Partners in UK offshore wind

MONA OFFSHORE WIND PROJECT

Outline Site Waste Management Plan

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Acronyms

Acronym	Description
CCBC	Conwy County Borough Council
CEP	Circular Economy Package
CL:AIRE	Contaminated Land Application in Real Environments
CIRIA	Construction Industry Research and Information Association
CoCP	Code of Construction Practice
CoP	Code of Practice
DCC	Denbighshire County Council
DCO	Development Consent Order
EIA	Environmental Impact Assessment
GPP	Guidance for Pollution Prevention
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MMP	Materials Management Plan
NRW	Natural Resources Wales
SIC	Standard Industry Classification
TAN	Technical Advisory Note

Units

Unit	Description
%	Percentage
m	Metres
kg	Kilograms

1 Outline site waste management plan

1.1 Overview

1.1.1.1 This Outline Site Waste and Resources Management Plan is provided as an appendix to the Outline Code of Construction Practice (CoCP) (Document Reference J26). It sets out the key management measures that will be implemented during the construction phase of the Mona Offshore Wind Project.

1.1.1.2 The Plan seeks to manage potential impacts that occur from the construction of the onshore and intertidal elements of the Mona Offshore Wind Project. These elements occur landward of Mean Low Water Springs (MLWS) and comprise:

- Mona Landfall
- Onshore Cable Corridor
- Onshore Substation
- 400 kV Grid Connection Cable Corridor.

1.1.1.3 In addition to these elements, the Outline Site Waste Management Plan also considers the temporary construction compounds, storage areas, mitigation areas and accesses required to support the construction of the Mona Offshore Wind Project.

1.1.1.4 The relevant planning authority for the landfall and the western section of the Onshore Cable Corridor (i.e. west of Bodelwyddan) is Conwy County Borough Council (CCBC); the relevant planning authority for the eastern section of the Onshore Cable Corridor, the Onshore Substation and the 400 kV Grid Connection Cable Corridor is Denbighshire County Council (DCC).

1.2 Purpose of the Outline Site Waste and Resources Management Plan

1.2.1.1 The draft Development Consent Order (DCO) (Document Reference C1) includes a requirement for the preparation of a final CoCP. The final CoCP will be supported by a series of management plans including a Site Waste Management Plan (as part of the final CoCP), which must be submitted to and approved by the relevant planning authority prior to the commencement of onshore works.

1.2.1.2 The purpose of this Outline Site Waste Management Plan is to:

- Demonstrate how waste and the use of resources will be considered during the construction phase of the Mona Onshore Development Area
- 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
- Identify the roles and responsibilities for implementing the measures in the Plan.

1.2.1.3 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 F1.3).

1.2.1.4 The Outline Site Waste Management Plan should be read in conjunction with the Outline CoCP (Document Reference J26) and its supporting appendices.

1.3 Scope of this Outline Site Waste Management Plan

1.3.1.1 The scope of this Outline Site Waste Management Plan applies to the onshore site preparation works and construction activities of the Mona Offshore Wind Project located landward of MLWS. The Plan does not apply to activities associated with offshore works (i.e. seaward of MLWS).

1.3.1.2 Onshore site preparation works will be undertaken prior to the commencement of construction. These works will be undertaken in line with this certified Outline Site Waste Management Plan certified through the DCO. The final Site Waste Management Plan will be in accordance with the principles established in the Outline Site Waste Management Plan and will be agreed with the relevant authority prior to commencing construction of the relevant stage of the onshore and intertidal works (above MLWS). 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

1.4.1 Definition of Waste

1.4.1.1 The definition of waste is important because the classification of substances as a waste is the basis for the application of regulatory controls to protect the environment and human health.

1.4.1.2 For the purpose of this Outline Site Waste Management Plan, 'waste' has been defined in accordance with 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 to discard or is required to discard'.

1.4.1.3 'Discard' includes the recovery and recycling of a substance as well as its disposal in order to ensure that recovery operations are carried out in a way which protects the environment and human health. 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 (2008/98/EC), which are:

'the protection of human health and the environment against harmful effects caused by the collection, transport, treatment, storage and tipping of waste'.

1.4.1.4 This definition is still applicable in the UK and was not amended as part of the Waste (Miscellaneous Amendments) (EU Exit) Regulations 2019.

