

# MONA OFFSHORE WIND PROJECT

## Without Prejudice Outline Onshore Construction Method Statement

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Image of an offshore wind farm

## MONA OFFSHORE WIND PROJECT

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## MONA OFFSHORE WIND PROJECT

### Acronyms

| Acronym | Description  |
|---------|--|
| CBS     | Cement Bound Sand  |
| CCBC    | Conwy Country Borough Council                              |
| CIRIA   | Construction Industry Research and Information Association |
| CoCP    | Code of Construction Plan                                  |
| DCC     | Denbighshire County Council                                |
| DCO     | Development Consent Order                                  |
| ES      | Environmental Statement                                    |
| HDD     | Horizontal Directional Drilling                            |
| MHWS    | Mean High Water Springs                                    |
| NVMP    | Noise and Vibration Management Plan                        |
| TCC     | Temporary Construction Compound                            |

### Units

| Unit           | Description    |
|----------------|----------------|
| m              | Metres         |
| m <sup>2</sup> | Metres squared |

# 1 OUTLINE ONSHORE CONSTRUCTION METHOD STATEMENT

## 1.1 Overview

- 1.1.1.1 This Outline Onshore Construction Method Statement 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 Outline Onshore Construction Method Statement seeks to manage potential impacts that occur from the construction of the onshore elements of the Mona Offshore Wind Project. These elements occur landward of the Transition Joint Bay and comprise:
- Onshore Cable Corridor (landward of the Transition Joint Bay)
  - Onshore Substation
  - 400kV Grid Connection Cable Corridor.
- 1.1.1.3 In addition to these elements, the Outline Onshore Construction Method Statement also considers the temporary construction compounds, storage areas, mitigation areas and accesses required to support the construction of the Mona Offshore Wind Project. Elements of the Mona Offshore Wind Project between the Transition Joint Bay and Mean Low Water Springs (MLWS) are discussed in the Outline Landfall Construction Method Statement (Document Reference J26.14).
- 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 400kV Grid Connection Cable Corridor is Denbighshire County Council (DCC).

## 1.2 Purpose of the Outline Onshore Construction Method Statement

- 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 Construction Method Statement (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 Construction Method Statement is to set out the construction methodology and environmental considerations associated with the construction of the onshore elements of the Mona Offshore Project including:
- Establishment of temporary construction compounds
  - Watercourse crossings
  - Temporary haul road
  - Onshore Cable Corridor
  - Onshore Substation, permanent access road and attenuation pond
  - 400kV Grid Connection Cable Corridor.

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- 1.2.1.3 This is an outline document that is based on the design assessed in the Environmental Statement (see Volume 1, Chapter 3: Project description of the Environmental Statement (Document Reference F1.3)).
- 1.2.1.4 The Outline Onshore Construction Method Statement should be read in conjunction with the Outline CoCP (Document J26) and its supporting appendices.

### 1.3 Scope of the Outline Onshore Construction Method Statement

- 1.3.1.1 The scope of this Outline Onshore Construction Method Statement applies to onshore site preparation works and construction activities of the Mona Offshore Wind Project located landward of Transition Joint Bay. The Statement does not apply to activities associated with offshore works, (i.e. seaward of the 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 Outline Onshore Construction Method Statement, as certified through the DCO. The final Onshore Construction Method Statement will be in accordance with the principles established in the Outline Onshore Construction Method Statement and will be agreed with the relevant authority prior to commencing construction of the relevant stage of the onshore works (landward of the Transition Joint Bay). 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 Construction working hours

#### 1.4.1 Overview

- 1.4.1.1 Core working hours for the construction of the onshore and intertidal elements of the Mona Offshore Wind Project as secured in the DCO and are set out below:
- 07:00 to 19:00 Monday to Friday
  - 07:00 to 13:00 Saturday
  - No core working proposed on Sundays or bank holidays
  - Up to one hour before and after core working hours for mobilisation ("mobilisation period").
- 1.4.1.2 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 Mona Offshore Wind Project
  - Site inspections and safety checks; site meetings
  - 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).

