



Hornsea Project Four: Preliminary Environmental Information Report (PEIR)

Volume F2, Chapter 5: Outline Onshore Infrastructure Drainage Strategy

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Glossary

| Term | Definition |
|---|---|
| Code of Construction Practice (CoCP) | A document detailing the overarching principles of construction, contractor protocols, construction-related environmental management measures, pollution prevention measures, the selection of appropriate construction techniques and monitoring processes |
| Development Consent Order (DCO) | An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Projects (NSIP). |
| Effect | Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria. |
| Export cable corridor (ECC) | The specific corridor of seabed (seaward of Mean High Water Springs (MHWS)) and land (landward of MHWS) from the Hornsea Project Four array area to the Creyke Beck National Grid substation, within which the export cables will be located. The final ECC corridor will be located within the ECC corridor search area and will be defined via a site selection process considering technical, physical and environmental constraints. |
| High Voltage Alternating Current (HVAC) | High voltage alternating current is the bulk transmission of electricity by alternating current (AC), whereby the flow of electric charge periodically reverses direction. |
| High Voltage Direct Current (HVDC) | High voltage direct current is the bulk transmission of electricity by direct current (DC), whereby the flow of electric charge is in one direction. |
| Hornsea Project Four | The proposed Hornsea Four offshore wind farm project; the term covers all elements within the Development Consent Order (i.e. both the offshore and onshore components). |
| Local Authority | The Local Authority is a body empowered by law to exercise various statutory functions for a particular area of the United Kingdom. This includes County Councils, District Councils and the Broads Authority, as set out in Section 43 of the Planning Act 2008. East Riding of Yorkshire Council (ERYC) is the Local Authority for the entirety of the on-shore project footprint. |
| Relevant Planning Authority | The Relevant Planning Authority is the Local Authority (ERYC for the entirety of onshore elements of Hornsea Four) in respect of an area within which a project is situated, as set out in Section 173 of the Planning Act 2008. The Relevant Planning Authority is the body empowered by law to exercise statutory town planning functions for a particular area of the United Kingdom. Relevant Planning Authorities may have responsibility for discharging requirements and some functions pursuant to the Development Consent Order, once made. |
| Onshore substation (OnSS) | Located as close as practical to the National Grid substation at Creyke Beck and will include all necessary electrical plant to meet the requirements of the National Grid. |

| Term | Definition |
|--|---|
| Energy balancing infrastructure (EBI) | The onshore substation includes energy balancing Infrastructure. These provide valuable services to the electrical grid, such as storing energy to meet periods of peak demand and improving overall reliability. |
| National Grid Electricity Transmission (NGET) substation | The grid connection location for Hornsea Four. Specialists to use |
| Indicative mitigation planting | Areas identified for mitigation planting. This can be found in Volume 4, Annex 4.6: Outline Design Vision Document . |

Acronyms

| Acronym | Definition |
|---------|---|
| DCO | Development Consent Order |
| ECC | Export Cable Corridor |
| EBI | Energy Balancing Infrastructure |
| ERY | East Riding of Yorkshire |
| ERYC | East Riding Of Yorkshire Council |
| IDB | Internal Drainage Board (Beverley and North Holderness) |
| LLFA | Lead Local Flood Authority (ERYC) |
| NGET | National Grid Electricity Transmission |
| PEIR | Preliminary Environmental Information Report |
| PPG | Pollution Prevention Guidelines |
| PPP | Pollution Prevention Plan |
| SuDS | Sustainable Drainage Systems |

Units

| Unit | Definition |
|------|---------------------------------|
| GW | Gigawatt (power) |
| kV | Kilovolt (electrical potential) |
| kW | Kilowatt (power) |

1 Introduction

1.1 Project Background

1.1.1.1 Orsted Hornsea Project Four Limited (the Applicant) is proposing to develop Hornsea Project Four Wind Farm (hereafter Hornsea Four). Hornsea Four will be located approximately 65 km offshore the East Riding of Yorkshire in the Southern North Sea and will be the fourth project to be developed in the former Hornsea Zone.