1.4.2 Legislative Framework

1.4.2.1 The UK 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)
- Waste Management (England and Wales) Regulations 2006
- Waste (Wales) Measure 2010

- Waste (England and Wales) Regulations 2011 (as amended)
- Environmental Permitting (England and Wales) Regulations 2016 (as amended)
- Environment (Wales) Act 2016
- Waste (Circular Economy) (Amendment) Regulations 2020.

1.4.2.2 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 and demolition and commercial and industrial wastes.

1.4.2.3 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.

1.4.2.4 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.

1.4.2.5 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.

1.4.2.6 The Hazardous Waste (England and Wales) Regulations 2005 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. If construction activities are anticipated to generate more than 500 kg of hazardous waste within a 12-month period, Natural Resources Wales (NRW) will be notified.

1.4.2.7 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.

1.4.2.8 One of the CEP measures relates to preparing waste for reuse and recycling. It states that legislative changes and industry guidance will be implemented to:

- Promote the selective demolition to enable the removal and safe handling of hazardous substances
- Facilitate the reuse and high-quality recycling by selective removal of materials
- Ensure the establishment of sorting systems for construction and demolition waste at least for wood, mineral fractions, metal, glass, plastic and plaster.

1.4.2.9 The CEP also requires that records must be kept of the material and product quantities resulting from preparing for reuse, recycling or other recovery of hazardous waste. These records must also be made available to relevant regulators (Natural Resources Wales) through the electronic registry.

1.4.2.10 This Outline Site Waste Management Plan also takes into account the definition of waste by Contaminated Land: Applications in Real Environments (CL:AIRE) 'Definition of Waste: Development Industry Code of Practice (CoP) (CL:AIRE, 2011). CL:AIRE is an independent body that promotes the sustainable remediation of contaminated land. The CoP provides a consistent and transparent process which enables the reuse of excavated materials on site or their movement between sites. It 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 excavated waste can cease to be waste for a particular use.'

1.4.2.11 NRW will take the CoP into account when deciding whether to regard materials as a waste. If materials are dealt with in accordance with the CoP, NRW considers that those materials are unlikely to be waste if they are used for the purpose of 'land development'.

1.4.2.12 The CoP requires that a CL:AIRE Materials Management Plan (MMP) is prepared to demonstrate that the material will not harm human health or the environment. A MMP will be prepared post consent that is in accordance with the CL:AIRE CoP and will be approved by NRW and CL:AIRE.

1.4.2.13 The CL:AIRE MMP will relate to excavated material, which will include:

- Soil, both topsoil and subsoil, parent material and underlying geology
- Made ground
- Stockpiled excavated materials that include the above.

Technical Advice Note 21 (2014)

1.4.2.14 The Technical Advice Note (TAN) provides advice on how the land use planning system should contribute towards sustainable waste management and resource efficiency.

Towards Zero Waste – One Wales: One Planet (2010)

1.4.2.15 The overarching waste strategy for Wales sets out the long term framework for resource efficiency and waste management up until 2050. Towards Zero Waste is supported by a suite of waste sector plans which detail the outcomes, targets and policies to be implemented.

1.5 Guidance Documents

1.5.1.1 The following guidance documents relevant to waste management have been considered:

- Waste Duty of Care: Code of Practice (Defra and Environment Agency, 2018)
- Definition of Waste: Development Industry Code of Practice version 2 (CL:AIRE, 2011)

- Designing Out Waste: A Design Team Guide for Civil Engineering (WRAP, 2010)
- Building Research Establishment Environmental Assessment Methodology BREEAM New Construction Manual (BRE Global Ltd, 2018)
- Embedding circular economy principles into infrastructure operator procurement activities (Major Infrastructure – Resource Optimisation Group (MI-ROG), 2016).

1.6 Implementation of the Site Waste Management Plan

1.6.1 Overview

1.6.1.1 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 Outline Site Waste Management Plan 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.

1.6.2 Roles and Responsibilities

Applicant

1.6.2.1 The Applicant will be responsible for the following:

- Ensuring that the Site Waste Management Plan is implemented effectively
- Giving necessary direction to contractors (for example, setting contractual obligations)
- Reviewing, revising and refining the detailed Site Waste Management Plan (where necessary) in conjunction with the Principal Contractor.