#### Extended working hours

- 1.4.1.3 In certain circumstances, specific works may have to be undertaken outside the core working hours listed in paragraph 1.4.1 in order to maintain time critical activities. These activities will be agreed by giving at least 48 hours notice in advance of the works to the relevant planning authority. The activities where extended hours may be required are listed in the Outline CoCP (Document Reference J26).

## **Emergency works**

- 1.4.1.4 Emergency works may also be undertaken outside of the core working hours. In the event of any emergency, notification of the emergency will be given to the relevant planning authority and highways authority as soon as reasonably practicable.

## **1.4.2 Deliveries**

- 1.4.2.1 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.

## **1.5 Ecological management**

### **1.5.1 Overview**

- 1.5.1.1 Measures to manage construction impacts on protected species and habitat features are set out within the Landscape and Ecology Management Plan (LEMP). The LEMP is secured as a requirement of the DCO and will be agreed with the relevant planning authority. An Outline LEMP is included in the DCO application (Document Reference J22)

### **1.5.2 Invasive species**

- 1.5.2.1 Measures to control and remove invasive weeds will be implemented in line with relevant Department of the Environment, Food and Rural Affairs (DEFRA) and NRW best practice guidance. The measures will be set out in the final CoCP.

## **1.6 Establishment of temporary construction compounds**

- 1.6.1.1 The locations of the temporary construction compounds (TCCs) are identified on the Onshore Works Plan (Document reference B3). The primary TCC will extend up to 22,500 m<sup>2</sup>. It will operate as a central base for the onshore construction works and will house the central offices, welfare facilities, car parking and stores, as well as acting as a staging post and secure storage for equipment and component deliveries. Up to four secondary TCCs will also be provided along the Mona Onshore Cable Corridor and each will measure up to 15,000 m<sup>2</sup>. These TCCs will be required for laydown and storage of materials and plant, and will also provide space for small temporary offices, welfare facilities, security, waste storage, parking and wheel washing facilities.
- 1.6.1.2 The location of the TCCs have been selected to avoid sensitive human and environmental receptors and to provide access to the highway network.
- 1.6.1.3 The TCCs will be set up prior to the commencement of construction of the Onshore Cable Corridor, 400kV Grid Connection Corridor and the Onshore Substation. The set-up will follow the sequence of activities below:
- Pre-construction surveys (as required) in line with the Outline LEMP (Document Reference J22)
  - The accesses to the TCCs will be constructed in line with design set out in the Outline Highways Access Management Plan (Document Reference J26.16), which forms part of the CoCP. Traffic management associated with the construction of the access will be in line with the Outline Construction Traffic Management Plan (Document Reference 26.13), which forms part of the CoCP.

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- Fencing of the compounds following the procedures in the Fencing Plan, which forms part of the CoCP; the CoCP is secured in the DCO. An Outline Fencing Plan is included in the DCO application (Document Reference J26.5)
- Site clearance will be undertaken within the footprint of the TCC
- Stripping and storage of the topsoil following the procedures in the Outline Soil Management Plan, which forms part of the CoCP; the CoCP is secured in the DCO. An Outline Soil Management Plan is included in the DCO application (Document Reference J26.8).
- Installation of pre-construction drainage following the procedures in the approved Construction Surface Water and Drainage Management Plan, which forms part of the CoCP; the CoCP is secured by DCO. An Outline Construction Surface Water and Drainage Management Plan is included in the DCO application (Document Reference J26.6)
- Constructing hardstanding areas by laying a geotextile or similar separation membrane directly on top of the subsoil, over which layers of crushed stone or other suitable material will be spread. Tarmac surfaces may also be provided (e.g. at the accesses to the TCCs and car parking)
- Once the TCC has been constructed, foundations for the portacabins will be installed. Once this work is completed, the cabins will be delivered and placed using a suitably sized crane.
- Installation of welfare facilities for the workforce including connection of services such as water, power, lighting and telecoms services.
- Installation of temporary lighting in line with the approved Artificial Light Emissions Plan, which forms part of the CoCP; the CoCP is secured as a requirement in DCO. An Outline Artificial Light Emissions Plan is included in the DCO application (Document Reference J26.10).

