



Hornsea Project Four

Statement of Common Ground between Hornsea Project Four and Environment Agency

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Revision History

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10/08/2021	i	1 st draft for Environment Agency (EA) with proposed areas of agreements
18/02/2022	ii	2 nd draft with initial Environment Agency agreements and Rule 6 amendments incorporated.
08/03/2022	01	Version submitted as Deadline 1 with updated position provided by the Environment Agency.
10/05/2022	02	Version submitted as Deadline 4 with updated positions.

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Table of Contents

1	Introduction.....	5
1.1	Reason for this document.....	5
1.2	Approach to SoCG.....	5
1.3	Application elements under the Environment Agency remit	6
1.4	Overview of Hornsea Four	6
2	Consultation	7
2.1	Summary of consultation with the Environment Agency.....	7
3	Onshore Agreement Log.....	10
3.1	Overview	11
3.1.2	General	12
3.1.3	Hydrology and Flood Risk.....	13
3.1.4	Onshore Ecology.....	19
3.1.5	Geology and Ground Conditions.....	22
3.1.6	Onshore WFD.....	24
4	Offshore Agreement log	26
4.1	Overview	26
5	Summary.....	28

List of Tables

Table 1: Summary of pre-application consultation with the Environment Agency.....	8
Table 2: Position Status Key.....	11
Table 3: Agreement Log: General.....	12
Table 4: Agreement Log: Hydrology and Flood Risk	13
Table 5: Agreement Log: Onshore Ecology.	19
Table 6: Agreement Log: Geology and Ground Conditions.	22
Table 7: Agreement log: Onshore WFD.	24
Table 8: Agreement Log: Offshore Matters	27

Glossary

Term	Definition
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Projects (NSIP).
Hornsea Project Four Offshore Wind Farm	The term covers all elements of the project (i.e. both the offshore and onshore). Hornsea Four infrastructure will include offshore generating stations (wind turbines), electrical export cables to landfall, and connection to the electricity transmission network. Hereafter referred to as Hornsea Four.

Acronyms

Acronym	Definition
CEA	Cumulative Effects Assessment
DCO	Development Consent Order
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
ES	Environmental Statement
ExA	Examining Authority
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
LSE	Likely Significant Effect
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
SoCG	Statement of Common Ground
OnSS	Onshore substation
PEIR	Preliminary Environmental Information Report
UK	United Kingdom
WFD	Water Framework Directive

1 Introduction

1.1 Reason for this document

1.1.1.1 This Statement of Common Ground (SoCG) has been prepared between Orsted Hornsea Project Four Limited ('the Applicant') and the Environment Agency to set out the areas of agreement and disagreement between the two parties in relation to the proposed Development Consent Order (DCO) application for the Hornsea Project Four offshore wind farm (hereafter referred to as 'Hornsea Four').

1.1.1.2 This SoCG covers the onshore topics of Hydrology and Flood Risk, onshore Ecology, and Geology and Ground Conditions only, in addition to general matters relevant on onshore and the project as a whole. It also covers in lesser detail the offshore topics of Marine Geology, Oceanography and Physical Processes, the offshore Water Framework Directive (WFD) Assessment and Commercial Fisheries.

1.1.1.3 The need for a SoCG between the Applicant and Environment Agency is set out within the Rule 6 letter issued by the Planning Inspectorate (PINS) on 24th January 2022.¹

1.1.1.4 It is the intention that this document will facilitate further discussions between the Applicant and the Environment Agency and will provide PINS with a clear overview of the level of common ground between both parties. This document will be updated throughout the application process.

1.2 Approach to SoCG

1.2.1.1 The Applicant took the decision at an early stage to adopt a proportionate approach to Environmental Impact Assessment (EIA) for Hornsea Four which is detailed and integrated throughout the application for development consent. The Impacts Register (**Volume A4, Annex 5.1: Impacts Register (APP-049)**) is a key tool that details all potential impacts identified for Hornsea Four and sets the scope of the EIA at various stages of the project (Scoping, Preliminary Environmental Information Report (PEIR) and DCO). In line with the Applicants approach to proportionality, only Likely Significant Effects (LSE) are included within the individual topic assessments of the Environmental Statement (ES).

1.2.1.2 The structure of this SoCG is as follows:

- **Section 1:** Introduction;
- **Section 2:** Consultation;
- **Section 3:** Onshore Agreement Log;
- **Section 4:** Offshore Agreement Log; and
- **Section 5:** Summary.

¹ [EN010098-000901-Hornsea 4 Rule 6 letter.pdf \(planninginspectorate.gov.uk\)](#)

1.3 Application elements under the Environment Agency remit

1.3.1.1 The elements of Hornsea Four which may affect the interests of the Environment Agency are work numbers 2 and 4 to 1 nautical mile (NM) off the coast (offshore works), and work numbers 6 to 10, onshore. These are detailed in Part 1 (Authorised Development) of Schedule 1 (Authorised Project) of the draft DCO (C1.1: Draft DCO including Draft DML (APP-203)).