Principal Contractor

1.6.2.2 The Principal Contractor will be appointed by the Applicant and has the overall responsibility for:

- Updating and delivering the detailed Site Waste Management Plan on behalf of the Applicant
- Working with the client to identify opportunities to divert waste from landfill
- Ensuring all procedures in this Site Waste Management Plan are followed
- Ensuring all contractors are suitably qualified and experienced in implementing the measures within this Site Waste and Resources Management Plan. 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 Site Waste Management Plan 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 NRW if construction activities are anticipated to generate more than 500 kg of hazardous waste within a 12-month period
- Maintain records relevant to this Site Waste Management Plan
- Monitor compliance with the forecasts and measures in the Site Waste Management Plan 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.
- Within three months of construction completed, 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.

Contractors/Sub contractors

1.6.2.3 Contractors and sub contractors will be responsible for carrying out the waste management tasks in this Site Waste Management Plan. All contractors producing construction waste will be responsible for ensuring their waste is managed in accordance with the legislative requirements set out section 1.4.2 and the waste duty of care (set out in section 1.7.1). All waste carriers used to transport construction waste from the Mona Offshore Wind Project will be registered carriers with NRW. Contractors will also have to demonstrate how they have minimised waste and that they have considered opportunities to reuse or recycle their waste.

1.6.3 Training

1.6.3.1 The Applicant will ensure that all Principal Contractors and subcontractors are made aware of the detailed Site Waste Management Plan and their responsibilities. Training will be provided by the Principal Contractor to ensure that all relevant members of the onshore construction teams, including sub contractors' personnel receive focused Site Waste Management Plan training to ensure their competence in carrying out their duties.

1.6.3.2 Any training related to the Plan will be additional to the mandatory training requirements on site Health and Safety.

Environmental induction

1.6.3.3 A general site induction will be developed to introduce all site personnel to the environmental issues connected with the Site Waste Management Plan and important environmental controls associated with the day-to-day construction activities (e.g. waste storage arrangements, appropriate waste segregation).

1.6.3.4 Onshore construction staff will be briefed on the Site Waste Management Plan and the waste management procedures to be followed.

Toolbox talks and method statement briefings

1.6.3.5 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 Site Waste Management Plan 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.

Training records

1.6.3.6 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.

1.7 Key Obligations

1.7.1 Duty of Care

1.7.1.1 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' (Defra, 2018). To meet these requirements, waste materials arising from the construction of Mona Offshore Wind Project will only be transported by waste carriers and hazardous waste carriers holding a valid registration with NRW. 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. Compliance with the duty of care requirements will be monitored using site inspections and breaches will be recorded. Periodic audits will also be undertaken of the waste facilities used by the Mona Offshore Wind Project.

1.7.2 Pre-treatment of wastes

1.7.2.1 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.

1.8 Principles of the Site Waste Management Plan

1.8.1 Waste hierarchy

1.8.1.1 The waste hierarchy ranks waste management options according to what is best for the environment (see Figure 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).

1.8.1.2 Welsh Government has published guidance on how the waste hierarchy should be applied to a range of common wastes (Guidance on applying the Waste Hierarchy, Welsh Government, 2012). 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.

1.8.1.3 All waste generated by the Mona Offshore Wind Project 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).

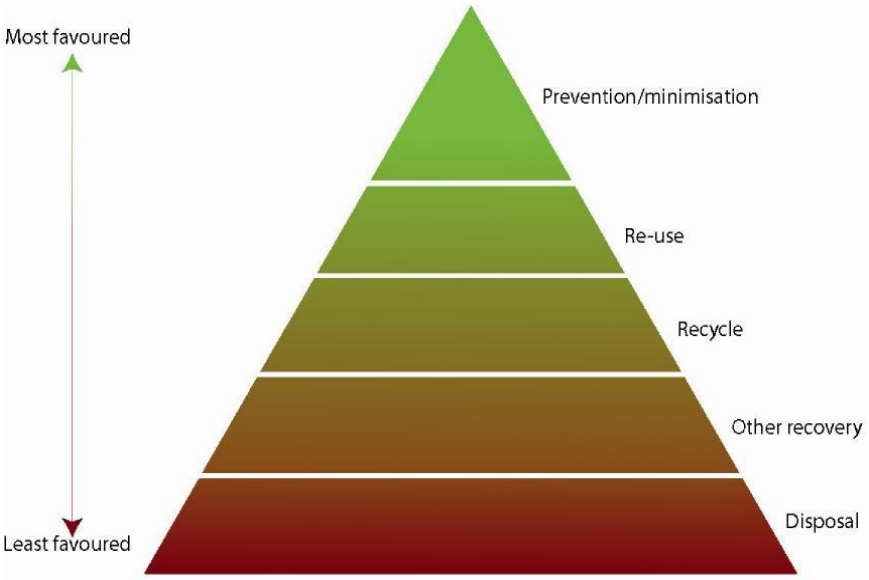

Figure 1.1: Waste hierarchy.

