

MONA OFFSHORE WIND PROJECT

Preliminary Environmental Information Report

Outline Code of Construction Practice



April 2023
FINAL

Image of an offshore wind farm

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
Rev01	For client comment	RPS	bpEnBW		10/02/2023
Rev02	Updated with client comments	RPS	bpEnBW		28/02/2023
Rev03	Final	RPS		bpEnBW	11/03/2023

The report has been prepared for the exclusive use and benefit of our client and solely for the purpose for which it is provided. Unless otherwise agreed in writing by RPS Group Plc, any of its subsidiaries, or a related entity (collectively 'RPS') no part of this report should be reproduced, distributed or communicated to any third party. RPS does not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report. The report does not account for any changes relating to the subject matter of the report, or any legislative or regulatory changes that have occurred since the report was produced and that may affect the report.

The report has been prepared using the information provided to RPS by its client, or others on behalf of its client. To the fullest extent permitted by law, RPS shall not be liable for any loss or damage suffered by the client arising from fraud, misrepresentation, withholding of information material relevant to the report or required by RPS, or other default relating to such information, whether on the client's part or that of the other information sources, unless such fraud, misrepresentation, withholding or such other default is evident to RPS without further enquiry. It is expressly stated that no independent verification of any documents or information supplied by the client or others on behalf of the client has been made. The report shall be used for general information only.

Prepared by:

RPS

Prepared for:

Mona Offshore Wind Ltd.

Contents

1	CODE OF CONSTRUCTION PRACTICE.....	1
1.1	Introduction.....	1
1.1.1	Overview.....	1
1.2	Purpose of the Outline CoCP.....	1
1.3	Scope of the Outline CoCP.....	1
1.4	Structure of the Outline CoCP.....	1
1.5	Accompanying documents to the CoCP.....	2
1.6	Roles and responsibilities.....	3
1.6.1	Project team.....	3
1.7	General principles.....	3
1.7.1	Introduction.....	3
1.7.2	Construction principles.....	3
1.7.3	Health and safety principles.....	3
1.7.4	Environmental management.....	4
1.7.5	Outline and detailed CoCPs.....	4
1.7.6	Construction method statements.....	4
1.7.7	Training.....	4
1.8	General requirements.....	4
1.8.1	Programme.....	4
1.8.2	Working hours.....	4
1.8.3	General site layout and good housekeeping.....	5
1.8.4	Site security, screening and fencing.....	5
1.8.5	Lighting.....	5
1.8.6	Management of construction waste.....	5
1.8.7	Materials management.....	5
1.8.8	Pest control.....	6
1.8.9	Emergency planning and procedures.....	6
1.8.10	Pollution incident control.....	6
1.8.11	Communication plan.....	6
1.9	Temporary construction compounds.....	6
1.9.2	Clearance of site on completion.....	8
1.10	Management of onshore environmental issues.....	9
1.10.1	Traffic management.....	9
1.10.2	Noise and vibration.....	10
1.10.3	Dust and air quality management.....	10
1.10.4	Protection of the surface water and groundwater environment.....	11
1.10.5	Onshore ecology and nature conservation.....	12
1.10.6	Landscape and visual resources.....	13
1.11	References.....	14

Tables

Table 1.1:	Documents to support the implementation of the CoCP.....	2
------------	--	---

Figures

Figure 1.1:	Temporary construction compound zones.....	7
-------------	--	---

Glossary

Term	Meaning
Flood defences	A structure that is used to reduce the probability of floodwater affecting a particular area.
Fluvial flooding	Fluvial flooding occurs when rivers burst their banks as a result of sustained or intense rainfall
Ordinary watercourses	A river, stream, ditch, cut, sluice, dyke or non-public sewer that is not a designated Main river, and for which the local authority has flood risk management responsibilities and powers.
Surface water runoff	Surface water runoff is flow of water that occurs when excess stormwater, meltwater, or other sources of water flows over a surface.
Tidal (Coastal) flooding	Tidal flooding is caused by extreme tidal conditions including high tides and storm surges, overtopping local flood defences or coastal features
Water quality	The physical, chemical and biological characteristics of water.

Acronyms

Acronym	Description
ALO	Agricultural Liaison Officer
BCT	Bat Conservation Trust
BS	British Standard
CCBC	Conwy County Borough Council
CL:AIRE	Contaminated Land: Applications in Real Environments
CLO	Community Liaison Officer
CoCP	Code of Construction Practice
COSHH	Control of Substances Hazardous to Health
CTMP	Construction Traffic Management Plan
DCC	Denbighshire County Council
DCO	Development Consent Order
ECoW	Ecological Clerk of Works
EHO	Environmental Health Officer
EIA	Environmental Impact Assessment
EMS	Environmental Management System
HDD	Horizontal Directional Drilling
HELMP	Hydrology, Ecology and Landscape Management Plan
HGV	Heavy Goods Vehicle

Acronym	Description
IAQM	Institute of Air Quality Management
LLFA	Lead Local Flood Authority
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MMP	Materials Management Plan
NRW	Natural Resources Wales
PEIR	Preliminary Environmental Information Report
PRoW	Public Right of Way
SRN	Strategic Road Network
SWMP	Site Waste Management Plan
TCC	Temporary construction compounds
WSI	Written Scheme of Investigation

Units

Unit	Description
%	Percentage
km ²	Square kilometres

1 Code of Construction Practice

1.1 Introduction

1.1.1 Overview

1.1.1.1 A joint venture of bp Alternative Energy investments Ltd (hereafter referred to as bp) and Energie Baden-Württemberg AG (hereafter referred to as EnBW) on behalf of Mona Offshore Wind Project Limited (hereafter referred to as the Applicant), is developing the Mona Offshore Wind Project. This Outline Code of Construction Practice (CoCP) supports the Preliminary Environmental Information Report (PEIR) for the Mona Offshore Wind Project.

1.1.1.2 This Outline CoCP presents the framework and outline of measures to manage the environmental impacts during the construction phase of the Mona Offshore Wind Project. The Plan focuses on potential impacts that occur landward of Mean Low Water Springs (MLWS): potential impacts seaward of MLWS will be documented in the Environmental Management Plan that will accompany the Environmental Statement and application for a Development Consent Order (DCO).

1.1.1.3 The elements of the Mona Offshore Wind Project that occur landward of MLWS (and the focus of the Outline CoCP) are as follows:

- Mona Landfall area (between MLWS and Mean High Water Springs (MHWS))
- Mona Onshore Cable Corridor
- Mona Onshore Substation
- Mona 400kV Grid Connection Cable Corridor

1.1.1.4 In addition to the above elements, the Outline CoCP will also consider the temporary construction compounds, storage areas and accesses required to support the construction of the landfall and onshore elements of the Mona Offshore Wind Project.

