AQUIND Limited

AQUIND INTERCONNECTOR

Statement of Common Ground Between AQUIND Limited and the Marine Management Organisation

The Planning Act 2008

Document Ref: 7.5.16

PINS Ref.: EN020022

AQUIND Limited

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PINS REF.: EN020022

DOCUMENT: STATEMENT OF COMMON GROUND

DATE: 25 JANUARY 2021

DOCUMENT

Document	Statement of Common Ground
Revision	004
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Date	14/01/2021
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Date	25/01/2021

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TABLES

1. INTRODUCTION

1.1. PURPOSE OF THIS DOCUMENT

1.1.1.1. This Statement of Common Ground (ôSoCGô) has been prepared with the Marine Management Organisation (ôMMOô) to show where agreement has been reached with AQUIND Limited (ôthe Applicantô) during the pre and post Development Consent Order (ôDCOô) application consultation and in the course of the DCO Examination.

1.1.1.2. This SoCG has been prepared by the Applicant and the MMO in respect of the marine aspects of the Proposed Development, collectively referred to in this SoCG as ôthe partiesô

1.1.1.3. The purpose and possible content of SoCGs is set out in paragraphs 58-65 of the Department for Communities and Local Governmentôs guidance entitled ñPlanning Act 2008: examination of applications for development consentò (26 March 2015). Paragraph 58 of that guidance explains the basic function of SoCGs:

> *ñA statement of common ground is a written statement prepared jointly by the applicant and another party or parties, setting out any matters on which they agree. As well as identifying matters which are not in real dispute, it is also useful if a statement identifies those areas where agreement has not been reached. The statement should include references to show where those matters are dealt with in the written representations or other documentary evidence.ò*

1.1.1.4. This SoCG comprises a record of agreement which has been structured to reflect topics of interest to the MMO on the AQUIND Interconnector DCO Application (ôthe Applicationô). Topic specific matters agreed, not agreed and actions to resolve matters between the MMO and the Applicant are included.

1.1.1.5. The position with respect to each topic of interest is presented in a tabular form.

1.1.1.6. Throughout this document points of agreement and disagreement between the parties are clearly indicated. Points that are not agreed will be the subject of ongoing discussion wherever possible to resolve, or refine, the extent of disagreement between the parties.

1.1.1.7. This revision of the SoCG is mutually agreed between both parties. Feedback from the MMO on the ES Addendum 2 submitted at Deadline 7 (document reference 7.8.2) is expected in due course.

1.2. THE DEVELOPMENT

1.2.1.1. This SoCG relates to an application made by the Applicant to the Planning Inspectorate (õPINSö) under the Planning Act 2008 (õActö). The application was made on 14 November 2019.

1.2.1.2. The draft DCO is referred to as the AQUIND Interconnector DCO. The DCO, if granted, would authorise the Applicant to construct, operate and maintain infrastructure and associated development (the õProposed Developmentö) including:

- High Voltage Direct Current (õHVDCö) marine cables;
- HVDC underground cables;
- Converter station;
- High Voltage Alternate Current (õHVACö) cables; and
- Fibre optic data transmission cables and associated infrastructure.

1.2.1.3. This SoCG is only relevant to the marine aspects of the Proposed Development which comprise of activities including the installation of marine cables that run from Mean High Water Springs (õMHWSö) to the UK/France European Economic Zone (õEEZö) Boundary Line.

2. CONSULTATION

2.1.1.1. The parties have been engaged in consultation since the inception of the Proposed Development.

2.1.1.2. This section briefly summarises the consultation that the Applicant has had with the MMO. As the MMOôs advisor, the Centre for Environmental, Fisheries and Aquaculture Science (ôCefasô), has also been involved in consultation with the Applicant. The position taken by the MMO in agreement logs reflects this advice where appropriate.

2.1.1.3. A summary of key meetings and correspondence between the parties can be found in Table 2.1.

Table 2.1: Consultation with the MMO

Date	Form of Contact	Summary
February 2018	Scoping Opinion Request to the MMO	Scoping Opinion received from the MMO in June 2018 under Marine and Coastal Access Act 2009.
July 2018	Emails	Discussion on whether the marine cables will be exempt and which activities will be licensable in which locations. Also, discussion on the MMOôs current position on Habitat Regulations Assessment (ôHRAô) case law.
6 September 2018	Meeting	Meeting to discuss update on the Proposed Development. Topics covered included Horizontal Directional Drilling (ôHDDô) activities, dredge and disposal activities, electro-magnetic field (ôEMFô) impacts, pollution prevention, cable protection, decommissioning, deemed Marine Licence (ôDMLô) drafting, DCO fees and charges.
25 September 2018	Email	Informal consultation on the Statement of Community Consultation (ôSoCCô).
October 2018	Scoping Opinion Request to the Planning Inspectorate (PINS)	Scoping Opinion received from PINS in December 2018.

Date	Form of Contact	Summary
9 January 2019	Meeting	Meeting to provide update on the Proposed Development and discussion around the following topics: dredge and disposal activities, licensable activities, floatation pits, contaminated sediments, DML drafting and DCO fees and charges.
March 2019	Section 42 Consultation	Consultation with the MMO on Preliminary Environmental Information Report (ôPEIRö).
03 April 2019	Email	Dredge and Disposal Summary note circulated to MMO for comment
26 April 2019	Email	Feedback on the PIER received from the MMO.
07 May 2019	Teleconference	Discussions on approach to dredge and disposal and the approach to sediment plume modelling. Written comments received from the MMO on 17 May 2019.
04 June 2019	Emails	Emails providing information on changes to MMO charging structure and providing clarification around exemption notification process.
1 July 2019	Email	Draft DML shared with MMO for review / comment.
09 July 2019	Email	PEIR Briefing Note with the Applicantôs responses to MMO PEIR comments.
18 July 2019	Teleconference	Discussion on MMO PEIR comments, and the Applicantôs responses.
19 July 2019	Email	Query on comments on herring assessment methods sent to MMO.
23 July 2019	Email	Updated briefing note outlining discussion points on PEIR as per teleconference held on 18 July 2019 (see Appendix 1).
31 July 2019	Email	MMO comments on draft DML received.

Date	Form of Contact	Summary
1 August 2019	Meeting and teleconference	Meeting to discuss MMO comments on draft DML.
2 August 2019	Email	The Applicant outlines approach to sandeel and herring assessments following teleconference with Cefas discussing PEIR feedback and comments on previous proposals.
19 August 2019	Email	Consultation on approach to Cumulative Effects Assessment (see Appendix 2).
09 September 2019	Email	Rational for cable protection contingency provided to MMO for comment.
20 September 2019	Email	Issued disposal site characterisation report to MMO for review.
23 September 2019	Email	MMO feedback on approach to sandeel and herring assessments.
11 October 2019	Email	MMO feedback on the rationale for additional cable protection allowance for post construction works.
22 October 2019	Email	Review and feedback from MMO on the disposal site characterisation report.
27 January 2020	s. 56 consultation	Cefas comments to MMO on DCO Application received from MMO
17 February 2020	s. 56 consultation	Natural Power response to Cefas s.56 comments shared with the MMO.
20 February 2020	s. 56 consultation	Relevant Representation (RR) received from the MMO.
21 February 2020	Underwater Noise	Query sent to MMO regarding Cefas comments on underwater noise.
16 March 2020	Underwater Noise	Feedback from MMO on underwater noise query.
23 March 2020	s.56 MMO feedback	Issue register providing the Applicantôs preliminary responses to MMOôs RR and draft SoCG shared with the MMO.

Date	Form of Contact	Summary
24 March 2020	Teleconference	Discussions with MMO and Cefas on MMO RR and draft SoCG.
25 March 2020	Emails	Discussions regarding wording for standard OSPAR condition.
26 March 2020	Teleconference	Discussions on MMO RR comments relating specifically to the draft DML.
27 March 2020	Email	Email request sent to the MMO for feedback on Applicantôs responses to underwater noise comments in RR.
03 April 2020	Email	Request from the Applicant to confirm requirements for the additional herring information requested by Cefas.
08 April 2020	Email	Cefas updated their additional herring information requirements.
28 April 2020	Email	Updated draft SoCG shared with MMO for review, along with meeting note of teleconferences (24/03/2020).
28 April 2020	Email	Applicant sends the .kml file of the proposed disposal site/s to the MMO.
30 April 2020	Email	Email sent by the Applicant to the MMO to correct item 4.1.7 in the draft SoCG.
29 May 2020	Email	MMO response to Applicantôs query and MMO feedback on underwater noise register (sent on 17 March 2020).
05 June 2020	Email	MMO provide the codes for the AQUIND disposal sites.
08 June 2020	Email	Applicant makes further comment to the MMO on the request for further assessment on cumulative sound exposure.
24 June 2020	Email	The Applicant provides a Cable Protection Technical Note to the MMO (and Natural England) to address cable protection queries.
02 July 2020	Email	MMO provides reviewed meeting note of teleconference on 24/03/2020 and MMO

Date	Form of Contact	Summary
		response on the requirement for assessment of cumulative sound exposure.
16 July 2020	Email	The Applicant provides an interactive PDF map to the MMO and Cefas that illustrates the additional information on herring spawning requested by Cefas.
04 August 2020	Email	The MMO provides feedback on the draft SoCG sent by the Applicant in April 2020.
27 August 2020	Email	Feedback from the MMO on the Applicantôs response to comments from the Relevant Representations in regard to the DCO and DML. Feedback from the MMO on the Cable Protection Technical Note. Feedback from the MMO on the additional information on herring spawning and potential timing restrictions.
23 September 2020	Email	Applicant sends new iteration of the draft SoCG to the MMO for review.
22 October 2020	Email	The MMO provides feedback on the draft SoCG sent by the Applicant in September 2020.
09 November 2020	Email	Applicant sends new iteration of the draft SoCG to the MMO for review.
18 November 2020	Email	The MMO provides feedback on herring mitigation (Table 4.1, Item 4.1.2) and resampling of contaminated sediments (Table 4.1, Item 4.1.1) (see Appendix 11).
19 November 2020	Video Conference	Held between both parties to discuss outstanding areas or topics.
26 November 2020	Email	The MMO provides feedback on the draft SoCG and items discussed during meeting on 19 November 2020.

Date	Form of Contact	Summary
26 November 2020	Email	The Applicant provides a cumulative sound exposure assessment to the MMO as requested for their review.
December 2020	Email/Telephone	Communications between both parties aiming to resolve outstanding items discussed during Issue Specific Hearings 1 and 3 and supporting transcripts.
21 December 2020	Email	The MMO provides feedback on the outstanding items discussed during Issue Specific Hearings and transcripts.
23 December 2020	Email	Applicant sends new iteration (Rev 003) of the SoCG to the MMO for review.
13 January 2021	Video Conference	Held between the Applicant and the MMO to discuss and resolve outstanding matters in the SoCG.
13 January 2021	Email	MMO provides wording for herring mitigation licence condition for the Applicant to consider.
18 January 2021	Email	Applicant sends new iteration (Rev 004) of the SoCG to the MMO for review.
21 January 2021	Email	Feedback from the MMO in regard to SoCG for issue at Deadline 7.

2.2. SUMMARY OF TOPICS COVERED BY THE SOCG

2.2.1.1. The following topics discussed between the parties are commented on further in this SoCG.

- Environmental Impact Assessment (‘EIA’) (including cumulative effects);
- Physical Processes including dredge and disposal activities;
- Marine Water and Sediment Quality
- Intertidal and Benthic Ecology;
- Fish and Shellfish;
- Recreational Angling and Commercial Fisheries;
- Marine Mammals and Basking Sharks (including Underwater Noise); and
- DCO and the Deemed Marine Licence (‘DML’).

2.2.1.2. For the avoidance of doubt, matters not covered in this SoCG have not been discussed between the parties as they have not been raised by the MMO in their capacity as the regulatory body for licensable activities in English waters under the Marine and Coastal Access Act 2009.

3. MATTERS WHICH ARE AGREED

3.1.1.1. This section of the SoCG describes the ómatters agreedô in detail between the parties.

3.1.1.2. The following subsections provide the details of the matters where agreement has been reached between the parties for each technical discipline.

3.1.1.3. Each table identifies those matters relevant to individual topics that have been agreed and by whom.

3.1.1.4. The Proposed Development has the potential to impact on the following areas which are relevant to the MMO;

- physical processes. Chapter 6 (Physical Processes) of the Environmental Statement (õESô) (Ref: APP-121);
- marine water and sediment quality. Chapter 7 (Marine Water and Sediment Quality) of the ES (Ref: APP-122);
- intertidal and benthic habitats. Chapter 8 (Intertidal and Benthic Habitats) of the ES (Ref: APP-123);
- fish and shellfish. Chapter 9 (Fish and Shellfish) of the ES (Ref: APP-124);
- marine mammals and basking sharks. Chapter 10 (Marine Mammals and Basking Sharks) of the ES (Ref: APP-125);
- commercial fisheries. Chapter 12 (Commercial Fisheries) of the ES (Ref: APP-127);
- recreational angling. Chapter 13 (Shipping, Navigation and Other Marine Users of the ES (Ref: APP-128); and
- cumulative effects. Chapter 29 (Cumulative Effects) of the ES (Ref: APP-144).

3.1.1.5. Tables 3.1 and 3.7 outline the areas of common ground that have been reached in relation to the approach to assessments and the findings of the chapters above as well as the;

- Disposal Site Characterisation Report (Ref: APP-371);
- Marine Conservation Zone (õMCZô) Assessment (Ref: APP-381).

3.1.1.6. On matters regarding the HRA Report (document reference 6.8.1), it is assumed that as the MMO is neither the competent authority nor the Statutory Nature Conservation Body (SNCB) for this Application, the MMO will defer to the opinion of the relevant Statutory Nature Conservation Body (õSNCBô), namely Natural England, or Joint Nature Conservation Committee (õJNCCô).

3.1.1.7. On matters regarding the Water Framework Directive (õWFDô) Assessment (APP-372), it is assumed that as the MMO is not the competent authority nor the decision

maker under this Application, the MMO will defer to the opinion of the Environment Agency.

3.1.1.8. Table 3.8 outlines the areas of common ground that have been reached in relation to the DML.

3.1.1.9. The Relevant Representation (RR) on the application from the MMO was received on 20 February 2020 (Appendix 3).

3.1.1.10. Further engagement was undertaken with the MMO through the development and iterative reviews of a draft SoCG and teleconferences held to discuss their RR, the draft SoCG and Examination process. The Applicant has also taken into consideration the MMOôs responses to the Examining Authority questions (REP1-211 and REP2-024) and submissions of transcripts into (REP5-099 and REP5-100) and discussions during the Issues Specific Hearings. The agreed positions recorded in Section 3 of this SoCG are based on the above consultations and information in the MMOôs RR.

Table 3.1: Matters Agreed: Physical Processes

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
EIA				
MMO 3.1.1	Existing Environment	The sources of information within the ES adequately characterises the baseline in terms of Physical Processes (Ref: APP-121, Section 6.5).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.1.2	Assessment Methodology	The list of potential physical process impacts assessed in the ES is appropriate (Ref: APP-121, Sections 6.3.5 and 6.6).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.1.3		The methodology used for the EIA represents an appropriate approach to assessing potential impacts of the Proposed Development (Ref: APP-121, Section 6.4). This includes: • Assessment which is based on expert judgement using knowledge of other sites and available project specific contextual information (e.g. particle size and core data); • The plume modelling undertaken to characterise the extent and duration of the sediment plume as a result of disposal activities; • The approach to cumulative effects assessment is appropriate which is based upon PINS Advice Note Seventeen.	Agreed in PEIR Response (see Appendix 1) and via email (see Appendix 3).	Both parties agreed.
MMO 3.1.4		The worst case scenarios for impacts presented in the ES, are appropriate for the Proposed Development (Refs: APP-356; APP-121, Section 6.6.3, Table 6.15).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.1.5		Appropriate legislation, planning policy and guidance relevant to Physical Processes has been used to inform the assessment (Refs: APP-121, Section 6.2; APP-113).	The MMO are in agreement.	Both parties agreed.
MMO 3.1.6	Assessment Conclusions	The assessment of impacts for construction, operation and decommissioning presented in the ES is appropriate and effects on Physical Processes as a result of the Proposed are considered to be not significant (Ref: APP-121, Section 6.6).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
MMO 3.1.7		The cumulative effects assessment is appropriate and cumulative effects on Physical Processes as a result of the Proposed Development and other relevant plans and projects are concluded to be not significant (Refs: APP-121, Section 6.7; APP-370; APP-144).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.1.8		Assessment of transboundary effects is considered to be appropriate and such effects on Physical Processes as a result of the Proposed Development are considered to be not significant (Refs: APP-121, Section 6.7.3; APP-144).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.1.9	Mitigation	It is agreed that given the effects of the Proposed Development, the mitigation measures proposed are considered appropriate and are adequately captured within the DML (Refs: APP-121, Section 6.8; APP-489; APP-019, Schedule 15).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
Dredge and Disposal Activities				
MMO 3.1.10	Methods	The approach used to define the disposal area and undertake sediment plume modelling along the Marine Cable Corridor is appropriate (Ref: APP-371, Section 6.2).	Agreed (see Appendix 4).	Both parties agreed,
MMO 3.1.11	Sediment plume modelling	The approach to plume dispersal modelling provided in the ES is appropriate and clearly demonstrates the spatial and temporal extent of the potential sediment plumes generated from disposal activities (Ref: APP-368).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed,
MMO 3.1.12	Benthic survey samples and PSD data	Further to a meeting held with the MMO and Cefas on 24 March 2020, Cefas advised that the number of samples for contaminated sediments was proportionate and were a good representation of the area.	Agreed during teleconference 24 March 2020.	Both parties agreed.
MMO 3.1.13	PCBs analysis	Further to a meeting held with the MMO and Cefas on 24 March 2020, the matters relating to contaminated sediments and PCB analysis have been resolved subject to minor updates to Chapter 7 and the contaminated sediment survey report (Appendix 7.3; APP-374).	Agreed during teleconference 24 March 2020.	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
MMO 3.1.14	Additional information requested for disposal site and DML condition.	During the meeting held with the MMO and Cefas on 24 March 2020, the Applicant provided further clarification that a Trailer Suction Hopper Dredger (TSHD) may be used for dredging and that the disposal site has been identified as the bedform features are mobile and could move from previously surveyed location. As a result, the Cefas advisor and the MMO agreed that we do need a designated disposal site and these matters are resolved. Unique reference codes have been provided to the Applicant and the DML now includes those codes.	Agreed during teleconference 24 March 2020.	Both parties agreed.

Table 3.2: Matters Agreed: Marine Water and Sediment Quality

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
EIA				
MMO 3.2.1	Existing Environment	The sources of information within the ES adequately characterises the baseline environment in terms of Marine Water and Sediment Quality (Refs: APP-122, Section 7.5; APP-372).	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.
MMO 3.2.2		The offshore region of the marine cable corridor (beyond 50 km from shore) is sufficiently coarse such that additional contaminant sampling or analysis is not required.	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.2.3		Adequate information has been presented to characterise the contaminated sediment levels in the area of the Proposed Development (Refs: APP-122, Section 7.6, Table 7.3; APP-374).	Agreed as a result of teleconference held on 24/03/2020.	Both parties agreed.
MMO 3.2.4	Assessment Methodology	The worst case scenarios for impacts presented in the ES, are appropriate for the Proposed Development (Refs: APP-122, Section 7.6.1; APP-356).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.2.5		The list of potential impacts on Marine Water and Sediment Quality presented in the ES is appropriate (Refs: APP-122, Sections 7.3.5 and 7.6; APP-372).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.2.6		The methodology used for the EIA based on Charted Institute of Ecology and Environmental Management (CIEEM) represents an appropriate approach to assessing potential impacts of the Proposed Development on Marine Water and Sediment Quality (Ref: APP-122, Section 7.4). This includes: • Assessment is based on expert judgement using knowledge of other sites and available project specific contextual information (e.g. particle size, sediment samples, sediment plume modelling and core data); • The plume modelling undertaken to characterise the extent and duration of the sediment plume as a result of disposal activities • The approach to cumulative effects assessment is appropriate which is based upon PINS Advice Note Seventeen.	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
MMO 3.2.7		Maintenance activities exempt from requiring a marine licence include: • removal and replacement of defective cable sections; • removal of sediment to undertake repairs; and • removal/replacement of cable protection to assess the cable. These activities have been assessed as part of the application and the information provided in the EIA shown below is considered appropriate (Ref: APP-118; APP-356; APP-123, Section 8.6); • estimated number of repairs; • estimated length of cable de-buried; • estimated duration of a repair; and • additional cable protection contingency for post construction works.	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.
MMO 3.2.8		Appropriate legislation, planning policy and guidance relevant to Marine Water and Sediment Quality has been used to inform the assessment (Refs: APP-122, Section 7.2; APP-113).	The MMO are in agreement	Both parties agreed.
MMO 3.2.9	Assessment Conclusions	The assessment of impacts for construction, operation (maintenance and repair) and decommissioning presented in the ES is appropriate and effects on Marine Water and Sediment Quality as a result of the Proposed Development are considered to be not significant (Ref: APP-122, Section 7.6).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.2.10		The cumulative effects assessment undertaken is appropriate and cumulative effects on Marine Water and Sediment Quality as a result of the Proposed Development and other relevant plans and projects are considered to be not significant (Refs: APP-122, Section 7.7; APP-375; APP-144).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.2.11		Assessment of transboundary effects is considered to be appropriate and such effects on Marine Water and Sediment Quality as a result of the Proposed Development are considered to be not significant (Refs: APP-122, Section 7.7.3; APP-144).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.2.12	Mitigation	It is agreed that given the effects of the Proposed Development, the mitigation measures proposed are considered appropriate and	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
		are adequately captured within the DML (Refs: APP-122, Section 7.8; APP-489; APP-019, Schedule 15).		

Table 3.3: Matters Agreed: Intertidal and Benthic Habitats

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
EIA				
MMO 3.3.1	Existing Environment	Sufficient survey data (extent/duration) has been collected to undertake the assessment (Ref: APP-377; APP-379).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.3.2		The sources of information within the ES adequately characterises the baseline in terms of Intertidal and Benthic Habitats (Ref: APP-123, Section 8.5).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.3.3	Assessment Methodology	The use of the CIEEM guidelines to inform the assessment methodology is appropriate (Ref: APP-123, Section 8.4).	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.
MMO 3.3.4		The list of potential impacts presented in the ES is appropriate (Ref: APP-123, Section 8.6).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.3.5		The worst case scenarios for impacts presented in the ES, are appropriate for the Proposed Development (Refs: APP-123, Section 8.6.2; APP-356).	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.
MMO 3.3.6		The methodology used for the EIA represent an appropriate approach to assessing the potential impacts of the Proposed Development on Intertidal and Benthic Habitats (Ref: APP-123, Section 8.4). This includes: • An assessment based on expert judgement using knowledge of other sites and available project specific survey data, modelling data and contextual information; • The approach to the cumulative effects assessment which is based upon PINS Advice Note Seventeen.	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.
MMO 3.3.7		Maintenance activities exempt from requiring a marine licence include: • removal and replacement of defective cable sections; • removal of sediment to undertake repairs; and • removal/replacement of cable protection to assess the cable.	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
		These activities have been assessed as part of the ES and the information provided in the EIA shown below is considered appropriate (Refs: APP-118; APP-356; APP-123, Section 8.6); • estimated number of repairs; • estimated length of cable de-buried; • estimated duration of a repair; and • an additional cable protection contingency for post construction works.		
MMO 3.3.8		The approach to and conclusions of the Marine Conservation Zone assessment are appropriate, and the potential effects on MCZs are acceptable (Ref: APP-381).	The MMO defers to Natural England.	Both parties agree that the Applicant will seek agreement with Natural England.
MMO 3.3.9		Appropriate legislation, planning policy and guidance relevant to Intertidal and Benthic Habitats has been used to inform the assessment (Ref: APP-123, Section 8.2; APP-113).	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.
MMO 3.3.10	Assessment Conclusions	The assessment of impacts for construction, operation (maintenance and repair) and decommissioning presented in the ES is appropriate and effects on Intertidal and Benthic Habitats as a result of the Proposed Development are considered to be not significant (Ref: APP-123, Section 8.6.).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.3.11		The cumulative effects assessment undertaken is appropriate and cumulative effects on Intertidal and Benthic Habitats as a result of the Proposed Development and other relevant plans and projects are considered to be not significant (Refs: APP-123, Section 8.7; APP-380; APP-144).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.3.12		Assessment of transboundary effects is considered to be appropriate and such effects on Intertidal and Benthic Habitats as a result of the Proposed Development are considered to be not significant (Refs: APP-123, Section 8.7.3; APP-144).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3).	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
MMO 3.3.13	Mitigation	It is agreed that given the effects of the Proposed Development, the mitigation measures proposed are considered appropriate and are adequately captured within the DML (Ref: APP-123, Section 8.8; APP-489; APP-019, Schedule 15).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3) although there are exceptions itemised in Table 4.1 that are subject to further discussion.	Both parties agreed.