1.6.1.4 Each compound will be removed at the end of construction and the land reinstated to its former condition as far as reasonably practicable.

### 1.6.2 Utilities

1.6.2.1 All potentially affected utility providers will be contacted and the location of existing services will be accurately identified on the ground prior to construction or intrusive ground investigations. On exposure of services the contractor shall record the position and depth of each service encountered. All measures for protection, as agreed, will be implemented before any works commence.

1.6.2.2 All utility crossings will be undertaken in accordance with standards agreed with the utility owner/operator, as required.

## 1.7 Fuel, chemical and waste handling and storage

1.7.1.1 Fuel and chemical storage and handling will be in accordance with the procedures set out in the Spillage and Emergency Response Plan. Waste will be handled in accordance with the Site Waste Management Plan. Both plans form part of the CoCP, which is secured as a requirement of the DCO. An Outline Spillage and Emergency Response Plan and an outline Site Waste Management Plan are included in the DCO application (Document References J26.1 and J26. 9 respectively)

## 1.8 Surface water drainage

- 1.8.1.1 Construction of the Onshore Cable Corridor, 400kV Grid Connection Corridor and the Onshore Substation will require the temporary management of surface water. Where required, drainage will be installed along the Onshore Cable Corridor and 400kV Grid Connection Cable Corridor to ensure drainage flow is maintained. Drainage will be in line with the Construction Surface Water and Drainage Management Plan as part of the CoCP. An Outline Surface Water and Drainage Management Plan is included in the DCO application (Document Reference J26.6).

## 1.9 Flood risk

- 1.9.1.1 Construction support activities on Llanndulas Beach (required during the construction of the Landfall) are located within Flood zone 2 and 3. Flood warning and evacuation procedures for construction support workers on Llanndulas Beach are set out in the Flood Management Plan which is part of the CoCP; the CoCP is secured as a requirement in the DCO. An Outline Flood Management Plan is included in the DCO application (Document Reference J26.7). The remainder of the Mona Onshore Development Area is at low risk of flooding.

## 1.10 Onshore export cable installation

### 1.10.1 Onshore export cable installation

- 1.10.1.1 The onshore export cables will be installed in a flat formation or trefoil formation. In addition to the onshore power cables, fibre optic cables will be installed in additional, smaller ducts with each formation. Suitably engineered and tested granular backfill material (e.g. CBS) will be used to backfill around each set of cable ducts during installation.
- 1.10.1.2 Volume 5, Annex 4.3: Onshore crossing schedule of the Environmental Statement identifies obstacles along the Mona Onshore Cable Corridor that will be crossed; trenchless techniques have been identified for crossing obstacles in a number of locations. The list of obstacles using trenchless techniques is not exhaustive and the most suitable method for crossing obstacles will be confirmed at detailed design.

### 1.10.2 Crossing of land plot 10-179

- 1.10.2.1 In order to minimise potential impacts to the dairy operation currently occupying land plot 10-179 the Applicant is committed to engaging with both the owners and occupiers of the land, pre-construction, via the Agricultural Liaison Officer (see section 1.17) to determine the most suitable mitigation measures. These measures may include:
- Adopting seasonal working restrictions with land plot 10-179. Trenched cable installation would be limited to the months of November, December, January and February whilst the dairy cattle are housed indoors
  - Establishing the haul road within Plot 10-179 as close to the boundary of the Order Limits as is reasonably practicable to reduce severance, restrictions on the movement of farm machinery and avoid proximity of construction vehicles to livestock.