1.4 Overview of Hornsea Four

1.4.1.1 Hornsea Four is an offshore wind farm which 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. Hornsea Four will include both offshore and onshore infrastructure and consists of:

- **Hornsea Four array area:** This is where the offshore wind generating station will be located which will include the turbines, array cables, offshore accommodation platforms and a range of offshore substations as well as offshore interconnector cables and export cables;
- **Hornsea Four offshore export cable corridor (ECC):** This is where the permanent offshore electrical infrastructure (offshore export cables, as well as the High Voltage Alternating Current (HVAC) booster station (if required), will be located;
- **Hornsea Four intertidal area:** This is the area between Mean High Water Springs (MHWS) and Mean Low Water Springs (MLWS) through which all of the offshore export cables will be installed;
- **Hornsea Four onshore export cable corridor:** This is where the permanent onshore electrical cable infrastructure will be located; and
- **Hornsea Four onshore substation (OnSS) including energy balancing infrastructure:** This is where the permanent onshore electrical substation infrastructure (onshore High Voltage Direct Current (HVDC) converter/HVAC substation, energy balancing infrastructure and connections to the National Grid) will be located.

2 Consultation

2.1 Summary of consultation with the Environment Agency

2.1.1.1 **Table 1** summarises the consultation that the Applicant has undertaken with Environment Agency during the pre-application phase. In addition, a number of Position Statements and draft documents (including the impacts Register) have been issued throughout the per-application stage of Hornsea Four, for review and comment.

Table 1: Summary of pre-application consultation with the Environment Agency.

Date	Form of consultation	Statutory/Non Statutory	Summary
12/09/2018	Meeting	Non Statutory	<p>Hornsea Project Four – Water and Flood Risk Evidence Plan Technical Panel meeting #1</p> <p>Initial meeting to discuss the approach to the Scoping Report, and the scope of any proposed surveys, the EIA including assessment methodology and the initial discussion of key issues or areas of concern.</p>
15/10/2018	Consultation	Statutory	<p>Hornsea Project Four Offshore Wind Farm Scoping Report</p>
23/11/2018	Consultation response	Statutory	<p>Scoping Opinion</p> <p>Providing comments on the Scoping Report.</p>
15/01/2019	Meeting	Non Statutory	<p>Hornsea Project Four – Water and Flood Risk Evidence Plan Technical Panel meeting #2</p> <p>Meeting to provide project updates, and an overview of the survey methodology and preliminary results obtained from ongoing surveys. Discussion on Scoping responses received by the project, accompanied by a discussion on the next steps for the PEIR and ES assessments.</p>
05/04/2019	Meeting	Non Statutory	<p>Hornsea Project Four – Water and Flood Risk Evidence Plan Technical Panel meeting #3</p> <p>Meeting to provide project updates, Hornsea Fours proportionate EIA, further evidence base to scope out impacts where consensus had not been reached with stakeholders, as well as the next steps to seeking consensus with stakeholders on the approach to the PEIR.</p>
05/04/2019	Position Paper	Non Statutory	<p>Hornsea Project Four – Water Resources and Flood Risk Technical Panel meeting #3 Position Paper</p> <p>Position paper to support and inform the third Water and Flood Risk Evidence Plan Technical Panel meeting. Provided further detail on baseline data collection, responses to key scoping opinions received, the propose approach to the PEIR and focussed questions for stakeholders.</p>
08/04/2019	Meeting	Non Statutory	<p>Hornsea Project Four – Ecology Evidence Plan Technical Panel meeting #3</p> <p>Meeting to provide project updates, Hornsea Fours proportionate EIA, further evidence base to scope out impacts</p>

Date	Form of consultation	Statutory/Non Statutory	Summary
			where consensus had not been reached with stakeholders, as well as the next steps to seeking consensus with stakeholders on the approach to the PEIR.
27/06/2019	Meeting	Non Statutory	<p>Hornsea Project Four – Water and Flood Risk Technical Panel meeting #4</p> <p>Meeting to provide project updates, further evidence base to scope out impacts where consensus had not been reached with stakeholders, and to present an update on how to read the Hornsea Four proportionate PEIR.</p>
09/07/2019	Meeting	Non Statutory	<p>Hornsea Project Four – Ecology Evidence Plan Technical Panel meeting #4</p> <p>Meeting to provide project updates, further evidence base to scope out impacts where consensus had not been reached with stakeholders, and to present an update on how to read the Hornsea Four proportionate PEIR.</p>
13/08/2019	Consultation	Statutory	<p>Hornsea Project Four PEIR</p> <p>Published for statutory Section 42 consultation.</p>
23/11/2019	Consultation response	Statutory	<p>Environment Agency letter response to PEIR</p> <p>Providing comments on the PEIR.</p>
05/11/2019	Meeting	Non Statutory	<p>Hornsea Project Four – Water and Flood Risk Technical Panel meeting #5</p> <p>Meeting to provide project updates since the submission of the PEIR and the close of the 2019 Section 42 consultation. Summary and Hornsea Fours initial responses to key Section 42 comments received, and to seek consensus on the approach to the ES.</p>
13/11/2019	Meeting	Non Statutory	<p>Hornsea Project Four – Ecology Evidence Plan Technical Panel meeting #5</p> <p>Meeting to provide project updates since the submission of the PEIR and the close of the 2019 Section 42 consultation. Summary and Hornsea Fours initial responses to key Section 42 comments received and to seek consensus on the approach to the ES.</p>
05/02/2020	Meeting	Non Statutory	<p>Hornsea Project Four – EIA & DCO workshop (Environment Agency) meeting #1</p> <p>To discuss specific comments raised by the EA at Section 42 and through the evidence plan process around flood</p>