Table 3.4: Matters Agreed: Fish and Shellfish

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
EIA				
MMO 3.4.1	Existing Environment	The sources of information within the ES adequately characterises the Fish and Shellfish baseline (Ref: APP-124, Section 9.5).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3)	Both parties agreed.
MMO 3.4.2	Assessment Methodology	The worst case scenarios for impacts presented in the ES, are appropriate for the Proposed Development (Refs: APP-124, Section 9.6.3; APP-356).	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.
MMO 3.4.3		The use of the Chartered Institute of Ecology and Environmental Management ('CIEEM') guidelines to inform the assessment methodology is appropriate (Ref: APP-124, Section 9.2.4).	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.
MMO 3.4.4		The list of potential impacts presented in the ES is appropriate (Ref: APP-124, Sections 9.3.6 and 9.6).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.4.5		The methodology used represents an appropriate approach to assessing potential impacts of the Proposed Development on Fish and Shellfish (Ref: APP-124, Section 9.4). This includes: • An assessment based on expert judgement using knowledge of other sites and available project specific survey data, modelling data and contextual information; • The approach to the cumulative effects assessment which is based upon PINS Advice Note Seventeen.	Agreed in PEIR Response (see Appendix 1).	Both parties agreed.
MMO 3.4.6		Maintenance activities exempt from requiring a marine licence include; • removal and replacement of defective cable sections; • removal of sediment to undertake repairs; and	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
		• removal/replacement of cable protection to assess the cable. These activities have been assessed as part of the ES and the information provided in the EIA shown below is considered appropriate (Ref: APP-118; APP-356; APP-124, Section 9.6.3, Table 9.9); • estimated numbers of repairs; • estimated length of cable de-buried; • estimated duration of a repair; and • additional cable protection for post construction works.		
MMO 3.4.7		The approach to and conclusions of the Marine Conservation Zone assessment are appropriate, and the potential effects on MCZs are acceptable (Ref: APP-381).	The MMO will defer to Natural England	Both parties agree that the Applicant will seek agreement with Natural England.
MMO 3.4.8		Appropriate legislation, planning policy and guidance relevant to Fish and Shellfish has been used to inform the assessment (Refs: APP-124, Section 9.2; APP-113).	The MMO is content that the correct marine plan has been used, however defers to other stakeholders in relation to shellfish matters including EA and IFCA.	The Applicant is content that appropriate legislation, policy and guidance has been used, and no additional requirements have been raised by other stakeholders.
MMO 3.4.9	Assessment Conclusions	The assessment of impacts for construction, operation and decommissioning presented in the ES is appropriate and effects on Fish and Shellfish as a result of the Proposed Development are considered to be not significant (Ref: APP-124, Section 9.6).	Agreed subject to further discussion on herring as outlined in Appendix 11 and itemised in Table 4.1.	Both parties agreed.
MMO 3.4.10		The cumulative effects assessment undertaken is appropriate and effects on Fish and Shellfish as a result of the Proposed Development and other relevant plans and projects are considered to be not significant (Refs: APP-124, Section 9.7; APP-383; APP-144).	See Appendix 11 subject to agreement as itemised in Table 4.1.	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
MMO 3.4.11		Assessment of transboundary effects is considered to be appropriate and such effects on Fish and Shellfish as a result of the Proposed Development are considered to be not significant (Refs: APP-124, Section 9.7.5; APP-144).	Agreed.	Both parties agreed.
MMO 3.4.12	Minor revisions to text.	The minor comments made by the Cefas advisor in Comments 8.77 to 8.81 of the MMO RR (RR-179) do not add to the robustness of the assessment already undertaken and do not change the outcomes of the assessments either. Accordingly, the Applicant does not anticipate providing any updates to Chapter 9 Fish and Shellfish in relation to these comments.	Whilst MMO agree with the presentational and text comments, MMO agree that changing of these will not impact on the overall outcomes of the assessment.	Both parties agreed.
MMO 3.4.13	Mitigation	It is agreed that given the effects of the Proposed Development, the mitigation measures proposed are considered appropriate and are adequately captured within the DML (Refs: APP-124, Section 9.8; APP-489; APP-019, Schedule 15).	See Appendix 11 subject to agreement as itemised in Table 4.1.	Both parties agreed.

Table 3.5: Matters Agreed: Commercial Fisheries

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
EIA				
MMO 3.5.1	Existing Environment	The sources of information within the ES adequately characterises the Commercial Fisheries baseline (Refs: APP-127, Section 12.5; APP-388).	Agreed in PEIR Response (see Appendix 1) and s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.5.2	Assessment Methodology	The worst case scenarios for impacts presented in the ES, are appropriate for the Proposed Development (Refs: APP-127, Section 12.6.3, Table 12.7; APP-356).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.5.3		The list of potential impacts presented in the ES is appropriate (Ref: APP-127, Sections 12.3.6 and 12.6).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.5.4		The methodology used represents an appropriate approach to assessing potential impacts of the Proposed Development on Commercial Fisheries (Ref: APP-127, Section 12.4). This includes: • Assessment is based on expert judgement, extensive consultation with commercial fisheries stakeholders, using knowledge of other sites and available project specific survey data and contextual information; • The approach to the cumulative effects assessment which is based upon PINS advice note Seventeen.	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.5.5		Maintenance activities which are exempt from requiring a marine licence include; • removal and replacement of defective cable sections; • removal of sediment to undertake repairs; and • removal/replacement of cable protection to assess the cable. These activities have been assessed as part of the Application and the information provided in the EIA shown below is considered appropriate (Refs: APP-127, Section 12.6.3, Table 12.7; APP-356); • estimated number of repairs;	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
		• estimated lengths of cable de-buried; • estimated duration of a repair; and • additional rock placement contingency for post construction works.		
MMO 3.5.6		Appropriate legislation, planning policy and guidance relevant to Commercial Fisheries has been used to inform the assessment (Ref: APP-127, Section 12.2).	MMO is content that the correct marine plan has been used however defers to NFFO and IFCA regarding Commercial Fisheries	The Applicant is content that appropriate legislation, policy and guidance has been used, and no additional requirements have been raised by other stakeholders.
MMO 3.5.7	Assessment Conclusions	The assessment of impacts for construction, operation and decommissioning presented in the ES is appropriate and effects on Commercial Fisheries as a result of the Proposed Development are considered to be not significant (Ref: APP-127, Section 12.6).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.5.8		The cumulative effects assessment undertaken is appropriate and effects on Commercial Fisheries as a result of the Proposed Development and other relevant plans and policies are considered to be not significant (Refs: APP-127, Section 12.7; APP-392; APP-144).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.5.9		Assessment of transboundary effects is considered to be appropriate and transboundary effects on Commercial Fisheries as a result of the Proposed Development are considered to be not significant (Refs: APP-127, Section 12.7.8; APP-144).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.
MMO 3.5.10	Mitigation	It is agreed that given the potential impacts of the Proposed Development, the mitigation measures proposed are considered appropriate and are adequately captured within the DML (Refs: APP-127, Section 12.8; APP-489; APP-019, Schedule 15).	Agreed in s.56 Representation (see Appendix 3).	Both parties agreed.

Table 3.6: Matters Agreed: Marine Mammals and Basking Sharks (including Underwater Noise)

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
EIA				
MMO 3.6.1	Existing Environment	The sources of information within the ES adequately characterises the baseline for assessment of the Proposed Development (Ref: APP-125, Section 10.5).	The MMO defers to Natural England on this matter (see Appendix 3).	Both parties agreed.
MMO 3.6.2	Assessment Methodology	The worst case scenarios for impacts presented in the ES, are appropriate for the Proposed Development (Ref: APP-125, Section 10.6).	MMO defers to Natural England on this matter and the MMO is content in regard to the assessment of effects resulting from underwater noise.	Both parties agreed.
MMO 3.6.5		The methodology based on CIEEM represents an appropriate approach to assessing potential impacts of the Proposed Development on Marine Mammals and Basking Sharks (Ref: APP-125, Section 10.4). This includes: • Assessment is based on expert judgement using knowledge from other sites and project specific contextual information; • The approach to cumulative effects assessment that is based upon PINS Advice Note Seventeen.	The MMO defers to Natural England on this matter (see Appendix 3).	Both parties agreed.
MMO 3.6.6		The list of potential impacts presented in the ES is appropriate (Ref: APP-125, Sections 10.3.5 and 10.6) and sufficient evidence within the ES has been provided regarding why impacts such as vessel noise, collision risk with vessels, noise from construction works and EMF (during operation) have been scoped out of the assessment (Refs: APP-125, paragraph 10.3.1.1; APP-384).	The MMO defers to Natural England on this matter (see Appendix 3).	Both parties agreed.
MMO 3.6.7		A European Protected Species (EPS) Risk Assessment will be undertaken to determine if an EPS licence will be required for geophysical/geotechnical works. As a minimum, a voluntary notification for	Please contact the Marine Conservation Team when in a	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
		geophysical/geotechnical works will be completed and submitted to the MMO (Ref: APP-106).	position to submit and EPS RA.	
MMO 3.6.8		A separate marine licence will be sought for UXO detonation activities. Further assessment and an updated cumulative assessment will be provided in the separate marine licence application when further details on the number of UXO present along the cable route are known, and whether any UXO detonations are required (Refs: APP-384; APP-106).	Agreed. See Appendix 7.	Both parties agreed.
MMO 3.6.9		Appropriate legislation, planning policy and guidance relevant to Marine Mammals and Basking Sharks has been used to inform the assessment (Refs: APP-125, Section 10.2; APP-113).	MMO defers to Natural England on this matter.	The Applicant is content that appropriate legislation, policy and guidance has been used, and no additional requirements have been raised by Natural England.
MMO 3.6.10	Assessment Conclusions	The assessment of impacts for construction, operation (maintenance and repair) and decommissioning presented in the ES is appropriate and effects on Marine Mammals and Basking Sharks as a result of the Proposed Development are considered to be not significant (Ref: APP-125, Section 10.6). The assessment of cumulative sound exposure submitted to the MMO is sufficient to conclude that no significant effects on marine mammals will result from the Proposed Development in regard to underwater noise.	MMO defers to Natural England on this matter and the MMO is content in regard to the assessment of effects resulting from underwater noise.	Both parties agreed.
MMO 3.6.11		The Applicant provided responses to MMO comments (RR-179 Paragraphs 8.83 and 8.94) in regard to underwater noise on 27 March 2020. The MMO responded to the Applicant on 29 May 2020 and it is agreed that comments to paragraphs 8.83 to 8.94 of RR-179 are resolved.	Agreed.	Both parties agreed.
MMO 3.6.12		The cumulative effects assessment undertaken is appropriate and cumulative effects on Marine Mammals and Basking Sharks as a result of the Proposed Development and other relevant plans and projects are considered to be not significant (Refs: APP-125, Section 10.7; APP-385; APP-144).	The MMO defers to Natural England on this matter (see Appendix 3).	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
MMO 3.6.13		Assessment of transboundary effects is considered to be appropriate and such effects on Marine Mammals and Basking Sharks as a result of the Proposed Development are considered to be not significant (Refs: APP-125, Section 10.7.3; APP-144).	The MMO defers to Natural England on this matter (see Appendix 3).	Both parties agreed.
MMO 3.6.14	Mitigation	It is agreed that given the effects of the Proposed Development, the mitigation measures proposed are considered appropriate and are adequately captured within the DML (Refs: APP-125, Section 10.8; APP-489; APP-019, Schedule 15).	The MMO defers to Natural England on this matter (see Appendix 3).	Both parties agreed.

Table 3.7: Matters Agreed: Recreational Angling

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
EIA				
MMO 3.7.1	Existing Environment	The sources of information within the ES adequately characterises the baseline for assessment of the Proposed Development on Recreational Angling (Ref: APP-128, Section 13.5).	Agreed	Both parties agreed.
MMO 3.7.2	Assessment Methodology	The worst case scenarios for impacts presented in the ES, are appropriate (Refs: APP-128, Section 13.4.3; APP-356).	Agreed	Both parties agreed.
MMO 3.7.4		The methodology based on International Maritime Organisation ('IMO') Formal Safety Assessment ('FSA') process represents an appropriate approach to assessing potential impacts of the Proposed Development on Recreational Angling (Ref: APP-128, Section 13.4). This includes: • Assessment is based on expert judgement using knowledge from other sites and project specific contextual information; • The approach to cumulative effects assessment based upon PINS Advice Note Seventeen.	Agreed	Both parties agreed.
MMO 3.7.5		Appropriate legislation, planning policy and guidance relevant to Recreational Angling has been used to inform the assessment (Refs: APP-128, Section 13.2; APP-113).	Agreed	Both parties agreed.
MMO 3.7.6	Assessment Conclusions	The assessment of impacts for construction, operation (maintenance and repair) and decommissioning presented in the ES is appropriate and effects on Recreational Angling as a result of the Proposed Development are considered to be not significant (Ref: APP-128, Section 13.6).	Agreed	Both parties agreed.
MMO 3.7.7		The cumulative effects assessment undertaken is appropriate and cumulative effects on Recreational Angling as a result of the Proposed Development and other relevant plans or projects are considered to be not significant (Refs: APP-128, Section 13.7; APP-394; APP-144).	Agreed	Both parties agreed.
MMO 3.7.8		Assessment of transboundary effects is considered to be appropriate and such effects on Recreational Angling as a result of the Proposed Development are considered to be not significant (Refs: APP-128, Section 13.7.3; APP-144).	Agreed	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
MMO 3.7.9	Mitigation	It is agreed that given the effects of the Proposed Development, the mitigation measures proposed are considered appropriate and are adequately captured within the DML (Refs: APP-128, Section 13.8; APP-489; APP-019, Schedule 15).	Agreed	Both parties agreed.

Table 3.8: Matters Agreed: Marine Licencing

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
MMO 3.8.1	Exemption	The AQUIND marine cables are considered as an exempt submarine cable as defined by section81(5) of MCAA).	Agreed. See Appendix 5 and Appendix 6.	Both parties agreed.
MMO 3.8.2	Maintenance and Repair	Maintenance activities and emergency repairs exempt from requiring a marine licence include: • removal and replacement of defective cable sections; • removal of sediment to undertake repairs; and • removal/replacement of cable protection to assess the cable.	Agreed. See Appendix 5 and Appendix 6.	Both parties agreed.
MMO 3.8.3	HDD Bored Tunnel Exemption	The HDD works proposed underneath Langstone Harbour are considered to be exempt from requiring a marine licence.	Agreed, assuming that the activity meets the conditions listed in Article 35 (bored tunnels) of the Marine Licensing (Exempt Activities) (Amendment) Order 2019. See Appendix 6.	Both parties agreed.
MMO 3.8.4	UXO Detonation/Safe Removal Marine Licence (paragraphs 6.7 and 6.8, and paragraphs 7.40 to 7.43 of MMO RR)	UXO detonation/safe removal works will be covered by a separate marine licence application and have therefore not been assessed within the ES. Further to the meeting held with the MMO and Cefas on 26 March 2020, it was agreed that a separate marine licence will be applied for UXO safe removal/detonation works (initial agreement with the MMO dates back to September 2018). It is considered that this matter is resolved.	Agreed in teleconference on 26 March 2020. Also see Appendix 7 (Item 4(d)).	Both parties agreed.
MMO 3.8.5	Decommissioning Marine Licence	Decommissioning works will be covered by a separate marine licence application.	Agreed. See Appendix 7 (Item 5(f)).	Both parties agreed.
MMO 3.8.6	Other Consents and Licences	The Other Consents and Licences to be obtained (document reference 5.2) relevant to the marine aspects of the Proposed Development are considered to be appropriate and no likely impediments to the granting of such consents are anticipated at this time.	Agreed. See Appendix 6 and 7.	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
MMO 3.8.7	Cable Protection (Construction)	Further information has been shared with the MMO (Appendix 9) in a Cable Protection Technical Note. The assessment of cable protection deployed during construction is considered appropriate and the controls secured through the DML are considered adequate.	Agreed as per MMO advice in Appendix 10.	Both parties agreed.
MMO 3.8.8	Cable Protection (Operation)	Assessments presented within the ES adequately considers an additional 330,000 m^2 of cable protection contingency (over and above what cable protection to be used for construction) to be used during the operational and maintenance phase of the Proposed Development..	Extended operational licence approach is agreed in principle in Appendix 7 and the controls within the DML for approvals are proposed to be in line with MMO feedback in Appendix 10.	Both parties agreed.
MMO 3.8.9	**EXQ1 DCO1.5.20** With reference to the Deemed Marine Licence Part 2 conditions in the dDCO [APP-019]: 2(b) this is usually 28 days rather than the 20 days included here ï what is the justification and is MMO content?	As explained in the Applicantôs response to ExA WQ DCO1.5.20, 20 working days is the same as 28 days (REP5-008, Rev 004). The Applicant agrees with the MMO in relation to 2(b) and the dDCO (REP5-008, Rev 004) has been updated with the correct cross references to 4(1)(c)(vi) in Condition 2(1)(a)(i) and Condition 6.	In relation to: 2(b) This condition requires those who are agents or contractors in accordance with condition 4(e)(vi) to confirm to the MMO that they have been provided with a copy of the DML by the undertaker in accordance with condition 2(1)(a)(i) of the DML. The MMO is content with the proposed timeframe of 20 working days as it does not affect the MMO. However, this obligation would apply to those who are required to be provided with the copy of the licence by the undertaker in accordance with condition 4(e)(vi). However, it is noted that condition 4(e)(vi) does not appear to be in the DML. The MMO believe this may refer to condition4(1)(c)(vi). If so, this may need changing in condition 6 too.	Both parties agreed.
MMO 3.8.10	**EXQ1 HAB1.8.10** A óworst-caseô construction programme has been assumed in the HRA [APP-491] for both	Please refer to the Applicantôs response to ExA WQ HAB1.8.10 at Deadline 1 (REP1-091). The indicative programme is a tool used for the purpose of that assessment, being a reasonable estimate of the time it will take for the Proposed Development to be carried	The MMO is in agreement with the Applicant that the HRA has assessed a worst-case construction programme. The plan required under the DML condition 4(1)(b) will provide the MMO	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
	the marine and onshore works. Should this be secured through the DML in the dDCO [APP-019]? At present, the DML sets out the need for an agreed programme at condition 4(1)(b) but this is not referenced to the HRA assumption.	out. It is necessary for an indicative programme to be used to allow for the reporting of the 'likely significant effects' in an understandable manner. The HRA assessment is valid in respect of the works for any period within which they may commence in accordance with Requirement 2 to the dDCO (APP-019 Rev 005), having taken into account the likely evolution of the environmental baseline for the period within which the works may be carried out. Necessary controls are provided for within the dDCO in relation to time and seasonal sensitivities. The controls provided for are sufficient to mitigate the identified 'likely significant effects'. The worst-case likely significant effects have been assessed and controls included in the dDCO ensure the required mitigations apply. The purpose of submitting and approving a construction programme to the MMO is so that they are aware of when the works are proposed to be carried out and the timeframes for this. This is not required in any way to mitigate impacts.	with the finer details of the works that will be carried out under the DML before they start and therefore the MMO is content that the plan does not reference the HRA.	
MMO 3.8.11	**ME1.10.18** In relation to paragraph 6.6.4.10 of the ES [APP-121], Schedule 15 Part 2 of the dDCO (the DML) [APP-019] and the Atlantic cable crossing protection, are the parameters assessed appropriate and can reliance be placed on the Applicantôs assessment of significance?	The Applicant does however acknowledge the request for defining the length and area of the Atlantic Cable Crossing and can accommodate this request. Rather than include this item in Part 2, paragraph 1 which would mean that the current parameters listed would need to be amended so that there is no double counting (and the details of which currently match the parameters as reported in all of the assessments and mitigation documentation), that additional text has been added to Part 1, Paragraph 4(1) as follows; *(1) cable protection, including the Atlantic Cable Crossing cable protection (pre-lay berm, 100 m x 30 m*	The MMO is content that the Applicant has acknowledged our request to define the length and area of protection required at the Atlantic Cable Crossing and is content that the applicant proposes to include this in Part 1, Paragraph 4(1). The MMO notes that the Applicant is content to amend Part 2, Condition 11 to include provision for details of scour/erosion around the Atlantic Cable Crossing, and the justification for any	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
		and post-lay berms of approximately 600 m x 30 m) covering a maximum footprint of 37,800 m^2. Further to feedback from the MMO on 21 December 2020 (Appendix 12), the Applicant has amended Part 2, Condition 11 to include provision for details of scour/erosion around the Atlantic Cable crossing (APP-019, Rev 005).	additional protection which may be required. The MMO is content with this.	
MMO 3.8.12	**DCO1.5.18** In dDCO [APP-019] Schedule 15, the Deemed Marine Licence: ÅIs the definition of cable protection acceptable, especially the reference to 'unlikely'?	The Applicant has amended the dDCO (APP-019, Rev 005) to include the agreed definition for cable protection. In terms of the temporary use of grout bags, the Applicant wishes to highlight that the MMO will be required to approve the deployment of cable protection (during construction and operation) as per the amended licence conditions in the DML submitted at Deadline 6 (APP-019, Rev 005). During construction, the approval of deployment of cable protection will be exercised through approval of the Design Plan and Cable Burial and Installation Plan in Part 2, Condition 4(1)(a)(iii) and Condition 4(c)(i) to (iii) which are subject to approval in Part 2, Condition 5. During operation, the Applicant proposes that the approval for deployment of cable protection be exercised through Condition 12(6). The MMO will also approve the Cable Burial Management Plan (Condition 11) which will form the record of cable burial surveys and installation of cable protection for the authorised development throughout the operational lifetime of the project.	The MMO is content with the proposed definition. The MMO acknowledges the Applicantôs explanation regarding the approval of cable protection and following a meeting held on the 13 January 2021, the MMO confirmed that they are content with approach to approvals for deployment of cable protection and the matter is now resolved.	Both parties agreed.
MMO 3.8.13	**DCO1.5.19** In the Deemed Marine Licence in the dDCO	The EIA (IP) Regs require the reporting of ólikelyô significant effects on the environment. The wording used reflects the statutory scheme to identify effects,	The MMO agrees that ólikelyôadds a subjective test and room for argument and therefore ambiguity. The MMO is	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
	[APP-019], at Part 1, 10 ódetails of Licensed Marine Activitiesô does the inclusion of the modifier ólikelyôadd a subjective test and room for argument? Should it be deleted, or the wording changed to make it more precise? The corresponding paragraphs for the authorised development section of the dDCO [APP-019] at Schedule 1 (2) (e) says ósuch other works as may be necessary or expedient for the purpose of or in connection with the construction or use of the authorised development and which do not give rise to any materially new or materially different environmental effects from those assessed as set out in the environmental statement.ôWould this wording be preferable in the Deemed Marine Licence?	and is drafted as it is on that basis, providing the same level of certainty as the regulations which govern assessment. The Applicant notes that wording of the same effect to that used in the draft Order is used in the recently made Norfolk Vanguard Offshore Wind Farm Order 2020, which uses the terminology ounlikelyôand ómaterially newôand ómaterially differentô(see Schedule 9, Part 2, paragraph 4, for example). Noting the Applicantôs response to ExA WQ DCO1.5.19 (REP1-091) and that similar wording appears in recently made Orders, it is not considered there is a need to amend the wording included at Part 1, paragraph 10 of the DML at Schedule 15 to the dDCO. The wording used in the Norfolk Vanguard Offshore Wind Farm Order 2020 is as follows: *Any amendments to or variations from the approved plans, protocols or statements must be minor or immaterial and it must be demonstrated to the satisfaction of the MMO that they are unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.* The Applicant has no issue with the above wording and confirms it will include this wording where the MMO prefer it. Details will be approved by the MMO pursuant to the DML. It may be necessary to amend the details which have been approved. Part 1 paragraph 10 allows for such amendments to approved details to be made, but when any such amendment to approved details is sought the variation must demonstrate it accords with	not content with the use of ómateriallyôin the proposed wording as this means ñnew or different in a significant wayò Therefore, the MMO proposes the following wording: ñAny amendments to or variations from the approved details must demonstrate that the subject matter of the approval sought will not give rise to any new or different environmental effects from those assessed in the environmental statementò The MMO note the wording from Norfolk Vanguard Offshore Windfarm Order 2020 (Vanguard). However, this wording used was referring to the plans, protocols and statements that are put to the MMO for approval under condition 14 which are the pre-constructions plans and monitoring plans. Vanguard does not refer to the áapproved detailsôbut plans, protocols and statements. The term áapproved detailsôis not defined in the DML it is a term used in the main body of the order to refer to the specification of the wider project design. The DML is authorising the carrying on of the ólicensable marine activitiesô(as per the definition in s66 of MCAA, deposits, removals etc) that are required in relation to the overall construction authorised through the DML and which is to be carried out in accordance with the áapproved designô If changes are	