## 1.11 Watercourse crossings

### 1.11.1 Overview

- 1.11.1.1 The Mona Onshore Cable Corridor crosses a number of watercourses along its route from the Landfall to the Onshore Substation. The method that will be used to cross each watercourse is set out in Volume 5, Annex 4.3: Onshore Crossing Schedule of the Environmental Statement. In almost all cases, watercourses will be crossed using trenchless techniques (e.g. Horizontal Directional Drilling (HDD)). In the remaining locations, open-cut trenching will be used.
- 1.11.1.2 In addition to the watercourse crossings for the onshore export cables, it may be necessary to install temporary crossings where the haul road intersects with ditches and small watercourses.
- 1.11.1.3 A summary of the watercourse and haul road crossing methods is provided below. The design of the watercourse crossings at each location will follow the approach set out in the National Culverts Study (NRW, 2022).

### 1.11.2 Trenchless techniques

- 1.11.2.1 A programme of intrusive site investigations will be undertaken at locations along the Onshore Cable Corridor. Results from these investigations will be used to characterise ground conditions and to undertake a controlled water risk assessment that will inform the detailed design of trenchless technique locations.
- 1.11.2.2 HDD is a trenchless method for installing underground ducts and cables in a shallow arc along a prescribed bore path by using a surface launched drilling rig. It is one of the most commonly used techniques to be used to cross obstacles such as watercourses. The typical activities required by a HDD operation are summarised below:
  - Site survey and bore planning:
    - Prior to the commencement of HDD operations, a site survey will be conducted. Intrusive surveys will be undertaken to establish the geological and geotechnical conditions at each HDD location. The survey team will create an accurate plan of the drill path and elevations of the proposed duct. This will include a hydrogeological assessment to confirm the depth of the drill and to establish an appropriate standoff between the drill path and hard bed of watercourses and the bedrock geology. During the survey, any buried services which are in close proximity to the route will be clearly marked and documented on the survey drawings and on the site (where possible).
    - A bore plan and profile will be created from the results of the survey. The plan will provide final information on the proposed bore arc including entrance and exit points, radius of curvature and the bore diameter required to accommodate the cables.
  - Preparation of site for HDD operation:
    - For larger HDD crossings, a stoned compound will be required at the HDD entry point for equipment, drilling fluid management system, laydown area, launch and reception pits. These areas will be cleared of vegetation and topsoil. Hardcore will then be laid to provide a firm work area. A description of these compounds is provided in section 4.1.7.

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- A regular supply of water will be required at the HDD sites during the HDD operations for the mixing of drill fluid. Storage tanks may be required if alternative supplies of water cannot be provided.
- The HDD process may require the use of bentonite and grout: bentonite is used as a lubricant and grout is used as a sealant. Both substances can cause harm to the water environment as they are alkaline. The use of the material will be carefully controlled to avoid a breakout in the bed of the watercourse and/or spillage and runoff from tanks and plant at the drive shaft. A bentonite breakout plan has been included in the Outline Spillage and Emergency Response Plan (Document Reference J26.1). Bentonite will be recycled during the HDD process and would be disposed of as a controlled waste following the completion of construction.
- At longer and larger bores a lagoon/settling pond may be required at the launch site to contain the bentonite slurry arisings from the HDD bore. The lagoon/settling pond will have a sufficient capacity to accommodate the drill arisings/slurry from the HDD operation. Tankers may be required to control the levels of slurry where necessary. For short drills, the entry and exit pits will act as a slurry pit.
- A slurry pit/settling pond will also be required in the HDD reception site to collect any slurry discharged from the drill hole.