1.1.1.1 This Outline Onshore Infrastructure Drainage Strategy (hereafter Drainage Strategy) relates to the onshore construction, operation, and decommissioning of Hornsea Four landward of Mean High Water Springs. Further details on these activities is provided in [Volume 1, Chapter 4: Project Description](#). To summarise, the onshore elements of Hornsea Four will be constructed within East Riding of Yorkshire (ERY) and will comprise:

- Landfall – including transition joint bays, link boxes, logistics compounds and temporary access tracks;
- Onshore Export Cable Corridor (ECC) - including the onshore export cables, temporary logistics compounds and temporary access tracks;
- Onshore Substation (OnSS) and Energy Balancing Infrastructure (EBI) – including the temporary working area, temporary and permanent access tracks, the permanent working area, and the EBI; and
- 400 kV ECC – the area within which a 400 kV section of the onshore ECC will connect to the existing National Grid Electricity Transmission (NGET) substation at Creyke Beck.

1.1.1.2 The Drainage Strategy is a live document and will be updated as necessary prior to its implementation. Based on this outline and following a final detailed design for the OnSS during pre-construction, a detailed Onshore Infrastructure Drainage Strategy will be developed for all onshore elements of Hornsea Four. Accordingly, it will be developed and agreed in consultation with the relevant authorities (e.g. the Environment Agency (EA), Lead Local Flood Authority (LLFA) and Internal Drainage Board (IDB), as appropriate. The LLFA and IDB responsible for ERY is East Riding of Yorkshire Council (ERYC) and Beverley and North Holderness IDB, respectively.

1.1.1.3 This Drainage Strategy also supports the assessments and conclusions provided in [Volume 6, Annex 2.2: Onshore Infrastructure Flood Risk Assessment](#), [Volume 6, Annex 2.3: Water Framework Directive](#), and [Volume 3, Chapter 2: Hydrology and Flood Risk](#). All watercourses which have been identified to date, and to be crossed by Hornsea Four are provided in [Volume 4, Annex 4.2: Onshore Crossing Schedule](#).

1.2 Structure

1.2.1.1 This Drainage Strategy adheres to the following structure:

- [Section 2](#) – Pre-construction and construction drainage;
- [Section 3](#) – Operational drainage;
- [Section 4](#) – Decommissioning drainage; and

1.3 Aims and objectives

- 1.3.1.1 Developments such as Hornsea Four can potentially affect the drainage and run-off characteristics, for example where there may be permanent above ground infrastructure. As such the objective of this Drainage Strategy is to ensure that the ground and surface water characteristics within all onshore elements of Hornsea Four are maintained, and where possible enhanced. Accordingly, the measures provided here are to ensure that surface and groundwater drainage is enhanced in a sustainable manner while making allowances for climate change.
- 1.3.1.2 The objective of this report is to provide the high-level principles to be used during the construction, operation and decommissioning of all elements of Hornsea Four, including reference to relevant guidelines and codes of practice relating to site drainage.
- 1.3.1.3 Hornsea Four has developed a range of Commitments to eliminate or reduce the impacts and effects as far as possible. All Commitments identified for Hornsea Four to date are detailed within the Commitments Register (see [Volume 4, Annex 5.2: Commitments Register](#)) and are summarised within the relevant topic specific chapters and where applicable, technical reports, of this Preliminary Environmental Information Report (PEIR). The Commitments Register includes the following commitments relevant to the Drainage Strategy (**Table 1**):

Table 1: Hornsea Four commitments relevant to the Drainage Strategy.

| Commitment ID | Measure Proposed | How the measure will be secured |
|---------------|---|--|
| Co1 | Primary: All main rivers, Internal Drainage Board (IDB) maintained drains, main roads and railways will be crossed by HDD or other trenchless technology as set out in the Onshore Crossing Schedule. Where HDD technologies are not practical, the crossing of ordinary watercourses may be undertaken by open cut methods. In such cases, temporary measures will be employed to maintain flow of water along the watercourse. | DCO Requirement 16 (Code of construction practice) |
| Co4 | Tertiary: A Pollution Prevention Plan (PPP) will be developed in accordance with the outline PPP and will include details of emergency spill procedures. Good practice guidance detailed in the Environment Agency's Pollution Prevention Guidance (PPG) notes (including PPG01, PPG05, PPG08 and PPG21) will be followed where appropriate, or the latest relevant available guidance. | DCO Requirement 16 (Code of construction practice) |
| Co13 | Tertiary: Where cable trenching or road widening of the construction accesses is required across perched or near-surface secondary A or B aquifers, measures will be implemented to ensure that groundwater quality is not affected and detailed within the Pollution Prevention Plan (PPP) (Co4) to prevent changes to chemical quality, and the use of thermally insulated Direct Current cables to prevent effects on groundwater temperature). Furthermore, measures to ensure that | DCO Requirement 16 (Code of construction practice) |