1.1.1.5 The onshore and intertidal elements of the Mona Offshore Wind Project will be constructed within the following Local Authorities:

- Conwy County Borough Council (CCBC)
- Denbighshire County Council (DCC).

1.1.1.6 The Applicant intends to commence construction of the Mona Offshore Wind Project in 2026 and for it to be fully operational by 2030 in order to help meet UK and Welsh Government renewable energy targets.

1.2 Purpose of the Outline CoCP

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

1.2.1.2 This is an outline document that sets out the key measures that have been identified as part of the Environmental Impact Assessment (EIA) process and the design of the Mona Offshore Wind Project as reported in volume 1, chapter 3: Project description of the PEIR. This is to ensure that any potential construction impacts reported in the PEIR will either be formerly controlled or mitigated.

1.2.1.3 This Outline CoCP incorporates legislative requirements, current standards and best practice measures to define the standards of construction practice that contractors will be required to adopt and implement. However, compliance with this Outline CoCP will not absolve the Applicant, principal contractors or subcontractors from compliance with all legislation and byelaws relating to their construction activities.

1.3 Scope of the Outline CoCP

1.3.1.1 The term 'construction' in this Outline CoCP includes all site preparation, Heavy Goods Vehicle (HGV) deliveries, waste removal, and all related engineering, construction and restoration activities as authorised by the DCO within the Order Limits.

1.3.1.2 This Outline CoCP is a 'living' document that will be updated as required during the application process, during the Examination Phase following more detailed engagement with stakeholders, and post examination by way of instruction of the Examining Authority and Secretary of State.

1.3.1.3 A detailed CoCP or number of detailed CoCPs will be prepared following the principles established in this Outline CoCP. The detailed CoCP will be developed during the detailed design stage (post consent) and will reflect the different construction methodologies and techniques associated with each stage of the Mona Offshore Wind Project. The detailed CoCP will also include site-specific control measures required to mitigate the construction impacts likely to be encountered at these locations. Construction will not commence until the relevant detailed CoCP for the stage(s) has been agreed with the Local Planning Authority in consultation with the relevant stakeholders.

1.4 Structure of the Outline CoCP

1.4.1.1 This Outline CoCP follows the structure below:

- Section 1.5 sets out the documents that will be included in the CoCP
- Section 1.6 identifies the key roles and responsibilities of the project team
- Section 1.7 set out the general principles for the implementation of the CoCP
- Section 1.8 describes the general requirements that will be implemented during construction
- Section 1.10 identifies the management measures for each environmental topic listed below:
 - Traffic management
 - Noise and vibration
 - Dust and air quality
 - Protection of surface water and groundwater environment

- Onshore ecology and nature conservation
- Landscape and visual resources.

1.5 Accompanying documents to the CoCP

1.5.1.1 The detailed CoCP(s) will be supported via a series of management plans. Table 1.1 sets out the documents that will append the CoCP and the purpose of each document. An outline version of these plans will be provided with the DCO application; for some of the plans, draft measures have been included in this outline CoCP.

Table 1.1: Documents to support the implementation of the CoCP.

Document	Purpose of the document	Status
Spillage and Emergency Response Plan	To set out emergency procedures in case of spillages, leaks or accidents.	Outline version of the Plan to accompany the DCO application.
Air Quality and Dust Management Plan	To set out dust and air quality control measures in line with Institute of Air Quality Management guidance.	Draft measures included in this Outline CoCP. Outline version of the Plan to accompany the DCO application.
Noise and Vibration Management Plan	To set out details of Best Practicable Means to manage noise levels and noise monitoring during construction.	Outline version of the Plan to accompany the DCO application.
Construction Traffic Management Plan	To set out details of routes for construction traffic; delivery timings and logistics; location of wheel wash facilities.	Draft measures included in this Outline CoCP. Outline version of the Plan to accompany the DCO application.
Construction Workforce Travel Plan	To set out measures for managing the travel of the construction workforce.	Outline version of the Plan to accompany the DCO application.
Communications Plan	To set out a framework for engaging stakeholders (i.e. sets out methods of contacting and engaging with affected groups; methods of providing advance notifications); roles and responsibilities for implementing the communication plan; and complaints procedure.	Outline version of the Plan to accompany the DCO application.
Construction Fencing Plan	To set out the type of fencing, its location, its maintenance during construction and its removal.	Outline version of the Plan to accompany the DCO application.
Tree Retention Plan	To identify the location of trees to be retained with details of the fencing to be provided.	Outline version of the Plan to accompany the DCO application.
Surface water and Groundwater Protection Plan	To set out measures to protect surface water and groundwater during construction including pollution prevention measures.	Draft measures included in this Outline CoCP. Outline version of the Plan to accompany the DCO application.
Flood Management Plan	To set out the measures designed to manage flood risk during construction. The plan will include flood warning and evacuation procedures and key contacts.	Outline version of the Plan to accompany the DCO application.

Document	Purpose of the document	Status
Public Rights of Way Management Plan	To set out management measures for public rights of way including bridleways and footpaths and other routes for non-motorised users during the construction.	Outline version of the Plan to accompany the DCO application.
Soil Management Plan	To set out measures to conserve soil resources; avoid damage to soil structure; maintain soil drainage during construction; and identify principles for the reinstatement of the soil profile following the construction.	Outline version of the Plan to accompany the DCO application.
Site Waste Management Plan	To manage wastes generated during the construction phase of Mona Offshore Wind Project.	Outline version of the Plan to accompany the DCO application.
Artificial Light Emissions Plan	To set out construction lighting requirements and the measures to control light spill.	Outline version of the Plan to accompany the DCO application.
Biosecurity Protocol	To set out the measures for managing biosecurity risks, including invasive species, diseases and pathogens.	Outline version of the Plan to accompany the DCO application.
Outline Construction Method Statements	To set out details of the construction methods, types of plant and monitoring for key construction activities (e.g. primary Horizontal Directional Drilling (HDD) crossings; watercourse crossing method statement. The crossing of the Llanddulas Beach Landfill).	Outline crossing method statement and a crossing schedule will accompany the DCO application.

1.5.1.2 The construction activities of Mona Offshore Wind Project will also be managed through management plans that will sit outside the CoCP. These plans and the measures they will contain are set out below:

- A Hydrological, Ecological and Landscape Management Plan (HELMP) to include:
 - The drainage scheme for the Mona Onshore Substation
 - A plan identifying the location of key habitats (e.g. ancient woodland and watercourses) and any buffers from construction activity
 - Management of habitats and protected species during pre-construction, construction and post construction
 - The design and management objectives of the landscape scheme for existing and proposed vegetation
 - Planting specification including planting mixes for the Mona Onshore Substation
 - Post-construction monitoring and reporting requirements
- A Written Scheme to deal with any Contamination of Land to include:
 - Procedures if previously unidentified contamination of land or groundwater is discovered during construction.

