - drainage surveys.
 - erection of fencing and installation of temporary construction drainage;

- remedial work in respect of any contamination or other adverse ground conditions;
- the diversion of existing services and the laying of temporary services;
- the diversion or undergrounding of overhead cabling;
- site security works;
- establishing compounds and the erection of temporary hardstanding, buildings (e.g. welfare facilities), structures or enclosures;
- creation of site accesses;
- temporary display of site notices and site advertisements; and
- receipt and erection of construction plant and equipment.
- 1.3.3 The onshore preliminary activities listed in **paragraph 1.3.2** above will be carried out in accordance with the measures set out in this Outline SRWMP as part of the Outline On-CEMP, which is secured as a requirement of the DCO. This and other management plans in their outline form will be taken as approved at the grant of Development Consent and valid for the preliminary activities whereas the final SRWMP(s) as approved will apply to the main construction stage.
- 1.3.4 The final SRWMP(s) will be in general accordance with the principles established in the Outline SRWMP and will be agreed with Devon County Council prior to commencing the relevant stage of the onshore works (above MHWS). For the purpose of this plan, the term 'construction' includes all related engineering, construction and restoration activities as authorised by the DCO within the Order Limits.

1.4 Regulatory Framework and Guidance

Definition of Waste

- 1.4.1 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'.
- 1.4.2 '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'.
- 1.4.3 Guidance on the interpretation of the Waste Framework Directive definition of waste is taken from the Environment Agency's published guidance 'Check if your material is waste' (Environment Agency 2024), which provides a practical guide to help organisations make decisions about whether a material is a waste or not.
- 1.4.4 The document also takes into account CL:AIRE's Definition of Waste:
 Development Industry Code of Practice (CL:AIRE 2011). The Code of Practice 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'.
- 1.4.5 The Code of Practice will be considered by the Environment Agency in deciding whether to regulate materials as waste. If materials are dealt with in accordance with the Code of Practice, the Environment Agency considers that those materials are unlikely to be waste if they are used for the purpose of 'land development'.
- 1.4.6 The scope of the Code of Practice 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.

Legislation and Guidance

- 1.4.7 The UK legislative framework for the management of construction wastes comprises the following.
 - Environmental Protection Act 1990.
 - Environment Act 2021.
 - 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 (Circular Economy) (Amendment) Regulations 2020.
 - Technical guidance MW3: Waste Classification Guidance on the classification and assessment of waste (Environment Agency, 2014) (as updated in 2018).
 - Waste Duty of Care: Code of Practice (Defra, 2016).
- 1.4.8 Part II of the Environment Protection Act 1990 contains a prohibition on the unauthorised deposit of waste on land, a duty of care in relation to the transfer of waste, and defines, for the purpose of the Act, construction, demolition, commercial and industrial wastes.
- 1.4.9 The framework of waste management legislation in the UK is currently shaped 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 1.8.1 of this document) when transferring waste using the definitions in Article 3 of the Waste Framework Directive 2008/98/EC; and include a declaration on their waste transfer notes or consignment notes to that effect. Standard

- Industry Classification (SIC) Codes (Companies House, 2018) of the waste producer will also be provided in the waste transfer note. The SIC is a system for classifying industries by a five-digit code.
- 1.4.10 The Waste Regulations 2011 (as amended) also require that any organisation which collects waste paper, metal, plastic or glass must do so using separate collections to facilitate or improve recovery of these materials and where it is technically, environmentally and economically practicable.
- 1.4.11 The Environment Act 2021 provides a legal framework for environmental governance and makes specific provision for the improvement of the environment. Part 3 makes provisions for managing waste and producer responsibility including a revised extended producer responsibility scheme and powers to regulate resource efficiency information across a wider range of products.
- 1.4.12 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.
- 1.4.13 The Waste (Circular Economy) (Amendment) Regulations 2020 amends legislation that transposed waste-related EU Directives (including the Waste Framework Directive 2008/98/EU) and makes the legislative changes required to transpose the 2020 Circular Economy Package (CEP) measures. The CEP identifies steps for the reduction of waste and establishes a long-term plan for waste management and recycling.

1.5 Roles and responsibilities

Overview

1.5.1 The key roles and associated responsibilities with regard to this Outline SRWMP 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.

Applicant

- 1.5.2 The Applicant will be responsible for the following:
 - Ensuring that the SRWMP(s) is implemented effectively.
 - Giving necessary direction to contractors (for example, setting contractual obligations).
 - Reviewing, revising and refining the final SRWMP(s), where necessary, in conjunction with the Principal Contractor(s).