### 1.11.3 Open-cut trenching at watercourses

1.11.3.1 The likely methodology for crossing minor watercourses, such as field drains using open-trench installation is described below. Baseline geomorphology surveys will inform the detailed design of the crossing. The details are indicative to provide an overview of the works required. The sequence assumes that site set up has already been undertaken

- Stage 1 - Construction of dam and culvert or pump installation:
  - The flow of the existing watercourse will be cut off using one of a range of options (as taken from CIRIA C6648). These options include a clay bund, sand bags, stop planks, cofferdams, caissons or specialist dams.
  - The cofferdam (or equivalent method) will be installed for the duration of the trenching works in that section. This will ensure that, where flow is present in the watercourse, it is pumped around the working area and be returned to the watercourse/ditch downstream of the works.
  - Once the cofferdam (or equivalent) is in place, a diesel-powered pump will be used to pump water round and bypass the cofferdam. Subject to the depth of the watercourse, pumping may be required before the dam is completed. Containment will be provided around the pump to minimise the risk of diesel leaks.
  - The diversion will be started at a suitable point upstream to minimise effects. In accordance with CIRIA guidance, the discharge pipe will be placed - downstream by a sufficient distance of the works with protection in place to avoid the scouring of the bed or banks at the outfall. The discharge hose will be directed through a filtering medium before the pumped water is returned to the watercourse.
- Stage 2 – Trench excavation:

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- The cable trenches will then be excavated according to engineering specifications. The excavation of trenches will be supervised by a banksman.
- Turf, topsoil and subsoil from the excavation will be segregated and stored in separate stockpiles. The stockpiles will be located away from the watercourse crossings with measures in place to ensure any runoff from the stockpiles does not enter watercourses or drainage ditches.
- In the event that the trenches need dewatering, water from the dewatering activities will be released under agreement with Natural Resources Wales (NRW) to a local drainage ditch, watercourse and/or spread over ground. Water from dewatering activities will pass through a silt interceptor (or equivalent) prior to discharging to drainage ditches or watercourses.
- Depending on soil properties, a layer of Cement Bound Sand (CBS) or subsoil will be used to line the bottom of the trench.
- Stage 3 – Cable installation:
  - The cabling will be installed within the trench across the watercourses from adjacent joint bay positions.
  - Once the cables are in place, the trench will be backfilled with CBS or subsoil (subject to soil properties). Once the backfill is levelled, protective cable tiles and warning marker tape will be put in place. Excavated subsoil and topsoil will be used to further backfill and reinstate the cable trench.
- Stage 4 – Reinstatement
  - Once the cable is laid and the trench reinstated, the base of the watercourse bed will be consolidated. The cofferdam (or equivalent method) will be removed in a reverse procedure to that used for construction.
  - Any works to ensure the integrity of the banks on either side of the watercourse will be undertaken. This may include geotextiles, reseeding/reinstatement of vegetation and placing of locally sourced stones.
  - The water flow will be reinstated and the pumps removed.

1.11.3.2 Baseline geomorphology surveys will also be undertaken where the haul road crosses smaller watercourses and ditches to inform the design of the crossing e.g. , temporary culvert crossings. The culverts will comprise appropriately sized pre-cast flume pipes and placed on or below the hard bed of the watercourse. The pipes will be equal to or greater than the diameter of the flume upstream to accommodate the water volumes and flows necessary. Where the bed of the watercourse is excavated to install the pipe, the bed materials will be carefully removed and stored in sequence for reinstatement on removal of the culvert at the end of construction. Care will also be taken to avoid damage to the geomorphology of the channel during installation and removal of the culverts. Temporary silt mitigation measures will also be implemented to avoid pollution of the watercourse with suspended solids. The design of the crossing will also take into account of ecological receptors where necessary.

1.11.3.3 Permanent culverts will be installed where required along the permanent access road to the Onshore Substation.

1.11.3.4 The design (and reinstatement following removal) of these crossings will be dependent on the particular setting and characteristics of the watercourse at the crossing location including geomorphology considerations (as identified in the baseline geomorphology surveys). All works will be designed in accordance with recognised best practice guidance current at the time of the design, including guidance developed by NRW and

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other UK environment agencies (EA, SEPA) including CIRIA C689 'Culvert design and operation guide' (2010).