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
		the ES (i.e. the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those already assessed). Without this wording, there is no ability to make any such minor variations. As such, a provision to this effect must remain in the DCO. During the meeting held on the 13 January 2021, additional clarification was provided by the MMO on their previous feedback and current position. The Applicant has agreed to replace Paragraph 10 with the proposed Norfolk Vanguard Order 2020 in the DML submitted at Deadline 7 (APP-019, Rev 006) wording and the MMO is content with this change. The MMO also highlighted that it is for the Applicant to ensure that the DCO and DML are appropriately mirrored and the MMO and Applicant both consider that this matter is now resolved.	made to the approved details of Works No 6 and 7, but this is not mirrored in the main body of the Order this could be problematic. The MMO suggest that the applicant reviews this and would appreciate an explanation as to what is trying to be achieved through the inclusion of this phrase and what it is intending can be amended and varied. Further to a meeting held on the 13 January 2021, the MMO considers that the matter is now resolved.	
MMO 3.8.14	**ME1.10.9** In relation to paragraph 7.30 of the MMO Relevant Representation [RR-179], is there adequate assessment of additional cable protection during both laying and operation set out in the ES?	The Applicant notes the MMO are content for the licence to have a length of 15 years for the laying of new cable protection during the operation phase. The Applicant has also taken on board the request for additional separate licence conditions to place additional controls and these have been included in the dDCO submitted at Deadline 1 (REP1-021). The Applicant previously proposed the following wording to secure 5 year data timescales used to inform the justification of the requirement for additional cable protection within the DML as requested by the MMO; ñé *details and justification for the installation of any additional cable protection to be informed by survey data less than 5 years old, unless agreed with the*	The MMO is content that the DML will contain the cable protection conditions rather than a separate marine licence. Within the Cable Protection Technical Note the MMO requested that ñdata less than 5 years old will be required to support laying of additional cable protection along with descriptions of the seabed habitat and information regarding what cable protection has been laid to date. The MMO appreciates inclusion of the proposed wording in the DML. The MMO would like to see the condition securing the need to provide descriptions of the seabed habitat and	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
		MMO, in the location/s where the laying of additional cable protection is proposed;" Following feedback from the MMO on 21 December 2020 (Appendix 12), the Applicant amended the DML submitted at Deadline 6 (APP-019, Rev 005) to include the detail requested by the MMO. The Applicant object to including the wording ó*and information regarding what cable protection has been laid to date*é ô as proposed by the MMO in the same condition as the approvals for deployment of cable protection (Condition 12) as this information is now secured in the DML submitted at Deadline 6 (APP-019, Rev 005) through the Cable Burial and Management Plan in paragraph (2) of Condition 11. The Cable Burial Management Plan will then form the record of cable burial surveys and installation of cable protection for the authorised development throughout the operational lifetime of the project. The Applicant considers the matter resolved.	information regarding what cable protection has been laid to date. This is to ensure that the presence of ephemeral species that may not have been present at baseline surveys are identified. The MMO is content for this condition to be placed where the applicant sees fit, providing we are in agreement that itõs purpose is to ensure that if additional cable protection is required, data less than 5 years old must be provided along with a description of the seabed habitat and justification for the cable protection. The MMO proposes the following wording: ñdetails and justification, including a description of the seabed habitat and information regarding what cable protection has been laid to date, for the installation of any additional cable protection to be informed by survey data less than 5 years old, unless agreed with the MMO, in the location/s where the laying of additional cable protection is proposed.ò Further to a meeting held on the 13 January 2021, the MMO is content with approach and wording of the licence condition in the DML submitted at Deadline 6 (REP6-016) and the matter is now resolved.	
MMO 3.8.15	**ME1.10.9**	The Applicant will remove paragraph 4(5), as the minor development to which it may relate is considered to	With regards to Part 1,4(5), the MMO welcomes its removal. However, the	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
	In relation to paragraph 7.30 of the MMO Relevant Representation [RR-179], is there adequate assessment of additional cable protection during both laying and operation set out in the ES?	already be captured by paragraph 4 which confirms that such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised development and which fall within the scope of the work assessed in the environmental statement is permitted The Applicant has reviewed the MMOôs most recent feedback provided on 21 December 2020 (Appendix 12) and following the meeting on 13 January 2021, the Applicant is reviewing the current drafting and considers the matter resolved.	MMO would appreciate an explanation on what Part 1, 4 is intended for. It is the MMOôs understand that this is intended to áauthoriseô any licensable marine activities which are not undertaken in relation to works Nos. 6 and 7 but which would be further associated development. However the wording does not appear to create or deliver that authorisation. The MMO recommend that this is reviewed. Further to a meeting held on the 13 January 2021, additional clarification was provided by the MMO on their feedback. The MMO simply highlighted that in their opinion, Paragraph 4 does not clearly state that the activities would be authorised. The MMO is not raising any objection to the wording but just making an observation to the Applicant and it is for the Applicant to review this wording to ensure that they are content. The MMO considers the matter is now resolved.	
MMO 3.8.16	**ME1.10.19** In relation to paragraph 6.6.4.42 of the ES [APP-121], Schedule 15 Part 2 of the dDCO (the DML) [APP-019] and the proposals for HDD, are the parameters assessed appropriate and can reliance be placed on the	As per the amended licence conditions in the DML submitted at Deadline 6 (APP-019, Rev 005), during construction, the approval of deployment of cable protection will be exercised through approval of the Design Plan and Cable Burial and Installation Plan in Part 2, Condition 4(1)(a)(iii) and Condition 4(c)(i) to (iii) which are subject to approval in Part 2, Condition 5. During operation, the Applicant proposes that the approval for deployment of cable protection be	Further to a meeting held on the 13 January 2021, the MMO is content with approach to approvals for deployment of cable protection and the matter is now resolved.	Both parties agreed.

Ref	Description of Matter	AQUIND's Position	MMO's Position	Final Position
	Applicantôs assessment of significance?	exercised through Condition 12 (6). The MMO will also approve the Cable Burial Management Plan (Condition 11) which will form the record of cable burial surveys and installation of cable protection for the authorised development throughout the operational lifetime of the project.		

4. MATTERS UNDER DISCUSSION

4.1.1.1. This section of the SoCG describes the ómatters under discussionôin detail between the parties.

4.1.1.2. Table 4.1 provides the details of the matter still under discussion between the parties.

Table 4.1: Table of Matters Under Discussion

Ref	Description of Matter	AQUIND's Position	MMO's Position
Contaminated Sediments			
MMO 4.1.1	The MMO has advised that should dredging not commence within 3 years from the date of sampling, additional contaminant analysis may be required and recommends this as a licence condition (paragraph 7.35 of RR-179)	As discussed in a meeting with the MMO on 19 November 2020, while the Applicant understands the reasoning behind the request (i.e. to make sure that the level of contaminants hasnôt changed over time) given the low level of contaminants previously identified (Appendix 7.3 Contaminated Sediments Survey Report, APP-374) and the very small volumes that need to be excavated i.e. maximum of 2,700 m^3, we consider the risk is very low and query the need for such a condition. We previously requested further clarity from the MMO and Cefas on how this has been applied to projects of a similar nature i.e. construction projects such as cables and windfarms which are undertaking small excavations for HDD or works, or as part of seabed preparation activities, but they have been unable to provide such detail ï we have (via email on the 8 December 2020) requested that they revisit this with Cefas. Therefore, prior to agreeing to the condition proposed by the MMO or redrafting the condition for agreement, the Applicant sought assurance from the MMO that we are being subjected to controls which are appropriate and proportional. This might be resolved by providing detail on projects which are analogous to ours e.g. cables and OWFs, which are undertaking HDD works, and / seabed preparation (rather than port and harbour dredge & disposal licences) and that have been subject to the	The MMO provided further information on this matter on the 18th November (Appendix 11) and in their submission at Deadline 5 (REP5-100). This requirement for sampling is added to all similar applications where analysis of results have been provided and there may be a considerable gap between permitting and construction/implementation/dredging. As results are a snapshot in time, the need for additional sampling always needs to be considered on a case by case basis and at relative time scales to ensure protection of the marine environment. Therefore, the MMO will not be providing examples of other licences where this condition is included, as every licence is different and the MMO makes decisions on a case by case basis. However, the MMO can confirm that where there is considerable lag (3-5 years) or opportunity for contamination of material to occur (spills, anthropogenic input etc.), additional sampling and analysis are often required to ensure decisions made are still properly supported. A low-volume dredge/disposal can be discounted from repeat sediment analysis when it falls under the 500 mį exemption threshold. The argument that a low-volume dredge (which is not under 500 mį) should be discounted from repeat sediment analysis on the basis that it is low volume does therefore not follow: the purpose of repeat sediment analysis is to ensure that decisions are not

Ref	Description of Matter	AQUIND's Position	MMO's Position
		same requirement; this would demonstrate a consistency of approach. The MMO on the 21 December 2020, advised that they are unable to provide the requested information but following the meeting on 13 January 2021 would further consider the request. The MMO position was subsequently provided on 21 January 2020 in the next column and this is being reviewed by the Applicant.	made using outdated data so as to account for any changes or new inputs into the surrounding environment. The OSPAR guidance gives a threshold for repeat sediment analysis is 3 ï 5 years, therefore, the proposed condition is already at the latest end of the date range. Further, contaminant levels obtained previously would have to have indicated that the contamination was below the limit of detection or extremely low for the repeat sediment analysis requirement to be considered not required. In MMOôs opinion, the contaminant levels presented do not fit these criteria. It may be worth noting that this condition is not being recommended for the offshore sediments the applicant plans to dredge. The difference between the HDD location sediments and those offshore is that certain assumptions can be made about the offshore sediments, notably, that particle size data have confirmed that they are coarse in nature. This is sufficient justification to not require the need to repeat sediment analysis in those areas, and assumptions about the likely risk to the marine environment can be appropriately made. The proposed works at the HDD location and the sediments in that area are the focus of the repeat analysis as they do not hold the same assumptions and underlying justification as that of the material being relocated offshore. To reiterate comments made previously, the proposed condition is a necessary part of a risk-based approach. Such an approach can be changed according to local context or an individual projectôs components, however, sufficient justification and/or evidence must be presented

Ref	Description of Matter	AQUIND's Position	MMO's Position
			to warrant such a change. MMO are not convinced that the evidence that has been proposed for the HDD works is sufficient justification to warrant such a change. All previous comments with regard to this condition should be regarded. Whilst contaminant levels did not preclude the material from disposal at sea at the time of the original assessment, repeat sediment analysis will be considered if deemed necessary due to a lag between the consent and the implementation of the project after five years. Based on this, MMO consider that not stipulating the proposed condition would be inappropriate. MMO maintain the position that this resampling condition will be required. The Applicant has requested examples of other cases where this has been applied. The MMO has considered this request. The MMO makes decisions on a case by case basis and no two cases are the same. The MMO issues a large number Marine Licences every year and will not be reviewing them in order to find an example of this condition, as every project is different and assessed on its own merit. MMO have followed OSPAR guidance and Cefas advice and are confident that this condition is required. The MMO can offer further justification as to why sampling has been requested for this case. The type of sediment in this location warrants that sampling is undertaken as it has been. Due to the sample results levels observed for this application not being deemed very low and from the physical nature (fine-grained material which has an increased likelihood of absorbing contaminants) and location of the works, this licence condition is recommended. Where there is considerable lag (3-5

Ref	Description of Matter	AQUIND's Position	MMO's Position
			years) or opportunity for contamination of material to occur (spills, anthropogenic input etc.), additional sampling and analysis are often required to ensure decisions made are still properly supported. The OSPAR guidance gives a threshold for repeat sediment analysis of 3 ï 5 years, therefore, the proposed condition is already at the latest end of the date range. Further, contaminant levels obtained previously would have to have indicated that the contamination was below the limit of detection or extremely low for the repeat sediment analysis requirement to be considered unnecessary. The contaminant levels presented do not fit these criteria. It should be noted that the inclusion of a licence condition for assessment of contaminants if there is a considerable time gap from the last assessment, may not result in additional analysis being required but, ensures that the MMO can protect the marine environment should conditions within the area change. A request for a sample plan could receive a response that no additional samples would be required, however this is not possible to guarantee. This proposed wording is: ñ*Should dredging at the HDD location not be conducted by 2022, a sediment sampling plan request must be submitted to the MMO at least 6 months prior to the end of 2022, to determine whether new sediment analysis is required to dredge from XXX 2023 onwards.* *If required by the MMO, the sediment sampling and analysis must be completed by a laboratory validated by the MMO and submitted to the MMO at least 6 weeks prior to the end of 2022 from the date of issue.*

Ref	Description of Matter	AQUIND's Position	MMO's Position
			The licensed dredging at the HDD location must not recommence until written approval is provided by the MMO."
Fish and Shellfish			
MMO 4.1.2	Mitigation	It is the Applicant's position that the assessment included in Chapter 9 of the ES (APP-124) is satisfactory, that the impacts resulting from the Proposed Development on herring are not significant and as such, no additional mitigation is required. At the request of Cefas, additional information in regard to herring spawning has been shared with the Cefas and the MMO (see REP3-013) in order to facilitate resolution of this matter. Based on the data provided within REP3-013, the MMO advised that they have refined down the potential timing restriction to a 4 week period (15 Dec-15 Jan) over a part of the UK Marine Cable Corridor (KP 90-KP 109). While the Applicant considers that sufficient justification has not been provided by the MMO regarding the need for a restriction, a four week restriction will not significantly impact in the buildout of the project. Therefore, the Applicant agrees to the restriction and has updated the DML submitted at DL 7 (APP-019, Rev 006) in accordance with the parameters set out above. The Applicant waits to see if the MMO is content with this wording.	The MMO provided further written justification on the 18 November 2020 which is presented in Appendix 11. The MMO has not changed its position on this matter. Further to a meeting held on the 13 January 2021, the MMO provided wording for this licence condition for the Applicant's consideration. The MMO consider the matter to be resolved subject to the satisfactory draft DML condition wording being included in the next update to the DCO / DML.

5. MATTERS NOT AGREED

5.1.1.1. Table 5.1 provides the details of the matters where agreement is not reached between the parties.

Table 5.1: Table of Matters Not Agreed

Ref	Description of Matter	Applicant's Position	MMO's Position
DCO and Deemed Marine Licence - MMO RR (RR-179) Oral Transcripts from the MMO (REP5-100)			
MMO 5.1.1	Paragraphs 7.10 to 7.17 Arbitration and Appeals	Article 45 is not applicable to the DML by virtue of the ñ*Except as otherwise expressly provided*ò wording used in that Article, as has previously been discussed. With regard to paragraph 7.25 of the relevant representation, it is not correct that the procedure at Part 3 requires all approvals to be made within 40 working days. The timescales are those provided for in the relevant conditions, in some case (conditions 3 and 13) being 8 weeks (or 40 working days), and in others (conditions 4, 10 and 11) being 4 months. These timescales were included following feedback received when consulting the MMO on the draft DML before the submission of the Application. The Applicant has considered the ExA comments in relation to the Norfolk Vanguard Offshore Wind Farm Order 2020 in this regard. Having noted the reasons for not including an appeals process, the Applicant is not agreeable to the removal of an appeals process from the DML. Of particular note, the Applicant takes the view that the proposed use of judicial review as a remedy is not an appropriate manner in which to deal with this issue. Whilst the Applicant notes the comments that the MMO cannot be held to account for delays, it is also not appropriate for the progress of the authorised development to be halted as a consequence of any such delays which are within the control of the MMO. Therefore timescales for the provisions of approvals and provisions for appeals where those timescales are not	The MMOôs position is that any matter in relation to the DMLs should not be subject to arbitration or appeal. The Applicant should rely on judicial review as a means to challenge any decision of the MMO. The MMO requests that Article 45 states that any matter for which the consent or approval of the Secretary of State or the Marine Management Organisation is required under any provision of this Order shall not be subject to arbitration. The MMO requests amendments to the drafting that make it explicit that the MMO is not subject to the provision. In summary, the MMO's concerns relate to the private nature of the arbitration process which does not align with the public functions and duties of the MMO. The MMO consider that the removal of the MMO's decisionï making function and its placement into the hands of a private arbitration process is inconsistent with the MMOôs legal function, powers and responsibilities, which was never intended by Parliament in enacting the Planning Act 2008 or the Marine and Coastal Access Act 2009. The MMO also consider that arbitration would not be consistent with p.4 of Annex B of the PINS Guidance Note 11, which states that "*the MMO will seek to ensure wherever possible that any deemed licence is generally consistent with those issued independently by the MMO*". Including a mechanism for determination of disputes in respect of DMLs would not be consistent with Marine Licences issued independently by the MMO. The inclusion of arbitration/appeals provision as drafted will create inconsistency with decisions made under DMLs and those made in relation to those marine licences issued

Ref	Description of Matter	Applicant's Position	MMO's Position
		adhered to are required in the DML so as to ensure the deliverability of the authorised development.	directly by the MMO. This will create a 2-tier licensing approach. The MMO reiterates in the strongest possible terms that DMLs granted as part of a DCO should not be treated differently to a marine licence granted directly by the MMO under the Marine and Coastal Access Act 2009, as this will lead to disparity between licence holders, and an uneven playing field across a regulatory regime. There is no indication, under either the Planning Act 2008 or the Model Clauses provisions that this is what was intended by Parliament or the Secretary of State: namely, that licences or consents deemed granted by reference to a specific provisions of another enactment, and which required further approvals by a named body, should be subject to a different regime in the event of the applicant being dissatisfied by the outcome of that further approvals than would be the case for a licence expressly granted under the same provisions of the same enactment. The MMO maintains that it is not content with the appeal route in Part 3. It is inconsistent with other marine licences the MMO grant outside of DCOs to have an appeal route for approvals with plans. There is already an appeal mechanism via the established process of JR. The MMO does not believe the reasons for the extension of the appeals process to its decisions and determinations have been properly justified. Since its inception the MMO has undertaken licensing functions on ~130 DCOs comprising some of the largest and most complex operations globally. The MMO is not aware of an occasion whereby any dispute which has arisen in relation to the discharge of a condition under a DML has failed to be resolved satisfactorily between the MMO and the applicant, without any recourse to an áappealô mechanism.

Ref	Description of Matter	Applicant's Position	MMO's Position
			The MMO is an open and transparent organisation that actively engages with and maintains excellent working relationships with industry and those it regulates. The MMO discharges its statutory responsibilities in a manner which is both timely and robust in order to fulfil the public functions vested in it by Parliament. The scale and complexity of an NSIP creates no exception in this regard and indeed it follows that where decisions are required to be made, or approvals given, in relation to these developments of significant public interest only those bodies appointed by Parliament should carry the weight of that responsibility. There is no compelling evidence as to why the applicant in the case of Aquind should be an exception to the rule and treated differently to any other marine licence holder. The MMO maintains its position.
MMO 5.1.2	Paragraphs 7.25 to 7.27 Arbitration and Appeals	The comments made above in relation to the appeals procedure included at Part 3 of the DML apply equally here. The Applicant maintains its position that the alternative remedy of judicial review is wholly inappropriate and provides no genuine remedy to the issue of approvals not being provided in a timely manner so as to ensure the efficient delivery of nationally significant infrastructure.	The MMO is not content with the wording of Part 3. The MMO should not be subject to an appeals process and would request Part 3 and any mention of appeals in the DML to be removed. The MMO maintains that it is not content with the proposed appeal route. It is inconsistent with other marine licences the MMO grant outside of DCOs to have an appeal route for approvals with plans. There is already an appeal mechanism via the established process of JR. The MMO maintains its position.
MMO 5.1.3	Paragraph 7.32 8 week time limit for determination	It has previously been discussed that timescales would be included for decisions to be taken to ensure that there are timescales for approvals to assist the authorised development being carried out in a timely manner. The timeframes included were discussed when the draft DML was consulted on with the MMO and amended to ensure	The MMO do not agree with being bound to a time limit for making a determination. The applicant proposed that where the MMO ñails to determine the application for approvalòwithin the stipulated timescales, Part 3 Appeals may be triggered.

Ref	Description of Matter	Applicant's Position	MMO's Position
		the MMO have sufficient time to review documentation received and request new information where needed and to consult on this as necessary before providing any approval. It is considered the timescales included in the DML are appropriate for this. It is not understood why the MMO consider the timescales provided do not provide sufficient time for the MMO to review the documentation submitted, request further information where necessary, and to provide approvals. The Applicant notes the further response provided by the MMO, but identifies that this does not address the matter being discussed, which is the timescales for approvals rather than the appeals process that may apply where the approvals are not provided within the stated timescales.	An appeals process already exists in respect of Marine Licences granted under Part 4 of the Marine and Coastal Access Act 2009. The appeals process is set out in the Marine Licensing (Licence Application Appeals) Regulations 2011 (the 2011 Regulations). However, the appeals process does not apply to any non-determination or refusal to approve conditions under a Marine Licence (or DML) and, under Regulation 4 of the 2011 Regulations, is limited to appeals concerning: Åthe grant of a marine licence subject to conditions; Årefusal to grant a marine licence; Åthe time period for which activities are authorised; and/or Åthe applicability of the licence conditions to transferees. Consequently, the MMO maintains that it is not content with the appeal route in Part 3. The 2011 regulations apply a statutory appeal process to the decisions the MMO takes regarding whether to grant or refuse a licence or conditions which are to be applied to the licence. However, they do not include an appeal process to any decisions (or timescales) the MMO is required to give in response to an application to discharge any conditions of a marine licence issued directly by us. Therefore, if the DCO were to be granted with the proposed appeal process included, this would not be an appeal procedure broadly consistent with the existing statutory processes. This amendment would be introducing and making available to this specific Applicant a new and enhanced appeal process which is not available to other marine licence holders. This is problematic because it would lead to a clear disparity between those licence holders who obtained their marine licence directly from the MMO and

Ref	Description of Matter	Applicant's Position	MMO's Position
			those who obtained their marine licence via the DCO process. This would lead to an inconsistent playing field across the regulated community. Had parliament intended the appeal process to extend to these decisions, whether in relation to NSIPs or the marine licence granted directly by the MMO, then the wording of the Appeal Regulations would have been drafted differently. This is a fundamental departure from what Parliament intended, and the MMO can see no justification for such a major change particularly where the purpose of the deemed licence regime under the Planning Act 2008 is essentially to remove the need for a separate application for a licence alongside or following the making of the Order and not to fundamentally change the regulatory regime that applies. The MMO maintains its position. The MMO notes the Applicantôs comment that the response does not address the matter being discussed. The MMO reinstate that we fundamentally do not agree with being bound to a time limit for making a determination (whether 8 weeks or any other). The MMO considers it entirely inappropriate to put a timeframe on decisions of such a nature. The time taken to make such a determination depends on the quality of the application made, the complexity of the issues and the amount of consultation the MMO is required to undertake with other organisations. In addition, since the applicant proposed that where the MMO ñfails to determine the application for approvalò within the stipulated timescales, Part 3 Appeals may be triggered. The

Ref	Description of Matter	Applicant's Position	MMO's Position
			MMO considers it is wholly inappropriate for the dDCO to replace the existing mechanisms. The MMO's position is that the Applicant should rely on judicial review as a means to challenge any decision of the MMO. There is no compelling evidence as to why the applicant in the case of Aquind should be an exception to the well-established rules and treated differently to any other marine licence holder. The MMO's full position on the matters of Deadlines, Arbitration, Appeals and Deemed Approval has been fully outlined in our Deadline 6 response dated 21s December.
MMO 5.1.4	**DCO1.5.20** With reference to the Deemed Marine Licence Part 2 conditions in the dDCO [APP-019]: 5(2) Is this wording acceptable to the MMO? Could it permit damaging works not in accordance with the EIA?	Condition 5 (2) is clear that where the MMO fails to determine the application for approval it is deemed to be approved. Only where a refusal is issued would the route of appeal then be able to be followed. The Applicant's position regarding the necessity for Part 3 of the DML at Schedule 15 to be included is set out in the SoCG with the MMO (REP1-110). Proposing that a route of Judicial Review is followed to address issues with MMO decision making is wholly inappropriate.	In relation to: 5(2) The MMO is not content with this wording, the MMO will not be held to such deadlines within the DML. The MMO do not agree with any plan to be deemed to be approved if we do not determine the application for approval in a specific timescale. In addition, what is set out in 5(2) contradicts subsection (4) which introduces an appeal route in the event the MMO are minded to refuse the application or fail to determine the application. That brings in a conflict, if the MMO fail to determine an application for approval is it deemed approved or would the appeal route set out in Part 3 of the DML be used? Further, the MMO is not content with the appeal route in Part 3, as per Table 4.1 of the Statement of Common Ground (SoCG). It is inconsistent with other marine licences the MMO grant outside of DCOs to have an appeal route for approvals with plans. There is already an appeal mechanism via the established process of JR.

6. SIGNATURES

Signed on behalf of the Marine Management Organisation:

Printed name:

Position:

Date:

Signed on behalf of AQUIND Ltd:

Printed name:

Position:

Date

APPENDIX 1

MMO PEIR BRIEFING NOTE

Natural Power Memorandum			
To	MMO	Date	July 2019
From	Natural Power	Ref.	1199523

Briefing Note for Ongoing Consultation: Responses to Marine Management Organisation PEIR feedback

The following table provides a summary of key items contained within feedback on Preliminary Environmental Information Report (PEIR), gratefully received from the Marine Management Organisation (MMO).