| Commitment ID | Measure Proposed | How the measure will be secured |
|---------------|---|--|
| | <p>the cable trench does not become a conduit for groundwater flow will also be implemented (e.g. ensuring that backfill is sufficiently compacted and has the same transmissivity as adjacent undisturbed material). Appropriate measures will be identified following consultation with the Environment Agency and will be reported within the CoCP (Co124). This will be in line with the requirements of Section 23-25 of the Land Drainage Act 1991, or the latest relevant available guidance.</p> | |
| Co14 | <p>Tertiary: A Construction Drainage Scheme will be developed for the temporary construction works, to ensure that existing land drainage is maintained during construction. Specific drainage measures for each area of land will be specified based on information identified and recorded by a Land Drainage Consultant prior to construction. The Construction Drainage Scheme will be developed in consultation with landowners, the Lead Local Flood Authority, Environment Agency and relevant Internal Drainage Board.</p> | DCO Requirement 12 (Surface and foul water drainage) |
| Co18 | <p>Secondary: HDD entry and exit points will be located at least 9 m away from surface watercourses and the onshore export cable will be installed at least 1.2 m beneath the bed of any watercourses. The optimal clearance depth beneath watercourses will be agreed with the relevant authorities prior to construction. Where Hornsea Four crosses sites of particular sensitivity (e.g. SSSIs or groundwater Inner Source Protection Zones (SPZs)) a hydrogeological risk assessment will be undertaken to inform a site specific crossing method statement which will also be agreed with the relevant authorities prior to construction.</p> | DCO Requirement 16 (Code of construction practice) |
| Co19 | <p>Tertiary: An Onshore Infrastructure Drainage Strategy will be developed for the permanent operational development along the onshore cable corridor and the onshore substation, and will include measures to ensure that existing land drainage is reinstated and maintained, and measures to limit discharge rates and attenuate flows such that pre-development run-off rates to surrounding land are retained. The Onshore Infrastructure Drainage Strategy will be developed in consultation with the Environment Agency, Lead Local Flood Authority and relevant Internal Drainage Board as appropriate.</p> | DCO Requirement 12 (Surface and foul water drainage) |
| Co124 | <p>Tertiary: A Code of Construction Practice (CoCP) will be developed in accordance with the outline CoCP. The outline CoCP will include measures to reduce temporary disturbance to residential properties, recreational users, and existing land users.</p> | DCO Requirement 16 (Code of construction practice) |
| Co127 | <p>Tertiary: An Onshore Decommissioning Plan will be developed prior to decommissioning. The Onshore Decommissioning Plan will include provisions for the removal of all onshore above ground infrastructure and the decommissioning of below ground infrastructure and details</p> | DCO Requirement 22 (onshore decommissioning) |

| Commitment ID | Measure Proposed | How the measure will be secured |
|---------------|---|--|
| | relevant to pollution prevention and avoidance of ground disturbance. The Onshore Decommissioning Plan will be in line with the latest relevant available guidance. | |
| Co147 | Tertiary: Appropriate liaison will take place with the Internal Drainage Board during construction. | DCO Requirement 16 (Code of construction practice) |
| Co157 | Secondary: Fences, walls, ditches and drainage outfalls will be retained along the onshore export cable corridor and landfall, where possible. Where it is not possible to retain them, any unavoidable damage will be repaired and reinstated as soon as reasonably practical. | DCO Requirement 16 (Code of construction practice) |
| Co183 | Where possible the design of all temporary access tracks will replicate or be as consistent with existing ground levels as possible, to limit any effects on future flood risk. | DCO Requirement 16 (Code of construction practice) |
| Co184 | Where the permanent access track to the OnSS may be required to pass over an existing watercourse, the crossing will be appropriately designed to maintain existing ground elevations to ensure continued floodplain capacity and/or flow conveyance, where possible. | DCO Requirement 16 (Code of construction practice) |

