

# DOGGER BANK D WIND FARM

## Preliminary Environmental Information Report

Volume 2

Appendix 9.1 Consultation Responses for  
Marine Water and Sediment Quality

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APPENDIX 9.1 CONSULTATION REPONSES FOR MARINE WATER AND  
SEDIMENT QUALITY

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## APPENDIX 9.1 CONSULTATION REPONSES FOR MARINE WATER AND SEDIMENT QUALITY

### Glossary

Term	Definition
Additional Mitigation	<p>Measures identified through the EIA process that are required as further action to avoid, prevent, reduce or, if possible, offset likely significant adverse effects to acceptable levels (also known as secondary (foreseeable) mitigation)</p> <p>All additional mitigation measures adopted by the Project are provided in the Commitments Register.</p>
Array Area	The area within which the wind turbines, inter-array cables and offshore platform(s) will be located.
Commitment	<p>Refers to any embedded mitigation and additional mitigation, enhancement or monitoring measures identified through the EIA process and those identified outside the EIA process such as through stakeholder engagement and design evolution.</p> <p>All commitments adopted by the Project are provided in the Commitments Register.</p>
Design	All of the decisions that shape a development throughout its design and pre-construction, construction / commissioning, operation and, where relevant, decommissioning phases.
Development Consent Order (DCO)	A consent required under Section 37 of the Planning Act 2008 to authorise the development of a Nationally Significant Infrastructure Project, which is granted by the relevant Secretary of State following an application to the Planning Inspectorate.
Effect	An effect is the consequence of an impact when considered in combination with the receptor's sensitivity / value / importance, defined in terms of significance.
Embedded Mitigation	<p>Embedded mitigation includes:</p> <ul style="list-style-type: none"> <li>Measures that form an inherent part of the project design evolution such as modifications to the location or design of the development made during the pre-application phase (also known as primary (inherent) mitigation); and</li> <li>Measures that will occur regardless of the EIA process as they are imposed by other existing legislative requirements or are considered as standard or best practice to manage commonly occurring environmental impacts (also known as tertiary (inexorable) mitigation).</li> </ul> <p>All embedded mitigation measures adopted by the Project are provided in the Commitments Register.</p>
Environmental Impact Assessment (EIA)	A process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information and includes the publication of an Environmental Statement.

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Term	Definition
Environmental Statement (ES)	A document reporting the findings of the EIA which describes the measures proposed to mitigate any likely significant effects.
Evidence Plan Process (EPP)	A voluntary consultation process with technical stakeholders which includes a Steering Group and Expert Topic Group (ETG) meetings to encourage upfront agreement on the nature, volume and range of supporting evidence required to inform the EIA and HRA process.
Expert Topic Group (ETG)	A forum for targeted technical engagement with relevant stakeholders through the EPP.
Impact	A change resulting from an activity associated with the Project, defined in terms of magnitude.
Mitigation	Any action or process designed to avoid, prevent, reduce or, if possible, offset potentially significant adverse effects of a development.  All mitigation measures adopted by the Project are provided in the Commitments Register.
Monitoring	Measures to ensure the systematic and ongoing collection, analysis and evaluation of data related to the implementation and performance of a development. Monitoring can be undertaken to monitor conditions in the future to verify any environmental effects identified by the EIA, the effectiveness of mitigation or enhancement measures or ensure remedial action are taken should adverse effects above a set threshold occur.  All monitoring measures adopted by the Project are provided in the Commitments Register.
Offshore Development Area	The area in which all offshore infrastructure associated with the Project will be located, including any temporary works area during construction, which extends seaward of Mean High Water Springs. There is an overlap with the Onshore Development Area in the intertidal zone.
Offshore Export Cable Corridor (ECC)	The area within which the offshore export cables will be located, extending from the DBD Array Area to Mean High Water Springs at the landfall.
Offshore Export Cables	Cables which bring electricity from the offshore platform(s) to the transition joint bay at landfall.
Project Design Envelope	A range of design parameters defined where appropriate to enable the identification and assessment of likely significant effects arising from a project's worst-case scenario.  The Project Design Envelope incorporates flexibility and addresses uncertainty in the DCO application and will be further refined during the EIA process.
Scoping Opinion	A written opinion issued by the Planning Inspectorate on behalf of the Secretary of State regarding the scope and level of detail of the information to be provided in the Applicant's Environmental Statement.