This briefing note is structured in order to provide information to reviewers as to how the applicant proposes to address the comments received as part of the s.42 consultation process. The final column of the table provides record of the outcomes of a teleconference held on 18/07/2019 at 10.30 a.m. which focused on the PEIR comments and how they will be addressed.

Attendees at the teleconference included Mark Qureshi, Abbey Pennington and Dan Walker from MMO, Ross Hodson and Sarah Lister from Natural Power, and Gemma Lonsdale, Georgina Eastley and Katie Musgrave from Cefas. Actions are placed in **bold** text.

RH provided an update to the project prior to discussing the items below. Some discussion points of note included;

- The MCZ assessment will be issued to the JNCC and NE for review in early to mid-August.
- The WFD assessment will be issued to the EA for review as competent authority in early August.
- The draft HRA has been issued to PINS this week for review and will be issued to NE/JNCC for review end of July. The MMO is content with this approach as they are discussing the project with NE. Natural Power has also engaged with the States of Alderney and will attempt engagement with French authorities (DREAL). MMO suggested that they could contact BEIS to invite France to engage given that they did not respond to the transboundary screening process. **SL advised that she would check with AQUIND's legal team to see if France has engaged in relation to the PCI process and what level of engagement has been achieved by the legal team. SL to pass this information onto MMO.**
- The disposal site characterisation report will be issued to MMO for review towards the end of August. SL advised that the plume dispersion modelling appendix will be issued at the same time for context. **MMO to advise how they propose to (including who) consult Cefas on the document.** It would be appreciated if an estimated cost was provided in advance for this work.
- RH advised that Statements of Common Ground will be prepared at a high level, given the tight submission deadline and it is anticipated that this briefing note will inform the SOCG or be an appendix. **MMO advised that they would appreciate seeing a SOCG template (Natural Power to send to them) and NE can also advise on any particularly good examples**
- Within Annex I of this document, MMO advised that they consider disposal of dredged material to be a licensable activity both within and outside the 12 nm limit.

Item	Topic	*Comment*	Applicant's Response	Teleconference Outcomes
1	**Physical Processes**	Greater detail and justification should be included regarding the recoverability of bedforms after seabed clearance. Section 6.6.3.3 of the PEIR states that the trench will infill in a matter of weeks, leading to the reformation of bedform features. However, this statement is based on a reference to a report regarding tidal model set up for the NEMO Link interconnector, which does not discuss this. It is possible that this has been incorrectly referenced. The reference should be updated and further discussion regarding bedform recoverability in the Environmental Statement (ES) should be provided. The assessment should be more explicitly linked to the baseline information at the site, rather than relying on an assessment from another project.	This will be considered further, and relevant detail provided in the final ES. It is acknowledged that certain elements of the assessment are descriptive as it is considered that sufficient evidence already exists from other projects similar in scale and nature to this Project. It should be noted; all descriptive or empirical assessment is considered within the context of the project specific analysis conducted to inform our understanding of baseline conditions. Where evidence is gathered from previous studies, further discussion/analysis regarding the similarities in the local and regional hydrodynamic and sedimentary regime to provide evidence as to the relevance of these data/analysis to the project will be provided.	KM is content with the descriptive approach. She acknowledges that bedform recoverability is an area that is not generally well understood and would welcome any monitoring opportunities during post installation surveys to look at bedform recoverability. RH advised that any post installation survey works at this time are planned for assessing construction activities rather than for any environmental monitoring specifically. However, whether the potential exists for any opportunities to gather information on environmental factors during post installation surveys can be discussed at a later date.
2	**Physical Processes**	Impacts to coastal processes (and by extension coastal geomorphology) were scoped in during the scoping process. This has not been included in the overview of the impact assessment undertaken so far (Section 6.6), except that it is stated the Horizontal Directional Drilling (HDD) will not influence coastal processes. Coastal processes should be considered as a potential receptor for other activities as well as HDD drilling and this should be assessed explicitly for each activity.	This omission is acknowledged and will be considered further and relevant detail provided in the final ES.	KM advised that although there will not be any dredge and disposal within the nearshore areas, she would still like to see assessment of the use of MFE in nearshore areas as this has the potential for creating smaller plumes of suspended sediment. RH advised that this would be assessed (although not modelled) within the physical processes chapter within the final ES.
3	**Physical Processes**	Further consideration is required on whether there will be in combination effects	This will be considered further, and relevant detail	Cefas and the MMO have no further response.

Item	Topic	*Comment*	Applicant's Response	Teleconference Outcomes
		from project activities on seabed features, for example the deposition of dredged material, and whether this will affect the recoverability of bedforms which have been levelled nearby.	provided in the final ES.	
4	**Physical Processes**	The approach described in the PEIR is sufficient to identify and assess coastal processes impacts. However Table 6.22 presents conclusions on impact significance, despite the PEIR stating that several strands of work (e.g. sediment plume modelling, floatation pit analysis, sediment core data processing) are still ongoing at the time of writing. It seems that this has been done prematurely and may change. Therefore, all assessments of impact significance affected by ongoing work should be fully reviewed prior to the completion of the ES.	Plume dispersion modelling to assess the temporal and spatial extent of sediment plumes generated during dredge disposal operations, associated suspended sediment concentrations and thickness of deposits on the seabed is currently being undertaken. The results of the modelling will be used to assess the potential impacts of the Project and will be presented within the ES. The use of flotation pits for construction/installation of the cables is no longer proposed and will not be included in the ES project description.	Cefas and the MMO have no further response.
5	**Physical Processes**	Table 6.1 in the PEIR provides an overview of each comment from the scoping opinion, summarising how it has been addressed and clearly identifying the relevant section of the PEIR where this is done. Key comments in the scoping included: · A request to include tidal data for model validation, which has been undertaken (described in section 6.5). · A request to consider seabed features as receptors, which has been acknowledged in the PEIR and the applicant states that this will be accounted for in the ES. · A request for further detail on specific EIA approach and cross-referencing to other ES chapters to identify indirect linkages to other chapters has been (section 6.4 and chapter 4) · Details of embedded mitigation measures which were incorporated into project design have been described in section 6.7 and table 6.20. · More detail of non-burial cable protection was requested and further detail has been provided in chapter 3 and figure 3.5	Acknowledged.	Cefas and the MMO have no further response.
6	**Physical Processes**	Section 6.4.5.2 states that several aspects of the proposed development have not yet been finalised and therefore there are several gaps which are openly acknowledged. It is stated that these will be addressed during the assessments which feed into the final ES.	The use of flotation pits for construction/installation of the cables is no longer proposed and will not be included in the ES project description. Further information relating to the other methods proposed is currently under investigation and will be presented, along with their associated impacts and effects, within the ES if these construction methods remain part of the final design.	Cefas and the MMO have no further response.
7	**Physical Processes**	The PEIR presents a comprehensive overview of the baseline data which has been gathered to date, and there are no significant data gaps. Several aspects of the Environmental Impact Assessment (EIA) are in progress (e.g. sediment plume modelling, assessments of floatation pits, and analysis of sediment core survey data) and some aspects of the project design are yet to be confirmed, which is to be expected at this stage.	Acknowledged. Also see response to Item 4.	Cefas and the MMO have no further response.
8	**Physical Processes**	The MMO is content that the PEIR states that outstanding issues will be addressed during the EIA process and results included in the ES. The PEIR states that new material not included in the PEIR will be provided in technical appendices in the ES; these appendices should be readily identifiable as new material, to ensure that these aspects are fully reviewed during the final ES review	Acknowledged.	Cefas and the MMO have no further response.
9	**Physical Processes**	Section 6.7 outlines embedded mitigation measures which formed part of the project	Acknowledged.	Cefas and the MMO have no further response.

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		design process. No mitigation is proposed for residual effects (Table 6.22) that could not be mitigated during the design process. However, some assessments have not yet been fully completed. Once ongoing aspects of EIA have been completed (as detailed in Section 6.10), any further mitigation required to reduce potential impacts from these should be reassessed and included in the ES as stated in Section 6.4.5.5.		
10	**Physical Processes**	Section 6.6.6 addressed transboundary effects, stating that they are unlikely to be significant in terms of physical process impacts, with the potential exception of sediment plumes, for which modelling is ongoing. This will be considered further in the final ES, which is an acceptable approach.	Acknowledged.	Cefas and the MMO have no further response.
11	**Fish and Shellfish**	If monitoring is determined to be necessary for shellfish communities, it is important to consider the monitoring method to ensure it is appropriate for the target species (e.g. pots for crab/lobster, traps for cuttlefish, dredging for scallops).	Monitoring is not determined to be necessary for shellfish communities at this time. Following finalisation of the EIA, if monitoring is determined to be necessary in the final assessment, an appropriate monitoring methodology will be used, and requirement included in the DML.	The MMO confirmed that this original comment does not imply that monitoring should be undertaken but simply, that if monitoring is determined to be necessary at some point, then the appropriate methodology should be used.
12	**Commercial Fisheries**	The area is subject to regular fishing activity from vessels with multiple gear types operating from several locations within the area (Southampton, Portsmouth, Gosport, Langstone Harbour, Emsworth etc.). The vessels/activities most likely to be heavily affected are potters, scallopers and whelkers. This is supported in Sections 12.5.3.7 through to 12.5.3.18 of the commercial fisheries section of the PEIR. Other vessels utilising alternate gear types will potentially also be affected and have been considered.	Acknowledged.	Cefas and the MMO have no further response.
13	**Fish and Shellfish**	The approach outlined in Sections 4, 9.4 and 12.4 is sufficient and is consistent with other applications of a similar nature.	Acknowledged.	Cefas and the MMO have no further response.
14	**Fish and Shellfish**	Shellfish comments raised by the MMO in our Scoping Opinion (EIA/2018/00011) have been incorporated into the PEIR.	Acknowledged.	Cefas and the MMO have no further response.
15	**Fish and Shellfish**	The impacts identified are consistent with those indicated in previous shellfish advice, and the importance of shellfish within the area is highlighted.	Acknowledged.	Cefas and the MMO have no further response.
16	**Commercial Fisheries**	No specific mitigation measures are detailed for shellfish ecology, and establishment of an Inshore Fisheries Working Group is proposed to mitigate impacts to the local UK inshore fleet which is welcomed. In addition, the proposal to undertake an over-trawlability assessment to mitigate against seabed obstacles, including exposed cables is also welcomed.	Acknowledged. Both an Inshore Fisheries Working Group and over trawlability assessment are considered in the PIER. Other possible mitigation measures may be considered during the finalisation of the ES, and where deemed appropriate will be included in the ES.	The potential use of over-trawlability assessments are considered in the PEIR. The group had a discussion that over-trawlability assessments can be considered further as mitigation if it is deemed to be required. However, implementation of the outcomes of these assessments can have downsides and therefore, if the MMO deems that this mitigation is required then further discussion will be required as to how this will be exercised. It should also be noted that the potential use of over-trawlability assessments, and their potential applicability to the project also depends on, for example, if cable protection is required in areas where significant trawling activity is likely to occur.
17	**Fish and Shellfish**	It is noted that there is the potential for the works to cause disruption to spawning and nursery grounds for various fish and shellfish species within the works corridor area due to sediment displacement etc. It is noted that in Section 12.5.4.1 there is also the potential for works to effect ongoing projects, such as the Solent Oyster Restoration project by The Blue Marine Foundation.	Acknowledged. The assessment of suspended sediment impacts on spawning and nursery grounds is ongoing and will be presented within the final ES. The cumulative assessment will also consider other projects that might be impacted by the Proposed Development.	Cefas and the MMO have no further response.
18	**Commercial Fisheries**	In general, as in most areas, the inshore fleet in the area is heavily affected by adverse weather conditions, therefore winter tends to see a reduction in <10m vessels regularly operating. Nomadic scallop vessels tend to be most active in the area between October and February/March regularly landing into Portsmouth throughout	Acknowledged.	Cefas and the MMO have no further response.

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		this time window, and this has been considered.		
19	**Commercial Fisheries**	The appointment of a Fisheries Liaison Officer (FLO) and the use of the Kingfisher bulletin, included in Chapter 13 to mitigate against issues with the fishing fleet, is in line with best practice.	Acknowledged.	Cefas and the MMO have no further response.
20	**Commercial Fisheries**	Confirmation should be provided that the most recently available commercial fisheries landings data will be presented in the ES. The PEIR currently presents 2012-2016 UK landings and foreign landings to UK ports but it should be considered whether this is the most up to date data available. Where more contemporary data is available this should be added for the final assessment and made clear this is the most up to date data available.	The landings data for 2017 is now available on the MMO website and will be used to update figures and text where required in the ES.	Cefas and the MMO have no further response.
21	**Fish and Shellfish**	The MMO notes that whiting spawning grounds are not presented in Figure 9.4. This should be included in the ES.	Whiting spawning grounds was presented in map a) of Figure 9.4.	Cefas and the MMO have no further response.
22	**Fish and Shellfish**	Table 9.7 presents a list of Valued Ecological Receptors (VER). Given the proposed cable landfall is within Eastney in the Solent and part of the marine cable corridor falls within the 12 nautical mile (nm) inshore waters, both allis shad and twaite shad have been highlighted as VERs. Their associated Wildlife and Countryside Act 1981 (WCA) designations should be acknowledged in the final ES. Further, seahorses are also acknowledged within the PEIR as being present along the south coast. Both the Short Snouted (Hippocampus hippocampus) and spiny seahorse (*Hippocampus guttulatus*) are also listed on the WCA, which should also be recognised within the ES.	These comments are acknowledged, and these species and their associated designations associated with the WCA will be considered as appropriate within the ES.	Cefas and the MMO have no further response.
23	**Commercial Fisheries**	Table 9.7 provides a description of the stock status (stable/declining) for the VER's identified. The categorisations for some of species listed appears to be incorrect (e.g. undulate ray which is currently undefined (ICES, 2018)). It is presumed some of this information is obtained from ICES stock assessments, but it is not clear from the PEIR whether this is the case. The source information for these designations should be confirmed in the final ES alongside full references.	The source information for these designations will be confirmed in the final ES alongside full references.	Cefas and the MMO have no further response.
24	**Commercial Fisheries**	The MMO notes that Section 9.5.4.6 states that "Commercial fisheries data shows that 'shad' are caught in both the coastal and offshore ICES rectangles, confirming they are widespread across the Channel". Shad cannot be commercially targeted in UK coastal waters, furthermore shad cannot be intentionally harmed or killed within coastal waters (12 nm fishery limit) due to their protection under WCA. When reviewing and presenting commercial fisheries data within the ES it should be acknowledged where there are limitations in the data and consideration should be given to whether catch rates may be influenced by protection measures or fishing restrictions. In this specific case that shad landings in 30E8 and 30E9 will be limited due to their protection under WCA and that therefore this data is not entirely representative of shad distributions within these rectangles, which should be reflected in the final ES.	This comment is acknowledged and any limitations to the data used that could arise from protection under the WCA will be reflected within the final ES.	Cefas and the MMO have no further response.
25	**Commercial Fisheries**	European smelt abundance and distribution is discussed in Section 9.5.4.10 and states that 'European smelt are recorded as being commercially landed from ICES Division VII.7.d but were absent from surveys undertaken by CEFAS and both Sussex and Southern IFCAs'. However, survey sampling methodology and gear selectivity are likely to affect catchability of non-target species; the Cefas survey data used to inform the report are not designed to capture or suitable to specifically target smelt. The limitations and suitability of survey design for targeting species should be considered when discussing survey data that is being used to infer species' distribution and abundance. This should be reflected in the final ES.	This comment is acknowledged and any limitations to the data used will be reflected within the final ES.	Cefas and the MMO have no further response.
26	**Fish and Shellfish**	The PEIR has identified sandeels as keystone species and a potentially sensitive fish receptor which was highlighted in the MMO's Scoping Opinion. The report presents a short characterisation of potential suitable habitat to support sandeels using Particle	Acknowledged.	Cefas and the MMO have no further response.

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		Size Analysis (PSA) data of sediments taken from samples collected for the benthic surveys. These have then been classified based on sandeel habitat preference identified by Greenstreet et al., (2010). The PEIR states that no samples were taken from outside the marine cable route. The report states that 'only two sample locations (sampling station 24 and 41) were found to be suitable for sandeel habitat based on sandeels preference for medium and coarser sediments (0.25 to < 2.0 mm diameter)' and that both of these were in French waters. Further, the PEIR states 'no suitable habitat was identified within the Proposed Development'.		
27	**Fish and Shellfish**	The MMO Scoping Opinion recommended the use of the MarineSpace et al., (2013) methodology to assess the potential suitability of habitat to support sandeels. This incorporates sandeel sediment habitat preference references (Greenstreet et al., 2010; Holland et al., 2005; Macer 1966; Reay 1970; Van der Kooij et al., 2008; Wright et al., 1998 and Wright et al., 2000), as well as British Geological Survey sediment data, Vessel Monitoring Systems (VMS) data, spawning habitat references (Coull et al, 1998 and Ellis et al., 2012) and used the Folk classification (Folk, 1954) to determine whether habitat may be 'preferred' or 'marginal' to support sandeels. According to the MarineSpace classification most of the UK Marine cable route PSA samples are defined as marginal sandeel habitat (Figure 10 in Appendix 8.1 of the PEIR). Further the MMO acknowledges that Figure 12.9 identifies that the sandeel fishery coincides with UK inshore section of marine cable corridor which would suggest that sandeels are present in a higher density in this area. Therefore, in the MMO's opinion, the proposed development area may contain habitat which can support sandeels and should be reflected in the ES.	This comment is acknowledged and the information relating to impacts on sandeels will be reviewed and updated accordingly within the final ES. We have acknowledged that the Marine Space *et al*., (2013) study is widely recognised by the dredging industry as one of the most comprehensive attempts to define sandeel habitat on a large scale and is useful for providing context. However, limitations of this study have been highlighted in Cook & Moran., (2016), whereby the MMO stated that this study does not provide information on all relevant factors that contribute to suitable conditions for sandeels, and that assumptions based from this study cannot be entirely justified. Therefore, findings from Greenstreet *et al*., 2010 have been used to interpret data derived from PSA. Cook, D., & Moran, J., (2016). Goodwin Sands Aggregate Dredging Scheme Marine Licence Application. Further Environmental Information. Dover Harbour Board. Reference: I&BR001D01[1]:	GE advised that Greenstreet *et al.* also has limitations. GE recommended that the use of MarineSpace *et al.,* for sandeels is considered best practice and once she has reviewed the Goodwin Sands document, she will provide further advice in writing. **SL to send on the Goodwin document to MQ to forward onto GE.** ***Post meeting note: document emailed to MMO at 15:14 on 18/07/2019.*** **GE to provide a written advice.**
28	**Fish and Shellfish**	The PEIR recognises that Black seabream nesting areas are present along the south coast, however, there does not appear to be any discussion of the potential effects from the proposed project upon them. The MMO recommends that potential effects on Black seabream nesting areas are considered in the ES. The MMO do however acknowledge that identified spawning areas are located away from the marine cable route (Figure 9.5 of the PEIR).	This comment is acknowledged. However, impacts to black bream have been considered in the assessment for the PIER. The assessment in the ES will include outputs from the plume dispersion modelling undertaken to consider the possible effects resulting from sediment disposal.	Cefas and the MMO have no further response.
29	**Fish and Shellfish**	The MMO notes that Objective 12 of the South Inshore and South Offshore Marine Plan (2018) includes policies to avoid, minimise or mitigate significant adverse impacts on natural habitat and species including: S-FISH-4-HER which requires proposals to consider herring spawning mitigation in the area highlighted in Figure 26 (within the technical annex to the Plan) during the period 1 November to the last day of February annually. The PEIR identifies that herring spawning grounds are present within the study area, though Table 9.5 incorrectly identifies that they are of low intensity. Ellis et al., 2012 has not assigned a spawning intensity as the herring grounds used in the report are a replication of the Coull et al., (1998) grounds. IHLS data has been cited in the report with the applicant stating that herring are present but 'not in high densities'. The MMO disagrees with this statement.	The error in Table 9.5 is acknowledged. This will be rectified within the final ES and the assessment will be updated to reflect the correct larval densities record by IHLS data.	GM advised that as the cable route does go through the Downs herring spawning ground, she would be minded to recommend a timing restriction to ensure that no cables were laid during the spawning season. However, she is aware that this would be considered as a worst-case scenario and if sufficient and robust assessment of impacts on this spawning ground can be undertaken, a timing restriction might not be deemed necessary. RH advised that it is our current position that a four month timing restriction is not needed and would be considered over-precautionary given that only a small section of the cable route passing through this area.
30	**Fish and Shellfish**	IHLS data from the southern North Sea shows that there are high larval densities recorded (refer to Annex 1 Figure 1 which presents the 2016/2017 IHLS data). The	Although Chapter 9 of the PEIR explained that herring (Downs stock) occur in the Channel, the assessment has	Cefas are not content with the use of percentages for this assessment. This method does not reflect the yearly

[1] Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/558474/160923_Goodwin_Sands_MLA_Further_Environmental_Information_Final.pdf

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		PEIR section on pelagic species does not discuss herring spawning grounds and the MMO would expect this to be included as the proposed cable route transects the downs spawning grounds (and associated areas of high and very high herring larval densities). It is stated that "due to the small area of potential impact and temporary nature, it is considered that temporary habitat disturbance/loss is not significant on herring spawning". The assessment to calculate the spatial extent of herring spawning grounds is based Ellis et al., (2012) which is effectively based on Coull et al., 1998 spawning grounds. The MMO does not support this approach as the calculated area can over or under-represent spawning grounds and is solely based on substrate suitability. This approach does not take into account recent IHLS larval density data (the best representation of recent spawning activity) as well as water quality, topography etc. which are also factors in areas where herring spawn. The impact assessment does not consider potential cumulative effects of this project in combination with other activities that may impact upon the downs herring population. The MMO acknowledges that potential effects of Suspended Sediment Concentrations (SSC) have been considered but disturbance to gravid adults, effects on herring spawning ground site integrity, potential entrainment/removal of herring eggs and larvae in a highly productive spawning ground has not been fully considered and needs to be further assessed in the ES.	been updated to reflect the high larval densities recorded by IHLS between 2007 and 2017 which includes the assessment of temporary habitat disturbance/loss. Chapter 9 of the PEIR assessed disturbance to adult herring (including gravid adults) from noise and vibration. In addition, site integrity was considered in terms of % of area disturbed by activities compared to total % spawning grounds. The final ES chapter will be reviewed and updated to include assessment on entrainment. The cumulative assessment will be presented within the final ES and will assess the potential cumulative effects from relevant projects and plans on all receptors. Sediment plume modelling has been undertaken and the outputs from the modelling will inform further assessment of SSC on spawning grounds which will be presented within the final ES.	availability and can lead to over or under representation of the spawning area impacted. Cefas recommend using MarineSpace et al., 2013 (method for herring spawning feasibility assessment) which provides a framework on which data to use to inform habitat availability, combining PSD habitat data along with other data to demonstrate habitat suitability and demonstrating shifting patterns over years. It is recognised that the MarineSpace method also has limitations and there is always a limitation to an assessment as there are always unknown elements. **GM to send the MarineSpace et al., method to Natural Power.** GM is content that the 2017 dataset is the most recent dataset to use. RH advised that additional assessment will take time and Natural Power has to balance what can be achieved in the time that we have prior to submission. Use of the percentage approach has typically been used for other interconnectors (e.g. IFA 2, Viking and North Connect) and it is important that the assessment and advice provided is proportionate to the scale of the project (this is not an aggregate dredging project and no dredging is proposed within the area of herring spawning). ***Post meeting note: a further email query has been sent by Natural Power (19/07/2019 at 16:26) to request clarity on why this MarineSpace method was not proposed by the MMO as part of the PINs EIA Scoping and PEIR response and also respectfully request clear steer from MMO / Cefas on what they are expecting us to do and why (particularly when we have already committed to using Ellis et al. 2012 and IHLS data)***
31	**Fish and Shellfish**	The potential effects of electromagnetic fields (EMF) emitted by the interconnector cables have only been considered for elasmobranchs. Other electrosensitive species such as salmonids and cod should also be considered in the ES. The MMO (2014) review of post-consent offshore windfarm monitoring data is referred to in Section 9.6.4.4 and details that the report concluded that here is no evidence to suggest that EMF pose a significant risk to elasmobranchs at the site or population level, and little uncertainty remains. This conclusion is based on studies undertaken from smaller round one projects and there still remains uncertainty surrounding the potential effects of EMF for larger applications. This uncertainty must be reflected in the final ES. The MMO does however note that where possible cables will be buried (approximately 90% of the cable route) and cable protection will be used if needed (approximately 19 km), which will reduce the EMF.	The final ES chapter will be updated to consider salmon and cod and evidence will be presented that these species are not considered to be sensitive to EMF. The final ES chapter will be updated to consider the advice provided and although the MMO study appears to also consider nine round 2 projects, it is agreed that while there is little or no evidence of significant effects there is still uncertainty, and therefore this will be acknowledged in the ES.	AP advised that the impacts of EMF on migratory fish needs to be assessed. The IFCAs (Eastern IFCA not Sussex or Southern IFCAs) have raised this an issue. GM advised that it is important to state in our chapter where the uncertainties lie and Cefas are content with this response and approach. ***Post meeting note: salmonids and cod have been assessed for potential EMF impacts within the revised final ES chapter.***
32	**Fish and Shellfish**	The PEIR has not considered or acknowledged whether dredging operations may cause entrainment of fish eggs, larvae, juveniles or adults. The MMO recommends	The final ES chapter will be reviewed and updated to include assessment on entrainment by dredging activities	Cefas and the MMO have no further response.