Date	Form of consultation	Statutory/Non Statutory	Summary
			improvements, opportunities for enhancements, updates to project Commitments, Protective Provisions, and the Disapplication of the 2016 Environmental Permitting Regulations.
17/02/2020	Consultation	Statutory	Further Statutory Section 42 consultation Published by the Applicant for comments.
01/04/2020	Position Paper	Non Statutory	Hornsea Project Four – Hydrology and Flood Risk Assessment of modelled water levels for OnSS & Commitments Position Paper Position paper on Hornsea Fours updated proposed position to freeboard mitigation and updates to relevant Commitments discussed as Section 42 and in subsequent evidence plan technical panel meetings.
29/01/2021	Meeting	Non Statutory	Meeting held between the respective estates teams to discuss Protective Provisions and specific crossing matters.
07/06/2021	Position Papers	Non Statutory	In addition, issue of baseline validity position papers for ecology, ground condition and hydrology and flood risk, reflecting a delay to the DCO application submission.
17/06/2021	Draft documents	Non Statutory	Draft DCO documents issued for review The following documents were shared with the Environment Agency to review, prior to DCO application submission: <ul style="list-style-type: none"> • Geology and Ground Conditions ES Chapter • Hydrology and Flood Risk ES Chapter • Impacts Register Tabs for each of the abovementioned topics. • Draft commitments register.
07/09/2021	Meeting	Non Statutory	Meeting to discuss comments received from the EA on flood defence investment, OnSS flood risk and excavations, peak flow allowances, withdrawal of flood defences and statement of common ground.

2.1.1.2 In order to easily identify whether a matter is 'agreed' 'not agreed', or an 'ongoing point of discussion', the colour coding system set out in [Table 3](#) below green, orange and red is used respectively within the 'position' column.

Table 2: Position Status Key

Position Status	Position Colour Coding
<p>Agreed The matter is considered to be agreed between the parties</p>	Agreed
<p>Not Agreed – no material impact The matter is not agreed between the parties, however the outcome of the approach taken by either the Applicant or EA is not considered to result in a material impact to the assessment conclusions.</p>	Not Agreed – no material impact
<p>Not Agreed The matter is not agreed between the parties and the outcome of the approach taken by either the Applicant or EA is considered to result in a materially different impact to the assessment conclusions.</p>	Not Agreed
<p>Ongoing point of discussion The matter is neither ‘agreed’ nor ‘not agreed’ and is a matter where further discussion is required between the parties (e.g where documents are yet to be shared with the EA).</p>	Ongoing point of discussion

2.1.1.3 The following section of this SoCG summaries the level of agreement between Hornsea Four and the Environment Agency on all relevant matters landward of MHWS.

3 Onshore Agreement Log

3.1 Overview

3.1.1.1 The following sections of this SoCG set out the level of agreement between the parties for each relevant onshore topic (as identified in [paragraph 1.1.1.2](#)).

3.1.1.2 The following section of this SoCG summaries the level of agreement between Hornsea Four and the Environment Agency on all relevant matters landward of MHWS.

3.1.2 General

Table 3: Agreement Log: General

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
G1.12: 1.1	There is a specific need to provide renewable energy, which is in line with government policy.	N/A	Agreed
G1.12: 1.2	The Applicant has adequately consulted with the Environment Agency throughout all stages of the project to date and the summary of Consultation (Section 2 of this SoCG) is a fair and accurate record of pre-application consultation.	N/A	
G1.12: 1.3	The site selection and route refinement outlined in Volume A1, Chapter 3: Site Selection and Consideration of Alternatives has properly considered the alternatives for the relevant elements of Hornsea Four (landfall, onshore ECC and OnSS).	N/A	Agreed
G1.12: 1.4	The selection of the OnSS site is appropriate and was discussed and agreed with the Environment Agency through the pre-application consultation process.	N/A	Agreed
G1.12: 1.5	The Applicant's approach to proportionate EIA has been discussed with the Environment Agency to produce an Environment Statement that accords with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. .	N/A	Agreed
G1.12: 1.6	The Protective Provisions set out in C1.1: Draft Development Consent Order have been considered by the Environment Agency and are considered appropriate in principle.	The EA have agreed to disapply the 2016 Environmental Permitting Regulations (EPR) in regards to flood risk in principle. There is an outstanding issue around certain watercourse crossings, in particular Watton Beck, regarding depth of the cables and the interaction with possible future flood alleviation options. At this point in time, the EA is unable to give consent under section 150 of the Planning Act 2008, pending resolution of these issues.	Area for ongoing discussion

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
G1.12: 1.7	Waste management is adequately covered in the application, with the inclusion of the Outline Waste Management Plan, which forms Appendix E of F2.2: Outline Code of Construction Practice (APP-237) .	N/A	Agreed

3.1.3 Hydrology and Flood Risk

Table 4: Agreement Log: Hydrology and Flood Risk.