Principal Contractor(s)

- 1.5.3 The Principal Contractor(s) will be appointed by the Applicant and has the overall responsibility for the following:
 - Updating and delivering the final SRWMP(s) on behalf of the Applicant.

- Working with the client to identify opportunities to divert waste from landfill.
- Ensuring all procedures in the final SRWMP(s) are followed.
- Ensuring all contractors are suitably qualified and experienced in implementing
 the measures within the final SRWMP(s). These measures will be contained
 within the terms of contracts to ensure understanding and accountability.
- Ensuring that all legal and contractual requirements relating to the SRWMP(s)
 are met by ensuring adequate plans/procedures, licences and certificates are
 in place, and that they can be achieved.
- Ensuring that adequate waste collection systems are in place including frequent collections and that waste carriers are registered.
- Establish procedures for the regular review and recording of the quality of the works as part of its Quality Management System.
- Notify the Environment Agency if construction activities are anticipated to generate more than 500 kg of hazardous waste within a 12-month period.
- Maintain records relevant to the final SRWMP(s).
- Monitor compliance with the forecasts and measures in the final SRWMP(s) by regularly undertaking audits (at least once every three months) and preparing a report for management record. A review will be undertaken at least every six months or earlier where there has been a change to the works or relevant regulations.

Contractors/Sub-contractors

1.5.4 Contractors and sub-contractors will be responsible for carrying out the waste management tasks in the final SRWMP(s). All contractors producing construction waste will be responsible for ensuring their waste is managed in accordance with the legislative requirements set out **section 1.4.7** and the waste duty of care (set out in **section 1.7**). All waste carriers used to transport construction waste from the Proposed Development will be registered carriers with the Environment Agency. Contractors will also have to demonstrate how they have minimised waste and that they have considered opportunities to reuse or recycle their waste.

Training and Competence

- 1.5.5 The Applicant will ensure that all Principal Contractors and sub-contractors are made aware of the detailed SRWMP(s) and their responsibilities. Training will be provided by the Principal Contractor(s) to ensure that all relevant members of the onshore construction teams, including sub-contractors' personnel receive focused SRWMP training to ensure their competence in carrying out their duties. Any training related to the SRWMP will be additional to the mandatory training requirements on site Health and Safety.
- 1.5.6 A general site induction will be developed to introduce all site personnel to the environmental issues connected with the final SRWMP(s) and important environmental controls associated with the day-to-day construction activities (e.g. waste storage arrangements, appropriate waste segregation).
- 1.5.7 Onshore construction staff will be briefed on the final SRWMP(s) and the waste management procedures to be followed.

- 1.5.8 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 final SRWMP(s) controls related to specific activities undertaken during the works (for example, recycling of concrete). A register of toolbox talks and method statement briefing attendance will be maintained on site.
- 1.5.9 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.

1.6 Audit, Monitor and Review

Site Inspection

1.6.1 Regular inspections of the onshore construction works will be undertaken by the Principal Contractor(s) (or appropriately trained member of the construction staff) to ensure the continued compliance of site operations with the provisions of the final SRWMP(s) and control measures outlined in relevant method statements.

Monitoring of the Final Resource and Site Waste Management Plan(s)

- 1.6.2 Appropriate duty of care paperwork for the movements of waste (for example, waste transfer notes) will be retained on site. Volumes (m³ 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.
- 1.6.3 A separate SRWMP close out report will be compiled by the Principal Contractor(s) at the end of the construction process that summarises performance of the Proposed Development against the waste reduction targets (see paragraphs 1.9.17 to 1.9.22 below) set in the final SRWMP(s). The report will identify any deviations from the final SMWP(s) and discuss lessons learnt.

1.7 Key Obligations

Duty of Care

- 1.7.1 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' (Defra 2016). To meet these requirements, waste materials arising from construction 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.
- 1.7.2 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.

Pre-treatment of Wastes

1.7.3 Inert, non-hazardous and hazardous wastes destined to be landfilled will be pretreated 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.

1.8 Principles of the Resource and Site Waste Management Plan

Waste Hierarchy

- 1.8.1 The waste hierarchy ranks waste management options according to what is best for the environment (see **Plate 1.1**). 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 following the hierarchy is a legal requirement of the Waste (England and Wales) Regulations 2011 (as amended).
- 1.8.2 The Department for Environment, Food & Rural Affairs (Defra) (2011) has published guidance on how the waste hierarchy should be applied to a range of common wastes. It highlights the importance of prioritising waste management practices using a specified order to minimise any potential environmental impacts. 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.
- 1.8.3 All waste generated by the Proposed Development will be managed in accordance with the waste hierarchy unless it can be demonstrated that an alternative option lower down the hierarchy is the best overall environmental outcome (for example, waste wood is often used for biomass heat recovery rather than being recycled).