2 Pre-construction and construction drainage

2.1 Landfall and onshore ECC

- 2.1.1.1 Hornsea Four has committed to using trenchless technology such as Horizontal Directional Drilling (HDD) to cross all Main Rivers and IDB maintained drains (Co1) in order avoid possible effects associated with crossing these major watercourses. Further details of these crossings can be found in [Volume 4, Annex 4.2: Onshore Crossing Schedule](#). The entry and exit pits will be located a minimum of 9 m from main rivers, IDB maintained drains and ordinary watercourses, and the onshore ECC will be installed at least 1.2m beneath the bed of main rivers and IDB maintained drains (where they are being crossed using HDD) in order to avoid and minimize any associated flood risk (Co18). The optimal clearance depth will be agreed with relevant authorities (e.g. Environment Agency and IDB), where appropriate, prior to construction (Co18).
- 2.1.1.2 Prior to construction a Construction Drainage Scheme will be developed to facilitate the temporary construction works. Hornsea Four will coordinate detailed drainage surveys to establish the existing drainage baseline environment prior to submitting an application for development consent (Co14). A reputable drainage expert with experience of working in the local area will be enlisted to carry out the surveys, and to consult with landowners and occupiers in establishing the baseline environment (Co14). This is to ensure that local, site-specific and landowner knowledge is effectively captured. The local drainage expert will also inform and assist liaison in establishing and agreeing any post-construction ([Section 3.1](#))

detailed drainage designs which may be required, in consultation with landowners, occupiers, the Environment Agency, LLFA and IDB, as appropriate.

- 2.1.1.3 These surveys to be constructed prior to construction will identify all ordinary watercourses (as well as agricultural ditches) to be crossed by the onshore ECC. As such, where agricultural land drainage is intercepted by the onshore ECC, land drainage will be maintained during construction, and care will be taken to ensure that land drainage is not compromised for the duration of the construction of Hornsea Four. For details on the operational drainage refer to [Section 3.1](#).
- 2.1.1.4 Where the onshore ECC crosses land drains and minor ditches during cable installation, it is likely that any existing field drainage could be severed. In these locations, it will be necessary to ensure that flow along the watercourse is maintained and there is no increase in flood risk as a result of the temporary works. The methodology to be used for any temporary construction at crossing points over existing ditches and watercourses shall be agreed with the Environment Agency, Local Authority and / or Internal Drainage Board.
- 2.1.1.5 During construction, temporary drainage will be installed either side of the cable trenches where land drainage may be intercepted, within the onshore ECC 80 m temporary working area. This temporary drainage will intercept existing field drains and ditches in order to ensure the integrity of the existing land drainage characteristics are maintained during construction. This is to ensure there is no increase in flood risk to on and off-site receptors during and after construction, and to ensure existing flow is not channelled by the onshore ECC. All temporary drainage will pass through a silt interceptor before being discharged back in to any watercourses. This drainage will also assist in reducing the potential for wet areas to form during the works, thereby reducing the impact on soil structure and fertility. Drainage systems however, will not be installed into areas where they are not currently present.

2.2 OnSS

- 2.2.1.1 A construction drainage system will be implemented at the beginning of the construction phase, and subsequent to detailed land drainage surveys (Co14). This will cover the drainage requirements for both the temporary and permanent working areas for the OnSS. It will ensure that any land drainage is maintained and that any greenfield run-off rates will be maintained. This will be used alongside the most relevant pollution prevention guidance available at the time (Co4).

3 Operational drainage

3.1 Landfall and onshore ECC

- 3.1.1.1 The surveys conducted prior to construction will identify all construction and operational drainage requirements for the landfall and onshore ECC (Co14). Any field drainage ditches and drainage outfalls intercepted in aid of the construction and installation of the onshore ECC will either be reinstated following the completion of construction the landfall and

onshore ECC (Co157), or diverted in to a secondary channel. Where necessary post construction drains may also be installed, these will typically sit parallel to the onshore ECC, within permanent 60 m easement. An operational Onshore Infrastructure Drainage Strategy will be developed (in accordance with this Outline Drainage Strategy), which will ensure that existing land drainage is reinstated and maintained such that pre-development greenfield run-off rates are maintained throughout the operation of Hornsea Four (Co19).

3.2 OnSS

3.2.1.1 The final impermeable areas of the OnSS are not yet defined, and as such as detailed pre-construction drainage surveys (Co14) will be used to develop a detailed OnSS drainage design post-consent, and once the final design of the OnSS has been finalised. The drainage strategy will be developed according to the principles of the SuDS discharge hierarchy. Generally, the aim will be to discharge surface water runoff as high up the following hierarchy of drainage options as reasonably practicable ('1.' Being the highest of the hierarchy listed below):

1. Into the ground (infiltration).
2. To a surface water body.
3. To a surface water sewer, highway drain or another drainage system.
4. To a combined sewer.