- A Written Scheme of Investigation (WSI) is to provide further consideration of archaeology. The scope of work to be undertaken to mitigate those direct physical impacts on the historic environment above MHWS such as:
 - Targeted archaeological investigation
 - Procedures if previously unidentified heritage assets are discovered during construction (a “chance find” procedure)
 - Completion of archaeological evaluation (geophysical surveys, trial trenching etc.) where required
 - Archaeological watching brief during topsoil stripping (where required)
- A Field drainage strategy will be developed in consultation with landowners. Any field drainage intercepted during the cable installation will either be reinstated following the installation of the cable or diverted to a secondary channel. Any works undertaken will be agreed with the appropriate stakeholders
- Onshore Substation Design Principles Statement detailing the design principles which will set out the layout, scale and external appearance of the Onshore Mona Substation buildings
- Highways Access Management Plan that sets out detail on the location, frontage, general layout and visibility for access for the:
 - Temporary construction compounds
 - Mona Onshore Substation
 - Mona Onshore Cable Corridor.

1.6 Roles and responsibilities

1.6.1 Project team

1.6.1.1 Whilst the key roles for the construction project team will not be assigned until post consent, the environmental roles required to implement the Outline CoCP are set out below.

Site Manager

1.6.1.2 The Site Manager will be responsible for maintaining the CoCP document and systems as a working document; ensuring environmental standards are adhered to and monitoring compliance during construction; carrying out regular monitoring and inspections of construction work activities; and undertaking staff induction courses on environmental issues.

Environmental Co-ordinator

1.6.1.3 The Environmental Co-ordinator will be responsible for the interface between the environmental specialists and engineers. They will have the primary responsibility for managing environmental issues through the construction and post-construction monitoring and for obtaining the relevant licences and consents.

Clerk of Works

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

Ecological Clerk of Works

1.6.1.5 The Ecological Clerk of Works (ECoW) will report on ecological matters and would be responsible for undertaking preconstruction surveys and monitoring.

Agricultural Liaison Officer

1.6.1.6 The Agricultural Liaison Officer (ALO) will be appointed prior to the commencement of pre-construction activities and will be the prime contact for ongoing engagement about practical matters with landowners, occupiers and their agents before and during the construction process.

Community Liaison Officer

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

1.7 General principles

1.7.1 Introduction

1.7.1.1 This section sets out the over-arching principles being proposed for the implementation of the CoCP.

1.7.2 Construction principles

1.7.2.1 The Mona Offshore Wind Project will be constructed in an environmentally sensitive manner and will meet the requirements of all relevant legislation, codes of practice and standards as identified in the DCO, Environmental Statement and any updates to legislation or standards adopted at the time of construction, to limit the adverse impacts on the local community and environment as far as reasonably practicable.

1.7.3 Health and safety principles

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

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

1.7.4 Environmental management

1.7.4.1 Each principal contractor is to be British Standard (BS) EN ISO 14001 (Environmental Management System (EMS)) certified. The EMS will provide the process for which environmental management is undertaken to ensure that the relevant findings of the Environmental Statement are addressed during the construction phase. The EMS will set out:

- The procedures to be implemented to monitor compliance with environmental legislation and other relevant requirements
- The key environmental aspects of the construction works and how they will be managed
- Staff competence and training requirements
- Record-keeping arrangements
- Monitoring compliance and the effectiveness of the measures included within the CoCP, as approved by the relevant Local Planning Authority in consultation with the relevant stakeholders.

1.7.4.2 As part of their EMS, the principal contractors will be required to plan their works in advance to ensure the works incorporate measures to reduce environmental effects.

1.7.5 Outline and detailed CoCPs

1.7.5.1 The Outline CoCP, as approved by the Secretary of State, and later the detailed CoCP will be incorporated into the contracts for the principal contractors of all onshore and intertidal works authorised by the DCO. All principal contractors, subcontractors and their suppliers will be required to comply with all provisions of the Outline CoCP and detailed CoCP and provide evidence on how they will ensure its requirements are implemented and monitored.

1.7.5.2 During the construction process, the implementation of the measures within the detailed CoCP will be monitored to ensure the measures are implemented correctly and that the measures remain effective. Management measures will be updated where necessary in discussion with the Local Planning Authority.

1.7.6 Construction method statements

1.7.6.1 Construction method statements describe how specific construction activities will be undertaken. The method statements will be based on construction industry good practice guidance, legislative requirements and measures from the detailed CoCP. Method statements will be prepared for construction activities such as the watercourse crossings, the landfall construction and the trenchless crossing at Gwrych Hill.

1.7.7 Training

1.7.7.1 All onshore and intertidal construction staff employed on the Mona Offshore Wind Project will receive training on their responsibilities for minimising the risk to the environment and implementing the measures set out in the CoCP.

1.7.7.2 The principal contractors will ensure that contractors employ an appropriately qualified and experienced workforce. The principal contractors will also be responsible for

identifying the training needs of their personnel to enable appropriate training to be provided. The training will include site briefings and toolbox talks to equip the workforce with the necessary knowledge on health, safety and environmental topics, and the relevant environmental control measures pertinent to works to be carried out that day.

1.8 General requirements

1.8.1 Programme

1.8.1.1 The programme for the construction of the Mona Proposed Offshore Wind Project is set out in volume 1, chapter 3: Project description of the PEIR.

1.8.2 Working hours

Core working hours

1.8.2.1 Core working hours for the construction of the onshore and intertidal elements of the Mona Offshore Wind Project are as follows:

- 07:00 to 19:00 Monday to Saturday
- No core working proposed on Sundays or bank holidays
- Up to one hour before and after core working hours for mobilisation (“mobilisation period”)

1.8.2.2 During the mobilisation period, the contractor may undertake the following activities:

- Arrival and departure of the workforce at the site, and movement to and from areas across the project
- Site inspections and safety checks; site meetings (briefings and quiet inspections/walkovers)
- Site clean-up (site housekeeping that does not require the use of plant)
- Low-key maintenance including site maintenance, safety checking of plant and machinery (provided this does not require or cause hammering or banging).

1.8.2.3 Mobilisation does not include heavy good vehicle (HGV) movements into and out of construction areas (i.e. HGV movements should only occur at the construction areas during the core working hours unless otherwise agreed) but suppliers can make use of the wider highway network outside these hours to travel.

Continuous working hours

1.8.2.4 In certain circumstances, specific works may have to be undertaken on a continuous working basis (00:00 to 00:00 Monday to Sunday).