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Term	Definition
	The Scoping Opinion for the Project was adopted by the Secretary of State on 02 August 2024.
Scoping Report	<p>A request by the Applicant made to the Planning Inspectorate for a Scoping Opinion on behalf of the Secretary of State.</p> <p>The Scoping Report for the Project was submitted to the Secretary of State on 24 June 2024.</p>
Study Areas	A geographical area and / or temporal limit defined for each EIA topic to identify sensitive receptors and assess the relevant likely significant effects.
The Applicant	SSE Renewables and Equinor acting through 'Doggerbank Offshore Wind Farm Project 4 Projco Limited'.
The Project	Dogger Bank D Offshore Wind Farm Project, also referred to as DBD in this PEIR.

## 9.1 Consultation Responses for Marine Water and Sediment Quality

1. The Environmental Impact Assessment (EIA) for the Dogger Bank D Offshore Wind Farm (herein referred to as ‘the Project’ or ‘DBD’) has been informed by consultation with the Planning Inspectorate and stakeholders following the publication of the Scoping Report (Royal HaskoningDHV, 2024) and the comments contained within the Scoping Opinion (Planning Inspectorate, 2024). This appendix contains details of the relevant comments and the Applicant’s responses in relation to Marine Water and Sediment Quality, presented in **Table 9.1-1**.
2. The Applicant previously submitted a Scoping Report in 2023 based on project parameters at that time. The 2023 Scoping Report (Royal Haskoning, 2023) and adopted Scoping Opinion (Planning Inspectorate, 2023) have been superseded by the below. As such consultation responses on the 2023 Screening Report are not considered further in this document.

*Table 9.1-1 Consultation Responses for Marine Water and Sediment Quality*

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Environment Agency	Scoping Opinion (02/08/24)	<p>In respect to the proposed assessment approach, we would expect that a Water Framework Directive (WFD) compliance assessment be completed for the offshore works, as set out in National Policy Statement (NPS) EN-1 4, section 5.16. Please also see Advice Note 185 for further information on how WFD should be considered.</p> <p>The WFD assessment should:</p> <ul style="list-style-type: none"> <li>• Consider the impact of the proposal on the WFD status of the Yorkshire South Coastal waterbody (GB640402491000) and any linked water bodies</li> </ul>	A WFD Compliance Assessment was undertaken and is presented in <b>Appendix 21.4 Water Environment Regulations Compliance Report</b> .

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Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
		<ul style="list-style-type: none"> <li>Identify all potential risks to the following receptors: hydromorphology, biology – habitats, biology – fish, water quality, WFD protected areas and invasive non-native species</li> <li>Ensure that there is no deterioration resulting from the proposed activities</li> <li>Demonstrate how the development/activity will avoid adverse impacts</li> <li>Describe how any identified impacts will be mitigated for or suggest compensation for loss</li> </ul> <p>Guidance on how to assess the impact to WFD is available on Gov.uk <a href="https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters">https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters</a></p>	
Natural England	Scoping Opinion (02/08/24)	We advise that the array and offshore export cable corridor (ECC) should be scoped in when assessing the impact of increased suspended sediment concentrations during construction, including site preparation works.	The assessment of effects for increased suspended sediment concentrations during construction (including site preparation works) is presented <b>in Section 9.7.1 in Volume 1, Chapter 9 Marine Water and Sediment Quality.</b>
Marine Management Organisation (MMO)	Scoping Opinion (02/08/24)	The MMO defers to The Environment Agency on the suitability of the scope of the assessment with regards to water quality.	Noted.



