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**Your ref:** EN010079  
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Via email:  
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Dear Sir/Madam

**RELEVANT REPRESENTATIONS – NORFOLK VANGUARD OFFSHORE WIND FARM. NOTICE OF ACCEPTANCE OF AN APPLICATION FOR A DEVELOPMENT CONSENT ORDER. SECTION 56 OF THE PLANNING ACT 2008, REGULATION 8 OF THE INFRASTRUCTURE PLANNING (APPLICATIONS: PRESCRIBED FORMS AND PROCEDURE) REGULATIONS 2009 AND REGULATION 13 OF THE INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2009**

Thank you for the opportunity to comment on the application for a Development Consent Order for the proposed Norfolk Vanguard development. We have inspected the application as submitted and our relevant representations are provided below. In particular, we request that Requirement 20 specifically states that the Environment Agency's prior approval of relevant elements of the Code of Construction Practice is required. We have made some observations and recommendations regarding the evidence and study presented in the application. We do welcome and support the commitment to use HDVC technology which will minimise the extent and duration of disturbance and, the use of HDD to cross six main rivers and sensitive sites.

**1.0 The Role of the Environment Agency**

1.1 The Environment Agency is a statutory consultee on all applications for development consent orders. We have a responsibility for protecting and improving the environment, as well as contributing to sustainable development.

1.2 We have three main roles:

(i) We are an environmental regulator – we take a risk-based approach and target our effort to maintain and improve environmental standards and to minimise unnecessary burdens on business. We issue a range of permits and consents.

(ii) We are an environmental operator – we are a national organisation that operates locally. We work with people and communities across England to protect and improve the environment in an integrated way. We provide a vital incident response capability.

(iii) We are an environmental advisor – we compile and assess the best available evidence and use this to report on the state of the environment. We use our own monitoring information and that of others to inform this activity. We provide technical information and advice to national and local governments to support their roles in policy and decision-making. One of our specific functions is as a Flood Risk Management Authority. We have a general supervisory duty relating to specific flood risk management matters in respect of flood risk arising from Main Rivers or the sea.

## **2.0 Code of Construction Practice (CoCP)**

2.1 The Outline Code of Construction Practice (Outline CoCP)– PINS Document Reference: 8.01- sets out the applicant's approach to protecting the environment during the construction process.

2.2 The Outline CoCP points out at Section 1.2 paragraph 5 that a final detailed CoCPs will be produced based on the content of the Outline CoCP and the final design of the project. We agree with this approach.

2.3 The Outline CoCP does not appear to contain an assessment of risk nor monitoring process for the release of bentonite or other drilling fluids at trenchless crossings; this should have been included. An Assessment and monitoring process for this risk should be included in the final CoCP and be referenced in the Environmental Incident Response and Contingency Plan.

2.4 We note that within the sections detailed at 5. (Invasive Species – paragraph 73) and 6. (Contaminated Land and Groundwater- paragraph 78) it states that the plans would be developed with the prior approval of the Environment Agency. We agree that this is necessary to ensure protection of the environment in relation to these issues.

2.5 However, to ensure protection of the environmental elements within our remit the Environment Agency's prior approval should not be limited to the sections detailed at 2.4 above.

2.6 The Environment Agency's prior approval should be obtained for soil management, construction method statements, site and excavated waste management, and surface water drainage plans. This is to ensure that all areas within our remit are adequately addressed and that areas of crossover between environmental elements are captured.

2.7 However, we note that within the Draft Development Consent Order– PINS Document Reference: 3.1. Schedule 1, Part 3 'Requirements', Code of Construction Practice paragraph 20 (page 50); that there is no requirement for the Environment Agency to be consulted or approve detailed CoCPs.

2.8 We consider that in order to safeguard areas within our remit that our prior approval of the detailed CoCP and site specific Pollution Control Plans is necessary. Specific reference to our prior approval in the Requirements will provide clarity and certainty to the relevant local planning authority.

2.9 We request that Requirement 20 includes a requirement that for each phase a CoCP and associated pollution control plans are submitted to and approved by the Environment Agency prior to works on that phase commencing.

2.10 Section 3.2 Construction Site Layout and Housekeeping paragraph 45 sets out measures for working in Flood Zones 2 or 3. This includes a proposal to leave gaps in stored spoil. This measure is not acceptable. Spoil should not be stored in the functional floodplain of a watercourse. Any spoil stored in a functional floodplain will take away the flood storage capacity for that area and so increase flood risk elsewhere. In addition, storage of spoil in the functional floodplain would increase the risk of sediment mobilisation and drainage to watercourses in a flood event.