3.2.1.2 When considering surface water flood risk, the ERYC guidance requires drainage design to accommodate a 30% increase, by either increasing peak rainfall in hydraulic calculations or by increasing on-site storage, as set out in the SuDS Combined Planning Note and Standing Advice (ERYC, 2016) (Co14 and Co19).

3.2.1.3 The detailed design of the surface water drainage scheme will be based on a series of infiltration/soakaway tests carried out on site and the attenuation volumes outlined in supporting FRAs. The tests will be undertaken prior to construction and in accordance with the BRE Digest 365 Guidelines. The strategy will ensure that the current mean annual run-off rates at the substation are maintained at a rate to be agreed with the Environment Agency and are monitored to ensure that the agreed rate of discharge is maintained.

3.2.1.4 The permanent access track for the OnSS does currently intersect with an area of Flood Zone 3 (see [Volume 6, Annex 2.2: Onshore Infrastructure Flood Risk Assessment for further details](#)). As such Hornsea Four has committed to appropriately designed the permanent crossing to maintain existing ground elevations to ensure continued floodplain capacity and/or flow conveyance, where possible (Co184).

3.2.2 Sustainable Drainage

3.2.2.1 The use of SuDS in sustainable water management is promoted through the National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2019) and associated planning policy guidance (Ministry of Housing, Communities and Local Government, 2018). Additional best practice guidance is provided in The SuDS Manual

(CIRIA C753) (Woods Ballard et al. 2015). These documents identify a hierarchy of techniques:

- **Prevention** – the use of good site design and housekeeping measures on individual sites to prevent runoff and pollution (e.g. minimise areas of hard standing);
- **Source Control** – control of runoff at or very near its source (such as the use of rainwater harvesting);
- **Site Control** – management of water from several sub-catchments (including routing water from roofs and car parks to one/several large soakaways for the whole site); and
- **Regional Control** – management of runoff from several sites, typically in a detention pond or wetland.

3.2.2.2 Surface water drainage requirements will be dictated by the final Surface Water and Drainage Strategy and will be designed to meet the requirements of the NPPF, NPS EN-1, NPS EN-5, and the CIRIA SuDS Manual C753 (CIRIA, 2015) with runoff limited where feasible, through the use of infiltration techniques which can be accommodated within the area of the development.

3.2.2.3 The implementation of SuDS as opposed to conventional drainage systems, can provide multiple benefits by:

- Reducing peak flows to watercourses or sewers and potentially reducing the risk of flooding downstream.
- Reducing the volumes and frequency of water flowing directly to watercourses or sewers from developed sites.
- Improving water quality over conventional surface water sewers by removing pollutants from diffuse pollutant sources.
- Reducing potable water demand through rainwater harvesting.
- Improving amenity through the provision of public open spaces and wildlife habitat. Replicating natural drainage patterns, including the recharge of groundwater so that base flows are maintained.

3.3 Runoff Rates

3.3.1 Runoff Rate Calculations

3.3.1.1 An assessment of the current Greenfield and proposed runoff rates has not yet been undertaken. However, the surface water attenuation requirements for the OnSS Area will be determined in-line with The SuDS Manual (2015), which indicates that the flow rate discharged from the OnSS Area must not exceed that prior to construction of the Hornsea Four OnSS for the:

- 1 in 1-year event
- Qbar
- 1 in 30-year event
- 1 in 100-year event

3.3.1.2 The controlled runoff rate will be equivalent to the greenfield runoff rate. The resultant storage / attenuation volume provided will be sufficient to ensure that during the 1 in 100-year event plus an allowance for climate change there will be no increase in runoff from the site. This will include an allowance for the advised 30% increase to allow for future climate change (ERYC, 2016).

3.3.2 Attenuation requirements

3.3.2.1 Attenuation ponds will be required to restrict the surface water runoff to the existing 1 in 1-year rate for a 1 in 100 year rainfall event plus climate change. Sufficient storage will be provided to attenuate surface water and discharge at a controlled rate during surface water events. The full specification for the volume and location of the attenuation storage will be detailed within the Onshore Infrastructure Drainage Strategy, which will be based on in this Drainage Strategy (post Development Consent Order (DCO) consent).

3.3.2.2 Drainage systems installed for the OnSS. will include suitably sized attenuation ponds / tank(s). The proposed location for the attenuation storage is likely to be towards the southeast corner of the Permanent OnSS as this is the lowest point of the site. The exact position will be confirmed during detailed design, post-consent.