1.8.2 Proximity principle

1.8.2.1 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 Mona Offshore Wind Project 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 Mona Offshore Wind Project

1.9.1 Prevention

1.9.1.1 The majority of opportunities to minimise the amount of waste occur during the design stage. The detailed design of the Onshore Substation, access road and structures will seek to maximise resource efficiency by considering the following circular economy principles:

- Designing out waste – ensuring that waste reduction is planned in from project inception to completion
- Designing for longevity
- Designing for adaptability or flexibility
- Designing for disassembly
- Using systems, elements of materials that can be reused or recycled.

1.9.1.2 Designing out waste opportunities will be investigated by the Mona Offshore Wind Project; these opportunities will be identified during detailed design and will be set out in the detailed Site Waste Management Plan:

- Designing compounds to enable segregation and storage of waste, to facilitate offsite recycling or recovery
- Setting overall targets to divert waste from landfill
- Setting overall resource efficiency targets.

1.9.1.3 The overall objective for managing earthwork materials will be to maximise material reuse, reduce truck movements as far as possible in handling materials, and reduce the amount of material that must be taken for management off-site. The fundamental principles of material reuse are set out below:

- Maximise reuse of materials
- Minimise handling of materials
  - Keep material on-site, wherever possible, as close to the excavation and deposit sites as feasible
  - Make use of stockpiles on site to store the material until it is needed.
- Minimise the amount of material sent for management offsite

1.9.1.4 Non-hazardous excavated spoil will be reused on site where possible. The re-use of this material will be managed in accordance with the CL:AIRE CoP. The process will be documented in a MMP that will be prepared post consent and prior to construction. It will set out the management of excavated material on the site and provides the evidence needed to avoid this material being deemed to be a waste.

1.9.1.5 Designing out waste opportunities will be investigated further during detailed design and will be reported in the detailed Site Waste Management Plan. The opportunities will include:

- Using off site manufacture of design elements
- Improving wastage rates during procurement
- Purchase requirements.

1.9.1.6 Opportunities will be considered for offsite manufacture of design elements and using pre-fabricated materials for on-site assembly. Buildings/structures will be designed to standard dimensions of blocks or frames to minimise off-cuts; and internal materials and fittings would be pre-cut to reduce the need for site cutting.

1.9.1.7 On appointment of the construction team, the buyer would discuss the purchasing requirements with the site manager to identify priorities and review the quotations received. Materials would be checked against the material specifications as part of the quality control system. During procurement the buyer will agree minimum allowed

variances in the delivered quantities of material compared to the design quantity (i.e. the quantity ordered). Where possible, hazardous materials will be substituted for less hazardous alternatives.

1.9.1.8 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 would be put in place to improve on existing estimates of material requirements (and waste allowances) at the detailed design stage.

1.9.1.9 The following measures will be implemented during construction to minimise the quantities of waste requiring disposal:

- A logistics system which allows 'just-in-time' deliveries to minimise the length of time materials are stored on site which increases the risk of damage and disposal as waste
- Providing suitable and secure storage for materials where 'just-in-time' deliveries cannot be set up
- Agreements with material suppliers to reduce the amount of packaging
- Mechanical systems and machinery would be considered for moving materials to reduce the risk of damage
- Where possible, 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.

1.9.2 Recycling

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

1.9.2.2 During construction, wastes will be segregated into waste types to facilitate off-site 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.

1.9.2.3 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).

1.9.3 Disposal

1.9.3.1 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.

1.9.4 Storage of Waste

1.9.4.1 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 (refer to the Outline spillage and emergency response plan (Document reference J26.1).

1.9.4.2 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.

1.9.5 Setting Targets for Resource Efficiency and to Divert Waste from Landfill

1.9.5.1 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 Mona Offshore Wind Project being met.