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Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
MMO	Scoping Opinion (02/08/24)	The MMO does not agree that the remobilisation of existing contaminated sediments should be scoped out for the operational phase of the offshore ECC, or for the construction/operation of the Array Area at this stage.	<p>The impact of remobilisation of contaminated sediments within the Array Area was scoped out from assessment in the Scoping Report and agreed in The Planning Inspectorates Scoping Opinion, as the sediment sampling results showed negligible contaminant levels.</p> <p>Within the offshore ECC, the impact has been considered for all phases of the Project supported by sediment contamination data, and the assessment of effects is presented in <b>Section 9.7 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b>.</p> <p>For clarity, all of the sediment and contaminant data collected from within the Array Area and the offshore ECC is presented in the PEIR (<b>Appendix 9.2 Sediment Quality Analysis Report</b>).</p>
MMO	Scoping Opinion (02/08/24)	The MMO notes that very little detail has been provided at this stage of the application in regard to the proposed dredging (including dredge depth and volume) for activities such as seabed preparation and sandwave levelling. As such, the MMO is unable to agree that the sediment sampling that has been undertaken is sufficiently representative of the material to be dredged within the DBD Array area; or that the potential impacts from remobilisation of existing contaminated sediment during the construction/maintenance phase of the DBD Array area can be scoped out at this stage of assessment.	<p>Worst-case scenarios for sediment displacement volumes for seabed preparation are provided in <b>Table 9.4 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b>.</p> <p>Sediment sampling and contaminant analysis of the samples within the Array Area and ECC has been undertaken. All of the sediment and contaminant data collected from within the Array Area and the offshore ECC is presented in the PEIR (<b>Appendix 9.2 Sediment Quality Analysis Report</b>).</p>

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Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
			<p>The impact of remobilisation of contaminated sediments within the Array Area was scoped out from assessment in the Scoping Report and agreed in The Planning Inspectorates Scoping Opinion, as the sediment sampling results showed negligible contaminant levels.</p> <p>Within the offshore ECC, the impact has been considered for all phases of the Project supported by sediment contamination data, and the assessment of effects is presented in <b>Section 9.7 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b>.</p>
MMO	Scoping Opinion (02/08/24)	<p>MMO notes that the potential impacts for the remobilisation of existing contaminated sediments associated with operation and maintenance activities are scoped out of the EIA. The MMO does not agree this should be scoped out as little detail has been provided regarding any dredging that would likely be carried out during maintenance operations. Maintenance/repair works that will likely require dredging to be carried out during the project lifetime must be considered.</p> <p>The MMO requests that the remobilisation of existing contaminated sediments for the operational phase of the Offshore ECC, and for the construction/operation of the DBD Array Area for multiple receptors (including benthic, fish and sediment and water quality) be scoped into the EIA. Further justification is required to scope these out.</p>	<p>Worst-case scenarios for sediment displacement volumes for seabed preparation are provided in <b>Table 9.4 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b>.</p> <p>Sediment sampling and contaminant analysis of the samples within the Array Area and ECC has been undertaken. All of the sediment and contaminant data collected from within the Array Area and the offshore ECC is presented in the PEIR (<b>Appendix 9.2 Sediment Quality Analysis Report</b>).</p> <p>The impact of remobilisation of contaminated sediments within the Array Area was scoped out from assessment in the Scoping Report and agreed in The Planning Inspectorate's Scoping Opinion, as the sediment sampling results showed negligible contaminant levels.</p>

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			Within the offshore ECC, the impact has been considered for all phases of the Project supported by sediment contamination data, and the assessment of effects is presented in <b>Section 9.7 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b> . Please refer to <b>Volume 1, Chapter 10 Benthic and Intertidal Ecology</b> and <b>Volume 1, Chapter 11 Fish and Shellfish Ecology</b> for the assessment on these receptors.
MMO	Scoping Opinion (02/08/24)	The 2023 sediment sample results must be provided in the standard MMO template alongside the results for the (planned) Offshore ECC sampling in an MMO results template to support future assessment (Please see: <a href="https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans">https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans</a> ). Details regarding the laboratories that undertook the analysis, as well as the depths from which samples were collected should also be provided.	The sediment sampling results from within the Array Area and the offshore ECC have been provided in <b>Appendix 9.2 Sediment Quality Analysis Report</b> . These results have been provided in the standard MMO template.
MMO	Scoping Opinion (02/08/24)	It is stated in section 7.4.3.1.3 - Remobilisation of Contaminated Sediments, that site specific sampling was undertaken in summer 2023 at 28 sample stations located in the DBD array area as well as areas between the Array area and the land fall (shown in figure 7-7 of the Scoping Report). It is not clear which locations are referred to in this figure. The MMO notes only one sediment sample (TB_4) is indicated to be within the DBD Array Area in Figure 7-7, but in section 7.3.7, the report states “site-specific sediment survey to include chemical contaminant analysis was undertaken as part of the wider benthic ecology survey	Sediment sample locations are provided in <b>Appendix 9.2 Sediment Quality Analysis Report</b> and shown on <b>Figure 9-2 in Volume 1, Chapter 9 Marine Water and Sediment Quality Figure 9.2</b> .