3.3.2.3 The controlled runoff rate will be equivalent to the greenfield runoff rate. The resultant storage / attenuation volume provided will be sufficient to ensure that during the 1 in 100-year event plus an allowance for climate change there will be no increase in runoff from the site. This will include an allowance for the advised 30% increase to allow for future climate change.

3.3.3 Drainage Systems

3.3.3.1 To attenuate offsite surface water flows a series of underground attenuation tanks are proposed. Oil dumps will provide storage and will be designed based upon the bund areas and would discharge via a bund water control pump into an oil separator at a rate of 1.2l/s. A class 1 full-retention NGET Oil Separator will be specified with a capacity to accept flows from the bund areas using manufacturer's proprietary data tables. This clean water is then discharged along with the surface water drainage into the attenuation tanks/ponds. Waste water from toilets etc. will be connected to a Cess tank(s) (not connected to the utility system).

3.3.3.2 Impermeable Areas

3.3.3.3 Surface water from impermeable areas, such as roofs and open oil-filled compounds will be controlled in a drainage/attenuation system.

3.3.3.4 Permeable Areas

3.3.3.5 Surface water from permeable areas including roads and hard standings will run-off into minimum 350mm deep soakaways running around the perimeter of the respective areas. These will be sized based on the surface area in question. The soakaways will not run into the attenuation ponds/tanks but will (following geotechnical/ground reports) go straight to ground.

3.4 Flood Warning and Evacuation Plan

3.4.1.1 A flood warning and evacuation plan is a list of steps to be taken in case of a flood, although it can also include steps such as taking out the relevant insurance or using recommended flood mitigation products.

3.4.1.2 Specific flood warning and evacuation plans should be produced for the construction phase of the Landfall, OnSS and the onshore ECC, specifically related to construction works at watercourse crossing locations where personnel or materials may be located, albeit temporarily, within Flood Zones 2 and 3.

3.4.1.3 All personnel using the access routes should be made aware of those access routes which are located within Flood Zones 2 and 3, including the permanent access route from the OnSS. Any flood warnings issued for those areas should result in the relevant access routes being cleared of all project personnel and, where possible, all project plant / materials.

3.4.1.4 A site-specific flood warning and evacuation plan should include practical steps for protecting the project, be easy to communicate and consider delegated responsibility, or whether personnel are likely to require additional support during a flood event.

3.4.1.5 The Environment Agency has produced guidance for 'Preparing Businesses for Flooding' (Environment Agency, 2015). It provides check lists and supporting guidance for preparing for a flood event. Whilst the project is not of the same scale as those considered within these documents, it is anticipated that the project will require a comprehensive Flood Warning and Evacuation Plan including elements of this guidance which should form the foundation of any flood plan considerations. The following aspects need to be considered:

- A list of important contacts, including Floodline, utilities companies and insurance providers;
- A description or map showing locations of service shut-off points;
- Basic strategies for protecting property, including moving assets to safety where possible, turning off / isolating services and moving to safety; and
- Safe access and egress routes.

3.4.1.6 During construction, contractors and management should liaise with the LLFA and the Environment Agency so they are aware of any forecast related to heavy rainfall events. A

flood warning can then be issued when necessary to allow work to stop, especially in areas in close proximity to key watercourses. The site cleared of all personnel in this instance.

4 Decommissioning drainage

4.1.1.1 During decommissioning, the preferred option at landfall (including the intertidal area) and the onshore ECC is to leave the cables in situ in the ground with the cable ends cut, sealed and securely buried as a precautionary measure. At the OnSS all electrical infrastructure will be removed, the foundations will be broken up and the site will be reinstated to its original condition or for an alternative use. Hornsea Four has also committed to producing an Onshore Decommissioning Plan (Co127) which will include all details relating to decommissioning drainage. It will adhere to the latest relevant available guidance and will be agreed with the appropriate stakeholders.

4.1.1.2 Further details in relation to decommissioning can be found in **Volume 1, Chapter 4: Project Description**.

5 References

East Riding of Yorkshire Council (2016). Sustainable Drainage Systems (SuDS) & Surface Water Drainage Requirements For New Development. Design and Maintenance. Combined Planning Note and Standing Advice. [Online] Available from: <https://www.eastriding.gov.uk/environment/planning-and-building-control/design-of-surface-water-drainage-systems/> (Accessed 20/05/2019)

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