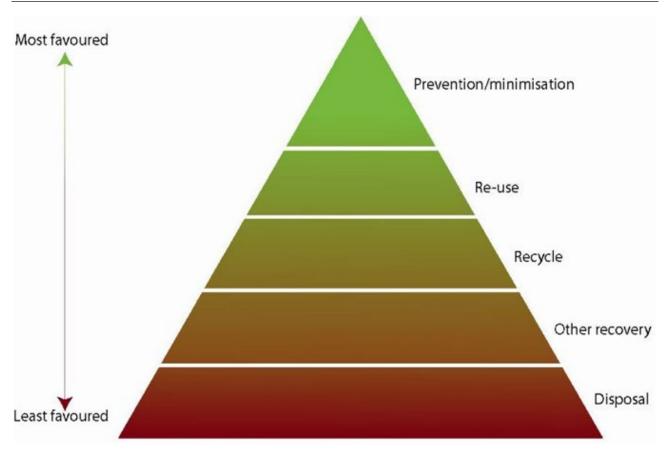


Plate 1.1: Waste hierarchy

Proximity Principle

1.8.4 The proximity principle is set out in Article 16 of the Waste Framework Directive (2008/98/EC) and transposed under regulation 18 of the Waste (England and Wales) Regulations 2011 (as amended). Where possible, construction waste from the Proposed Development will be managed at waste management sites close to the point of generation, subject to the waste management site having the relevant environmental permit and planning consent.

1.9 Management of Waste and Resources from the Proposed Development

Prevention

- 1.9.1 Waste can be minimised during the design stage, including the following measures:
 - using prefabricated materials for on-site assembly;
 - buildings/structures designed to standard dimensions of blocks or frames to avoid offcuts;
 - topsoil and subsoil generated from the site preparation works at the converter stations 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.
- 1.9.2 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).
- 1.9.3 On appointment of the principal contractor(s), the purchasing requirements will be discussed with the site manager(s) to identify priorities and review the quotations received. Materials will be checked against the material specifications as part of the quality control system.
- 1.9.4 Where possible, hazardous materials will be substituted for less hazardous alternatives.
- 1.9.5 Waste minimisation measures will be implemented by the principal contractor(s) and site manager(s) during construction in order to achieve the waste reduction targets (see paragraphs **1.9.17** to **1.9.22** below). These measures include:
 - subsoil and topsoil generated from the construction of the onshore cable corridors (HVAC and HVDC) 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.

Preparing for Re-use

- 1.9.6 The installation of the Onshore HVDC Cable Corridor will require the construction of a temporary haul road and temporary logistics compounds (including at the A39 and Gammaton Road Compound).
- 1.9.7 On completion of the cable installation works, the haul road will be dismantled. Where possible, opportunities to re-use the aggregate to construct other elements of the Proposed Development will be investigated. Landowners may also be given the option of re-using the stone on their land for maintaining farm tracks.
- 1.9.8 Alternatively, the aggregate will be transported to a local waste management facility for re-use on construction projects elsewhere. Opportunities to reduce packaging or implement take-back schemes for packaging and unused materials will also be discussed with the suppliers.

Recycling

1.9.9 The Principal Contractor(s) will consider the use of recycled materials where possible, subject to cost, availability and technical durability (for example, recycled aggregate and secondary aggregates for use in concrete, or granular fill).

- 1.9.10 During construction, wastes will be segregated into waste types to facilitate offsite recycling (for example, metals, wood, plastic). The layout of the construction site has been 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.
- 1.9.11 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. For example, the Outline Landscape and Ecology Management Plan (document reference 7.10) states that woody material is cut from boundaries or hedges that act as corridors for dormice it would be let *in-situ* to create a dead hedge in the gap until the second stage of vegetation clearance.
- 1.9.12 A responsible approach would be taken in managing resources in the construction phase. Specification of construction materials would follow best practice in selecting material that is responsibly sourced with low environmental impact and maximising efficient use of resources. All timber products would be responsibly sourced from reputable suppliers as per the UK Government's Timber procurement policy (Defra, 2013).

Disposal

1.9.13 All waste that cannot be reused, recycled or recovered would 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 would not be permitted.

Storage of Waste

- 1.9.14 Dedicated waste storage areas would be provided within each temporary construction compound. Each skip/container would be clearly marked to indicate the intended contents and would be suitable for the storage of the specified contents. All skips/containers would be covered to prevent the escape of waste by wind blow or vandalism. If liquid waste is being stored, an appropriate bund and drip pans would be in place.
- 1.9.15 Storage areas would be located away from potential contaminant pathways such as drains, and excavations and trenches. Any hazardous waste would be stored safely in a designated area away from non-hazardous and inert wastes and labelled accordingly.