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		requirement and will be reported as part of the benthic ecology assessment (see Chapter 7.4 Benthic and Intertidal Ecology)". As such the MMO assumes the 28 sample stations are represented by a selection of the 2023 Benthic survey locations within the DBD Array area, however since there are more than 28 benthic survey locations indicated to be within the DBD Array area in Figure 7-7 it is not clear which of these has been included for sediment analysis. Please clarify the sediment sample locations within the EIA.	
MMO	Scoping Opinion (02/08/24)	The MMO notes that the report does not appear to mention whether a disposal site will be designated for the array area and offshore EEC. In line with The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) and the London Convention and London Protocol (LCLP), any deposition of material within the marine environment must be within a licenced disposal area, and therefore the MMO recommends consideration is given to this during the EIA and a Site Characterisation Report is provided. The MMO recommends two disposal sites as minimum.	<p>The drill arisings (spoil) would be disposed of adjacent to the foundation location, above or slightly below the sea surface, from where they would be expected to settle onto the seabed in the immediate vicinity of each foundation. Any side-casting of dredged sediments (potentially required if suction bucket or gravity base foundations are used) would be undertaken in areas confirmed as dredge disposal locations in the consent documents, (<b>Section 4.5.1.2.1</b> and <b>Section 4.5.3.2</b> of <b>Volume 1, Chapter 4 Project Description</b>, respectively).</p> <p>For any dredged material, the worst-case scenario assumes that sediment would be dredged and returned to the water column within the offshore development area (for further information, see <b>Section 8.4.6</b> of <b>Appendix 8.3 Marine Physical Process Modelling Report</b>).</p>

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MMO	Scoping Opinion (02/08/24)	An additional survey is planned to characterise the offshore ECC, including sediment and contaminant sampling. Please liaise further to obtain an agreed sample plan to ensure material is sufficiently characterised within the offshore ECC area. This will prevent further sampling being required at a later stage.	The MMO was consulted in regard to the additional survey within the offshore ECC and a sample plan agreed via email on the 6 <sup>th</sup> of August 2024.
MMO	Scoping Opinion (02/08/24)	Further comments relating to sediments and impacts to benthic, or fisheries may be highlighted when further information is provided.	Noted.
Planning Inspectorate	Scoping Opinion (02/08/24)	<p>Scoping Report paragraph 347 states that site specific sediment surveys including chemical contaminants were undertaken as part of the benthic surveys in Q3 2023. Sampling locations in the Array Area are identified on Figure 7-7. The results are provided in Scoping Report Appendix C, which demonstrate that contamination concentrations are low compared to the Centre for Environment, Fisheries and Aquaculture Sciences (Cefas) Action Levels in the Array Area. The sediment is characterised as largely coarse and sandy in the Array Area and therefore less able to retain contaminants compared to finer sediment. Coarse sediment also disperses less and settles quicker as demonstrated by modelling previously undertaken for Dogger Bank C and Sofia Offshore Wind Farm, which are also located on Figure 7-7. All coatings and treatments, chemical transport and vessels will comply with standard best practice measures controlled through the Project Environmental Management Plan (PEMP).</p> <p>The Scoping Report also identifies that scour would be localised, would reach equilibrium and cease over time.</p>	Noted. Results of the sediment sampling can be found in <b>Appendix 9.2 Sediment Quality Analysis Report</b> .