- 1.11.3.5 It is proposed to disapply Regulation 12 of the Environmental Permitting (England and Wales) Regulations 2016 Flood Risk Activity Permits (FRAPs). The DCO also seeks to disapply sections 23 and 30 of the Land Drainage Act 1991 Ordinary Watercourse Consent (OWC). The detailed design of the crossings will be agreed with the relevant stakeholder and documented in the detailed Onshore Construction Method Statement.

## 1.12 Jointing bays and link boxes

- 1.12.1.1 Joint Bays (JBs) and Link Boxes (LBs) will be required along the onshore cable route. JB's are typically concrete lined pits, that provide a clean and dry environment for jointing sections of cable together. Land above the JB's will be fully reinstated: JB's will only require access during the operations and maintenance phase in the event of a cable failure requiring replacement.

## 1.13 Temporary haul road

### 1.13.1 Construction

- 1.13.1.1 The temporary haul road will be constructed within the Mona Onshore Cable Corridor and 400 kV Grid Connection Corridor. The haul road will provide access from the TCCs to the Onshore Cable Corridor; the haul road will also provide access within the easement. The specification of the haul road will be confirmed during detailed design but it is likely to be constructed from an engineered fill, with geotextile layers. The material will be granular and semi-permeable of an appropriate standard. The stone haul road will be constructed by placing successive layers of stone compacted on a layer of permeable geo-textile membrane. Haul roads will be periodically inspected and maintained throughout the construction period. The haul road will be removed at the end of construction.

### 1.13.2 Speed limits

- 1.13.2.1 The site speed limit will be 15 mph on the haul road and must be adhered to at all times. Appropriate speed limits within the temporary construction compounds will be set. Speed limit signs will be installed on all construction roads and site access roads. Vehicles on site will be fitted with visual and audible warning devices for reversing where appropriate.
- 1.13.2.2 Banksman will be used, if required, when reversing in the compounds and on the temporary haul road.

## 1.14 Onshore Substation

### 1.14.1 Onshore substation piling

- 1.14.1.1 Foundations for the Onshore Substation may require piling. Details of specific piling requirements are not yet known and will be confirmed following detailed design and further geotechnical investigations, Where piling is required, a piling risk assessment will be undertaken and reported in the final Onshore Construction Method Statement.

## 1.14.2 Onshore substation AILs

- 1.14.2.1 It is expected that a number of abnormal indivisible loads (AILs) comprising large components such as transformers will be transported to the Onshore Substation. In addition, smaller AILs will also need access for cable drum deliveries to several points along the Onshore Cable Corridor. Depending on the width, length or weight of the laden vehicle, different notice periods will be provided to HAs, bridge authorities and the police. Further information on the management of AILs is provided in the Construction Traffic Management Plan as part of the CoCP. Permanent access road
- 1.14.2.2 A programme of intrusive site investigation will be undertaken of the Onshore Substation platform and surrounding area. Information from the investigations will be used to inform the detailed design and the construction methods to be employed. Where piling is required to construct foundations, a piling risk assessment will be undertaken to ensure that piles do not create a pathway for pollutants. The detailed design process will also use the investigation findings to confirm the presence of deep mines in the areas of historical mining activity (as reported in Volume 7, Annex 1.1: Aquifers, groundwater abstractions and ground conditions of the Environmental Statement). Laboratory results from the soil sampling and borehole logs will be reviewed to confirm whether contaminants are present and to characterise ground conditions.
- 1.14.2.3 The construction of the Onshore Substation comprises the following activities:
- Pre-construction surveys (as required) in line with the Outline LEMP and establishment of the temporary mitigation areas as identified in the Great crested newt mitigation strategy (Appendix D of the Outline LEMP (Document Reference J22)) as is secured in the DCO
  - Highway works - clearance and construction of the access for the temporary construction road off Glascoed Road
  - Site clearance along the route of the temporary access road, construction compound and the Onshore Substation platform. This will include clearance of vegetation and the trapping of great crested newt and reptiles in accordance with the LEMP (Appendix D of the Outline LEMP (Document Reference J22)).
  - Fencing following the procedures in the approved Fencing Plan, which forms part of the CoCP; the CoCP is secured as a requirement in the DCO An Outline Fencing Plan is included in the DCO application (Document Reference J26.5)
  - Stripping and storage of the topsoil along the temporary construction access road; stripping and storage will follow the procedures in the Outline Soil Management Plan, which is part of CoCP; the CoCP is secured in the DCO An Outline Soil Management Plan is included in the DCO application (Document Reference J26.8)
  - Importation of stone and surfacing of the temporary access road
  - Stripping and storage of topsoil from the temporary construction compound areas in line with the Soil Management Plan, which forms part of the CoCP; the CoCP is secured in the DCO. Topsoil will be stored around the perimeter of the construction compounds.
  - Constructing hardstanding areas on compounds, importing stone and setting up of welfare and office facilities as per section 1.4. Surfacing of car park and installation of services