1.8.2.5 During this period, the contractor may undertake the following activities as follows on a continuous cycle (no further consent required):

- Running of support generators or emergency backup supplies
- Remedial works, for example in the event of severe weather
- Security of sites and protection of open assets.

1.8.2.6 During this period, the contractor may also undertake the following activities subject to obtaining agreement with the relevant local authority Environment Health Officer (EHO) in consultation with relevant stakeholders as required:

- HDD operations. These activities may require 24-hour machinery operation, dependent on the ground conditions
- Substation component installation
- Oil filling of transformers at the Mona Onshore Substation
- Jointing operations along the Mona Onshore Cable Corridor
- Programme of safety critical operations.

Activities outside of the core working hours

1.8.2.7 It may be beneficial to carry out several activities outside of the core working hours such as abnormal loads/construction plant delivery, works within the highway/footpaths, or works affecting operational railways.

1.8.2.8 Activities outside of the core working hours will be agreed with the relevant local authority EHO officer in consultation with relevant stakeholders (e.g. third-party asset owner) as required.

1.8.3 General site layout and good housekeeping

1.8.3.1 Where reasonably practicable, measures will be taken to contain and limit the visual intrusion of the onshore construction sites. Where possible, the location and layout of the compounds (e.g. siting of welfare facilities) will be designed to avoid overlooking residential properties. If requested by the Local Planning Authority or Natural Resources Wales (NRW), layout plans of the construction compounds will be provided, showing any sensitive areas and buffer zones (e.g. ecological habitats or protected species), and areas where storage of potential pollutants (e.g. fuels, oils and other chemicals) will be avoided.

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

- All working areas will be kept in a clean and tidy condition
- Adequate welfare facilities will be provided for the construction staff – including mess rooms, locker rooms, showers and toilet facilities in compliance with The Construction (Design and Management) Regulations 2015
- Smoking areas at site offices/compounds or work sites will be equipped with containers for smoking wastes – these will not be located at the boundary of working areas or adjacent to neighbouring land
- Wheel washing facilities will be cleaned frequently
- Open fires will be prohibited at all times
- All necessary measures will be taken to minimise the risk of fire and the contractor will comply with the requirements of the local fire authority
- Waste from the construction areas will be stored securely to prevent wind blow

- Waste (particularly food waste) will be removed from the welfare facilities at frequent intervals.

1.8.4 Site security, screening and fencing

1.8.4.1 Construction compounds will be secured to minimise the opportunity for unauthorised entry. Temporary fencing will also be provided along the Mona Onshore Cable Corridor, Mona 400kV Grid Connection Cable Corridor and Mona Onshore Substation. The type of fencing will be selected to suit the location and purpose.

1.8.5 Lighting

1.8.5.1 External lighting of the construction site will be designed and positioned to:

- Provide the necessary levels for safe working
- Minimise light spillage or pollution
- Minimise disturbance to adjoining residents and occupiers of buildings and to wildlife.

1.8.5.2 Lighting during construction will take into account the requirements set out in British Standard EN 12464-2:2014 (BSI, 2014) and the Bat Conservation Trust (BCT) Guidance Note 8 Bats and artificial lighting (BCT, 2018). Lighting units will be designed to minimise illumination outside the construction works area (e.g., will be directional, task orientated and where possible, fully shielded and will include directional beams, non-reflective surfaces and barriers and screens). Construction phase lighting will be limited to permitted working hours in low light conditions, with lower-level security lighting outside these times. Dark corridors will remain in place during the construction phase. Details regarding the location, height, design and luminance of all floodlighting during construction including measures to limit obtrusive glare to nearby properties will be set out in the detailed Artificial Lighting Emissions Plan that will be progressed post-consent.

1.8.6 Management of construction waste

1.8.6.1 Waste from the construction of the Mona Offshore Wind Project will be managed in accordance with the principles of the waste hierarchy (i.e. avoid, reduce, reuse, recycle, recover and disposal). A Site Waste Management Plan (SWMP) will accompany the application for development consent. The SWMP will be updated during the detailed design process and will be maintained during the construction process to record the movement of waste from the construction areas. All waste will be transported and managed by appropriately licenced contractors and subject to the duty of care requirements.

1.8.7 Materials management

1.8.7.1 A Materials Management Plan (MMP) will be prepared during the detailed design process and will be agreed prior to earthworks commencing. The MMP will be prepared in line with the CL:AIRE (Contaminated Land: Applications in Real Environments) Definition of Waste: Development Industry Code of Practice (CL:AIRE, 2011).

1.8.8 Pest control

1.8.8.1 The risk of pest/vermin infestation will be reduced by ensuring any putrescible waste is stored appropriately and regularly collected from the construction areas, and effective preventative pest control measures are implemented. Any pest infestation will be dealt with promptly and notified to the relevant local authority as soon as practical.

1.8.9 Emergency planning and procedures

1.8.9.1 Emergency procedures will be developed by each principal contractor for the onshore elements of the Mona Offshore Wind Project, taking into account the anticipated hazards and the conditions at each work site. The procedures will be documented in an Emergency Response Plan and will include emergency pollution control measures (based on NRW guidelines where appropriate), fire and site evacuation, and spill prevention control procedures and instructions to workforce. The Emergency Response Plan will also contain emergency phone numbers and the method of notifying local authorities and statutory authorities. The procedures will be displayed at the work sites and all site staff will be required to follow them.

1.8.10 Pollution incident control

1.8.10.1 The principal contractor will develop and implement appropriate measures to control the risk of pollution due to construction works, materials and extreme weather events. This will include a Pollution Control Plan, which recognises the risk of pollution from construction activities and presents pro-active management practices to ensure that any pollution that may occur is minimised, controlled, reported to the relevant parties and remediated.

1.8.11 Communication plan

1.8.11.1 The Applicant or principal contractor will implement a proactive approach in communications. Occupiers of nearby properties and relevant planning authorities will be informed in advance of works taking place, (in particular, those affecting Public Right of Way (PRoW) and local roads) including the duration of the works. The means of notification will be confirmed as the communication plan is developed post consent.

1.8.11.2 A complaints procedure will be implemented during the construction process. Complaints will be investigated and, where required, mitigation will be implemented. All complaints will be logged and the response will be recorded. A framework of the Communications Plan will be provided in the Outline CoCP supporting the DCO application and will be developed post-consent when principal contractors are appointed.

1.9 Temporary construction compounds

1.9.1.1 A hierarchy of temporary construction compounds (TCCs) will be provided to support the construction of the intertidal and onshore elements of the Mona Offshore Wind Project. Zones of where the compounds may be located are shown on Figure 1.1. The compounds will be located within the Mona Proposed Onshore Development Area.

Soils will be removed and stored; crushed stone or other suitable material will be used across the entire area to create hardstanding.