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Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
		<p>On the basis of low-level contamination presence, the coarse nature of the sediment and the proposed best practice measures, the Inspectorate agrees this matter can be scoped out.</p> <p>A summary of the results from the sediment samples should be provided as an addendum to the ES.</p>	
Planning Inspectorate	Scoping Opinion (02/08/24)	<p>Impacts could occur from installation/ removal of infrastructure during construction and decommissioning and use of lubricants and chemicals for maintenance during operation.</p> <p>Standard best practice measures are proposed to be secured through the PEMP and the project would be required to adhere to control measures under the International Convention for the Prevention of Pollution from Ships (MARPOL) Regulations. On this basis, the Inspectorate agrees that this matter can be scoped out. The ES should explain where appropriate control and best practice measures to reduce/ avoid potential pollution events are secured through the draft DCO (dDCO) or other legal mechanism, for all phases of the Proposed Development.</p>	<p>Noted.</p> <p>Embedded mitigation measures are discussed in <b>Section 9.4.3 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b> and detailed in <b>Appendix 6.3 Commitments Register</b>.</p>
Planning Inspectorate	Scoping Opinion (02/08/24)	The Inspectorate agrees that impacts to water quality from increased suspended sediments may be assessed in the Marine Physical Processes Chapter of the ES, but the ES should employ appropriate and clear cross referencing.	Noted. However, as this topic was not completely scoped out, please see <b>Section 9.7.1 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b> for the assessment on suspended sediments.

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Planning Inspectorate	Scoping Opinion (02/08/24)	<p>"In line with comments in row ID 2.1.13 above, the Inspectorate considers that the maintenance activities required for operation are not fully described in the Scoping Report and the parameters are unknown.</p> <p>Scoping Report paragraph 141 states that it is not yet determined whether cables would be removed on decommissioning of the Proposed Development or left in situ.</p> <p>It is also noted Scoping Report paragraph 333 states that this matter is scoped in for construction, pending the results of further sediment sampling.</p> <p>The Inspectorate does not consider that effects from remobilisation of existing contaminated sediments in the offshore ECC during operation and decommissioning can be scoped out at this stage. The ES should provide an assessment where significant effects are likely to occur, or information demonstrating agreement with the relevant consultation bodies and the absence of a LSE."</p>	<p>Sediment sampling and contaminant analysis of the samples has been undertaken within the Array Area and offshore ECC. The impact of remobilisation of contaminated sediments within the Array Area has been scoped out from assessment at PEIR, as the sediment sampling results showed negligible contaminant levels.</p> <p>Within the offshore ECC, the impact has been considered for all phases of the Project, and the assessment of effects is presented in <b>Section 9.7 in Volume 1, Chapter 9 Marine Water and Sediment Quality.</b></p>

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Planning Inspectorate	Scoping Opinion (02/08/24)	<p>Cumulative impacts are proposed to be scoped out on the basis that there are negligible levels of contamination currently found within sediments. However, Scoping Report paragraph 333 states that the results of further sediment sampling in the offshore ECC are pending and that the offshore ECC is scoped in for the remobilisation of existing contaminated sediments during construction, until the evidence is available to support scoping this matter out.</p> <p>The Inspectorate agrees that cumulative effects may be scoped out for the Array Area but should not be scoped out for the offshore ECC at this stage. The ES should provide an assessment where significant cumulative effects are likely to occur, or information demonstrating agreement with the relevant consultation bodies and the absence of a LSE.</p>	Cumulative effects are discussed in <b>Section 9.8</b> in <b>Volume 1, Chapter 9 Marine Water and Sediment Quality</b> .
Planning Inspectorate	Scoping Opinion (02/08/24)	See comment in Table 2.2 above. The Inspectorate is not in a position to agree to scope this matter out until it has undertaken its separate transboundary re-screening exercise (Ref 2.2.6).	Transboundary effects are discussed in <b>Section 9.9</b> in <b>Volume 1, Chapter 9 Marine Water and Sediment Quality</b> .
Planning Inspectorate	Scoping Opinion (02/08/24)	The Environment Agency's (EA) scoping consultation response (Appendix 2 of this Opinion) notes the potential for bathing water quality to be impacted during the designated bathing water season. The ES should consider the potential for mobilising any sources of contamination associated with higher concentrations of fine suspended solids at the offshore ECC, which could result in elevated levels of bacteria.	A WER Compliance Assessment was undertaken and is presented in <b>Appendix 21.4 Water Environment Regulations Compliance Report</b> . Impacts on bathing water quality have been considered in the assessment and are discussed in <b>Section 9.7.1</b> in <b>Volume 1, Chapter 9 Marine Water and Sediment Quality</b> .