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
<i>EIA – Policy and planning</i>			
G1.12: 2.1	Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026) has identified all relevant plans and policies and appropriate consideration has been given to them in the assessment.	<p>Various flood risk meetings were held, specifically around the following:</p> <ul style="list-style-type: none"> Onshore substation and appropriate FRA scoping, including additional modelling and suitable climate change considerations. Cable routing, and construction methodology under 'main river' watercourses. <p>Wider consideration was given to landfall elements, and interaction with coastal processes and policies.</p>	Agreed
<i>EIA – Baseline Environment</i>			
G1.12: 2.2	The ES adequately defines the baseline environment relevant to Hydrology and Flood Risk in Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026) , to inform the EIA.	<p>Flood risk is adequately assessed for risk to the proposed infrastructure. The assessment has drawn on latest available modelling, and consideration given to other sources of risk – including surface water.</p> <p>The "baseline" considers future flood risk that is expected to occur as a result of climate change.</p>	Agreed
<i>EIA – Assessment Methodology</i>			
G1.12: 2.3	The study areas identified in Section 2.5 of Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026) are appropriate.	Figures 2.2 – 2.6 identify the working corridor and the watercourses to be crossed. The study area has identified and considered these surface waterbodies.	Agreed

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
		<p>Many of these watercourses form part of the River Hull catchment drainage, comprising of complex drainage features. Responsibility for the watercourses include those under the jurisdiction of the Internal Drainage Board, the Environment Agency, and the Lead Local Flood Authority. Flood risk across the study area is complex, and some interdependencies exist that make isolating flood risk in any one location difficult. For the construction element, the reports appreciate this complexity, with a view to managing and mitigating the flood risk source(s) identified. For the operational phase, flood risk is considered taking into account appropriate allowances for climate change.</p>	
<p>G1.12: 2.4</p>	<p>The maximum design scenarios identified and outlined, where relevant, for each impact in Section 2.9 of Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026), and in the 'Hydrology and Flood Risk' tab of Volume A4, Annex 5.1: Impacts Register (APP-049), represent the maximum project parameters for assessment.</p>	<p>Consideration has been given to the design flood risks to the development taking into account the appropriate climate change allowances. For the onshore substation, further modelling was obtained which included alternative allowances. This additional modelling did indicate higher flood risk to the substation site. To mitigate this risk, a sequential approach within the site was utilised, alongside the use of a precautionary freeboard, to avoid interacting with areas potentially at increased flood risk (including those areas currently shown as Flood Zone 1 within the EA's Flood Map and the East Riding of Yorkshire Council SFRA). We agreed that through the use of freeboard that the risk was adequately assessed and mitigated to ensure sensitive aspects of the development are to be located in areas of lowest overall flood risk.</p>	<p>Agreed</p>

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
		<p>Consideration was also given to other sources of risk, including surface water. Again, avoidance of the areas indicated to be at risk, and placement of sensitive onshore substation elements outside these areas was demonstrated.</p>	
<p>G1.12: 2.5</p>	<p>The potential impacts identified in Table 2.9 of Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026), and in the 'Hydrology and Flood Risk' tab of Volume A4, Annex 5.1: Impacts Register (APP-049), represent a comprehensive list of the potential impacts.</p>	<p>The Impacts Register HFR-C-1 refers to the commitment for utilising trenchless crossing techniques. Additionally, agreement was reached to ensure that reception pits were located at least 20m set back from 'main river' watercourses (and flood defences where they exist) – stated in Table 2.9. We support the use of trenchless techniques to cross 'main rivers' which minimises disturbance to those 'main rivers.' Additionally, the use of trenchless techniques will further reduce possible flood risk issues. Within early meetings, a minimum depth for watercourse crossings was established. Subsequent meetings confirmed that this minimum depth should also apply where cables were being installed below flood defences. This was given further consideration by the Environment Agency in response to a number of flood incidents affecting the catchment, and in response to emerging strategic flood risk planning concerns.</p> <p>The Environment Agency agree that the Environmental Statement is adequate. However, specific concerns have been raised in regard to Watton Beck, where further investigation is required. This was discussed in a meeting in September 2021 and requires further consideration to meet agreement.</p>	<p>Area for ongoing discussion</p>