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- Stripping of topsoil from the Onshore Substation platform area and attenuation pond in line with the approved Soil Management Plan, which is part of the CoCP; the CoCP is secured in DCO An Outline Soil Management Plan is included in the DCO application (Document Reference J26.8).
- Following completion of the topsoil stripping, the pre-earthworks drainage will be installed prior the Onshore Substation cut and fill works in line with the Construction Surface Water and Drainage Management Plan, which is part of the CoCP; the CoCP is secured in the DCO. (. An Outline Construction Surface Water and Drainage Management Plan is included in the DCO application (Document Reference J26.6).
- Earthworks including cut and fill for the Onshore Substation
- Excavation of the attenuation pond and realignment of the ordinary watercourse in line with the Operational Drainage Management Plan, which is secured in the DCO (Document Reference J27). An Outline Operational Drainage Management Strategy is included in the DCO application (Document R Reference J28)
- Import and compaction of stone to create the Onshore Substation platform
- Civils groundworks of the Onshore Substation including the construction of the foundations and building works. Activities will include:
  - Concrete foundations to all structures: detailed design will determine if piling is required
  - Installation of drainage, pipe work ducts and troughing
  - Installation of permanent fencing using strip foundation
  - Construction of internal access roads, transformer skids and parking
- Installation of mechanical/electrical equipment at Onshore Substation
- Commissioning of Onshore Substation

1.14.2.4 Restoration of the construction compounds and the temporary access road and, construction of the permanent mitigation areas in line with the LEMP as secured in the DCO. An Outline LEMP is included in the DCO application (Document Reference J22).

## 1.15 Restoration and Reinstatement

- 1.15.1.1 Following completion of construction operations all agricultural land will be restored to its previous condition as far as possible. This will include the replacement of field boundaries and stock fences. Soil will be reinstated in accordance with Soil Management Plan, which forms part of the CoCP. The CoCP is secured as a requirement in the DCO. An Outline Soil Management Plan is included in the DCO application (Document Reference J26.8).
- 1.15.1.2 Land drains within the Onshore Cable Corridor and 400kV Grid Connection, which may be temporarily affected by construction operations, will also be restored following completion of construction. This is important to ensure that the growth of trees and hedgerows is not affected by changes to the surface water drainage system.
- 1.15.1.3 Ecological reinstatement will be implemented in accordance with the final LEMP and will include re-planting of hedgerows along the Onshore Cable Corridor and 400kV Grid Connection Cable Corridor. Trees will not be planted over the edge of the onshore export cable to avoid the risk of damage to the cable.

## **1.16 Emergency contacts**

- 1.16.1.1 Emergency contact details will be provided in the Spillage and Emergency Response Plan which forms part of the CoCP. An Outline Spillage and Emergency Response Plan is included in the DCO application (Document Reference J26.1)

## **1.17 Landowner liaison**

- 1.17.1.1 Liaison with landowners will primarily be directed through the Agricultural Liaison Officer as defined in the CoCP and secured in the DCO.