Substation construction compound

1.9.1.2 A construction compound will be required at the Mona Onshore Substation. The compound will be located within the temporary working area and provide offices, welfare facilities, storage of plant and equipment and parking for construction staff.

1.9.1.3 It is anticipated that construction access to the Mona Onshore Substation site will use the proposed permanent access route, albeit during construction, a temporary surface may be used. This access route will need to be installed early in the construction process.

Primary construction compounds

1.9.1.4 There will be up to two primary compounds within the Mona Proposed Onshore Development Area to support the construction of the onshore export cables. They will operate as a central base for the onshore construction works and will house the central offices, welfare facilities, and stores, as well as acting as a staging post and secure storage for equipment and component deliveries.

1.9.1.5 The primary construction compounds will be fenced and on-site security will be deployed on a continuous basis if deemed necessary by the contractor. The primary construction compounds may include:

- Portacabin with offices, briefing and welfare facilities
- Staff car parking
- Wheel wash facilities (if deemed necessary)
- Indoor and outdoor lock-up storage areas
- Storage for cables, cable drums, ducting and other construction materials including soil and aggregate
- Storage for machinery, lifting equipment and specialist equipment such as HDD rigs
- Storage for fuels and bundled generator (portable generator(s) which could run on a 24-hour basis)
- Waste management (associated with the Mona Offshore Wind Project only)
- Security facilities, lighting and fencing
- Other items associated with supporting the onshore construction works.

1.9.1.6 In establishing the compound, the principal contractor will:

- Ensure any crossing points over existing local services will be installed in a manner agreed with the asset owner
- Ensure surface runoff is managed appropriately
- Ensure any temporary services necessary to support the main construction compound will be installed in a manner agreed with the landowner and service provider.

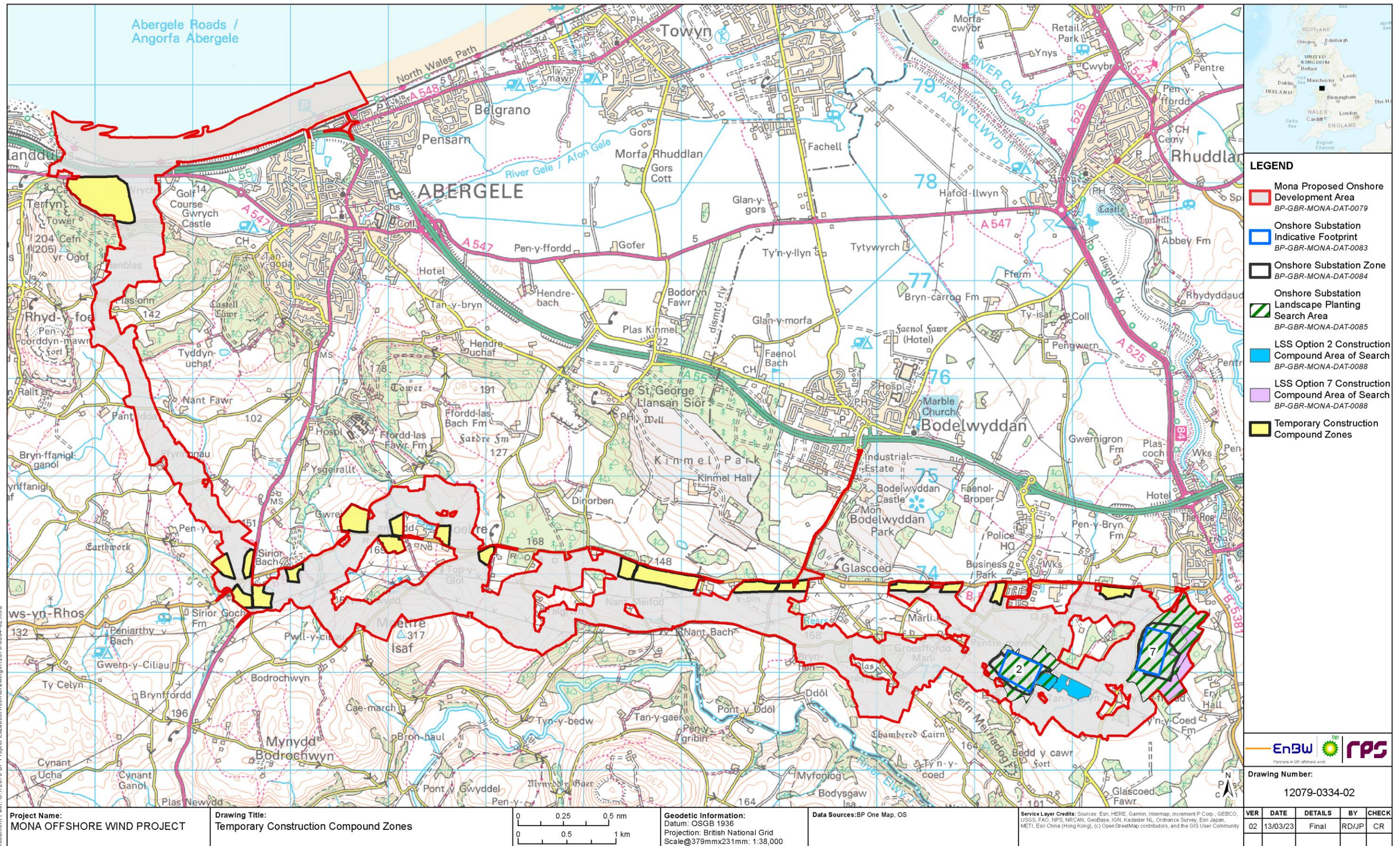


Figure 1.1: Temporary construction compound zones.

Secondary construction compounds

1.9.1.7 Up to 10 secondary construction compounds may also be required which will be located strategically along the Mona Onshore Cable Corridor and Mona 400kV Grid Connection Cable Corridor. They will be used for laydown and storage of materials and plant, as well as space for small temporary satellite offices, welfare facilities, security, parking and wheel washing facilities.

1.9.1.8 The sites identified are typically currently in agricultural use. The location of these storage areas has been sited away from watercourses and flood zones where possible.

1.9.1.9 When in use, all secondary construction compounds will be fenced and on-site security may be deployed. Each secondary construction compound may include:

- Portable offices, briefing and welfare facilities
- Some staff car parking
- Wheel wash facilities (if deemed necessary)
- Secure container storage facilities
- Storage for cables, cable drums, ducting and other construction materials including soil and aggregate required for that section of the Mona Onshore Cable Corridor/Mona 400kV Grid Connection Cable Corridor
- Storage for machinery, lifting equipment and specialist equipment such as HDD rigs
- Storage for fuels and banded generator (portable generator(s) which could run on a 24-hour basis)
- Waste management (associated with the Mona Offshore Wind Project only)
- Security facilities, lighting and fencing
- Other items associated with supporting the onshore construction works in that locality.