1.9.5.2 The Mona Offshore Wind Project will aim to achieve the following target for construction waste (excluding spoil) generated by the Project:

- Divert 80% (by weight) of non-hazardous construction waste (i.e. non-demolition waste) from landfill.

1.9.5.3 Diversion from landfill will be achieved through a combination of on-site and off-site reuse, recycling and recovery opportunities subject to the construction programme and available capacity on the site.

1.9.5.4 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.

1.9.5.5 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.

1.9.5.6 Non-hazardous excavated spoil will primarily be re-used on the site and managed through the CL:AIRE CoP. The Mona Offshore Wind Project will aim to maximise re-use of the non-hazardous excavated spoil on site. The remaining material will be taken off site: the Project will aim to divert all of this material from landfill where possible.

1.10 Estimated Waste Arisings

Waste Categories

1.10.1.1 At a strategic level, the key waste types generated from the construction of the Mona Offshore Wind Project 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.

1.10.1.2 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.

1.10.1.3 Waste from the construction process will be described according to the general List of Waste Categories. The list has been taken from the 'Guidance on the classification and assessment of waste' (1st Edition v1.2.GB) Technical Guidance WM3 (Environment Agency *et al.* 2021). The waste code, together with any other relevant observations about the waste will be recorded on the waste transfer note. An indicative forecast of key wastes likely to be generated form the construction of the onshore and intertidal elements of the Mona offshore Wind Project is provided in Table 1.1. The list of wastes is not exhaustive.

1.10.1.4 The detailed Site Waste Management Plan will include waste and resource use forecasts that will be prepared alongside the detailed design process. The detailed Site Waste Management Plan 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.

Table 1.1: Indicative forecast of key wastes.

Construction element	Material	Type of waste	EWC Code	Preferred management method
Landfall	Green waste	Non hazardous	20 02 01	Recycle - compost
	Topsoil Subsoil	Non hazardous	17 05 04	Re-use
	Cables - copper	Non-hazardous	17 04 11	Recycle
	Bentonite – drilling muds	Non hazardous	01 05 99	Recycle
Onshore Cable Corridor and 400 kV Grid Connection Corridor	Green waste	Non hazardous	20 02 01	Recycle - compost
	Topsoil Subsoil	Non hazardous	17 05 04	Re use on site where possible
Haul road	Stone	Non hazardous	17 05 04 or 03	Re use
	Stone	Non hazardous	17 05 04 or 03	Re use

Construction element	Material	Type of waste	EWC Code	Preferred management method
Construction compounds	Paper and cardboard packaging	Non hazardous	15 01 01	Recycle
	Plastic packaging	Non hazardous	15 01 02	Re-use/recycle
	Wooden packaging	Non hazardous	15 01 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 metals	Non hazardous	17 04 07	Recycle
	Mixed construction and demolition wastes	Non hazardous	17 09 04	Recycle and disposal
Onshore Substation	Topsoil Subsoil	Non hazardous	17 05 04	Re use on site where possible
	Green waste	Non hazardous	20 02 01	Recycle – compost
	Stone	Non hazardous	17 05 04 or 03	Re use
	Paper and cardboard packaging	Non hazardous	15 01 01	Recycle
	Plastic packaging	Non hazardous	15 01 02	Re-use/recycle
	Wooden packaging	Non hazardous	15 01 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 metals	Non hazardous	17 04 07	Recycle
	Mixed construction and demolition wastes	Non hazardous	17 09 04	Recycle and disposal
	Iron and steel	Non hazardous	17 04 05	Recycle

Construction element	Material	Type of waste	EWC Code	Preferred management method
	Aluminium	Non hazardous	17 04 02	Recycle
	Wood	Non hazardous	17 02 01	Recycle/recovery
	Bituminous mixtures	Non hazardous	17 03 02	Re use/recycle
	Concrete	Non hazardous	17 01 01	Recycle
	Solvents	Hazardous	20 01 13*	Treatment and recovery
	Paints, adhesives and resins containing dangerous substances	Hazardous	20 01 27*	Treatment and recovery or disposal
Staff welfare areas	Paper and cardboard	Non hazardous	20 01 01	Recycle
	Glass	Non hazardous	20 01 02	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

1.10.1.5 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.

1.10.1.6 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 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
- Details of the site where the waste is taken to and its permit number.

1.10.1.7 Waste management data will be compiled into monthly reports to monitor progress toward achieving the targets and corrective action will be taken as required.

1.10.1.8 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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