### **3.0 Chapter 19. Volume 1. Environmental Statement: Ground Conditions and Contamination**

3.1 We concur that it is essential to consult regulators before construction starts on the protocols to address unexpected contamination and dealing with waste soils. We are also pleased to note that regulators will be consulted on risk assessments for key areas within SPZ1.

3.1 Paragraphs 114 and 115 consider the potential of polluting substances and activities during construction, concluding that any changes are predicted to be of 'high reversibility'.

3.2 Further consideration should be given to the impacts of mobilising existing contamination on excavation; depending on the contaminants and sediments involved this may not be of 'high reversibility' and the potential impact therefore of greater concern.

3.3 In table 19.4 (Receptor sensitivity assessment examples) has included 'unlicensed water supplies' in the low sensitivity receptors part of the table.

3.4 Given that they may be the sole source of drinking water supply to a household, unlicensed abstractors should be assumed to have the same sensitivity as public water supply SPZs 1 and 2 (i.e. high) unless information is collected to show that mains water is available to a particular household.

3.5 Reference is made to oil and petroleum tanks in Happisburgh village At paragraph 62; historic brick and tile manufacture north east of North Walsham, at paragraph 82, and an infilled clay and shale pit at Necton identified at paragraphs 88 & 89.

3.6 There should be a more detailed assessment of the potential for petroleum hydrocarbon pollution within the landfill working area at Happisburgh and potential contamination at the brick works at north east of North Walsham, and the infilled clay and shale pit at Necton.

3.7 At section 19.7.5.4 the potential for impacts on groundwater quality arising from trenchless crossings are discussed, and at paragraph 129 the report concludes that the magnitude of effect on drinking water supplies is considered to be low.

3.8 This should be the case if an inert drilling fluid is used; the choice of drilling fluid and HDD methodology should be agreed with the Agency prior to the start of trenchless crossing works. This should include specific mitigation measures in addition to the 'embedded' measures presented in this chapter.

- 3.9 Section 19.7.5.8 suggests that works should have little effect on the hydraulic regime in shallow aquifers and therefore, little risk to local groundwater abstractors.
- 3.10 However, there is the potential for a significant impact at any shallow wells in close proximity to the excavations; all abstractions within the study area therefore need to be assessed in detail to ensure that local water supplies are not compromised.
- 3.11 Tables 19.2 and 19.9 make reference to ground investigation reports by Terra Consult (2017) and GHD (2018); we would like to see these documents.
- 3.12 In section 19.6.2.4 it is noted that no information can be obtained on private groundwater abstractions.
- 3.13 The Environment Agency can provide information on aquifer geology and sometimes borehole depth for most groundwater abstractions that were licensed until 2002. We have made an offer to the applicant to supply this information since the DCO application was submitted.
- 3.14 For information, in section 19.6.2.3, the Poor Quantitative WFD status of the Broadland Rivers Chalk and Crag groundwater body (GB40501G400300) is said to be Poor due to impacts from agriculture (p.30); whilst this is the case for the Qualitative chemical status, the Poor Quantitative status is related to the impacts on groundwater dependent terrestrial ecosystems.

#### **4.0 Chapter 20. Volume 1. Environmental Statement: Water Resources and Flood Risk**

- 4.1 Table 20.1, Appendix 2.4 Detailed Watercourse Crossing Schedule, volume 3, sheet 16. The table shows that the Whitewater River is to be crossed by using open trench techniques.
- 4.2 The Whitewater River is a main river and the applicant will require an environmental permit unless the legislation relating to environmental permits is disapplied. For either of these options it will be necessary for the applicant to demonstrate that flood risk to the surrounding area will not be increased as a result of the works.
- 4.3 It is not clear from the information submitted where drilling will start and end and whether or not it will be within the floodplain of the river in question. Care will need to be taken to ensure that any material excavated and not being reused is not stored in the floodplain. As previously stated in section 2 of this letter we expect to be consulted and have prior approval of the CoCP.
- 4.4 The selection of inert solid plastic rather than oil insulated cables will greatly reduce the contamination risk; the risk of mobilising existing contamination should be reduced by the proposed sectionalised excavation of workings of 100m.
- 4.5 We concur that the worst case shallow depth of the cable corridor (1.5m) and jointing bays (2 m) and small volume of the installations should mean that any

change in shallow aquifer groundwater flow should be localised and insignificant.