1.9.1.10 In establishing the compounds, the principal contractor will:

- Ensure any crossing points over existing local services will be installed in a manner agreed with the asset owner
- Ensure any temporary services necessary to support the secondary construction compound will be installed in a manner agreed with the landowner and service provider
- Include appropriate sediment control and drainage measures to ensure management of surface runoff.

Storage area

1.9.1.11 Additional storage areas may be required along the Mona Onshore Cable Corridor and Mona 400kV Grid Connection Cable Corridor. These will operate as areas where some limited storage may be provided in addition to that land provided for along the

100m temporary corridor. The areas may also be used to store component deliveries, plant and machinery.

1.9.1.12 When required, topsoil will be cleared and retained onsite. The location of these storage areas will be sited away from watercourses and flood zones where possible.

1.9.1.13 In establishing the storage areas, the principal contractor will:

- Ensure any existing local services are suitably protected in a manner agreed with the asset owner
- Ensure appropriate drainage and sediment control measures are implemented.

HDD compounds

1.9.1.14 Primary HDD operations will require a HDD compound to contain the drilling rig, equipment and the drill entry or exit pit. These compounds will be located within the Mona Proposed Onshore Development Area. However, most compounds for HDD crossings will be located either side of the haul road and within the 100m temporary construction corridor.

1.9.1.15 The HDD compounds will be provided with suitable surfacing, typically this will be constructed from stone in a similar way to the other construction compounds. The compound will be secured by fencing and provided with lockable gates to control access where necessary. Appropriate drainage and sediment control measures will be implemented to control surface run-off from the compound.

1.9.2 Clearance of site on completion

1.9.2.1 Temporary construction compounds, storage areas and accesses will be cleared as work progresses and when they are no longer required. On completion of construction work all plant, temporary buildings or vehicles will be removed.

1.9.2.2 If works are delivered in phases, temporary construction compounds and accesses will be removed on completion of construction work associated with that phase unless otherwise approved by the Local Planning Authority.

1.9.2.3 Following completion of the onshore cable installation, the working area will be reinstated to a state commensurate with condition prior to the commencement of works. This will include:

- Reinstatement of topsoil and subsoil, including loosening or ripping of compacted soil
- Reinstatement of land drainage systems, where necessary post construction drains may be installed, typically parallel to the Mona Onshore Cable Corridor
- Reseeding of any fields of grassland, grass margins and ditch banks
- Reconstruction of any drains, ditches or roads crossed using an open cut method
- Replanting of any hedgerows or felled trees as detailed in the Hydrological, Ecological and Landscape Management Plan (approved by the Local Planning Authority)
- Restoration or repair of fences, gates, tracks or hard standing

- Reinstatement of any PRow where temporary diversions have been put in place during construction.

1.10 Management of onshore environmental issues

1.10.1 Traffic management

Objectives

- 1.10.1.1 To carry out the construction of the Mona Offshore Wind Project in such a way that maintains highway safety and avoids or minimises adverse effects on local communities and highway users.

Highway management measures

- 1.10.1.2 Prior to the commencement of material traffic movements, a Construction Traffic Management Plan (CTMP) for the construction of the Mona Offshore Wind Project, will be prepared in consultation with the relevant Local Planning Authority, Local Highway Authority and Welsh Government. The CTMP will be based on the measures and principles set out below; these measures and principles will be reported within an Outline CTMP that will be submitted with the DCO application.

- 1.10.1.3 The purpose of the CTMP is to document measures to manage construction traffic in accordance with the wider principles established in this Outline CoCP. Construction traffic management measures may be documented in a single plan for all onshore works or multiple plans for different sections of works.

- 1.10.1.4 The CTMP will identify the routes for traffic associated with the construction of the Mona Offshore Wind Project. A HGV Routing Map will be prepared and all contractors will be required to use the map as a condition of their contract (e.g. HGV routes will avoid travelling through St Asaph).

- 1.10.1.5 The CTMP will set out the local management of vehicle movements to minimise the risks of vehicles meeting each other on narrow sections.

- 1.10.1.6 The CTMP will require that video condition surveys are undertaken before the start of works and after the substantial completion of works on minor links used by HGVs to access the Mona Onshore Cable Corridor. Damage to the highway caused by construction traffic associated with the Mona Offshore Wind Project will be inspected and repaired under agreement with the Local Highway Authority. All vehicles will be required to comply with the highway regulations to avoid damage to the highway.

- 1.10.1.7 The CTMP will set out the core construction hours and the procedure for agreeing working hours outside the core hours. The CTMP will also set out the restrictions of HGV operating hours along those sections of the highway network that provide access to local schools and to minimise the HGV movements through sensitive areas.

- 1.10.1.8 Wheel cleaning and debris removal will be required at all site access points where it is necessary to eliminate the risk of mud and debris on the highway. The CTMP will also set out measures to minimise dust and dirt from the movement of construction vehicles.

- 1.10.1.9 The CTMP will identify the provision of appropriate parking facilities for construction workers; alongside the CTMP a travel plan for the construction workforce will also be prepared.

- 1.10.1.10 The CTMP will set out traffic management measures at those points where cable trenches are cut across highways or where existing access rights are affected.

- 1.10.1.11 The CTMP will set out requirements to monitor load sizes and vehicle usage and, where possible, load consolidation and delivery to construction sites using alternative vehicles. Measures will encourage the re-use HGVs wherever possible, such as backloading. Where practical, local suppliers will be used to minimise the distance travelled by HGVs.

Site access design

- 1.10.1.12 The design of HGV access points, including visibility standards and, where necessary, temporary speed restrictions on the adjacent highway will be agreed with the relevant Highway Authorities. Prior to making use of each access for material vehicle movements, the contractor will advise the Local Highway Authority and/or Local Planning Authority of the following:

- Any temporary works
- Assessment of visibility splays at the access and any mitigation required, including any localised traffic control measures such as deployment of banksmen, temporary reductions in speed limit or temporary traffic lights
- Details of extent of pruning, coppicing or felling of vegetation to facilitate visibility splays
- Temporary and permanent diversions of services and coordination with asset owners

- 1.10.1.13 Each site access will comply with the following general principles:

- Have sufficient areas available at all times for all vehicles to enter and exit in a forward gear
- To be accepted into the works area directly without waiting on the highway
- Suitable surface finish
- Suitable fluming arrangements for any ditches at the side of the road
- Provide for road-sweeping activity in vicinity of the access.

Public Rights of Way and pedestrian access

- 1.10.1.14 The CTMP will set out traffic management measures at those points where cable trenches cut across PRow and manage the interface with the public and construction vehicles.