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		that this is considered further in the ES.	particularly on herring and sandeel.	
33	**Commercial Fisheries**	Commercial fishing activity is likely to be significantly affected and has been considered in the PEIR. As the work corridor is 108km long and 1450m wide and will be closed to fishing for the duration of up to 2 years and 9 months. In addition there will be up to 62 works vessels operating, 25 of which simultaneously, with 700m exclusion zones in place around each vessel. The works entire represent a significant navigational and safety hazard to shipping. Cables being laid and the preparation of the seabed prior to laying present a potential interference with any future use of trawls, pots, traps, nets, lines or dredges in the area. Worst case scenario is the permanent loss of up to 8.64km2 of fishing grounds due to the need to protect non-buried cables on the seabed. In addition, maintenance will be carried out by vessels requiring a 700m exclusion zone every 6 to 12 months in the first 2 to 5 years of the cables being laid (1 to 5 years thereafter for the expected 40 year lifespan of the cables).	Acknowledged. Further information is now known regarding the design and procurement strategy of the Project and the number of vessels and movements information will be updated within the final ES to reflect latest information. Chapter 12 of the ES will present the navigational risk assessment for the Project as an appendix. This will robustly report on the risks posed by the Project. To date, all risk assessed have been deemed as tolerable.	Cefas and the MMO have no further response.
34	**Fish and Shellfish**	The MMO acknowledges that the PEIR has considered the following data sources that were recommended in our Scoping Opinion: Environment Agency's transitional and coastal waters (TraC) Fish Monitoring Programme surveys, the Cefas Young Fish Survey, the Solent Seabass Pre-recruit Survey, International Herring Larvae Survey (IHLS), Fish Atlas of the Celtic Sea, North Sea and Baltic Sea and Langstone Harbour Small Fish Survey. The limitations of these data sources (Table 9.3) have also been considered.	Acknowledged.	Cefas and the MMO have no further response.
35	**Fish and Shellfish**	Migratory species (Atlantic salmon, sea trout, lampreys, shads, and European eel adults and elvers) which may occur within the proximity of the cable throughout the year have also been considered	Acknowledged.	Cefas and the MMO have no further response.
36	**Fish and Shellfish**	Most of the impacts appear to be identified and the MMO notes that some additional assessments will be presented in the ES, including: · Assessment of impacts arising from construction and operation of flotation pits, use of a Trailer Hopper Suction Dredging (THSD) for trenching and vessel groundings; · Assessment of impacts from increased Suspended Sediment Concentrations (SSC's) on protected and/or sensitive features in proximity to the Marine Cable Corridor; · Assessment of potential impacts from driven ducts as part of the Horizontal Directional Drilling (HDD) works at Eastney on protected and/or sensitive features; o Cumulative Effects Assessment (CEA); o Habitats Regulations Assessment (HRA) for Special Area of Conservation (SAC) with fish/shellfish interest features; and o Marine Conservation Zone (MCZ) Assessment.	The use of flotation pits for construction/installation of the cables is no longer proposed and will not be included within the project description for the final ES. Further information relating to the other methods including HDD works proposed is currently under investigation and will be presented within the ES if the methods remain part of the design. Sediment plume dispersion modelling has been undertaken and the outputs from the modelling will inform further assessment of SSC which will be presented within the final ES. A Habitats Regulations Assessment Report will be produced and will support the DCO application. This assessment and the EIA will evaluate the activities associated with the HDD works in more detail. The cumulative assessment and MCZ assessment will be presented within the final ES.	Cefas and the MMO have no further response.
37	**Fish and Shellfish**	Embedded mitigation measures have not been fully resolved at this stage as the design is still evolving. It is assumed that mitigation measures embedded into the design (e.g. cable burial, use of appropriate construction techniques, pollution prevention measures) or which constitute industry standard environmental plans and best practice will be in place. Embedded mitigation has been included within the	Currently, no mitigation above industry best practice is proposed for fish. However, plume dispersion modelling has been undertaken and the outputs from the modelling will inform further on potential effects on fish. If this raises the requirement of additional mitigation then this	Cefas and the MMO have no further response.

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		assessments, though not all assessments are completed, it is recognised that the need for mitigation measures may need to be revisited.	will be stated within the final ES chapter.	
38	**Fish and Shellfish**	Once a suitable/appropriate herring assessment has been completed and presented in the ES it can be determined whether species specific mitigation measures are required.	The assessment on herring has been updated to reflect MMO advice that the high larval densities have been recorded by IHLS between 2007 and 2017. It is currently understood that only a maximum of 0.2% of the high-density area may be effected by the Project and it is currently considered that no specific mitigation measures are required.	See recorded discussion outcomes from Items 29 and 30.
39	**Fish and Shellfish**	The PEIR has focused on the UK side of the English Channel median line in terms of fish characterisation, which is appropriate. The report states that no potential transboundary effects have currently been identified in UK waters and fish assemblage composition is similar on both sides of the channel.	Acknowledged. The assessment of transboundary effects will be reviewed in light of the plume dispersion modelling results and will be reported within the final ES.	
40	**Commercial Fisheries**	The MMO notes that Figure 12.9 identifies that the sandeel fishery coincides with the UK inshore section of marine cable corridor. The MMO recommends that the ES considers potential in combination effects to sandeel from habitat loss and fishery displacement.	The final ES chapter will be updated to reflect the presence of the sandeel fishery and any potential effects, including cumulative, from habitat loss or fishery displacement.	SL highlighted that it is important to bear in mind that the sandeel fishery is not a commercial fishery and is a very small-scale fishery that is used by recreational anglers to collect bait. The final ES chapter will make clear the nature and scale of this fishery and it will be assessed as part of the inshore fisheries group. Fisheries displacement on inshore commercial fisheries will be assessed in the final ES Chapter 12. However, we would not be undertaking an in-combination assessment on the effects of fisheries displacement (which relates to commercial fisheries) and habitat loss for sandeels. Separate cumulative assessments that examine the potential in combination impacts of projects on sandeels (as fish receptors) and commercial fisheries receptors will be presented within the final ES.
41	**Commercial Fisheries**	Comments made regarding fisheries in the MMO EIA Scoping Opinion have been acknowledged and recommended sources of data and published literature sources to inform the EIA have been used which is welcomed.	Acknowledged.	Cefas and the MMO have no further response.
42	**Commercial Fisheries**	As set out in our MMO Scoping Opinion, the MMO recommends seeking consultation with the Fisheries industry at the earliest opportunity as the greater the level of consultation the greater the opportunity to mitigate against any impact to the fishing industry. The MMO also recommends working with members of the recreational fishing community as the Solent represents an important areas for both private anglers and for charter vessels providing a platform for recreational fishers. The MMO's coastal offices have advised that the project is still not widely known within this industry, therefore further engagement may be required.	Acknowledged. Multiple meetings with local commercial fishermen (and their organisations) have been undertaken during 2017, 2018 and 2019. The outcomes of these meetings have informed the commercial fisheries baseline and will be reported on in the Commercial Fisheries chapter as well as in the Consultation Report. In addition, communications and meetings have been held with local recreational angling groups and individuals in 2019. The outcomes of this consultation, and the potential impacts on this sector will be presented within the ES.	Cefas and the MMO have no further response.
43	**Intertidal and**	The information presented within the various sections of the PEIR relating to benthic	Acknowledged.	Cefas and the MMO have no further response.

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	Benthic Ecology	ecology are appropriate and the MMO does not consider there to be any missing information.		
44	**Intertidal and Benthic Ecology**	The comments previously raised in the MMO Scoping Opinion have all been suitably addressed in this PEIR.	Acknowledged.	Cefas and the MMO have no further response.
45	**Intertidal and Benthic Ecology**	The MMO considers that all the potential impacts relevant to benthic ecology have been identified.	Acknowledged.	Cefas and the MMO have no further response.
46	**Intertidal and Benthic Ecology**	The MMO cannot currently identify any information gaps relating to benthic ecology in the PEIR. The embedded mitigation measures proposed (e.g., routing the cable corridor to minimise impacts with key receptors) are suitable at the current stage of the assessment, as all potential benthic ecology impacts have been identified as non-significant. However, it is noted that there are still a small number of assessments yet to be conducted in the ES identified in Section 8.10.1.1. Therefore our position may change.	The use of flotation pits for construction/installation of the cables is no longer proposed and will not be included within the project description for the final ES. Further information relating to the other construction methods proposed is currently under investigation and will be presented within the ES if the methods remain part of the design. Plume dispersion modelling has been undertaken and the outputs from the modelling will inform further assessment of SSC which will be presented within the final ES. A Habitats Regulations Assessment Report will be produced and will support the DCO application. The cumulative assessment and MCZ assessment will be presented within the final ES.	Cefas and the MMO have no further response.
47	**Intertidal and Benthic Ecology**	It is noted that the cumulative assessment of the relevant projects is yet to be undertaken and this will be detailed in the ES when more detailed modelling work will have been undertaken which is an appropriate approach.	The cumulative assessment will be finalised and presented within the final ES.	Cefas and the MMO have no further response.
48	**Intertidal and Benthic Ecology**	The potential transboundary impacts have been considered in Section 8.6.6. While there is potential for any sediment plume arising to extend into French waters, transboundary impacts are not considered to have the potential to be significant. The MMO support this conclusion.	Acknowledged.	Cefas and the MMO have no further response.
49	**Marine Water and Sediment Quality**	Overall, the approach to characterising the sediment and water quality baseline and subsequent assessment is appropriate. However, the MMO notes that the sediment contaminant analysis methods have not been provided. The MMO notes in Table 7.1 of the PEIR (Column 2: "Scoping Opinion ID 4.2.3") that the applicant states that the chemical analysis conforms to MMO laboratory guidance. The PEIR or appendices should reference the analytical methods and laboratories used and if these laboratories are registered by the MMO as validated dredge disposal testing facilities. The MMO recommends the processing laboratory is made clear and the detailed methods followed are made available.	The laboratory that was employed for the analysis of benthic and contaminated samples was Socotec (previously ESG). This information was passed onto the MMO on 10/05/2019 and 19/06/2019. We have confirmed the lab used is validated. The final ES can reference the analytical methods used within the chapter or appendix.	Cefas are content that the laboratory is Cefas approved.
50	**Marine Water and Sediment Quality**	Further, the MMO notes that sediment contaminant samples have been obtained for the nearshore area only and not the full study area. The MMO notes from Appendix 8.1 that particle size distribution (PSD) data has been obtained over the whole route (Figure 10 in Appendix 8.1) and shows much of the route to be comprised of sandy gravel. Coarse sediment has a limited affinity for sorption of chemical contaminants and therefore sediment contamination would not be expected to pose a significant risk in the offshore areas of the route given the PSD results. Nevertheless, the MMO would expect the limitation of the sediment samples to be noted in Section 7.5.3.8.	Acknowledged.	Cefas and the MMO have no further response.
51	**Marine Water and**	In Table 7.1 of the PEIR it is stated that the MMO dredge material reporting template	The reporting template asks for information such as	SL requested further clarification on which template we

Item	Topic	*Comment*	Applicant's Response	Teleconference Outcomes
	Sediment Quality	was not used as it was 'not considered appropriate'. The proposed dredge volumes are quoted in Section 3 of the PEIR and dredging may be required as part of this application. Therefore, the MMO considers that the MMO dredge material reporting template is applicable and the data should be submitted in this format in the final ES. This will not only facilitate review of the ES, but it will also support the dredging "returns" processes. The MMO recommends that all the PSD plus chemical data is reported it this format.	coordinates of where dredge material is coming from and going to, volume, and contaminated sediment analysis. Samples undertaken were to inform the EIA. Accordingly, we don't have sufficient information to complete this template at this time. Further to consultation outside of the PEIR consultation process in relation to dredge and disposal activities (see Annex 1 of this note which presents agreed minutes of the teleconference to discuss this matter), it is now understood that this template would be more appropriately used post-consent when dredging activities were underway, rather than being used to report on current samples and data.	should be using pre-application. Cefas advised that Natural Power should be using the MMO results template which essentially asks the location of the samples taken, where were they taken and what were the results of the analyses. This information is only required for the samples that were taken for the AQUIND Interconnector, not the other samples that are referred to in our assessment (i.e. Rampion and IFA2). This should supplement the Survey Report to be submitted. **JL will send the results template to Natural Power via MQ.** Further discussion was had by the group on depth of dredging activities and the current representation of potential contamination in offshore areas through the existing datasets collected. RH advised that it is Natural Power's position is that the inshore surface samples in areas of predominantly mixed and fine sediments) would represent areas most likely to have elevated levels of contaminants (versus deeper, offshore sediments). Therefore, if the inshore shallow samples are below Cefas levels that cause concern, then it is reasonable to assume that any deeper offshore samples would also be below levels of concern. It is also relevant to note that sandwaves may well have shifted by the time construction activities begin and/or micrositing to avoid these bedforms may be sufficient to avoid dredging altogether. KM advised that it is appreciated that nearshore areas are higher risk however, it would be useful if the assessment included rational for this e.g. by discussing for offshore areas the number of grab samples taken, the PSA data resulting from those samples as well as any information relating to any cores that are located within the vicinity of the dredging activities. This will provide context to our conclusions.
52	**Marine Water and Sediment Quality**	The apparent lack of sediment contaminant samples over much of the offshore area has not been explained Although it is not considered this substantially effects the conclusions of no significant impact, incorporating the PSD data into Section 7.6.3, would in the MMO's opinion offer a more robust assessment and fully utilise the survey data.	Although the particle size analysis data was presented within the Appendix 8.1 (Annex D) of the PEIR however, the comment is acknowledged that further discussion of this data in relation to contaminated sediments would more robustly support the assessment.	See recorded outcomes of the discussion from Item 51.
53	**Marine Water and Sediment Quality**	The MMO notes that the assessment of impacts within 1 nm is yet to be completed (see Section 7.9.1.3). The MMO expects this to be included in the final ES.	The assessment of impacts within 1 nm will be completed and presented within the final ES.	Cefas and the MMO have no further response.
54	**Marine Water and Sediment Quality**	It is noted that a separate disposal site characterisation report, as required in the MMO Scoping Opinion, is currently being discussed with the MMO.	Further to consultation outside of the PEIR consultation process in relation to dredge and disposal activities (see Annex 1 of this note which presents agreed minutes of	Cefas and the MMO have no further response.

Item	Topic	*Comment*	Applicant's Response	Teleconference Outcomes
			the teleconference to discuss this matter). It has been agreed that a disposal site characterisation report will be produced and submitted with the final ES.	
55	**Marine Water and Sediment Quality**	The assessment of sediment contamination impacts from the resuspension of contaminated sediment and the increases in suspended sediment from dredging activities are both appropriate.	Acknowledged.	Cefas and the MMO have no further response.
56	**Shipping, Navigation and Other Marine Users**	It is noted that other legitimate users of the sea are also likely to be significantly affected in relation to exclusion zones and navigation, particularly in the Solent which is an already difficult area to safely navigate. In particular oil tankers servicing ExxonMobil Fawley Oil Refinery Marchwood, commercial freight container ships utilising ABP Southampton dock facilities and Portsmouth Harbour dock facilities, Brittany Ferries operating cross channel routes between Portsmouth and various French ports, Royal Navy and RFA vessels operating from HMNB Portsmouth as well as many thousands of recreational vessels. The number of recreational vessels swells considerably for events such as Southampton boat show (occurs annually – one of the largest on water boat shows in Europe) and Cowes Week (occurs annually – the largest sailing regatta of its kind in the world, with up to 8000 competitors in over 1000 boats competing in up to 40 sailing races per day around the Isle Of Wight).	Acknowledged. When the PEIR was published for consultation, email communications were sent to ExxonMobil (Sara Dawe), ABP Southampton (Mike Toogood), International Port of Portsmouth, QHM Portsmouth (David Barter/Gideon Sherwood) and Brittany Ferries (Christopher Jones) amongst many other stakeholders such as other ferry companies (Gosport, DFDS and Condor) aggregate companies, sailing and yacht clubs. We also sent email reminders to these organisations after the consultation period had ended to remind them that they still can make a representation on the proposals if they had not responded. Brittany Ferries did not want to submit a response and ABP Southampton, QHM Portsmouth, Exxon Mobil, Portsmouth International Port and MCA did not respond to the PEIR. We have been in discussion with the MCA more recently, and they are providing a response on the PIER later this month. MCA, ABP Southampton and QHM Portsmouth have attended a face to face meeting of the NAB User Group where the proposals were presented and discussions were held to voice any concerns. The minutes of these meetings are presented within the Navigation Risk Assessment within the PEIR (Appendix 13.1). Engagement with shipping and navigation stakeholders (incl. MCA, ABP Southampton and QHM Portsmouth) is ongoing and any additional outcomes from these consultations will be presented within the final ES and/or the Consultation Report. The dates of the Cowes Week and Southampton Boat Show has been forwarded onto the construction design team for them to consider these dates when producing the construction programme for the final ES. A full Navigation Risk Assessment will be updated and presented within the final ES as will the assessment chapter. To date, all risk assessed have been deemed as tolerable.	Cefas and the MMO have no further response.
57	**Fish and Shellfish**	In the fish matrix cumulative assessment, presented in Appendix 9.1, all marine aggregate licence areas are scoped out of a stage 3 and 4 assessment as the 'addition	Plume dispersion modelling for disposal activities has been undertaken and the outputs from the modelling will	Cefas and the MMO have no further response.

Item	Topic	*Comment*	Applicant's Response	Teleconference Outcomes
		of the activities undertaken as part of the Proposed Development will not significantly add to the impact of the dredge activity that will be ongoing within the aggregate extraction zone'. It is noted that it is anticipated that approximately 600,000 to 1,700,000 m3 of sediment along the marine cable corridor will need to be cleared by Mass Flow Excavator and/or dredging with 200 vessel movements and predicted plume extent of no more than 2 km. Some aggregate licence areas are located within 2 km to the proposed cable route and therefore considerate should be considered whether there is the potential for cumulative effects between the proposed interconnector installation activities and marine aggregate dredging.	inform further assessment of SSC which will be presented within the final ES. The cumulative assessment will separate out those projects and plans that relate to dredging and those that relate to disposal activities and the distances will also be updated to reflect the latest design and the assessment will be updated accordingly.	
58	**Commercial Fisheries**	No transboundary impacts are described for shellfish ecology given the similarities between the stock composition within the UK and French EEZ in this area. It is noted that cumulative transboundary effects to commercial shellfisheries will be evaluated within the ES. As part of this evaluation consideration should be made in the ES for the temporary or permanent displacement of fishing effort (e.g. scallop dredging) which is currently a contentious issue within the Channel region in terms of access to alternative grounds.	An assessment of transboundary effects, not cumulative transboundary effects, will be presented within the final ES. Temporary or permanent displacement of fishing effort was presented within Chapter 12 of the PEIR, however, this assessment will be updated and presented within the final ES.	SL clarified that the cumulative assessment within Chapter 12 assesses the impacts of transboundary (French) projects on UK fleets as well as other country fleets (French, Belgian and Dutch) within the cumulative assessment. Chapter 12 also assesses the transboundary effects of the proposed development on non-UK fleets that use the UK marine area. We do not undertake a cumulative transboundary assessment and do not think that this is required. **GE to discuss with Cefas shellfish advisor and feedback.**
59	**Physical Processes**	Section 6.6.5 sets out the approach to cumulative effects assessment, identifying the IFA2 interconnector as well as the French component of the Aquind project as potentially interacting projects and the interaction will be further assessed in the ES.	Acknowledged.	Cefas and the MMO have no further response.
60	**Marine Water and Sediment Quality**	Potential cumulative and inter-related impacts and effects on the physical and biological environment are identified in Section 7.6.5.4. It is noted that the cumulative assessment of the relevant projects is yet to be undertaken and this will be detailed in the ES when more detailed modelling work has been undertaken.	The cumulative assessment will be finalised and presented within the final ES.	Cefas and the MMO have no further response.

Annex 1: Meeting Minutes from Teleconference on Dredge and Disposal Works

Natural Power Meeting Minutes			
To	MMO, NE, JNCC, NP and Partrac	Date	07/05/2019
From	Natural Power	Ref.	1197264

Meeting Minutes

Meeting held at: Teleconference
Date: 07/05/2019
Time: 09:30 – 11:00 hrs
Attendees:
[redacted] (MMO)
[redacted] (MMO)
[redacted] (Cefas)
[redacted] (Cefas)
[redacted] (NE)
[redacted] (NE)
[redacted] JNCC)
[redacted] (JNCC
[redacted] (Natural Power)
[redacted] (Natural Power)
[redacted] (Partrac)
[redacted] (Partrac)

1. Natural Power (NP) identified that two consultation documents relating to dredge and disposal works for the AQUIND Interconnector have already been distributed to consultees.
   - A seabed preparation and deposit of dredged material summary note; and
   - A disposal modelling technical note.
2. Natural Power provided an overview of the summary note and opened up the call for queries from consultees. It is acknowledged that JNCC did not have as much time to digest the consultation documentation as other consultees and NP are grateful for their input.

Seabed Preparation and Deposit of Dredged Material Summary Note

3. Cefas identified that beneficial re-use of dredged material for beach replenishment or for use as backfill may need to be considered as part of the site characterisation report. OSPAR regulations advise that characterization is required for beneficial re-use and beneficial re-use needs to be registered. Beneficial re-use of material also needs some form of abbreviated site characterisation as part of the main disposal site characterisation document.

Cefas to provide advice on for example, the HDD works at between KP1 and KP1.6, whether the excavated material created at this location and to be used as backfill, would this be considered as beneficial re-use subject to further characterization or considered simply as re-use of a material for construction purposes.

4. When asked whether NP had liaised with NE or the Environment Agency (EA) on beach replenishment, NP advised that they had not. Beach replenishment still needs to be confirmed with WSP Engineering who are designing the scheme. However, the feasibility of potential use of dredged material for beneficial use such as beach recharge is unlikely to be determined until post consent. It is envisaged that if this does occur, dredged material from anywhere along the Marine Cable Corridor may be used for this purpose.
5. Cefas advised that they were generally happy with the approach taken for constraints mapping and how the disposal area has been defined. They welcome the production of post-consent method statement to further refine the dredge and disposal works and would recommend that this includes production of post-disposal works report which would compare the disposal works actually undertaken with the works that are outlined in the method statement. In Cefas's advice, they will also provide a link to the latest OSPAR guidance on site characterisation and another link to the Hornsea 3 Offshore Wind Farm characterisation report.
6. The MMO advised that in terms of seabed preparation, the first three activities listed within the summary note (namely, pre-lay grapnel run, boulder removal and use of MFE) would all be considered as part of cable laying activities (not disposal activities) which is licensable within 12 nautical miles and would not require a marine licence beyond 12 nautical miles. The use of a Trailing Suction Hopper Dredger and disposal activities would be licensable activities and therefore would also be licensable within 12 nautical miles.
7. A discussion was held between Cefas and MMO in relation to sampling of dredged material for contaminants along the Marine Cable Corridor. Cefas advised that they are content with the level of sampling undertaken to date and that the

final reporting should highlight the name of the laboratory used for analysis up front to close out any queries being raised as to whether the analysis was undertaken correctly or not. Cefas advised that they do not feel that any further sampling is required at areas where dredging is to occur as the PSD data collected will show within the characterisation report that these areas possess coarse/sandy material that is not consistent with accumulation of contaminants. This only applies however if the surface samples collected are deemed representative of the material to be dredged. The dredge depth (i.e. depth of sediment removal) has not been specifically stated, however in table 2 of the summary note, sandwave heights are quoted up to 15m. Typically surface samples are acceptable to characterise up to 1 m of dredge depth, with core samples required for deeper dredges. The applicant should confirm the dredging depth and present justification that the samples are representative of the horizontal and vertical area.

8. The MMO queried whether the existing benthic samples taken are representative of the depths that the trenches will be given that some of the sandwaves within Table 2 of the summary note are listed as up to 15 m high.
9. NE advised that they were generally content with the approach taken to define the disposal area along the Marine Cable Corridor. NE welcome the commitment to production of a post-consent method statement for dredge and disposal. NE also highlighted that in the assessments it is important to ensure that the worst-case scenarios are captured adequately in relation to designated sites and not only to assessing robustly the potential impacts for disposal but also dredging activity itself.
10. NE main advice is that they request that
    - deposition of dredged material occurs as close to the area of dredging as practicable; and
    - ideally deposition should be upstream of extraction to enable quickest recovery; and
    - deposition of dredged material occurs on seabed that possess a similar grain particle size composition.
11. JNCC echoed the main advice from NE stated in item 10 of this meeting note. JNCC also queried how deep the trenches will be dug through the sandwaves and advised that if a fall pipe is to be used on the TSHD, then the dredging activity may take a long time. JNCC also advised that they recommend the use of a fall pipe for disposal activities and that they also prefer the use of backfill techniques rather than rock protection where practicable.