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
G1.12: 2.6	The methodologies used in Section 2.10 of Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026) are appropriate for assessing the potential impacts of Hornsea Four.	In general, this section includes an assessment of risk based on environmental value (sensitivity) and magnitude of impact (degree of change). We agree with the broad definitions provided, and the receptors identified.	Agreed
<i>EIA – Assessment Conclusions</i>			
G1.12: 2.7	The conclusion that no LSE was identified at Scoping (or during subsequent correspondence with hydrology and flood risk stakeholders) for impacts HFR-C-1 (disturbance from cable crossings of Main Rivers and IDB watercourses), HFR-C-3 (disturbance from cable crossings of minor drainage ditches), HFR-C-5 (disruption of local land drainage), HFR-C-6 (changes in water quality, construction), HFR-O-7 (alteration in run-off characteristics at onshore substation), HFR-C-8 (mobilisation of pollutants), HFR-D-9 (decommissioning onshore ECC), HFR-D-10 (impacts associated with decommissioning onshore substation), HFR-O-11 (impacts associated with operation) and not being significant in EIA terms, which resulted in these potential impacts being 'Scoped out' of further assessment or 'not considered in detail in the ES', is appropriate.	<p>The EIA included guiding principles of proportionality, which was discussed with the Environment Agency during initial meetings. It was also agreed in these early meetings to consider feedback loops, should additional information or context become available. In general, we agree that (for flood risk), no LSE were identified. Some of the activities identified were subject to inherent commitments or mitigation in order to agree with those risks having no LSE. Of specific interest to flood risk:</p> <ul style="list-style-type: none"> HFR-C-1 included a number of commitments to agree on parameters relating to minimum depths below watercourses and flood risk infrastructure, minimum horizontal distances for reception pits. Some of this has subsequently raised some issues which require further agreement. 	Agreed
G1.12: 2.8	The conclusion that no LSE was identified for impacts HFR-C-12 (hydrological and water quality effects on designated sites) and HFR-O-13 (thermal impacts on water resources) (not identified at Scoping), and not being significant in EIA terms, resulted in these potential impacts being not considered in detail in the PEIR or ES. This is appropriate.	In terms of flood risk, these project activities have minimal impact. It was considered possible that these activities could interact with the surface waterbodies, and potentially affect flood risk operations indirectly and/or affect wider aspects such as Water Framework Directive. In terms of flood risk, the commitments set out in the Impacts	Agreed

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
		Register against HFR-C-12 and HFR-O-13 are acceptable.	
G1.12: 2.9	The conclusion that no LSE was identified for HFR-C-2 (access across watercourses) and HFR-C-4 (access across minor drainage ditches) at PEIR, and not being significant in EIA terms, and were therefore not considered in detail in the ES, is appropriate.	HFR-C-2 includes reference to use of temporary watercourse crossings, including 'main rivers' and 'ordinary watercourses.' The Environment Agency's position only refers to crossings of 'main rivers.' We agree that any such crossings should avoid the use of culverts, in line with our policy. The Impacts Register indicates that the locations of crossings is shown in Figure 2.10-2.14 of the Volume A3:Chapter 2' Within the Hydrology and Flood Risk document submitted at PEIR, Section 2.11.1.10 stated that "...several temporary crossings are proposed on...[named 'main rivers']...,these crossings would be located on tributaries rather than the main river channels." The Environment Agency agreed to the notes of a technical meeting where any temporary crossings over main rivers would (a) avoid use of culverts and (b) be of clear span construction. On smaller watercourses, the use of bailey bridges may be acceptable. The EA has highlighted to the applicant three crossings where it is considered that a clear span bridge must be used and any crossing must not interfere with or load the flood defences in any way. The applicant has indicated that a number of options are available to them that will ensure no loading on the defences and EA consent will need to be sought for all main river crossings. The applicant has agreed to make minor changes to wording within the CoCP to reflect this.	Agreed

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
		HFR-C-4 refers to possible temporary culverting of minor watercourses (i.e. not affecting any 'main river'). Whilst our comments relating to the EA's culverting position remain valid, comments relating to the jurisdiction over ordinary watercourses remains with other Risk Management Authorities.	
G1.12: 2.10	The assessment of potential effects on Hydrology and Flood Risk in Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026) is appropriate and proportionate and identifies the likely significant effects from Hornsea Four.	N/A	Agreed
G1.12: 2.11	The conclusions of the CEA on hydrology and flood risk presented in Section 2.12 and inter-related effects in Section 2.14 of Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026) , are appropriate.	N/A	Agreed
<i>Draft DCO / Outline Management Plans / Mitigation and Monitoring</i>			
G1.12: 2.12	<p>The measures described in F2.6: Outline Onshore Infrastructure Drainage Strategy (APP-241) are appropriate and adequately mitigate likely significant effects where possible.</p> <p>F2.6 Outline Onshore Infrastructure Drainage Strategy (APP-241) includes all relevant mitigation measures specified in Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026) and is appropriate for managing construction and post construction impacts from Hornsea Four on hydrology and flood risk receptors landward of MLWS.</p> <p>Volume A4, Annex 5.2: Commitments Register (APP-050) includes commitments (Co14, Co19, Co191) to produce a strategy in accordance with the outline strategy which is secured via Requirement 13 and 15 of C1.1: Draft Development Consent Order (APP-203).</p>	<p>The Lead Local Flood Authority take the lead on surface water and detailed drainage design, whilst the Internal Drainage Board provide input within drainage areas under their control.</p> <p>In terms of managing overall risks in relation to drainage, we agree with the drainage strategy which endeavours to restrict surface water runoff to greenfield runoff rates and volumes. The outline strategy indicates that further assessment is required to identify if SuDS can be incorporated. We agree with the principles of the document to ensure that through appropriate drainage and attenuation that flood risk is not increased elsewhere.</p> <p>We are supportive of the commitment Co183 which requires any temporary access tracks crossing</p>	Agreed