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Planning Inspectorate	Scoping Opinion (02/08/24)	<p>Impacts could occur from scour and routine maintenance activities during operation.</p> <p>The Inspectorate agrees that scour from the turbine bases is unlikely to result in significant effects and can be scoped out from further assessment.</p> <p>In line with comments in row ID 2.1.13 above, the Inspectorate considers that the maintenance activities required for operation are not fully described in the Scoping Report and the parameters are unknown.</p> <p>The Inspectorate does not consider that effects from remobilisation of contaminated sediments from routine maintenance activities during operation can be scoped out at this stage. The ES should provide an assessment where significant effects are likely to occur, or information demonstrating agreement with the relevant consultation bodies and the absence of a LSE.</p>	<p>Please see <b>Volume 1, Chapter 4 Project Description</b> for a detailed description of all activities associated with the operation and maintenance phase.</p> <p>Sediment sampling and contaminant analysis of the samples has been undertaken within the Array Area and offshore ECC. All the sediment and contaminant data collected from within the Array Area was presented in the Scoping Report, and data from within the offshore ECC is presented in the PEIR. For clarity, all of the sediment and contaminant data collected from within the Array Area and the offshore ECC is presented in the PEIR (<b>Appendix 9.2 Sediment Quality Analysis Report</b>).</p> <p>The impact of remobilisation of contaminated sediments within the Array Area was scoped out from assessment in the Scoping Report and agreed in The Planning Inspectorate Scoping Opinion, as the sediment sampling results showed negligible contaminant levels.</p> <p>Within the offshore ECC, the impact has been considered for all phases of the Project supported by sediment contamination data, and the assessment of effects during the operation phase is presented in <b>Section 9.7.2</b> in <b>Volume 1, Chapter 9 Marine Water and Sediment Quality</b>.</p>

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Planning Inspectorate	Scoping Opinion (02/08/24)	<p>In line with comments in row ID 2.1.13 above, the Inspectorate considers that the maintenance activities required for operation are not fully described in the Scoping Report and the parameters are unknown.</p> <p>Scoping Report paragraph 141 states that it is not yet determined whether cables would be removed on decommissioning of the Proposed Development or left in situ.</p> <p>It is also noted from Scoping Report paragraph 467 states that this matter is scoped in for construction, pending the results of further sediment sampling.</p> <p>The Inspectorate does not consider that effects from remobilisation of existing contaminated sediments in the offshore ECC during operation and decommissioning can be scoped out at this stage. The ES should provide an assessment where significant effects are likely to occur, or information demonstrating agreement with the relevant consultation bodies and the absence of a LSE.</p>	<p>Please see <b>Volume 1, Chapter 4 Project Description</b> for a detailed description of all activities associated with the construction, operation and maintenance and decommissioning phases of the Project.</p> <p>Sediment sampling and contaminant analysis of the samples has been undertaken within the Array Area and offshore ECC. All the sediment and contaminant data collected from within the Array Area was presented in the Scoping Report, and data from within the offshore ECC is presented in the PEIR. For clarity, all of the sediment and contaminant data collected from within the Array Area and the offshore ECC is presented in the PEIR (<b>Appendix 9.2 Sediment Quality Analysis Report</b>).</p> <p>The impact of remobilisation of contaminated sediments within the Array Area was scoped out from assessment in the Scoping Report and agreed in The Planning Inspectorate Scoping Opinion, as the sediment sampling results showed negligible contaminant levels.</p> <p>Within the offshore ECC, the impact has been considered for all phases of the Project supported by sediment contamination data, and the assessment of effects is presented in <b>Section 9.7 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b>.</p>