NP advised that they will query this with WSP engineers as to what depth they expect to reach within the sandwave areas and look to providing further clarification within the application documentation on these methods. The Cable Burial Risk Assessment (CBRA) is still ongoing but it is anticipated that the outputs from this reporting will highlight the approach to be taken in relation to seabed preparation and burial within these bedforms. The data collected from the vibrocores should also inform whether the sediment composition is uniform throughout the bedforms or whether it changes.

Disposal Modelling Technical Note

12. Partrac provide an overview of the approach taken to modelling for disposal activities.
13. It was highlighted that the model locations shown on Figure 1 illustrate what Partrac consider to be the most realistic worst-case approach to disposal activities for the indicative maximum dredge volume, calculated by Partrac in liaison with WSP engineers. The multiple modelling locations reflect the distribution of the maximum dredge volume in areas closer to shore (worst case), close to dredging areas as considered practicable without creating depositions of material that would also reduce the navigable depths of water by 5%.
14. The group recognized the flexibility required for disposal given the mobile nature of bedforms and this approach is only proposed for assessment purposes of the potential impacts of any sediment plume on receptors and not as a definitive condition within a licence. It is anticipated that the deemed marine licence would identify a maximum dredge volume within the disposal area and any further refinements on disposal activities and volumes (as long as worst-case scenario has adequately covered everything) would be secured through licence conditions and the post consent dredge and disposal method statement.
15. Clarification was requested from Partrac on whether the maximum deposition of material at any modelling location, at any time during the model run, for each scenario would be illustrated in the modelling report and Partrac confirmed that this was the case. Partrac also clarified that each scenario would use the hydraulic characteristics (i.e. settling velocity and critical erosion threshold) associated with the median grain size of the three grain size classes proposed within the technical note.
16. NE and JNCC stated that they were content with the designated sites proposed within Figure 1 of the technical note as those sites that will have modelling data outputs presented within the final modelling report.
17. NE requested the distances between the modelling locations and the closest designated site.
    NP to provide distances to designated sites to NE and JNCC.
18. The group agreed that the general consensus to the approach to modelling proposed within the technical note is fit for purpose and Partrac will run the modelling subject to updated information from WSP engineering in relation to refined dredge volumes and agreement of these minutes by all meeting attendees.
19. Timescales for providing formal written advice were agreed as following;
    - The MMO will receive advice from Cefas beginning of next week (w/c 13th May) and will provide their advice as soon as possible thereafter.
    - NE will liaise with Richard Morgan and advise on timescales as soon as possible.

- JNCC will provide advice some time prior to COP on the 14th May.

NP advised that Partrac are planning to begin the modelling w/c 20th May as this is a time critical component to the current submission deadline of the DCO application. Therefore, any advice received earlier to the timescales noted above would be gratefully received.

APPENDIX 2

CUMULATIVE ASSESSMENT_MMO EMAIL OCTOBER 2019

[redacted]

From: [redacted]@marinemanagement.org.uk>
Sent: 02 October 2019 13:08
To: [redacted]
Cc: [redacted]
Subject: AQUIND Cumulative Assessment

Follow Up Flag: Follow up
Flag Status: Flagged

Hi [redacted]

We've carried out some checks and have also identified the Southsea Coastal Defence Scheme (MLA/2019/00316) close to the proposed Aquind project. You may therefore wish to include this scheme in your cumulative assessment.

Kind regards,

[redacted]

[redacted] **I** Marine Licensing Case Officer **I** Coastal Development **I** Her Majesty's Government – Marine Management Organisation.
Direct Line: [redacted]@marinemanagement.org.uk **I** Lancaster House, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH
Website | Twitter | Facebook | Linkedin | Blog |Instagram | Flickr | YouTube | Google+ | Pinterest

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From: [redacted]@naturalpower.com]
Sent: 01 October 2019 12:54
To: [redacted]@marinemanagement.org.uk>
Cc: [redacted]@marinemanagement.org.uk>; [redacted]@naturalpower.com>; [redacted]@marinemanagement.org.uk>
Subject: RE: AQUIND Cumulative Assessment
Importance: High

Hi [redacted],

We are including the Southsea Coastal Defence Scheme in the long list at number 120 as advised by the EA (MLA/2019/00316). It would be good to hear from you on this matter given how close we are to submission.

Many thanks, [redacted]

[redacted]
Senior Project Manager
naturalpower.com
renewable energy consultants

tel: +44 1970 636 869
mobile: [redacted]
email: [redacted]@naturalpower.com

From: [redacted]@marinemanagement.org.uk>
Sent: 19 September 2019 12:41
To: [redacted]@naturalpower.com>
Cc: [redacted]@marinemanagement.org.uk>; [redacted]@naturalpower.com>; [redacted]@marinemanagement.org.uk>
Subject: RE: AQUIND Cumulative Assessment

Dear [redacted],

Thanks for your email. We discussed this on Monday in our chat, and I advised you I would aim to confirm MMO are content with your approach on Cumulative assessment, and also whether there are any new projects that you may not be aware of.

I'll need a little more time respond, mainly to carry out our check on our database, and I'll aim to respond to you by mid next week, I hope that's okay.

Regards
[redacted]

[redacted] I Marine Licensing Case Manager I Her Majesty's Government – Marine Management Organisation.
Direct Line: [redacted] | [redacted]@marinemanagement.org.uk I Lancaster House, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH
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From: [redacted]@naturalpower.com]
Sent: 19 August 2019 14:08
To: [redacted]@marinemanagement.org.uk>; [redacted]@marinemanagement.org.uk>
Cc: [redacted]@marinemanagement.org.uk>; [redacted]@naturalpower.com>
Subject: AQUIND Cumulative Assessment

Dear [redacted],

Hope you are keeping well!

Within the PEIR, each technical chapter included an appendix which presented the PINS cumulative matrices for Stage 1 and 2 of cumulative effects assessment for that particular topic. No one really commented on these matrices in their PEIR feedback, so the plan is to present these matrices in a similar way for the final Environmental Statemen but of course, with an updated list of projects. We have updated the list (as attached) and again, the ES will present these matrices as an appendix to each technical chapter. We would also look to have a 'quick check' of the project list prior to submission to ensure that we capture anything new. The more detailed Stage 3 and 4 of cumulative assessment, where required, will be presented in each technical chapter using the PINS tables provided with the Advice Note.

Accordingly, I would like to pass this matrix (for marine mammals as this is the most progressed) by you and the accompanying figures that support all of our matrices to ask the following questions.

- **In principle, is the MMO content with the approach that is proposed to be taken for presenting cumulative assessment for the marine EIA?**
- This list of projects will be the same for all topics as the extent of projects included matches the largest Zone of Influence (25 km) to be assessed (the extent is further for some French projects), to ensure that we

captured everything that would need to be assessed. For some of the polygons shown on the maps (e.g. NAB Tower Disposal site) there are multiple licences associated with the project which would have made this long list considerably longer. Accordingly we collapsed sites like this. In other instances, there are multiple polygons for one marine licence (which usually relates to aggregates sites where one licence might cover different areas). **Does the MMO feel that we have covered sufficient and appropriate datasets to inform this long list of projects for the marine EIA, can the MMO identify any glaring omissions or require any significant changes?**

- **Does the MMO have any further comment to make with regard to cumulative effects assessment for the marine EIA?**

We are not looking for formal consultation on this but are simply wanting to be sure that we are heading in the right direction of travel and capture any omissions/additional requirements if there are any.

With thanks and kind regards, [redacted]

[redacted]
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APPENDIX 3

MMO S. 56 REPRESENTATION

Marine Management Organisation

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Newcastle upon Tyne
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F +44 (0)191 376 2681
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PLANNING ACT 2008

RELEVANT REPRESENTATION

AQUIND INTERCONNECTOR

MMO REF: DCO/2018/00016

PINS REF: EN020022

Contents

1. Title of project

1.1. On 6 January 2020, the Marine Management Organisation (the "MMO") received notice under section 56 of the Planning Act 2008 (the "2008 Act") that the Planning Inspectorate ("PINS") had accepted an application made by AQUIND Limited (the "Applicant") for a development consent order (the "DCO Application") (MMO ref: DCO/2018/00016; PINS ref: EN020022).

1.2. The DCO Application includes a draft development consent order (the "DCO") and an environmental statement (the "ES"). The draft DCO includes, at Schedule 15, draft Deemed Consent under Part 4 (Marine Licensing) of the Marine and Coastal Access Act 2009 (the "Deemed Marine Licence").

1.3. The DCO Application seeks authorisation to construct and operate an electricity interconnector with a net transmission capacity of 2000 megawatts between France and the UK (the "Project").

1.1. The Project would comprise a range of terrestrial and marine developments with several work items that have the potential to impact on the UK marine area as defined in Section 42 of the Marine and Coastal Access Act 2009 (the "2009 Act"). The MMO's focus is to ensure that an adequate assessment of potential impacts to the marine area has been undertaken and that appropriate mitigation measures to address potential impacts are identified and secured before consent for the Project is given.

2. Scope of these representations

2.1. The MMO was established by the 2009 Act to make a contribution to the achievement of sustainable development in the marine area and to promote clean, healthy, safe, productive and biologically diverse oceans and seas. The UK Government's Marine Policy Statement forms the framework for the MMO's management of the marine area.

2.2. This document comprises the MMO's initial comments in respect of the DCO Application in the form of a relevant representation. This is without prejudice to any future representations the MMO may make about the DCO Application throughout the examination process. This is also without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO either for the works in the marine area or for anything else.

2.3. These representations comprise:

- a summary of the MMO's initial key issues – **section 3**
- details of the MMO's pre-application involvement – **section 4**
- the MMO's initial comments on the marine policy and planning context – **section 5**

- the MMO's initial comments on the licensing requirements of the 2009 Act – **section 6**

- the MMO's initial comments on the draft DCO and draft Deemed Marine Licence – **section 7**

- the MMO's initial comments on the Environmental Statement – **section 8**

- contact details for officials within the MMO – **section 9**

2.4. Due to the volume of material presented in the DCO Application, it may be that the Applicant has presented information relating to issues raised in these representations that the MMO has not yet come across following its initial assessment of the DCO Application. The MMO will continue to consider the DCO Application and reserves the right to add to, amend or withdraw, from time to time, part or all of these representations.

3. Summary of issues

3.1. The MMO has undertaken an initial review of the DCO Application. At this time, the MMO highlights the following main issues:

- The MMO disagrees with the inclusion of Arbitration process as set out in the draft DCO.

- The definition of *'maintain'* as stated in the DCO and associated DML requires clarification.

- There are a number of points to clarify within the ES relating to dredging and disposal, particularly the specifics of what proportion of material dredged will be used as backfill, before an appropriate assessment of disposal sites can be conducted. At this point, it's unclear whether a new disposal site needs to be designated. There are inaccuracies in the interpretation of the sediment contaminant data relating to PCBs and the MMO request that the applicant rectifies theses points.

- The level of risk to herring spawning is uncertain and cannot be fully determined. Consequently, precautionary approach should be adopted and the MMO recommends mitigation in the form of a seasonal restriction on seabed preparation and cable laying activities between 1st November and 31st January. Improved and refined data will allow the MMO to ascertain if, and to what extent, site-specific mitigation is required.

- The underwater noise assessment provided in Chapter 10 of the ES is vague in places, and the evidence to support the conclusions is lacking. Further information is requested from the applicant, as outlined in section 8.

3.2. The MMO will seek to engage with the Applicant with a view to resolve all the issues in the hope that agreement on all points can be achieved in the course of Examination.

3.3. A more detailed explanation of the issues is presented in the following sections.

4. Pre-application consultation

4.1. During the pre-application stages of this application the applicant has engaged with the MMO on a number of occasions. Notably, the MMO has been provided with the opportunity to review and comment on draft versions of the Section 42 Preliminary Environmental Information Report (PEIR), and Deemed Marine Licence (DML).

5. Policy and planning

5.1. In examining the DCO Application, PINS is required to have regard to the Marine Policy Statement and any relevant marine plan.

5.2. The MMO is the marine plan authority for the English inshore and offshore regions. In this regard, the MMO confirm that, as proposed, the Project will be undertaken within the South East Inshore Marine Plan Area.

6. Licensing requirements of the 2009 Act

6.1. Section 66 of the 2009 Act sets out which activities in the UK marine area require a marine licence. In broad terms, this includes any activity which involves the deposit or removal of articles or substances below the level of mean high water springs, unless a relevant exemption applies.

6.2. Section 81(1) of the 2009 Act sets out an exemption for activities undertaken in the course of laying or maintaining an offshore stretch (defined in Section 81(4) as being beyond the seaward limits of the territorial sea) of an ‘exempt cable’ (as defined in Section 81(5) below). Further, activities such as clearance dredging and side-casting of sandwaves undertaken to facilitate the laying of a cable would reasonably be considered to be undertaken in the course of laying a cable and may not require a licence beyond 12 nautical miles.

6.3. Under Section 81(5)1 of the 2009 Act a submarine cable is exempt unless it is a cable constructed or used in connection with:

- the exploration of the UK sector of the continental shelf;
- the exploitation of natural resources of that sector;
- the operations of artificial islands, installations and structures under UK jurisdiction; or
- the prevention, reduction or control of pollution from pipelines.

6.4. For Nationally Significant Infrastructure Projects (“NSIPs”), a DCO may include provisions deeming a marine licence for licensable activities taking place in the

marine area. Alternatively, applicants may seek a marine licence directly from the MMO.

6.5. In the present case, the MMO understands that the Applicant is seeking consent for all licensable activities via deemed consent within the draft DCO, the Deemed Marine Licence.

6.6. The MMO has reviewed the DCO Application documents and sets out in the following table all works related to the Project which have so far been identified as to be carried out in the UK marine area. The MMO also refers to points 6.2 and 6.3 above, in relation to the offshore section of the cable, which may be exempt. The MMO would also highlight that any other activities which may be below Mean High Water Springs (MHWS) must be brought to our attention. The works identified so far are:

Works No and description	**Details of works in the marine area**
Work No. 6	Marine high-voltage direct current (HVDC) cables within the Order limits seaward of MHWS and landward of Mean Low Water Springs (MLWS) between Work No. 5 and Work No. 7 including where required works to facilitate horizontal directional drilling (HDD).
Work No. 7	Marine HVDC cable works consisting of – (a) marine HVDC cables of up to 109 kilometres (each cable circuit) between the UK exclusive economic zone with France and Works No. 6 including where required works to facilitate HDD; and (b) up to 4 temporary HDD entry/exit pits; and (c) a temporary work area for vessels to carry out intrusive activities.
Further associated development within marine environment	In connection with such Works Nos. 6 to 7 and to the extent that they do not otherwise form part of any such work, further associated development within the meaning of section 115(2) of the 2008 Act comprising other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised development and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence, including but not limited to – (a) temporary cable burial equipment trials; (b) cable protection; (c) the removal of material from the seabed required for the construction of Work Nos. 6 and 7 and the disposal of up to 1,754,000m3 of inert material of natural origin at disposal site reference [xxxx] within the extent of the Order limits seaward of MHWS produced during the Works; (d) the construction of crossing structures over cables that are crossed by the marine HVDC cable; and

	(e) such other works as may be necessary or expedient for the purpose of or in connection with the construction or use of the authorised development and which do not give rise to any materially new or materially different environmental effects from those assessed as set out in the environmental statement.

6.7. The above Further associated development within marine environment section point (e) “other works” should include consideration of works such as unexploded ordnance (UXO) investigations and detonations and ongoing additional cable protection works which do not give rise to any materially new or materially different environmental effects from those assessed as set out in the environmental statement.

6.8. In order for any of the above activities to be included in the Deemed Marine Licence, the Applicant needs to clearly demonstrate through the environmental impact assessment (“EIA”) process that the environmental impact of all licensable activities has been assessed and, where required, mitigated.

7. Draft Development Consent Order (DCO) and draft Deemed Marine Licence (DML)

7.1. Part 1 General Provisions, Citation and commencement - Interpretation: The wording “*in respect of any other works comprised in the authorised development beginning to carry out any material operation”* is not sufficiently precise and has the potential to include works which have not been properly assessed and which may impact upon the environment prior to the approval of appropriate methodologies. The MMO recommends that these words are removed from the section, or clarification is provided by the applicant.

7.2. Part 1 General Provisions – Interpretations: The definition of land states: *“land” includes land covered by water, any interest in land or right in, to or over land;”* The definition of “land” as set out above could be interpreted as intertidal area, i.e. *land covered by water*. This sentence should be amended to clarify that it relates to land above MHWS.

7.3. The MMO does not consider that installation of new cable protection post-construction falls within the definition of ‘maintain’. Additional cable protection to be laid during the operation of the cable following cable repair must be included as a separate ‘work’ and defined in the interpretations.

7.4. In relation to maintenance activities, it is recommended that an outline Operations and Maintenance plan is provided as part of the application and as a certified document. This plan should detail what operations and maintenance is assessed in the ES and references to the appropriate section of the ES.

7.5. Part 2 Principle Powers - Power to maintain authorised development 5 (1): See MMO comment at 7.3 regarding the definition of *“maintain”.*

7.6. Part 4 Supplemental Powers - Protective work to buildings: Article 18 (1) states: *"Subject to the following provisions of this article, the undertaker may at its own expense carry out such protective works to any building lying within the Order limits as the undertaker considers necessary or expedient.*
(2) Protective works may be carried out—
(a) at any time before or during the carrying out in the vicinity of the building of any part of the authorised development; or
(b) after the completion of that part of the authorised development in the vicinity of the building at any time up to the end of the period of five years beginning with the day on which that part of the authorised development is first opened for use."

The applicant must clarify that this Supplemental Power relates to buildings on land only i.e. above MHWS.

7.7. Part 4 Supplemental Powers - Authority to survey and investigate the land: 19(1) States: *The undertaker may for the purposes of this Order enter on any land within the Order limits landwards of MLWS or which may be affected by the authorised development within Works Nos. 1 to 5 (inclusive) and—*
(a) survey or investigate the land;
(b) without prejudice to the generality of sub-paragraph (a), make trial holes in such positions on the land as the undertaker thinks fit to investigate the nature of the surface layer and subsoil and remove soil samples;
(c) without prejudice to the generality of sub-paragraph (a), carry out ecological or archaeological investigations on such land, including the digging of trenches; and
(d) place on, leave on and remove from the land apparatus for use in connection with the survey and investigation of land and making of trial holes.

The MMO confirm that its jurisdiction extends to MHWS, and includes the area above MLWS/MLW up to MHWS. Therefore some of the activities set out such as trenching, and digging of trial holes, may be a licensable activity and would require approval from the MMO.

7.8. Part 5 Powers of Acquisition - Statutory undertakers: 33(1)(c) states: *"Subject to the provisions of Schedule 13 (Protective provisions), the undertaker may—*
(a) acquire compulsorily or acquire new rights or impose restrictive covenants over the land belonging to statutory undertakers within the order limits landwards of MLWS and described in the book of reference;
(b) extinguish or suspend the rights of, remove, alter, renew, relocate or reposition the apparatus belonging to statutory undertakers over or within the Order limits landwards of MLWS; and
(c) construct the authorised development in such a way as to cross underneath or over apparatus belonging to statutory undertakers and other like bodies within the Order limits landwards of MLWS."

The MMO confirm that its jurisdiction extends to MHWS, and includes the area above MLWS/MLW up to MHWS. Therefore some of the activities set out above may be a licensable activity and would require approval from the MMO.

7.9. Part 7 Miscellaneous and general - Felling or lopping of trees and removal of hedgerows: See 7.7 and 7.8 regarding the term *"landward of MLWS"*.

7.10. Part 7 Miscellaneous and general – Arbitration: Article 45 proposes that any difference shall be referred to and settled in arbitration in accordance with the rules set out.

7.11. In comparison to previously approved articles for arbitration, Article 45 sets out significantly different conditions and timeframes, which the MMO does not consider to be acceptable. The MMO notes that arbitration provisions tend to follow model clauses and be confined to disputes between the applicant/beneficiary of the DCO and third parties e.g. in relation to rights of entry or rights to install/maintain apparatus. The MMO does not consider that it was intended to apply such provisions to disagreements between the undertaker and the regulator, and strongly questions the appropriateness of making any regulatory decision or determination subject to any form of binding arbitration as set out by Article 45.

7.12. When the MMO was created by Parliament to manage marine resources and regulate activities in the marine environment, the Secretary of State delegated his/her functions to the MMO under the 2009 Act. As both the role of the Secretary of State (in determining DCO applications) and the role of the MMO (as a regulator for activities in the marine environment) are recognised by the Planning Act (PA) 2008, the responsibility for the DML passes from the Secretary of State to the MMO once granted. The MMO is responsible for any post-consent approvals or variations, and any enforcement actions, variations, suspensions or revocations associated with the DML.

7.13. It was not the intention of Parliament to create separate marine licensing regimes following different controls applied to the marine environment. In fact, one of the aims of the PA 2008 is the provision of a 'one stop shop' for applicants seeking consent for a National Significant Infrastructure Project (NSIP). The new regime allows for the applicant to choose whether to include a DML issued under the 2009 Act within the DCO provision, or apply to the MMO for a stand-alone licence covering all activities in the marine environment. In any case, it is crucial that consistency is maintained between DMLs granted through the provision of a DCO, and Marine Licences issued directly by the MMO independent of the DCO process.

7.14. It is the MMO's opinion that the referral to arbitration in situations where 'difference' may arise, is contrary to the intention of Parliament and usurps the MMO's role as regulator for activities in the marine environment. Considering the draft DML, the MMO believes that the 'differences' to which arbitration would be applied are those situations in which the MMO is required to give further consent or approval. These situations appear to arise when small re-determinations of aspects of the marine licence process have to take place.

7.15. Generally, the MMO considers these to be technical determinations that fall properly to the MMO to make, (as the expert regulator in this field and the body created by Parliament for this purpose), and that MMO's determinations in this regard should not be open to challenge through an arbitration process. Furthermore, once the DCO is granted, the DML falls to be dealt with as any other Marine Licence, and any

decisions and determinations made once a DML is granted fall into the regime set out in the 2009 Act. Any decisions or actions the MMO carries out in respect of a DML should not be made subject to anything other than the normal approach under the 2009 Act. To do so introduces inconsistency and potentially unfairness across a regulated community. In the case of any disagreement which may arise between the applicant and the MMO throughout this process, there is already a mechanism in place within that regime to challenge a decision through the existing appeal routes under Section 73 of the 2009 Act. The MMO feels it is inappropriate to take such decision relating to post-consent issues with a DML outside of the normal mechanisms available to challenge such decisions, and to apply arbitration.

7.16. The arbitration process as set out in Article 45 describes a private process and requires the agreement that all discussions and documentation will be confidential and not disclosed to third parties without written consent. The MMO would like to highlight that the regulatory decisions, and indeed any challenges through the existing mechanisms should be publically available and open to scrutiny. In many cases, members of the public or other stakeholders may wish to make representations in relation to post-consent matters. Ordinarily, their views would be considered by the MMO and they would have the opportunity to follow up and challenge the decision making e.g. through the MMO complaints process, by complaint to the Ombudsman, or by Judicial Review. A private arbitration to resolve post-consent disputes would reduce transparency and accountability.

7.17. The MMO considers that Article 45 would shift the MMO's decision making responsibility from the hands of the regulator with primary responsibility for administering the marine licensing regime to an independent arbitrator. This would be contrary to the intention of Parliament set out in the 2009 Act and would potentially usurp the MMO's role as a regulator. The MMO therefore requests that the MMO is explicitly not subjected to these provisions, in line with the recommendation of the Planning Inspectorate in their proposed changes to the draft DCO for the Hornsea Three Offshore Wind Farm (Relevant Representation PD-017: The Examining Authority's Schedule of Changes to the draft DCO).

7.18. Schedule 1 Authorised Development - Work no 6 and Work no 7 (a): These Works include the wording *"..including where required works to facilitate HDD"*. The wording used does not accurately describe what works are required to facilitate HDD. The MMO recommends that all intertidal activities, including a full methodology of HDD work, is set out in an Intertidal Works plan, which should set out full methodology of HDD, programme of works and proposed vehicular access routes. The Plan should be submitted no less than 6 months prior to proposed Intertidal works, and works will not commence until the Plan has been gained written approval from the MMO.

7.19. Schedule 1 Authorised Development - Work no 7 (a) temporary cable burial equipment trials. The MMO would advise that any cable burial equipment trials that involve a licensable activity will need to be properly assessed and approved by the MMO. Details required for any assessment must include as a minimum, methodology, location and spatial length of trial burial.

7.20. Schedule 1 Authorised Development: Work no 7. Reference is made to "*disposal site reference [xxxx]*". The MMO would advise that a unique reference number will be

allocated once a disposal site has been designated by Centre for Environment, Fisheries and Aquaculture Science (Cefas). The applicant must ensure that the disposal site reference number is included in the final draft of the DCO.