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
		floodplain areas to be as consistent with existing ground levels as possible. Co184 has similar commitments where temporary watercourse crossings may be required, and should be read in conjunction with the relevant aspects of the Impacts Register relating to temporary watercourse crossing construction	
G1.12: 2.13	Requirement 13 and 15 of the draft DCO (C1.1: Draft DCO (APP-203)) is sufficient to secure the mitigation measures described in F2.6: Outline Onshore Infrastructure Drainage Strategy (APP-241) .	N/A	Agreed
G1.12: 2.14	F2.2 Outline Code of Construction Practice (APP-237) (CoCP) includes all relevant mitigation measures specified in Volume A3, Chapter 2: Hydrology and Flood Risk (APP-026) and is appropriate for managing construction and post construction impacts from Hornsea Four on hydrology and flood risk receptors landward of MLWS. Volume A4, Annex 5.2: Commitments Register (APP-050) includes a commitment (Co124) to produce a CoCP in accordance with the Outline CoCP which is secured via Requirement 17 of C1.1: Draft Development Consent Order (APP-203) .	Subject to the minor changes to the CoCP agreed under G1.12: 2.5 , we agree with the Outline CoCP for the onshore elements.	Agreed
G1.12: 2.15	The application and modification of legislative provisions, as set out in of C1.1: Draft Development Consent Order (APP-203) , in the context of the disapplication of Environmental Permitting (England and Wales) 2016 is considered appropriate.	This is linked to the concerns around Watton Beck, as discussed above. Before the Environment Agency can agree to the disapplication of EPR, we need to agree the wording of the Protective Provisions	Area for ongoing discussion

3.1.4 Onshore Ecology

Table 5: Agreement Log: Onshore Ecology.

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
<i>EIA – Policy and planning</i>			

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
G1.12: 3.1	Volume A3, Chapter 3: Ecology and Nature Conservation (APP-027) has identified all relevant plans and policies and appropriate consideration has been given to them in the assessment.	N/A	Agreed
<i>EIA – Baseline Environment</i>			
G1.12: 3.2	The ES adequately defines the baseline environment relevant to Ecology and Nature Conservation in Section 3.7; Volume A3, Chapter 3: Ecology and Nature Conservation (APP-027) to inform the EIA.	N/A	Agreed
<i>EIA – Assessment Methodology</i>			
G1.12: 3.3	The study areas identified in Section 3.5 of Volume A3, Chapter 3: Ecology and Nature Conservation (APP-027) are appropriate.	N/A	Agreed
G1.12: 3.4	The maximum design scenarios identified and outlined, where relevant, for each impact in Section 3.9 of Volume A3, Chapter 3: Ecology and Nature Conservation (APP-027) , and in the 'Ecology and Nature Conservation' tab of Volume A4, Annex 5.1: Impacts Register (APP-049) , represent the maximum project parameters for assessment.	N/A	Agreed
G1.12: 3.5	The potential impacts identified in Table 3.13 and Section 3.11 of Volume A3, Chapter 3: Ecology and Nature Conservation (APP-027) , and in the 'Ecology and Nature Conservation' tab of Volume A4, Annex 5.1: Impacts Register (APP-049) , represent a comprehensive list of the potential impacts.	N/A	Agreed
G1.12: 3.6	The methodologies used in Section 3.10 of Volume A3, Chapter 3: Ecology and Nature Conservation (APP-027) are appropriate for assessing the potential impacts of Hornsea Four.	N/A	Agreed
<i>EIA – Assessment Conclusions</i>			
G1.12: 3.7	The conclusion that no LSE was identified at Scoping (or during subsequent correspondence with ecology and nature conservation stakeholders) for impacts ENC-C-7 (impacts on white clawed crayfish and fish, construction), ENC-C-10 (accidental release of pollution, construction), ENC-O-12 (habitat degradation from operation and maintenance of onshore ECC), ENC-O-13 (impacts on protected species from operation and maintenance of onshore ECC), ENC-O-15 (accidental release of pollution, operation), ENC-D-16 (impacts on habitats of decommissioning of onshore ECC), ENC-D-19 (accidental release of pollutants, decommissioning), and not being significant	N/A	Agreed