Register Carriers

1.9.16 Construction waste generated will only be transported by companies registered with the Environment Agency 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).

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Setting Targets for Resource Efficiency and to Divert Waste from Landfill

- 1.9.17 Resource efficiency targets will be set during the detailed designed stage for specific materials. This will include targets for alternative aggregates (comprising secondary aggregates and recycled aggregates) and recycled content materials such as steel reinforcement subject to the appropriate specifications for the Proposed Development being met.
- 1.9.18 The Applicant will aim to achieve the following target for construction waste (excluding spoil) generated by the Proposed Development:
 - Divert 80% (by weight) of non-hazardous construction waste (i.e. non-demolition waste) from landfill.
- 1.9.19 Diversion from landfill will be achieved through a combination of on-site and offsite reuse, recycling and recovery opportunities subject to the construction programme and available capacity on the site.
- 1.9.20 The targets exceed the target set by the Waste (England and Wales) Regulations 2011 (as amended), which requires that a minimum of 70% of construction and demolition waste should be prepared for reuse, recycling or other material recovery.
- 1.9.21 Where applicable, further targets would be set during the detailed design stage to reduce, reuse or recycle key waste materials on- and off-site. The targets will be incorporated into the contract specifications with contractors post consent.
- 1.9.22 Non-hazardous excavated spoil will primarily be re-used on the site and managed through the CL:AIRE Code of Practice. The Applicant will aim to maximise re-use of the non-hazardous excavated spoil on site. The remaining material will be taken off site: the Proposed Development will aim to divert all of this material from landfill where possible.

1.10 Identification of Waste Arisings

Waste Types

- 1.10.1 At a strategic level, the key waste types generated from the construction of the Proposed Development can be classified as follows.
 - 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 deposited 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.
 - Hazardous wastes that are harmful to human health or the environment (for example, causing pollution of watercourses) if they are incorrectly handled, stored, treated or disposed of. Hazardous wastes may have one or more of the following properties: explosive, corrosive, flammable, highly flammable, infectious, oxidising or sensitising.

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- 1.10.2 As a requirement of the CEP, the definitions of these waste types have been amended in line with the wording from Article 2(a) of the Landfill Directive.
- 1.10.3 The construction of the onshore elements of the Proposed Development is anticipated to generate a number of different waste types. This will include (but is not limited to) wastes contained within the following list of waste categories (also known as waste classification codes, as identified in Environment Agency 2018):
 - 01 05 drilling muds and other drilling wastes;
 - 13 02 waste engine, gear and lubricating oils;
 - 13 08 oil wastes not otherwise specified;
 - 15 01 packaging (including separately collected municipal packaging waste);
 - 16 07 wastes from transport tank, storage tank and barrel cleaning
 - 17 01 concrete, bricks, tiles and ceramics;
 - 17 02 wood, glass and plastic;
 - 17 03 bituminous mixtures, coal tar and tarred products;
 - 17 04 metals (including their alloys);
 - 17 05 soil (including excavated soil from contaminated sites), stones and dredging spoil;
 - 17 06 insulation materials and asbestos-containing construction materials;
 - 17 08 gypsum-based construction material; and
 - 17 09 mixed construction and demolition wastes.
- 1.10.4 It is noted that a number of sub-categories of wastes are included within the above. The waste codes for each specific waste type will be provided on each waste transfer note that will accompany every movement of waste from construction areas.

Estimated Waste Arisings

- 1.10.5 The final SRWMP(s) will include waste and resource use forecasts that will be prepared alongside the detailed design process. The final SRWMP(s) will be updated during the construction phase to document progress against waste management forecasts. This will also allow for any changes either to the works or to accommodate new regulatory requirements.
- 1.10.6 An indicative forecast of key wastes likely to be generated form the construction of the onshore elements of the Proposed Development is provided in **Table 1.1.** The list of wastes is not exhaustive and may be extended as the detailed design and construction philosophy develops after consent.