7.21. Schedule 1 Authorised Development - Work no 7: The sentence at the top of page 40 appears to include a superfluous word, namely "*is*".

7.22. Schedule 2 Requirements - Interpretation (5): This article states *"Unless otherwise provided in this Order, where a Requirement relates to a specific Works (or a part thereof) and it specifies "commencement of development, it refers to the commencement of development in relation to those Works only."* The MMO considers the term "commencement of development" to mean the commencement of the whole project. Therefore the MMO suggests that an alternative form of wording is used for commencement of specific Works.

7.23. Schedule 2 Requirements - Time limits 2(2): This article states the following: *"The undertaker will provide to each local planning authority in whose area the authorised development is located landwards of MLWS written notice of commencement not less than 5 working days prior to the proposed date on which the authorised development is commenced."* The MMO advises that the area landwards of MLWS may in part include the area that falls within the MMO's jurisdiction, i.e. the area up to MHWS. The definition of *"local planning authority"* is explicitly stated in the draft DCO Definitions section as having the same meaning as in the 1990 Act. Therefore the article does not provide either implicitly or explicitly the requirement to notify the MMO of commencement of development. The MMO therefore requests that this sentence is redrafted so that to include reference to the MMO as a relevant planning authority.

7.24. Schedule 2 Requirements – Restoration of land used temporarily for construction: See 7.23 of this document. The MMO requests that this sentence is redrafted so that to include reference to the MMO as a relevant planning authority.

7.25. Schedule 3 Procedure for approvals, consents and appeals - Applications made under a Requirement (1): The Appeals procedure set out in this section allows for a decision period of 40 working days (i.e. 8 weeks), after which the discharging authority must make a decision. Where the discharging authority requests further information from the undertaker, the request must be made within the decision period, and any decision must be made up to 40 working days following submission of the further information from the undertaker. The MMO must state that determinations can take more than 8 weeks when documents submitted by an undertaker are of insufficient quality to be discharged or approved. The MMO cannot be held to account for delays is such circumstances. The MMO therefore requests that reference to a time limited decision period is removed.

7.26. Schedule 3 Procedure for approvals, consents and appeals - Further Information: See 7.25 above regarding time limits. Whilst the MMO will endeavour to facilitate the discharge of a document, including undertaking consultation if required, the MMO cannot be bound by time limits. The MMO therefore requests that reference to a time limited decision period is removed.

7.27. Schedule 3 Procedure for approvals, consents and appeals - Appeals 3(b): See 7.25 of this document. The MMO cannot be held to account in instances where there is insufficient information to discharge a document. Therefore the MMO considers that failing to make a decision within a set period of time, i.e. a "decision period" is not sufficient grounds for appeal.

7.28. Marine licence Part 1 - Licenced marine activities 1(1): See MMO comment at 7.3 regarding the definition of "maintain".

7.29. Schedule 15 Deemed marine licence Part 1 - Details of Licensed Marine Activities 2(8) states "*any other works comprised in the preparation of the seabed for the Works*". The MMO considers that this sentence is not sufficiently precise, and could have the effect of consent being given for licensed activities that have not been properly assessed. The sentence should include; pre-lay grapnel run and removal of discrete items of debris, splicing and clumping of disused cables and side-casting. It should not include mass flow excavation and dredge and disposal activities.

7.30. Schedule 15 Deemed marine licence Part 1 – Additional cable protection during operations can be included in the DML but the distinction between this and cable protection during laying needs to be clear. They both need to be assessed in the ES.

7.31. Schedule 15 Deemed marine licence Part 2 Conditions - Design Parameters (1): The MMO recommends that the maximum protection volume is stated in the table.

7.32. Schedule 15 Deemed marine licence Part 2 - Pre-construction surveys 3(3): This states that the MMO shall determine an application for approval of proposed pre-construction design specification document within 8 weeks of submission. The MMO must state that determinations can take more than 8 weeks when documents submitted by an undertaker are of insufficient quality to be discharged or approved. The MMO therefore requests that this stipulation be amended to show that pre-construction surveys must be must submitted a minimum of 8 weeks prior to the planned commencement of works.

7.33. Schedule 15 Deemed marine licence Part 2 - Pre-construction surveys 3(3): The pre-construction conditions do not include a requirement to provide details of micro siting around biogenic or geogenic reef features identified as part of the pre-construction monitoring required by condition 10 (1). A requirement to provide and gain approval of a micro siting report to detail any micro siting identified as a result of this monitoring should be included. The micro siting report must also include consideration any potential areas subject to disposal as well as cable installation.

7.34. Schedule 15 Deemed marine licence Part 2 - Pre-construction plans and documentation 4 (d)(iii): Waste management and disposal arrangements. The MMO recommends that dredge and disposal arrangements, including a detailed methodology are submitted as a separate Dredge and Disposal Plan document.

7.35. Should dredging not commence within 3 years from the date of sampling, additional contaminant analysis may be required. The MMO recommends that a condition be inserted in the DML to address this eventuality.

7.36. Schedule 15 Deemed marine licence Part 2 - Pre-construction plans and documentation 5(4): See 7.28 of this document. The MMO cannot be held to account in instances where there is insufficient information provided to discharge a document. Therefore the MMO considers that failing to make a decision within a set period of time, i.e. a “decision period” is not sufficient grounds for appeal.

7.37. Schedule 15 Deemed marine licence Part 2 - Chemicals, drilling and debris: Reference is made to *“disposal site reference [xxxx]”*. The MMO would advise that a unique reference number will be allocated once a disposal site has been designated by Cefas. The applicant must ensure that the disposal site reference number is included in the final draft of the DCO.

7.38. Schedule 15 Deemed marine licence Part 2 – Post construction surveys 10: The benthic assessment included in the ES will not remain valid for the lifetime of the project and it is recommended that new benthic surveys are undertaken prior to installation of rock protection for cable repairs to ensure that any required mitigation for protected habitats such as *Sabellaria* reef can be properly secured at the time. Benthic surveys should be carried out every 5 years and the method statement should be agreed with the MMO prior to construction.

7.39. Schedule 15 Deemed marine licence Part 2 - Cable burial management plan 11(1)(c): Reference is made here to submission of “any additional cable protection”. The MMO seeks clarity as to whether this refers to additional cable protection that has been laid during installation, or proposals of additional cable protection to be laid during operation. A distinction should be made between the two in the DCO.

7.40. Schedule 15 Deemed marine licence Part 2 – UXO Activities. The MMO would require the conditions be included to notify the relevant authorities before the commencement of each instance of any UXO activities. The relevant authorities are; the MMO, UK Hydrographic Office (UKHO) and HM Coastguard.

7.41. Schedule 15 Deemed marine licence Part 2 – UXO Activities. The MMO would require that a condition be included so that the Undertaker must submit the exact locations and dates of detonation of explosives to the Marine Noise Registry, in order to satisfy the 'Close-out' requirements of the Registry, at 6 month intervals from the commencement of detonation of explosives.

7.42. Schedule 15 Deemed marine licence Part 2 – UXO Activities. The MMO would require that a condition be included in order for the Undertaker to submit a Marine Mammal Mitigation Protocol (MMMP) must be submitted to the MMO for approval a minimum of 4 months prior to the commencement of licensed Unexploded Ordinance (UXO) detonation.

7.43. Schedule 15 Deemed marine licence Part 2 – UXO Activities. The MMO would require that conditions be included to limit the detonation threshold to 260 kg net explosive quantity (NEQ) and to limit the number of detonations to one per day.

7.44. Schedule 15 Deemed marine licence Part 2 – Cable Protection Activities. The MMO would require that conditions be included to notify the relevant authorities (MMO and UKHO) and local mariners before commencement of the activities. Additonally, a

condition should be included to notify the MMO following completion of these activities.

7.45. Schedule 15 Deemed marine licence Part 2 – Cable Protection Activities. The MMO would require that a condition be included stipulating that cable protection maintenance activities must not extend for longer than 10 years from the date of completion of the cable laying activities. Additionally, there should be a condition stipulating that cable protection activities must not compromise existing and future safe navigation.

7.46. Schedule 15 Deemed marine licence Part 2 – Cable Protection Activities. The MMO would require that a condition be included to submit a post construction phase cable protection plan must be submitted to the MMO for approval a minimum of 6 weeks prior to the commencement of any cable protection works required during the operational phase.

7.47. Schedule 15 Deemed marine licence Part 2 – Cable Protection Activities. The MMO would require that a condition be included so that unless otherwise agreed with the MMO, the licence holder must submit International Hydrographic Office (IHO1A) approved sonar or Multi Beam Echo Sounder survey data to the MMO and UKHO, confirming the final clearance depths over the protected cables.

7.48. The mitigation schedule summarised in Chapter 6.6 includes relevant references to the DML, however, it is noted that the Applicant has incorrectly referenced Schedule 19, rather than Schedule 15.

7.49. The MMO consider that the level of risk to herring spawning is uncertain (see 8.50 of this document) and cannot be fully determined on the basis of information provided. Consequently, precautionary approach should be adopted and the MMO recommends mitigation in the form of a seasonal restriction condition within DML prohibiting any seabed preparation and cable laying activities between 1st November and 31st January.

8. Environmental Statement

8.1. Benthic Ecology

8.2. The MMO consider that the benthic ecological features (species and habitats) that may potentially be affected by the proposed project have been adequately characterised via desk-based literature and maps, together with targeted geophysical and ecological surveys of the marine cable corridor.

8.3. The MMO consider that the information provided in the ES documents represents a suitable impact assessment based on the information previously presented in the PEIR for the project. The MMO did not identify any notable issues within the PEIR document in relation to this topic.

8.4. Through the specifically acquired in situ data pertaining to the benthic biota and associated seabed conditions and the mapping of known designated areas, the applicant has suitably identified species and features of concern.

8.5. The mitigation measures proposed for the project within the ES documents all appear suitable. The MMO do not foresee any additional measures that might be considered to further minimise impacts to the benthic ecology. The measures outlined include micro-routing of the cable route to minimise impacts to any Annex I reef features and ensuring no disposal of dredged material will be undertaken in the vicinity of areas of brittlestar beds.

8.6. A list of other projects within the wider vicinity of the Project that have the potential to give rise to a cumulative effect on benthic receptors has been considered (Appendix 8.4 - document reference 6.3.8.4). This included major projects (offshore wind farms, interconnector cables, oil and gas), aggregate dredging projects, dredging and disposal projects and coastal projects.

8.7. The “Future baseline” sub-section within Chapter 8 represents a rather subjective assessment of this topic. While the MMO agree that the baseline situation presented within the chapter represents the current situation, it is difficult to, and would require a robust dataset together with targeted numerical assessments, assess whether this may be reflective of previous conditions and/or can be used to infer future baselines.

8.8. There is a tendency of some of the text within Section 8.6 (Chapter 8) to be subjective and to subtly trivialise impacts. For example, boulder clearance **will** (not ‘likely to’ as is currently stated) remove or displace cobbles, pebbles or small boulders (sub-section 8.6.4.20). Further, statements such as “*the fine sediments that exist naturally in this environment ensure that any species present are already naturally tolerant to a reasonable degree of* suspended sediment concentration *(SSC)*” are speculative and unquantifiable and the uncertainty in predicting impacts should ideally be highlighted. For example, this statement is dependent on whether the fine sediments already present naturally get suspended into the bottom waters (thereby expose the biota to elevated SSC). However, the MMO do not consider a revision to the text within the ES to be necessary as such subjectivity is often an inherent component of predicting potential impacts.

8.9. The MMO considers that all such activities that have relevance to benthic ecology are adequately covered within the ES.

8.10. **Dredge and Disposal**

8.11. The applicant has confirmed via the MMO Results Template, that SOCOTEC were the contracting laboratory for all analyses (Metals, tins, hydrocarbons and polychlorinated biphenyls). SOCOTEC are appropriately validated by the MMO for all of these analyses. However, the applicant does not appear to have rectified the specific concern that no clarification has been made relating to the contracting laboratory for the PSD analysis for the benthic survey. This should be clarified.

8.12. The applicant has noted the following in 7.4.3 (Chapter 7): "*Coarse sediment has a limited affinity for sorption of chemical contaminants and therefore sediment contamination would not be expected to pose a significant risk in the offshore areas of the route given the PSD results.*"

8.13. The point above is an acceptable premise, so long as PSD data are provided to verify that the proposed work area is appropriate. Appendix 6.3 details the grain size statistics and Appendix 8.1 details the findings of the Benthic Ecology Survey Report. Figure 1 (below) displays a map detailing the PSD of the sampling grab locations. From the location of grab station 12 up to station 23, sediment is classified as either sandy gravel or, in one instance, muddy sandy gravel. The MMO consider this acceptable evidence that sediment in the offshore segment of the cable corridor (approximately 50 km from the shore) is sufficiently coarse such that additional sample contaminant analysis is not, at this time, required.

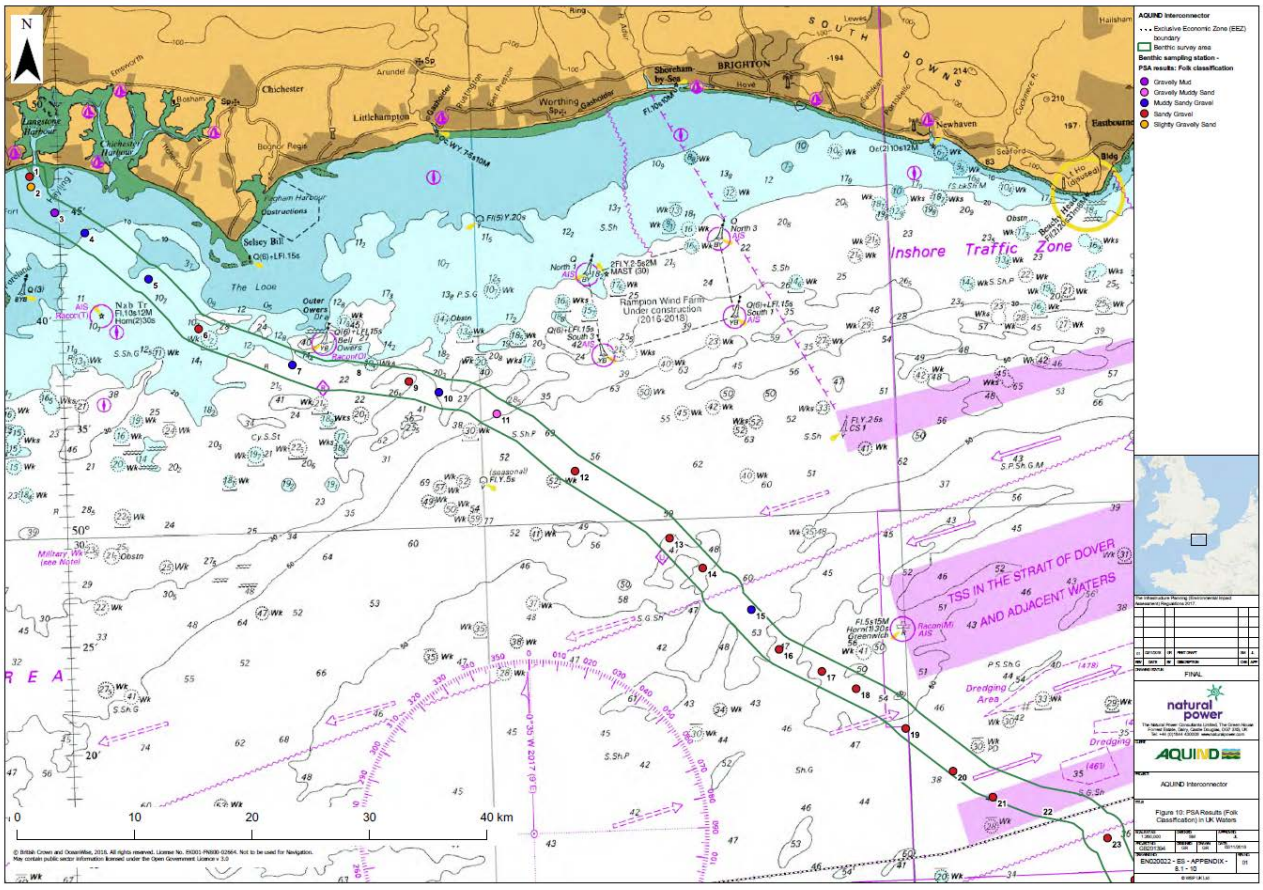

Figure 1. Benthic baseline PSA results based on Folk Classification. No grabs returned from sampling stations 8 and 22. (taken from Figure 9, Benthic Ecology Survey Report)

8.14. In the nearshore section of the cable corridor, grab samples show a mixture of sandy gravel, gravelly mud and slightly gravelly sand, but are predominantly muddy sandy gravel. This indicates that material from the nearshore section is less consistently coarse than the offshore section. Table 1 (below) details the coordinates of the sampling locations of the sediment contaminant analysis; in order to compare how they represent the nearer shore section of the cable corridor.

8.15. It is apparent from this table that there is some likely overlap between the benthic survey locations and the sediment contaminant locations. However, it is not clear which benthic survey stations were tested for sediment contaminant analysis. The MMO Results template submitted by the applicant lists sample names by a number, though it is unclear whether these relate to the benthic survey samples as the references of the benthic sample locations are alphanumerical i.e. VC001. The applicant should clarify which benthic survey locations were tested for contaminant analysis. Once this has been clarified, we are able to determine the 'cutting point' of where contaminant analysis stops, and exemption due to particle size begins.

Table 1. Sample contaminant analysis locations by coordinates (decimal degrees)

Latitude	Longitude
50.702650	0.886800
50.716800	0.875683
50.728900	0.865217
50.713417	0.915350
50.722550	0.945017
50.728517	0.974517
50.738617	1.016350
50.754200	1.030583
50.769717	1.033950
50.777617	1.035317

8.16. The applicant states the following (7.5.3): "*The majority of the Poly-Chlorinated Biphenyls ('PCB') were below the limit of detection and none of the stations exceeded Cefas AL 1 for total PCBs".* It is unclear how the applicant has determined this statement, as the dataset they provide shows that only seven PCBs were tested for. The AL1 for total PCBs is based on the sum total of all 25 identified PCBs, and, as such, the applicant's statement cannot be confirmed. It is likely that the applicant is referring to the AL1 for the ICES seven identified PCBs of concern, though this should be clarified. In 7.6.3.18, the applicant also claims that *"No contaminants in any samples exceeded Cefas AL 2".* This is also not possible to confirm. Clarification should also be sought as to why only a select number of PCB congeners were tested for.

8.17. No mitigation measures are proposed but this is considered acceptable at this time. However, should dredging not commence within 3 years from the date of sampling, additional contaminant analysis may be required.

8.18. Should a disposal site be designated, the MMO recommend that conditions are included in the DML which adequately reflect the OSPAR disposal of dredged sediment requirements. Specifically:

- Sediment must only be disposed of at Disposal Site X (Disposal site code = AAXXX) [please note that "X" and "AAXXX" are exemplary only].

8.19. The MMO also recommend that a condition concerning OSPAR returns data submission is included.

8.20. The applicant has not provided necessary information to designate the new sites. The applicant must provide either a shapefile or confirmed set of coordinates, particularly given that the applicant intends to both use jetting – displaced sediment from which will likely remain in the local environment, and trailer suction hopper (TSHD) – which is likely to require transport to a separate disposal site. As such, the MMO requests clarification from the applicant in the form of proposed shapefiles detailing their preferred location/s. The applicant does provide map figures, however, disposal site designation requires data to be provided in an electronic format (i.e. a KML or CSV file) to the MMO and the application consented by the SoS before Cefas would designate the site.

8.21. The MMO also request clarification as per previous comments relating to the proportion of disposal material that will be considered "backfill", i.e. material that will be removed to allow cable placement and then re-deposited atop the cable for burial, as, to our assessment of the documents proposed, it is unclear to what extent this will be the case. It is likely that a designated disposal site will not be required for material considered backfill.

8.22. If material is however not considered backfill, then Cefas is hesitant to designate the area proposed by the applicant as a disposal site, i.e. the near entirety of the cable corridor beyond the 3km WFD limit, largely as material will remain within the local environment. There is a concern that subsurface material (i.e. sediment dredged from depths below 1m) will be mixed with upper layers of sediment and then deposited on the sea surface, however, the MMO consider this risk to fall under the consideration for "remobilisation of contaminated sediments", which the applicant has fully considered.

8.23. Previous Cefas advice (Andrew Griffith, 10th May 2019) notes that material from the HDD landfall station may require a separately designated disposal to sediment from the cable corridor. From the documents provided for this consultation, it is unclear why this is the case. Should the reasoning be that material is likely to be of a finer composition, then it may be appropriate for the applicant to use an existing disposal site. Further, it is unclear whether this site will be dredged by jetting or TSHD. The applicant needs to provide further clarification.

8.24. There are a number of points requiring further clarification, particularly the specifics of what proportion of material dredged will be used as backfill, before an appropriate assessment of disposal sites can be conducted. At this point, it is unclear whether a new disposal site needs to be designated. There were inaccuracies in the interpretation of the sediment contaminant data relating to PCBs and the MMO request that the applicant rectifies theses points.

8.25. **Coastal Processes**

8.26. The existing environment has been characterised appropriately within Chapter 6 Physical Processes. Data Sources are summarised in Section 6.5.2, with "*studies that are particularly relevant and form the focus of the desk-based assessment*" presented in Tables 6.3. The existing environment is summarised in Section 6.5. The MMO consider this to be an appropriate characterisation of the baseline environment.

8.27. In addition, a coupled hydrodynamic and wave model was developed to support the assessment (The "AQUIND Interconnector Modelling Suite" (AIMS model)). The development of the AIMS, including a description of model setup, validation and calibration, is presented in Appendix 6.2.

8.28. PEIR consultation responses are presented in Table 2 of Appendix 6.1. The MMO are satisfied that issues previously raised during the PEIR process have been addressed in the documents reviewed.

8.29. The potential impacts from construction, operation (including repair and maintenance) and decommissioning of the proposed development identified for assessment are:

- Physical disturbance to seabed geology and morphology through alteration of bedform features and impacts on local flow patterns;
- Impacts to local sediment regimes through impacts on local flow patterns and local increases in SSC; and
- Impacts upon coastal and marine processes and the sediment transport regime.

8.30. Based on the worst-case design envelope of the proposed development presented in Table 6.15, these impacts broadly fall under the following subheadings which have been used for the impact assessment:

- Increase in suspended sediment concentrations;
- Morphological change and alteration of bedforms; and
- Obstruction to flow, scour around structures and impact on nearfield flow.

8.31. Based on existing data, it is anticipated that during operation, an indicative worst-case failure rate of the marine cables is one repair every 10 – 12 years. During potential repair works, it is anticipated that the relevant section of the marine cable will be recovered using methods similar to those employed during construction, whilst any potential repair work would likely be of shorter duration and smaller in extent than during the construction stage. The options for decommissioning would include consideration of leaving the marine cable *in situ*, removal of the entire marine cable or removal of sections of the marine cable. Similarly, the corresponding potential impacts resulting from decommissioning are considered to be equivalent to or lesser in nature than those considered for construction activities. Consequently, the potential impacts arising during operation and maintenance (including repair and replacement of the marine cable) and decommissioning are considered, in the worst case, to be equivalent or potentially lower than those associated with construction.

8.32. The MMO agree with this approach and the potential impacts on coastal to physical processes identified and assessed.

8.33. Potential impacts are described and assessed in Section 6.6.4. Potential impacts on coastal and physical processes during construction were assessed as:

- *Increase in suspended sediment concentrations:*
  Overall, potential impacts on coastal processes and physical process due to increases in SSC are considered to be of **minor to moderate** significance, due to

the dynamic nature of the nearshore and coastal environment and the likely dispersal of suspended sediments in the offshore region.

- *Morphological change and alteration of bedforms:*
  Overall, potential impacts on coastal processes and physical process due to bedform features, seabed sediments and local morphology resulting from morphological change and alteration of bedforms is considered to be **negligible** as all potential impacts are local to seabed features and the marine cable corridor.

- *Obstruction to flow, scour around structures and impact on nearfield flow:*
  Overall, potential impacts on flow and scour resulting from obstruction to flow, scour around structures and impact on nearfield flow is considered to be of **minor to moderate** significance as all potential impacts are local to seabed features and the marine cable corridor.

8.34. A summary of significant inter-project impacts (i.e. interaction and combination of the individual impacts identified for each topic specific EIA) is provided in Chapter 29, where the identified topic-specific impacts on receptors can be more readily be drawn together to identify all likely significant impacts on a particular receptor. In addition, potential cumulative impacts associated with other planned or consented projects in the wider vicinity of the proposed development are presented in Section 6.7 and summarised in Table 6.19. A full list of projects within the wider vicinity that have been considered as having the potential to give rise to a cumulative impact on the physical environment are presented in Appendix 6.4. The residual cumulative impact is assessed as **not significant**. The MMO agree with this conclusion.