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Environment Agency	Scoping Opinion (02/08/24)	We agree with the characterisation, identified impacts and approach to assessment outlined in this section of the report.	Noted.
Environment Agency	Scoping Opinion (02/08/24)	The report identifies the extent of the designated Bathing Waters within the East Riding Area (from Flamborough to Withernsea). The Applicant should note that there is the potential for bathing water quality to be impacted during the designated bathing water season (1 May – 30 September). Monitoring of these receptors is carried out by the Environment Agency, to determine levels of Intestinal Enterococci and Escherichia Coli, which are also referred to as Faecal Indicator Organisms (FIOs) – with higher FIO levels having the potential to be indicative of sources of contamination which may have elevated levels of associated waterborne pathogens, which could impact upon human health.	Noted.
Environment Agency	Scoping Opinion (02/08/24)	The ES should take into account the potential for mobilising any sources of contamination associated with higher concentrations of fine suspended solids, which could result in elevated levels of bacteria and, in particular, the FIOs identified.	Effects on suspended sediment concentrations during construction has been assessed and is discussed in <b>Section 9.7.1 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b> with effects arising from the potential remobilisation of contaminated sediments discussed in <b>Section 9.7.1, Section 9.7.2, and Section 9.7.3 in Volume 1, Chapter 9 Marine Water and Sediment Quality.</b>

## APPENDIX 9.1 CONSULTATION REPONSES FOR MARINE WATER AND SEDIMENT QUALITY

Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	<p>2023 comment:</p> <p>We advise that remobilisation of contaminants should be scoped in for the array area and offshore ECC. It will need to be demonstrated what the local contaminant levels are, and whilst data is available from the Teesside A&amp;B ES, the contamination data as shown in Figure 7-7 of the Scoping Report indicates only one sample was taken from within the proposed Dogger Bank D array area. We defer to Cefas for further advice on this topic.</p> <p>2024 updated comments:</p> <p>Natural England acknowledge and welcome that this impact has now been scoped in for the offshore ECC. We provisionally agree on the scoping out of the array area for this impact based on the results of the 2023 Sediment Quality Survey but defer to Cefas for full analysis of these result and further advice.</p>	<p>Sediment sampling and contaminant analysis of the samples has been undertaken within the Array Area and offshore ECC. The impact of remobilisation of contaminated sediments within the Array Area has been scoped out from assessment at PEIR, as the sediment sampling results showed negligible contaminant levels.</p> <p>Within the offshore ECC, the impact has been considered for all phases of the Project, and the assessment of effects is presented in <b>Section 9.7 in Volume 1, Chapter 9 Marine Water and Sediment Quality.</b></p>
Natural England	Scoping Opinion (02/08/24)	<p>2023 Comment</p> <p>We advise that remobilisation of contaminated sediments due to operation and maintenance activities should be scoped into the assessment.</p> <p>2024 updated comments:</p> <p>We provisionally agree on the scoping out of the array area for this impact based on the results of the 2023 Sediment Quality Survey but defer to Cefas for full analysis of these result and further advice.</p>	<p>Sediment sampling and contaminant analysis of the samples has been undertaken within the Array Area and offshore ECC. The impact of remobilisation of contaminated sediments within the Array Area has been scoped out from assessment at PEIR, as the sediment sampling results showed negligible contaminant levels.</p> <p>Within the offshore ECC, the impact has been considered for all phases of the Project, and the assessment of effects is presented in <b>Section 9.7 in Volume 1, Chapter 9 Marine Water and Sediment Quality.</b></p>