Abnormal loads

- 1.10.1.15 A route for abnormal indivisible loads will be identified (this will be between the port of entry, the Strategic Road Network (SRN) and the Mona Onshore Substation). The route, timing and method of transport of abnormal indivisible loads will be discussed and agreed with the relevant highways and bridge authorities and the police.

- 1.10.1.16 It is expected that a number of abnormal indivisible loads comprising large components such as transformers will be transported to the Mona Onshore Substation

site. The heavy haulage contractor appointed to undertake this work will be required to comply with statutory regulations in terms of consulting with the relevant highways and bridge authorities and the police.

1.10.1.17 The timing of abnormal indivisible load deliveries will be discussed with the relevant highway authorities to minimise delay for other road users and to minimise risk to highway users. The timing of abnormal indivisible load deliveries to the Mona Onshore Substation will be discussed to minimise delays to other road users.

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

1.10.2 Noise and vibration

Objectives

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

Management measures

1.10.2.2 This Outline CoCP recognises that construction activity by its very nature can generate adverse noise and vibration impacts on human and ecological receptors located near the development site. Most onshore works are in rural areas where background noise levels are likely to be low. The objective will be to control and limit noise and vibration levels, so far as is reasonably practicable and to minimise disturbance to sensitive receptors.

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

- Construction works will be undertaken in accordance with the best practicable means (as defined in Section 72 of the Control of Pollution Act 1974), to minimise noise and vibration effects. Noise control measures will be consistent with the recommendations of the current version of BS 5228 'Code of Practice for Noise and Vibration Control on Construction and Open Sites'
- Best Practicable Means including the following:
 - The use of quieter alternative methods, plant and/or equipment, where reasonably practicable
 - The use of site hoardings, enclosures, portable screens and/or screening nosier items of plant, where reasonably practicable
 - Maintaining and operating all vehicles, plant and equipment in an appropriate manner, to ensure that extraneous noise from mechanical vibration is kept to a minimum
 - Plant and vehicles to be fitted with mufflers/silencers that are maintained in good working order

- The use of silenced equipment as far as possible and low impact type compressors and generators fitted with lined and sealed acoustic covers
- Ensuring engines are switched off when machines are idle.
- A Construction Noise Management Plan will be prepared as part of the CoCP. It will include measures to mitigate noise from construction activities associated with the Mona Offshore Wind Project. Construction noise management measures for specific construction activities will be agreed with relevant local authorities prior to the start of construction.

1.10.3 Dust and air quality management

Objectives

1.10.3.1 To minimise the generation of dusts near sensitive receptors during construction and to facilitate community engagement and a proactive approach to complaints regarding nuisance dusts.

General measures

1.10.3.2 The principal contractor will inform site personnel about the need to minimise dust as well as about the health hazards of exposure to excessive dust. Their training will include advice relating to the commitments made in the CoCP.

1.10.3.3 A Dust and Air Quality Management Plan will be prepared based on the measures below (as taken from the Institute of Air Quality Management's (IAQM) Guidance on the assessment of dust from demolition and construction (IAQM, 2014).

Preparing and maintaining the site

1.10.3.4 In minimising the generation of nuisance dusts near sensitive receptors during construction the contractor will consider:

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible
- Fencing and barriers around construction works will be kept clean using wet methods.

Construction operations

- Only use cutting, grinding, sawing and excavation equipment will be fitted with or used in conjunction with suitable dust suppression techniques (such as water sprays or local extraction (e.g. suitable exhaust ventilation systems))
- Ensure an adequate water supply will be made available to enable effective dust/particulate matter suppression. Non-potable water will be used where possible and appropriate
- Use enclosed chutes, conveyors and covered skips
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment where appropriate

- Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Earthworks

- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below
- Cover, seed or fence stockpiles to prevent wind whipping
- Ensure all vehicles switch off engines when stationary
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.

Site management and monitoring

- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions
- Record all inspections of haul routes and any subsequent action in a site log book
- Haul routes will be regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned
- Implement a wheel cleaning system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable)
- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits
- Access gates to be located at least 10m from residential properties/schools and healthcare facilities where possible
- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use
- Record all dust and air quality complaints, identify cause(s), take any appropriate measures to reduce emissions in a timely manner, and record the measures taken
- Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book
- Agree dust deposition, dust flux, or real-time PM₁₀ continuous monitoring locations with the Local Authority
- Avoid dry sweeping of large areas

- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.

Communication of air quality management

- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager
- Display the Public Liaison Officer contact information on the site boundary.

1.10.4 Protection of the surface water and groundwater environment

Objectives

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

Management measures

Flood protection

- 1.10.4.2 Sign in/sign out procedures will be utilised at the Landfall area to monitor the number of site personnel working in this area.
- 1.10.4.3 At the Mona Landfall area in areas at risk of flooding and not benefitting from flood defences work windows will be scheduled against tide times, with site occupants notified of working times at least two weeks in advance. Site personnel will be briefed prior to commencement of works regarding weather conditions, tide times and heights. Works will be halted three hours prior to high time times; if a Flood Warning/Flood Alert is issued for the Abergele Sea Road' Flood Warning Area (reference 101FWTWN415) and the North Wales Coast Flood Alert area (reference 101WATNE10) works within the Landfall area would also be stopped whilst the Flood Warning/Flood Alert is active.
- 1.10.4.4 During the construction phase the site manager will sign up to the Flood Warning Service and will be alerted by a phone call or text when a Flood Warning becomes active. The flood warning will be applied to the entire Mona Proposed Onshore Development Area located within Zone C1 and C2 to enable site personnel to be evacuated from the site in a timely manner prior to a flood event occurring.

Flood control measures

- 1.10.4.5 The temporary construction compounds, construction accesses and haul road will be constructed from an engineered fill, with geotextile layers, the material will be granular and semi-permeable of an appropriate standard.
- 1.10.4.6 Pre-construction drainage will be installed either side of the Mona Onshore Cable Corridor to ensure existing land drainage flow is maintained. Interceptor drains will be installed where the haul road crosses water courses or public highways.
- 1.10.4.7 Where the Mona Onshore Cable Corridor and Mona 400kV Grid Connection Corridor crosses smaller watercourses and land drainage ditches measures would be

discussed with the relevant stakeholders (e.g. for temporary culvert crossings, appropriately sized flume pipes, equal to or greater than the diameter of the flume upstream and to an agreed length, will be placed on or below the hard bed of the watercourse).