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Table 1.1: Indicative forecast of key wastes

Construction Element	Material	Type of Waste	European Waste Catalogue code	Preferred Management Method
Landfall	Green Waste	Non hazardous	20 02 01	Recycle - compost
	Topsoil Subsoil	Non hazardous	17 05 04	Re-use
	Bentonite – drilling muds	Non hazardous	01 05 99	Recycle
Onshore HVDC	Green waste	Non hazardous	20 02 01	Recycle - compost
Cable Corridor	Topsoil Subsoil	Non hazardous	17 05 04	Re-use
	Concrete	Non hazardous	17 01 01	Recycle
Onshore HVAC	Green waste	Non hazardous	20 02 01	Recycle - compost
Cable Corridors	Topsoil Subsoil	Non hazardous	17 05 04	Re-use
Haul Road	Stone / aggregates	Non hazardous	17 05 04 or 03	Re-use
Converter Site	Stones	Non hazardous	17 05 04 or 03	Re-use
	Topsoil Subsoil	Non hazardous	17 05 04	Re-use on site, where possible
	Green waste	Non hazardous	20 02 01	Recycle - compost
	Packaging materials (paper, cardboard, plastic or wooden packaging)	Non hazardous	15 01 01 to 03	Re-use / recycle
	Packaging containing residues of or contaminated by dangerous substances	Hazardous	15 01 10*	Disposal
	Mixed construction and/or demolition waste	Non hazardous	17 09 04	Recycle and disposal
	Mixed metals	Non hazardous	17 04 07	Recycle
	Timber	Non hazardous	17 02 01	Recycle / recovery
ı	Plasterboard / gypsum	Non hazardous	17 08 02	Recycle / disposal
	Bituminous mixtures	Non hazardous	17 03 02	Re-use / recycle
	Inert mixture: concrete, bricks, other.	Non hazardous	17 01 01 or 02	Recycle
	Plastic	Non hazardous	17 02 03	Recycle
	Insulation materials (other than those mentioned in 17 06 01 and 17 06 03)	Non hazardous	17 06 04	Recycle / disposal
	Other construction and demolition wastes (including	Hazardous	17 09 03*	Disposal

Construction Element	Material	Type of Waste	European Waste Catalogue code	Preferred Management Method
	mixed wastes) containing hazardous substances			
	Waste electrical and electronic equipment (WEEE)	Non hazardous	20 01 36	Recycle
	Other waste engine, gear or lubricating oils	Hazardous	13 02 08*	Recovery
	Oil wastes not otherwise specified	Hazardous	13 08 99*	Recovery
	Wastes from storage tanks and barrels containing oils	Hazardous	16 07 08*	Recovery
	Paints, adhesives and resins containing dangerous substances	Hazardous	20 01 27*	Treatment and recovery, or disposal
Construction Compounds	Packaging materials (paper, cardboard, plastic or wooden packaging)	Non hazardous	15 01 01 to 03	Re-use / recycle
	Packaging containing residues of or contaminated by dangerous substances	Hazardous	15 01 10*	Disposal
	Other waste engine, gear or lubricating oils	Hazardous	13 02 08*	Recovery
	Oil wastes not otherwise specified	Hazardous	13 08 99*	Recovery
	Wastes from storage tanks and barrels containing oils	Hazardous	16 07 08*	Recovery
	Mixed construction and demolition wastes	Non hazardous	17 09 04	Recycle and disposal
	Mixed metals	Hazardous	16 07 08*	Recovery
	Bentonite – drilling muds (at HDD compounds)	Non hazardous	01 05 99	Recycle
Highways	Green Waste	Non hazardous	20 02 01	Recycle - compost
Improvements	Topsoil Subsoil	Non hazardous	17 05 04	Re-use

Construction Element	Material	Type of Waste	European Waste Catalogue code	Preferred Management Method
Staff Welfare Areas	Canteen/Office/Adh oc waste	Non hazardous	20 03 01	Recycle or recovery
	Glass	Non hazardous	20 01 02	Recycle
	Paper and cardboard	Non hazardous	20 01 01	Recycle
	Plastic	Non hazardous	20 01 39	Recycle
	Food waste	Non hazardous	20 01 08	Recycle or recovery
	Sanitary waste	Non hazardous	18 01 04	Treatment

- 1.10.7 Prior to construction, waste estimates will be reviewed and updated accordingly to reflect changes to detailed design decisions, or construction methodologies. Any updates to the waste estimates will be recorded together with an explanation of the changes.
- 1.10.8 Once construction is underway, the Principal Contractors will complete Waste Management Data Sheets. These sheets will be updated every time waste is removed from the site and will record the following:
 - 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 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 its permit number.
- 1.10.9 Waste management data will be compiled into monthly reports to monitor progress toward achieving the targets and corrective action will be taken as required.
- 1.10.10 On completion of construction, a comparison of the estimated waste arisings and the actual waste management data will be undertaken. Any differences between the estimated and actual waste arisings will be used to assess the effectiveness of the waste minimisation and management measures.

1.11 References

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