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
	in EIA terms, which resulted in these potential impacts being 'Scoped out' of further assessment or 'not considered in detail in the ES', is appropriate.		
G1.12: 3.8	The conclusion that no LSE was identified for ENC-C-2 (impacts on designated sites, construction), ENC-C-8 (impacts on reptiles, construction), ENC-D-17 (decommissioning onshore substation on habitats) at PEIR, and not being significant in EIA terms, and were therefore not considered in detail in the ES, is appropriate.	N/A	Agreed
G1.12: 3.9	The conclusion that impacts ENC-C-1, ENC-C-3, ENC-C-4, ENC-C-5, ENC-C-6, ENC-C-9, ENC-O-11, ENC-O-14, ENC-D-18 assessed within Volume A3 Chapter 3: Ecology and Nature Conservation (APP-027) are not considered to be significant in EIA terms is appropriate when considered alongside the commitments in Table 3.14 and where relevant, identified further mitigation measures.	N/A	Agreed
G1.12: 3.10	The conclusions of the CEA on ecology and nature conservation presented in Section 3.12 and inter-related effects in Section 3.14 of Volume A3, Chapter 3: Ecology and Nature Conservation (APP-027) , are appropriate.	N/A	Agreed
<i>Draft DCO / Outline Management Plans / Mitigation and Monitoring</i>			
G1.12: 3.11	Requirement 8, 10 and 19 of the draft DCO (C1.1: Draft DCO (APP-203)) is sufficient to secure the mitigation measures described in F2.3: Outline Ecological Management Plan (APP-238) and F2.8: Outline Landscape Management Plan (APP-243) .	N/A	Agreed
G1.12: 3.12	F2.3 Outline Ecological Management Plan (APP-238) includes all relevant mitigation measures specified in Volume A3, Chapter 3: Ecology and Nature Conservation (APP-027) and is appropriate for managing construction and post construction impacts from Hornsea Four on ecology and nature conservation receptors landward of MHWS. Volume A4, Annex 5.2: Commitments Register (APP-050) includes a commitment (Co168) to produce an EMP in accordance with the Outline EMP which is secured via Requirement 10 of C1.1: Draft DCO (APP-203) .	N/A	Agreed
G1.12: 3.13	F2.2 Outline Code of Construction Practice (APP-237) includes all relevant mitigation measures specified in Volume A3, Chapter 3: Ecology and Nature	N/A	Agreed

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
	<p>Conservation (APP-027) and is appropriate for managing construction and post construction impacts from Hornsea Four on ecology and nature conservation receptors landward of MLWS.</p> <p>Volume A4, Annex 5.2: Commitments Register (APP-050) includes a commitment (Co124) to produce a CoCP in accordance with the Outline CoCP which is secured via Requirement 17 of C1.1: Draft DCO (APP-203).</p>		
G1.12: 3.14	The biodiversity net gain measures set out in F2.16: Outline Net Gain Strategy (APP-251) are sufficiently comprehensive and appropriate.	Awaiting position from the Environment Agency	TBC

3.1.5 Geology and Ground Conditions

Table 6: Agreement Log: Geology and Ground Conditions.

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
<i>EIA – Policy and Planning</i>			
G1.12: 4.1	Volume A3, Chapter 1: Geology and Ground Conditions (APP-025) has identified all relevant plans and policies and appropriate consideration has been given to them in the assessment.	N/A	Agreed
<i>EIA – Baseline Environment</i>			
G1.12: 4.2	The ES adequately defines the baseline environment relevant to Geology and Ground Conditions in Section 1.7; Volume A3, Chapter 1: Geology and Ground Conditions (APP-025) to inform the EIA.	N/A	Agreed
<i>EIA – Assessment Methodology</i>			
G1.12: 4.3	The study areas identified in Section 1.5 of Volume A3, Chapter 1: Geology and Ground Conditions (APP-025) are appropriate.	N/A	Agreed
G1.12: 4.4	The maximum design scenarios identified and outlined, where relevant, for each impact in Section 1.9 of Volume A3, Chapter 1: Geology and Ground Conditions (APP-025) , and in the 'Geology and Ground Conditions' tab of	N/A	Agreed

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
	<p>Volume A4, Annex 5.1: Impacts Register (APP-049), represent the maximum project parameters for assessment.</p>		
<p>G1.12: 4.5</p>	<p>The potential impacts identified in Table 1.7 and Section 1.11 of Volume A3, Chapter 1: Geology and Ground Conditions (APP-025), and in the 'Geology and Ground Conditions' tab of Volume A4, Annex 5.1: Impacts Register (APP-049), represent a comprehensive list of the potential impacts.</p>	<p>N/A</p>	<p>Agreed</p>
<p>G1.12: 4.6</p>	<p>The methodologies used in Section 1.10 of Volume A3, Chapter 1: Geology and Ground Conditions (APP-025) are appropriate for assessing the potential impacts of Hornsea Four.</p>	<p>N/A</p>	<p>Agreed</p>
<p><i>EIA – Assessment Conclusions</i></p>			
<p>G1.12: 4.7</p>	<p>The conclusion that no LSE was identified at Scoping (or during subsequent correspondence with geology and ground conditions stakeholders) for impacts GGC-C-1 (damage to designated geological SSSIs), GGC-C-2 (indirect effects on designated geological SSSIs), GGC-C-6 (soil compaction), GGC-C/O-9 (accidental spills), and GGC-D-10 (decommissioning), and not being significant in EIA terms, which resulted in these potential impacts being 'Scoped out' of further assessment or 'not considered in detail in the ES', is appropriate.</p>	<p>N/A</p>	<p>Agreed</p>
<p>G1.12: 4.8</p>	<p>The conclusion that no LSE was identified for GGC-O-3 (sterilisation of future mineral resources), GGC-C-7 (dewatering of trenches and excavations), ENC-C-8 (physical intrusion into groundwater resource), GGC-C-11 (impacts on groundwater resources) at PEIR, and not being significant in EIA terms, and were therefore not considered in detail in the ES, is appropriate.</p>	<p>N/A</p>	<p>Agreed</p>
<p>G1.12: 4.9</p>	<p>The conclusion that impacts GGC-C-4 (exposure of workforce to health impacts), GGC-C-5 (encountering contamination during intrusive works), assessed within Volume A3, Chapter 1: Geology and Ground Conditions (APP-025) are not considered to be significant in EIA terms is appropriate when considered alongside the commitments in Table 1.8 and where relevant, identified further mitigation measures.</p>	<p>N/A</p>	<p>Agreed</p>
<p>G1.12: 4.10</p>	<p>The conclusions of the CEA on geology and ground conditions presented in Section 1.12 and inter-related effects in Section 1.14 of Volume A3, Chapter 1: Geology and Ground Conditions (APP-025), are appropriate.</p>	<p>N/A</p>	<p>Agreed</p>