Pollution prevention

1.10.4.8 A surface water and groundwater protection plan will be prepared and will outline methods for managing surface water runoff and groundwater to protect the local environment. The plan will include the following measures:

- Storage of fuels and chemicals will be within areas benefitting from flood defences, or within areas at low risk of flooding. Refuelling of plant and equipment will only be permitted in areas located above the mean high water level or within areas at low risk of flooding; and in areas more than 30m of a watercourse. No refuelling is to be undertaken within the beach area. All areas where for refuelling is not permitted will be identified on a plan. All refuelling will be undertaken using the correct equipment to reduce spillage; drip trays and spill kits will be provided in areas where these activities take place and construction staff will be trained in their use. Portable bowsers with built-in bunds for refuelling in the active working areas will be returned to a temporary construction compound overnight
- Any tanks and associated pipe work containing oils and fuels will be double skinned and be provided with intermediate leak detection equipment
- Areas at risk of spillage, such as hazardous substance stores (including fuel, oils and chemicals) will be bunded and carefully sited to minimise the risk of hazardous substances entering the drainage system or the local watercourses
- Additionally, the bunded areas will have impermeable bases to limit the potential for migration of contaminants into groundwater following any leakage/spillage. Bunds used to store fuel, oil etc. to have a 110% capacity
- Disturbance to areas close to watercourses will be reduced to the minimum necessary for the work
- Construction materials to be handled and stored in such a way as to effectively minimise the risk posed to the aquatic environment
- Where possible, less toxic alternative materials will be used, particularly for works close to watercourses
- All plant machinery and vehicles will be maintained in a good condition to reduce the risk of fuel leaks
- Oils and chemicals will be clearly labelled and the Principal Contractor will ensure that an up to date Control of Substances Hazardous to Health (COSHH) inventory
- Activities involving the handling of large quantities of hazardous materials (such as deliveries and refuelling) will be undertaken by designated and trained personnel
- Oil, fuel and chemical storage areas will be inspected at least weekly for signs of spillage, leaks and damage. Rainwater, materials or general debris within

the bunds or drip trays that compromise the contingency capacity will be removed

- Facilities storing oils and fuels will be locked and made secure when not in use
- Small plant will be provided with drip trays or commercial nappies
- Drainage works will be constructed to relevant statutory guidance and approved via the Lead Local Flood Authority (LLFA) prior to the commencement of construction.

Ground conditions

1.10.4.9 Site investigations will be undertaken at each major primary HDD location during the detailed design stage to confirm local geological conditions.

1.10.4.10 Where piled foundations are considered as part of the detailed design for the onshore elements of the Mona Offshore Wind Project a piling risk assessment will be undertaken to demonstrate that the piled foundations would not create a pathway for pollutants.

1.10.5 Onshore ecology and nature conservation

Objectives

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

Management measures

1.10.5.2 A Hydrological, Ecological and Landscape Management Plan will be submitted to and approved by the relevant Local Planning Authority prior to commencing works in that authority.

General

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

1.10.5.4 To minimise disturbance of various species, vehicle speeds will be restricted within the working corridor.

1.10.5.5 To minimise impacts on soil structure and ecology, topsoil and subsoil stripping, handling, storage and replacement will be in accordance with the Soil Management Plan that will accompany the application for development consent. Any monitoring requirements will be set out in the Hydrological, Ecological and Landscape Management Plan.

1.10.5.6 Night working will be avoided where practicable. Where night working is unavoidable, light fixtures will be directed away from habitat of value to protected or otherwise

notable species including badgers, birds and bats, to minimise likely disturbance effects of light spillage. Lighting will be kept to an absolute practicable minimum, where located nearby to any active badger setts.

Invasive species

1.10.5.7 Appropriate measures (as set out in the biosecurity protocol) will also be adopted when working in the vicinity of invasive terrestrial plants and injurious weeds. Where necessary, works will be supervised by the ECoW. Known locations of invasive plant species will be marked on site and vehicle movements restricted in the vicinity of these locations. Any spoil containing or likely to contain invasive plant material to be stored separately from non-contaminated spoil, and treated as appropriate, with control measures adopted.

1.10.5.8 Appropriate measures (as set out in the biosecurity protocol) will also be taken against invasive, non-native animal species and the relevant bodies will be notified of their location.

Protective buffer zones

1.10.5.9 Works-free protective buffer zones will be established around retained habitats of ecology and nature conservation concern, namely woodland, mature broadleaved trees and ponds, as well as sections of watercourses that will not be crossed by open-cut trenching. These buffer zones will be maintained throughout the works period.

1.10.5.10 All buffer zones will prohibit the tracking of heavy vehicles, and the storage and refuelling of vehicles, machinery, equipment and soils.

Protected species

1.10.5.11 A programme of ongoing protected species surveys will continue post PEIR to inform the mitigation measures that will be detailed in the Hydrological, Ecological and Landscape Management Plan. The Plan will accompany the application for development consent and will include the following:

- Details of pre-construction surveys to be undertaken
- Night working restrictions and lighting management measures for habitats of value to protected or otherwise notable species
- Management and mitigation of retained and removed hedgerows and trees
- Mitigation measures for protected and notable species including birds, bats, and great crested newts
- Details of designated sites and habitats
- Post-construction mitigation measures and the principles of longer-term ecology management
- Monitoring and reporting
- A timetable of suitable works periods with ecological constraints
- A plan showing ecological constraints.

1.10.5.12 Great crested newts have been identified from surveys undertaken to date. European Protected Species Mitigation Licences will be obtained prior to construction works commencing.

1.10.6 Landscape and visual resources

Objectives

1.10.6.1 Construction works will be carried out in such a way to ensure that disturbance to landscapes and visual receptors is minimised.

Management measures

1.10.6.2 To manage hedgerows and trees impacted as part of the construction of the onshore works, a Hydrology, Ecology and Landscape Management Plan will be submitted to and approved by the relevant Local Planning Authority prior to the removal any trees or hedgerows.

- Prior to site clearance works, a plan will be prepared that identifies the trees and vegetation that will be retained during the construction phase. The plan will set out the fencing measures to be installed and maintained throughout the construction process.

1.10.6.3 Fences and gates that are removed or damaged during the construction works will be replaced as deemed necessary during the construction phase.

1.10.6.4 Appropriate lighting will be used to reduce the incidence of visual intrusion to sensitive receptors.

1.11 References

Bat Conservation Trust (2018) Guidance Note 8 Bats and artificial lighting.

British Standards (2014) Light and lighting. BS EN 12464-2.

CIRIA (2001) C532 Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors. London, CIRIA.

CIRIA (2001) C650 Environmental Good Practice on Site. London, CIRIA.

CIRIA (2006) C648 Control of Water Pollution from Linear Construction Projects. London, CIRIA.

CL:AIRE (2011) Definition of Waste: Development Industry Code of Practice v2.

Institute of Air Quality Management (2014) Guidance on the assessment of dust from demolition and construction.