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Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	<p>Natural England advises the provision of a plan is not embedded mitigation and the commitments within the plans will be key. As we have not seen the plans, we are unable to advise if impacts have been adequately addressed.</p> <p>Natural England advises that outline plans including any mitigation measures should be provided at the time of Application.</p> <p>We also advise that accidental spillages and leakages of oils, fuel and other polluting substances which could potentially enter the water environment be scoped in for further assessment with regards to designated sites and potential impacts to their interest features.</p>	<p>Please refer to the Commitments Register in <b>Appendix 6.3 Commitments Register</b> that presents the outline plans that will be included as part of the Application.</p> <p>Effects arising from accidental spillages and leakages were scoped out of the assessment, as agreed in The Planning Inspectorates Scoping Opinion. Embedded control measures for these potential effects are defined in the Commitments Register.</p>
Natural England	Scoping Opinion (02/08/24)	<p>We advise that increased suspended sediment concentrations due to operation and maintenance activities should be scoped into the assessment.</p>	<p>Effects on suspended sediment concentrations during construction has been assessed and is discussed in <b>Section 9.7.1 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b>. Any effects likely during operation and maintenance activities would be lower in magnitude than those assessed for construction, short-term and temporary and spatially limited and as such are not considered in the PEIR.</p>

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Stakeholder	Document / Meeting, Date	Comment	How and Where Addressed in the PEIR
Natural England	Scoping Opinion (02/08/24)	<p>Increases in suspended sediment concentrations (SSC) during construction and operation (e.g. future dredging works) have the potential to smother sensitive habitats. The ES should include information on the sediment quality and potential for any effects on water quality through suspension of contaminated sediments.</p> <p>The EIA should also consider whether increased suspended sediment concentrations resulting are likely to impact upon the interest features and supporting habitats of the designated sites as listed above. The ES should consider whether there will be an increase in the pollution risk as a result of the construction or operation of the development.</p> <p>For activities in the marine environment up to 1 nautical mile out at sea, a Water Framework Directive (WFD) assessment is required as part of any application. The ES should draw upon and report on the WFD assessment considering the impact the proposed activity may have on the immediate water body and any linked water bodies</p>	<p>Effects on suspended sediment concentrations during construction has been assessed and is discussed in <b>Section 9.7.1 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b>. Any effects likely during operation and maintenance activities would be lower in magnitude than those assessed for construction, short-term and temporary and spatially limited (see <b>Appendix 8.3: Marine Physical Processes Modelling Report</b> for more information).</p> <p>Sediment sampling and contaminant analysis of the samples has been undertaken within the Array Area and offshore ECC. The impact of remobilisation of contaminated sediments within the Array Area has been scoped out from assessment at PEIR, as the sediment sampling results showed negligible contaminant levels.</p> <p>Within the offshore ECC, the impact has been considered for all phases of the Project, and the assessment of effects during the operation phase is presented in <b>Section 9.7.2 in Volume 1, Chapter 9 Marine Water and Sediment Quality</b>.</p>

## References

Dogger Bank D (2023), EIA Scoping Report. Available at:  
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010144/EN010144-000011-EN010144%20-%20Scoping%20Report.pdf>

Royal HaskoningDHV (2024). Dogger Bank D Scoping Report (Part 1 & 2). Available at:  
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010144/EN010144-000069-EN010144%20-%20Scoping%20Report%20-%20Part%201.pdf> &  
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010144/EN010144-000070-EN010144%20-%20Scoping%20Report%20-%20Part%202.pdf> [Accessed September 2024].

Planning Inspectorate (2023). Scoping Opinion: Proposed Dogger Bank D Wind Farm.  
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Planning Inspectorate (2024a). Scoping Opinion: Proposed Dogger Bank D Wind Farm.  
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## APPENDIX 9.1 CONSULTATION REPONSES FOR MARINE WATER AND SEDIMENT QUALITY

### Acronyms

Acronym	Definition
DBD	Dogger Bank D Offshore Wind Farm
DCO	Development Consent Order
EA	Environment Agency
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
ES	Environmental Statement
ETG	Expert Topic Group
FIO	Faecal Indicator Organisms
LCLP	London Convention and London Protocol
MARPOL	International Convention for the Prevention of Pollution from Ships
MMO	Marine Management Organisation
OSPAR	Marine Environment of North-East Atlantic
PEIR	Preliminary Environmental Information Report
PEMP	Project Environmental Management Plan
SSC	Suspended Sediment Concentration
WFD	Water Framework Directive