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
<i>Draft DCO / Outline Management Plans / Mitigation and Monitoring</i>			
G1.12: 4.11	Requirement 14 of the draft DCO (C1.1: Draft DCO (APP-203)) is sufficient to secure the mitigation measures associated with contaminated land and groundwater.	N/A	Agreed
G1.12: 4.12	F2.2 Outline Code of Construction Practice (APP-237) includes all relevant mitigation measures specified in of Volume A3, Chapter 1: Geology and Ground Conditions (APP-025) and is appropriate for managing construction and post construction impacts from Hornsea Four on ecology and nature conservation receptors landward of MLWS. Volume A4, Annex 5.2: Commitments Register (APP-050) includes a commitment (Co124) to produce a CoCP in accordance with the Outline CoCP which is secured via Requirement 17 of C1.1: Draft Development Consent Order.	N/A	Agreed

3.1.6 Onshore WFD

Table 7: Agreement log: Onshore WFD.

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
G1.12: 5.1	Section 1 of Volume A6, Annex 2.3: Water Framework Directive Compliance Assessment has identified all appropriate legislation and policy context relevant to the onshore WFD Assessment.	N/A	Agreed
G1.12: 5.2	The methodology for the WFD assessment as set out in Section 2 and Section 3 of Volume A6, Annex 2.3: Water Framework Directive Compliance Assessment , is acceptable and satisfactory.	N/A	Agreed
G1.12: 5.3	The parameters used for the Scoping and Impact assessment stages of the WFD assessment, as set out in Section 3.3 of Volume A6, Annex 2.3: Water Framework Directive Compliance Assessment , have adequately assessed the maximum design scenarios (in Section 2.2 to Section 2.4 of Volume A6,	N/A	Agreed

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
	<p>Annex 2.3: Water Framework Directive Compliance Assessment) for Hornsea Four (both alone and cumulatively).</p>		
G1.12: 5.4	<p>The water bodies identified in Section 4.1 and Table 1 of Volume A6, Annex 2.3: Water Framework Directive Compliance Assessment, have been accurately screened and characterised.</p>	N/A	Agreed
G1.12: 5.5	<p>The Scoping process outlined in Section 4.2 of Volume A6, Annex 2.3: Water Framework Directive Compliance Assessment, has identified the quality elements for each of the relevant water bodies.</p>	N/A	Agreed
G1.12: 5.6	<p>The conclusions of the impact assessment, as set out in Section 4.3 and Section 5 of Volume A6, Annex 2.3: Water Framework Directive Compliance Assessment, identifying.</p>	N/A	Agreed

4 Offshore Agreement log

4.1 Overview

4.1.1.1 This section of the SoCG set out the level of agreement between the parties for each relevant offshore topic (as identified in [paragraph 1.1.1.2](#)).

4.1.1.2 The following section of this SoCG summaries the level of agreement between Hornsea Four and the Environment Agency on all relevant matters seaward of MHWS.

Table 8: Agreement Log: Offshore Matters

ID	Hornsea Four's Position	Environment Agency's Position	Position Summary
<i>Offshore WFD</i>			
G1.12: 6.1	Volume A5, Annex 2.2: Water Framework Directive Assessment (APP-069) accurately and adequately considers the effects of Hornsea Four to ensure that the proposed activities would not cause or contribute to deterioration of status or jeopardise any waterbodies from achieving Good status.	N/A	Agreed
<i>Marine Geology, Oceanography and Physical Processes</i>			
G1.12: 6.2	Volume A2, Chapter 1: Marine Geology, Oceanography and Physical Processes (APP-013) accurately and adequately assesses potential impacts and identifies that no significant effects will occur as a result of Hornsea Four.	N/A	Agreed
<i>Fisheries</i>			
G1.12: 6.3	Volume A2, Chapter 6: Commercial Fisheries (APP-018) accurately and adequately assesses potential impacts and identifies that no significant effects will occur as a result of Hornsea Four.	N/A	Agreed

5 Summary

- 5.1.1.1 This SoCG has outlined the consultation that has taken place between the Applicant and the Environment Agency during the pre-application phase. The agreement logs present the position reached between Hornsea Four and the Environment Agency in relation to relevant onshore and offshore matters.
- 5.1.1.2 This SoCG will be updated as discussions progress and made available to the ExA as requested through the DCO examination phase.