- 4.6 However, we are pleased to note that local landowners will be consulted on private water supplies during pre-construction works to ensure the proper assessment and protection of shallow wells in close proximity to the works.
- 4.7 The applicant has indicated that monitoring schemes will be put in place for crossings in sensitive locations, the Environment Agency would like to be consulted on any proposed monitoring schemes associated with river crossing and pollution remediation works; this is to ensure the protection of the Wensum SAC and Southern North Sea SAC.
- 4.8 Bedrock and superficial aquifers maps Map.1. The Southern north Sea SAC is not noted at the landfall area.
- 4.9 Map.3. Special care is needed for HDD through principal Crag aquifer under the road near Drabblegate.
- 4.10 Map.7. Special care is needed for TC 5 HDD under Wensum and Wensum SAC.
- 4.11 Superficial geology and ground investigation locations maps: In the legends for this suite of maps, the Crag is referred to as a superficial deposit, whereas it is a principal aquifer and must be accorded the protection warranted for such an important groundwater resources unit.
- 4.12 Bedrock geology maps: The classification of bedrock in maps 1-5 as Neogene to Quaternary Rocks (Undifferentiated)" should be replaced with Crag; it is important that it is clear that these rocks comprise principal aquifer sediments of high importance with regards to groundwater resources.
- 4.13 Chapter 20, Appendix 20.2 WFD Compliance Assessment table 20.2 'WFD water bodies screened into the WFD compliance assessment' states that Blakeney Spit Lagoon is at GES, however as a A/HMWB it can only achieve GEP and is designated as such.

## **5.0 Chapter 22 Onshore Ecology**

- 5.1 Paragraph 91. Please note that although this SSSI is of geological importance, there is an active Sand Martin colony on the Happisburgh Cliffs close to this designated site. Further consideration and assessment (including establishing locations) is required to inform what mitigation will be required during construction.
- 5.2 Paragraph 96 states that all non-statutory designated sites are considered of medium importance. We do not support this approach. There are local wildlife and County wildlife sites that have qualifying features of similar quality and importance to SSSI's (which can only every represent the best 5% of any habitat type). Norfolk Wildlife Trust should advise which have features similar to a SSSI.
- 5.3 Paragraph 134 Open cut trenched techniques – In order to allow fish passage for the duration of the work (especially of dam or diversion is in place for up to 2 years) it would be preferable to avoid use of pumps, and where unavoidable

to use a screen to prevent the uptake of fish into the pump mechanism. Further advice can be given regarding pump screening/ mesh once final method has been decided

## **6.0 5.4 Consents and Licences required under other legislation**

- 6.1 We note that the applicant has indicated in this document that they are not seeking to apply for environmental permits at this stage. We would like to remind the applicant that it will be necessary to apply for and have in place all necessary permits prior to any works commencing.
- 6.2 The applicant has correctly detailed in the document that Environmental Permits will be required for water discharge and waste operations as well as Water Abstraction Licences. However, it is important to note that a Flood Risk Activity Permit is required for works over, under or within 8 metres of a main river although we note that this is reference in the draft DCO.
- 6.3 **Flood Risk Activity Permit.** Proposed crossings of the main rivers by both open cut and trenching methods will require a Flood Risk Activity Permit from the Environment Agency (unless the relevant legislation is disapplied). The proposed crossings of main river by directional drilling may fall under an exemption if they meet all of the conditions, which include being further than 200 metres from a SSSI, SAC and SPA, and the crossing is within 10 degrees of perpendicular to the direction of flow in the river. All the requirements can be found at <https://www.gov.uk/government/publications/environmental-permitting-regulationsexempt-flood-risk-activities/exempt-flood-risk-activities-environmentalpermits>
- 6.4 If the requirements for exemption are met, the applicant must register an exemption with the Environment Agency. If the proposed crossing does not meet all the conditions of the exemption then it will need to be applied for as a bespoke permit. The application forms can be found at <https://www.gov.uk/guidance/flood-risk-activities-environmentalpermits#bespoke-permits>
- 6.5 If the proposed crossings are using an open cut method then a bespoke permit will be required, as detailed above.

## **7.0 Protective Provisions**

- 7.1 The Applicant seeks to disapply various pieces of legislation for which the Environment Agency is the consenting body (Article 7 of the draft Development Consent Order submitted with the application – please note that the Environmental Permitting Regulations (England and Wales) 2016 are now the relevant regulations which relate to flood risk activity permitting ) The applicant has put forward suggested protective provisions for the benefit of the Environment Agency (Schedule 16). We are currently considering our position in relation to the legislation which is relevant to the Environment Agency’s remit and the suggested draft protective provisions. We will be responding to the Applicant on these issues in due course and will provide the Examining Authority with an update when we submit our Written Representations.

We trust that these comments are useful.

Yours faithfully



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