8.35. No specific "*Operation and Maintenance Plan*" is presented within the documents reviewed, however "*Marine Cable Operation and Maintenance*" is briefly described in Section 3.5.9. Although the marine cables have been designed so that routine maintenance is not required during the proposed developments operational lifetime, the Applicant accepts that unplanned repair works may be required (worst-case failure rate of the marine cables is one repair every 10 – 12 years based on available data), due to the following events:

- Mechanical/electrical failure of components within the cables;
- Exposure of, or damage to, the cables as a result of fishing activities and/or vessel anchoring; and
- Exposure of cables due to changes in seabed morphology (e.g. areas of free spanning) or changes in hydrodynamics (e.g. increase in bed erosion due to dredging works in the vicinity of the marine cables).

8.36. Overall, as the methods employed during operation and maintenance (including repair and replacement of the marine cable) would be similar to those employed during construction, and, as activities are likely to have a lesser spatial and temporal impact in comparison with construction activities, the potential impacts arising during operation and maintenance are considered to be equivalent or potentially lower than those associated with construction and are therefore adequately covered by the ES.

8.37. It is noted that plastic fronded mattresses are being considered as one potential non-burial cable protection method (Table 3.3). The MMO's preference is for the avoidance of the introduction of plastic into the marine environment as far as possible.

8.38. The Applicant states that "*to dredge the HDD pits (which are located at inshore shallow water sites) a backhoe dredger is likely (although a MFE* [Mass Flow Excavator] *may potentially be used) to be used in combination with a barge to transport the material to an area suitable for disposal*". It is recommended that the use of MFE is minimised as far as practical, especially within the nearshore zone, in order to reduce impacts associated with increased suspended sediment concentrations.

8.39. Based on the Rochdale Envelope employed in the assessment and the results of the modelling studies presented in the ES, the MMO considers the potential impacts of the proposed development on coastal and physical processes are not anticipated to be significant.

8.40. **Fish Biology and Fisheries**

8.41. The characterisation of the existing environment is generally appropriate and adequate to inform the assessment of impacts for most species. However, there are inaccuracies in some sections of the ES, and there is a lack of data to inform the habitat assessments for sandeel and herring. These discrepancies affect the overall confidence that can be made in the assessment conclusions. The MMO have provided further comments regarding the assessment of impacts for these species in the sections below.

8.42. There are some inaccuracies and contradictions in the description of herring spawning habitat which reduce the confidence in the conclusions for the assessment of impacts to herring.

8.43. Table 9.4 of Chapter 9 Fish and Shellfish states that herring spawning grounds are located 5.8 km from the cable corridor. However, as can be seen in Figure 9.3, the cable corridor passes through the Downs herring spawning ground depicted by Coull et al. (1998). Later, in sections 9.6.4.16 and 9.6.4.18, it is also stated that the marine cable corridor "*does not pass through the herring spawning areas identified by Coull et al. (1998) and Ellis et al. (2012)*" which again in incorrect.

8.44. The report then recognises that the cable corridor passes through areas where high herring larval densities have been found:

i. 9.5.3.19 "*it can be clearly seen that the UK Marine Cable Corridor passes through areas of 'low' herring larvae density (within 12nmi limit), 'low to medium*' *(beyond 12 nmi), as well as, a small area of 'high' herring larvae density (near the European Economic Zone (EEZ)).";*
ii. 9.5.3.22 "*None the less the 10-year data set does support the information provided in the South Marine Plan and clearly show that the Marine Cable Corridor passes through areas where high herring larvae densities occur in some years.*"

8.45. A contradictory statement is also made regarding the approach to assessing impacted areas:

i. In Section 9.6.4.18 it states that; "*In order to assess the potential impact of temporary habitat disturbance/loss on herring spawning, it is often tempting to assess the size of the impacted area' against the total spawning habitat, however, this is not possible for several reasons*";
ii. However, in Section 9.6.4.20 the report then contradicts this statement by attempting to assess the size of impacted area; *"The area of 'low' spawning potential within the South Marine Plan occupies an area of 2335 km^2 , of this the worst-case prediction is a habitat disturbance to 2.24 km^2 (0.1 % of this area). Of the low to medium defined area (totally 4443.7 km^2) only a worse case of 0.44 km^2 of habitat disturbance may occur (0.01 % of the area). Of the area defined as 'high' spawning potential (area of 480.2 km^2) a maximum 1.26 km^2 may be disturbed (0.06 % of this area)."*

8.46. Whilst the report recognises that the marine cable corridor passes through areas of high herring larval densities and that the substrate in these areas is suitable for herring spawning, the conclusions for potential impacts to herring made in Table 9.13 for temporary habitat disturbance/loss, suspended sediment and smothering, entrainment/removal of eggs and larvae are all assessed as 'Not significant'. The justification for this appears to be based on the quantification of the total area of spawning habitat affected, an approach which is not supported by Cefas fisheries advisors (point 16 of advice dated 9th April 2019) and has been recognised by the applicant in Section 9.6.4.18.

8.47. The International Herring Larvae Surveys (IHLS) maps and herring spawning potential map presented in figures 9.6 are taken from the South Marine Plan (2018). This provides a broad overview for the whole south coast region but are not of a suitable scale to inform management and mitigation for specific areas. The South Marine Plans have not been informed by site-specific Particle Size Analysis (PSA) data but by broadscale British Geological Survey (BGS) data.

8.48. Coverage of PSA data along the cable corridor is sparse and does not extend into the secondary impact zone. Nonetheless, the data show that in the areas where high larval densities are known to occur, the seabed substrate consists of sandy gravel, making it the 'preferred' sediment type on which herring may spawn. The PSA data used to inform the characterisation of sandeel and herring spawning habitats are limited and no samples were collected beyond the cable corridor, i.e. in the secondary impact zone influenced by sediment plumes.

8.49. As noted in Table 9.11, seasonal restrictions on marine aggregate extraction in the vicinity of the marine cable corridor have been applied to the marine licences for Areas 478, 473, 474, 475 and 461, specifically to mitigate against impacts to herring spawning between months of November to February (January to February for Area 478). Please note, the MMO believe that the information presented in Table 9.11 regarding the seasonal restriction at Area 478 is incorrect 'No dredging Jan-Feb inclusive'. Condition 5.2.34 of the Marine Licence for Area 478 sets out the monitoring

requirements at Area 478, for benthic ecology and herring spawning potential. In particular:

- Condition 5.2.5 refers to the restriction of dredging activity between 1st December to 31st January to the areas dredged over the preceding 9 months, limiting the number of cargoes to 10 per month equating to no more than 50,000 tonnes per month for this period.
- Condition 5.2.11 refers to an on-board screening ban from the 1st January to the 31st February in order to protect spawning herring during this period.

8.50. As seabed preparation and cable installation activities result in comparable impacts as those arising from aggregate extraction (i.e. temporary habitat disturbance/loss, suspended sediment and smothering, entrainment/removal of eggs and larvae), the same mitigation for herring is appropriate for both activities. Accordingly, as the assessment is currently presented, the MMO would recommend that seasonal mitigation is required to protect spawning herring from the impacts of seabed preparation and cable laying activities for those areas that have been shown to have suitable sediments for spawning herring and high larval densities. However, the MMO recognise that it would be impractical to apply such a mitigation measure to the DML unless it can be applied to the specific area of concern (rather than the whole project area), i.e. areas of the project where high larval densities and suitable sediments are found.

8.51. In its current form, the assessment of impacts to herring and their spawning grounds is not robust enough to inform whether site-specific mitigation measures are required. Whilst the relevant information has been included, the applicant has presented this as a suite of maps including; spawning and nursery ground maps, PSA data and IHLS data. Thus, as the individual data sets have not been provided together in one map, it is difficult to interrogate and interpret to ascertain the level of potential risk to herring.

8.52. Furthermore, improved refined data is required to identify at a site-specific level the potential risk to herring spawning from the proposed works. As the data are presented currently it cannot be determined whether mitigation is appropriate, where the highest levels of herring larval density are located in relation to the cable route and other activities, and how and if mitigation could be applied spatially.

8.53. To help better inform the assessment, it is recommended that the applicant provides if possible, a layered pdf which includes the following data layers that can be turned on and off:

a) ICES rectangles labelled with designation (including subdivisions e.g. 1:54 cells as depicted in RPS, 2013)
b) IHLS larval density data <11mm (newly hatched yolk sac larvae) for the 10-year data set in m2 (please see recommendations for presentation of IHLS data below).
c) Cable corridor and EEZ median line
d) Historical herring spawning ground data (coull et al., 1998)
e) PSA data categorised according to Folk (1954) and MarineSpace (2013) classification categories

f) Aggregate licence Areas 478, 473, 474, 475 and 461 (to ensure any mitigation measures that may be recommended subsequently are consistent with activities in the vicinity of the interconnector). Also include French extraction sites Saint Nicolas West and Saint Nicolas East for completeness

8.54. Additionally, it would also be beneficial if the Applicant was able to provide more detail on the proposed method of cable installation. Information such as whether different methods may be used for different sections of the cable route, if rock armouring (or any cable protection) would potentially be required in herring spawning areas, where cable joints will be located and how many cable joins might be anticipated i.e. if there is an expectation that the cable will be laid in sections and how long those sections are likely to be. This would provide a better understanding of potential impacts in herring spawning areas and would enable Cefas advisors to ascertain and determine the level potential risk to herring spawning. In addition, this additional information would also assist on ascertaining whether, and to what extent, mitigation would be required including whether any recommended restrictions should be to specific areas of the cable e.g. from one cable joint to another.

8.55. Furthermore, it would also be useful to understand from the Applicant that, if following the provision of further information requested above, mitigation is recommended, which type of mitigation would be more suitable and feasible for the project, i.e. is the applicant able to accommodate not undertaking cable preparation and installation activities altogether in this area, during the months of November to February inclusive or would a spatially applied mitigation be a more workable solution.

8.56. Other clarifications and expectations previously raised on this matter at PEIR stage have been suitably addressed and limitations in the use of data sources have been recognised.

<u>Recommendations for the presentation of IHLS data</u>

8.57. Southern North Sea and eastern English Channel (SNS) IHLS surveys are conducted as three separate sampling events survey; one in the 3rd quarter of each year undertaken by the Netherlands between 16-31 December, and two in the 1st quarter of each year; between 1-15 January undertaken by Germany, and between 16-31 January undertaken by the Netherlands.

8.58. It is understood that Downs herring spawning activity in northern parts of the spawning grounds occurs later in the season compared to those grounds further south in the English Channel, please see Annex 1 for examples of this taken from ICES (2014 and 2016) which demonstrate the variations in larval abundance according to the periods in which surveys were carried out.

8.59. Considering this, the MMO recommend that 10 years of IHLS data should be presented by consolidating the three IHLS survey periods (i.e. 16-31st December 2008-2018, 1-15th January 2008-2018 and 16-31st January 2008-2018).

8.60. Presenting the data in separate temporal periods will enable identification of when peak larval densities typically occur in the vicinity of the Project site and may also assist in refining the duration of any recommended seasonal restriction.

8.61. Species of concern including those of ecological and conservation importance have been correctly identified, and species-specific assessments have been undertaken where appropriate.

8.62. For the reasons outlined above, the MMO are not content that the mitigation proposed will be adequate to mitigate impacts to herring as the assessment is not robust in its current form. Further interrogation of data sources is needed, and a discussion with the applicant concerning the timing and location of specific sections of the cable laying activities is needed.

8.63. The industry standard embedded mitigation measures for the project, described in Section 9.6.2, are appropriate;

- The use of cable burial techniques which minimise the area of seabed affected.
- Disposal of dredged material is restricted to beyond KP21 of the Marine Cable Corridor.
- Adoption of plans and procedures for marine pollution prevention, risk reduction and waste management to eliminate and mitigate potential pollution risk. These procedures are outlined in the Marine Outline CEMP.
- To reduce any potential effect of electro-magnetic fields (EMF) on sensitive species, cables will be buried between 1 to 3 m below the seabed, with a minimum cable target depth of 1m, Minimising the use of non-burial cable protection to reduce the effect of permanent habitat loss

8.64. However, as per the comments above, it is recommended that additional information is provided given that the assessment is currently not sufficiently robust. As the level of risk to herring spawning is uncertain and cannot be fully determined, precautionary approach should be adopted. Consequently, mitigation to reduce the likelihood of impacts to spawning herring is required in the form of a seasonal restriction on seabed preparation and cable laying activities between 1st November and 31st January. The additional information outlined in 8.62 will allow Cefas advisors to ascertain if, and to what extent, site-specific mitigation is required.

8.65. The ES has addressed most of the points raised at the PEIR stage in relation to cumulative effects and has discussed the relevant impacts including inter-project, temporary habitat disturbance/loss, temporary increase in suspended sediment and smothering, noise and vibration, EMF, permanent habitat loss for benthic dwelling and spawning species including sandeels, black sea bream and elasmobranchs. The species-specific cumulative assessment for herring is welcomed, though it is noted that all potential effects have been assessed as not significant. Confidence in this conclusion can be determined once the additional information relating to the herring assessment is provided.

8.66. The activities within the operation and maintenance plan are adequately covered within the ES chapters and the impacts of the activities (disturbance to and loss of habitat, EMF and permanent habitat loss) have been assessed appropriately.

8.67. **Shellfish**

8.68. Relevant data sources have been used such as the landings data from the MMO database. ICES survey data has also been used but there is no reference as to which surveys and to which gear types this data refer. This needs to be clarified.

8.69. The commercial fishing environment has been characterised appropriately. The applicant has clearly shown the high value of commercial shell fishing to the area impacted by the proposal as well as the seasonal aspects of the fishery.

8.70. Only one issue was raised during the PEIR process relating to shellfish and shellfish commercial fisheries. *"Consideration should be made in the ES for the temporary or permanent displacement of fishing effort (e.g. scallop dredging) which is currently a contentious issue within the Channel region in terms of access to alternative grounds*." This issue has been addressed for the English side in the ES (see: document ES – Vol 1 – Chapter 12 Commercial Fisheries, Paragraph 12.5.3.19 & 12.5.3.19). The contentious issue (referenced above) within the Channel is a disagreement over access to highly productive scallop ground in French waters. Since this concern was raised, the scallop fishing industries in the UK and France have resolved the disagreement therefore it is no longer considered an area for concern. There are therefore no outstanding issues from the PEIR process.

8.71. The applicant has correctly identified the species present at the proposed site as well as the potential impacts faced by these species.

8.72. The MMO are satisfied with the conclusions reached regarding the significance of these impacts on potential shellfish receptors. None of the impacts were found to cause significant negative impacts to shellfish species, as such, there are no proposed specific mitigation measures required relating to shellfish species. Embedded mitigation is the only measure proposed in relation to shellfish species. This is adequate given that there are no negative significant impacts anticipated from the works.

8.73. The applicant has correctly identified all potential impacts which may affect commercial shellfishes.

8.74. The MMO do not agree with some of the levels of impact significance being assigned to shell fishing activities. Impacts created from the proposed works are likely to have a greater than assigned impact on both potting boats (static gear) and those working inshore. However, the MMO do believe that the mitigation measures suggested are adequate and do demonstrate a willingness to communicate with commercial shell fishers through the proposed Inshore Fisheries Working Group.

8.75. The applicant has fully listed projects taking place within the wider vicinity of the proposed project. Each potential impact identified earlier is reassessed in line with any cumulative impact that may be caused by interactions with other projects.

8.76. All activities with the operation and maintenance plan are adequately covered with in the ES chapters (Chapter 9 Fish and Shellfish & Chapter 12 Commercial Fisheries).

8.77. In document 6.1.9 ES – Vol 1 – Chapter 9 Fish and Shellfish under section 9.5.3.4, the wording states that there are 24 shellfish species identified in 30E8 & 30E9 but 28 shellfish species identified in 30E8 alone. This should be clarified.

8.78. In document 6.1.9 ES – Vol 1 – Chapter 9 Fish and Shellfish, Table 9.3 could be presented more clearly. The MMO would suggest grouping species within the table for example: Shellfish, Pelagic Fish, Demersal Fish, Elasmobranch's etc.

8.79. In document 6.1.9 ES – Vol 1 – Chapter 9 Fish and Shellfish, Table 9.4 has unclear presentation. Common cuttlefish is one category and Cuttlefish & Bobtail squid is a separate one. The MMO consider that it would be best to label one category as Cuttlefish and the other as Bobtail squid. Cuttlefish and Bobtail squid are not biologically similar or of similar value therefore should not be considered together. Cuttlefish is not speciated for fish markets and therefore does not need to be for this graphic (Table 9.4).

8.80. In document 6.1.9 ES – Vol 1 – Chapter 9 Fish and Shellfish 9.5.4.9. has a minor presentational error – the MMO would advise changing 'commercial fish' to 'commercial shellfish' to better reflect the topic being discussed.

8.81. In document 6.1.9 ES – Vol 1 – Chapter 9 Fish and Shellfish, point 9.6.4.9 states that king scallop are capable of evading predators by swimming and relates this to avoidance of dredging gear. It is factually correct that king scallop can avoid prey by moving, however it is important to highlight that they can only move very short (1-2m) distances before exhaustion. Therefore, the ability of the king scallops to move should not be used as justification for their ability to manoeuvre away from oncoming dredging equipment.

8.82. **Underwater Noise**

8.83. The MMO defer to Natural England for comments on whether the existing environment for marine mammals has been characterised appropriately and whether relevance data sources have been used.

8.84. During the MMO's review of the scoping report, it was noted the potential impacts of increased anthropogenic noise from geophysical survey and positioning equipment which emits sound e.g. sonars, sub-bottom profilers, and potential UXO removal was to be scoped in for assessment.

8.85. However, increased anthropogenic noise from geotechnical investigations, seabed preparation, route clearance, cable lay and burial was proposed to be scoped out of the ES, on the basis that the maximum impact ranges were likely to be small (< 30 m for drilling, suction dredging and cable laying; ≤140 m for trenching; <100 m for rock placement). The impacts of increased vessel noise were also proposed to be scoped out for similar reasons and that sound from vessels was unlikely to significantly add to existing noise levels from vessels in the Channel.

8.86. It was recommended that the potential impacts of increased anthropogenic noise from geotechnical investigations, seabed preparation, route clearance, cable lay and burial on marine mammals were scoped in for further assessment. It was acknowledged that whilst the risk of significant impact on marine mammals is likely to be low, the anthropogenic noise resulting from such activities should be given consideration. Chapter 10 Marine Mammals and Basking Sharks states the following (para 10.3.1.1):

"As detailed within Chapter 5 Consultation, a Scoping Opinion was received by the Applicant from the Planning Inspectorate ('PINS') on 7 December 2018. The Scoping Opinion comments from PINS and key consultees in relation to marine mammals and how they were addressed is set out in Table 1 of Appendix 10.1 (Marine Mammals and Basking Sharks Consultation Responses) of the ES Volume 3 (document reference 6.3.10.1). Key items that were addressed included:

- *PINS commented that the justification provided in the Scoping Opinion regarding scoping out increased vessel noise, collision with vessels, anthropogenic noise from geotechnical surveys, HDD works, seabed preparation and cable installation activities, and Electromagnetic Fields ('EMF') was insufficient. PINS requested that an assessment should be undertaken, where significant effects are likely. Further information relating to these potential impacts and justification for scoping them out was provided in Preliminary Environmental Information Report ('PEIR') Chapter 10. Confirmation that this information/justification was considered to be sufficient was received during post-PEIR consultation (see Section 10.3.4 and the Consultation Report (document reference: 5.1))."*

8.87. The MMO defer to Natural England for comments on whether the applicant has correctly identified the marine mammal species of concern. The following element (impacts) have been scoped into the assessment (further details are provided in Table 10.3):

- Increased anthropogenic noise from geophysical survey and positioning equipment which emits sound (relevant to the construction and operational phases);
- Associated HDD work: Increased anthropogenic noise from potential vibro-hammering at the marine HDD location (KP 1.0 – KP 1.6) if the HDD direction is offshore to onshore (relevant to the construction phase only); and
- Associated HDD work: Increased anthropogenic noise from potential sheet piling at three onshore HDD entry point locations (including Landfall) located around Langstone Harbour (includes the scenario if the Landfall HDD direction is onshore to offshore) (relevant to the construction phase only).

8.88. Of relevance, section 10.3.5.2 states that "*these potential impacts, which all relate to increased anthropogenic noise, are only relevant to marine mammals and have not been assessed for basking sharks or marine turtles because they are not sensitive to underwater noise changes (e.g. Wilson and Wilding, 2017). Therefore, it is considered that there is no potential for significant effects on these species (basking sharks and marine turtles)".* It should be noted that although the sensitivity to

underwater noise changes is assessed as '*not sensitive'* for basking sharks on the MarLin website, the confidence in this assessment is '*Low*' and that there is little available information on sound detection in this species (*Cetorhinus maximus*).

8.89. No mitigation is proposed for marine mammals. Para 10.8.1.1 of Chapter 10 states: "*As no significant effects have been identified, no additional mitigation measures are required or proposed in relation to the effect on marine mammals, basking sharks and other marine megafauna*". However, for any UXO detonations, mitigation in the form of bubble curtains and/or Marine Mammal Oberservers are likely to be required.

8.90. Regarding cumulative effects, 18 projects were considered to have the potential for temporal overlap with the Proposed Development. These included the AQUIND Interconnector in French EEZ and French Territorial Waters, the IFA2 Interconnector (operational phase surveys), eight aggregate dredging projects, two dredging and disposal projects, and six coastal projects. However, according to para 10.7.1.9, "*the scale and nature of these 18 projects meant that any potential cumulative effects were unlikely to be significant (i.e. no potential for onset of auditory injury, and any disturbance is predicted to be temporary). Therefore, no projects were progressed to a detailed cumulative effects assessment (i.e. Stages 3 and 4) for marine mammals*".

8.91. The MMO is of the opinion that the underwater noise assessment provided in Chapter 10 is vague in places, and the evidence to support the conclusions is lacking. For example, Table 10.4 provides a summary of typical SPLs (sound pressure levels) and frequency ranges of typical types of geophysical survey and positioning equipment likely used for the Proposed Development. The report states that "*this information has been taken from typical equipment specification sheets",* however references should be provided here.

8.92. Further, the report states that these source levels are "*generally given as SPLs*" but what does SPL mean – is this rms or peak? The metrics here should be clarified.

8.93. Of relevance, Para 10.6.4.19 states that complete installation of the trestles and casings will take ten 12-hour shifts per duct (this includes vessel repositioning, setting up the trestles and driving them into the seabed and then setting up the casings on the trestles, welding the casings together and then driving them into the seabed). There will be long breaks (9-10 weeks) between the vibro-hammering at each duct.

8.94. In terms of the assessment of potential vibro-hammering at the marine HDD location, it is not appropriate to simply convert noise levels in air to noise levels in water, see para 10.6.4.21: *"Noise levels in air do not equal noise levels in water. This is due to differences in reference standards (dB re 1 µPa in water versus dB re 20 µPa in air) and acoustic impedance (the characteristic impedance of water is about 3600 times that of air). However, conversions of dB from air to water can be made and an SPL of 90 dB in air is considered to be equivalent to an SPL of 152 dB re 1 µPa in water*". Again, no metrics are stipulated.

8.95. Para 10.6.4.22 further states that "*given the estimated sound levels, there is no potential for lethal effects (threshold is levels exceeding 240 dB re 1 µPa; Parvin et al., 2007), physical injury (threshold is levels exceeding 220 dB re 1 µPa; Parvin et al., 2007) or auditory injury (see Table 10.8 below) from the potential vibro-*

hammering even at source. These effects (lethal effects, physical injury and auditory injury) are therefore considered to be not significant". Table 10.8 shows the NOAA (2018) marine mammal noise exposure criteria for non-impulsive sources (which is appropriate). However, the PTS onset thresholds shown in the table are based on the cumulative sound exposure level thresholds (SELcum) over a 24-hour period (again the metrics are not stated in the report). Thus, it does not appear as though the cumulative sound exposure has been appropriately considered.

9. Contact details

9.1. The MMO would prefer electronic communication and requests that this is issued to the following contacts:

9.2. First contact:

[redacted]

Email: [redacted]@marinemanagement.org.uk
Post: Marine Licensing Team
Marine Management Organisation
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE4 7YH
Telephone: [redacted]

9.3. Second contact:

[redacted]

Email: [redacted]@marinemanagement.org.uk
Post: Marine Licensing Team
Marine Management Organisation
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE4 7YH
Telephone: [redacted]

9.4 Third contact (team email address): marine.consents@marinemanagement.org.uk

Marine Management Organisation **19 February 2020**

APPENDIX 4

MMO FEEDBACK ON DREDGE AND DISPOSAL ACTIVITES_MAY 2019

Marine Management Organisation

Marine Licensing
Lancaster House
Hampshire Court
Newcastle Upon Tyne
NE4 7YH

T +44 (0)300 123 1032
F +44 (0)191 376 2681
www.gov.uk/mmo

[redacted]
Senior Environmental Consultant
Natural Power

Our reference: DCO/2018/00016
Consultation 2

By email only

17 May 2019

Dear [redacted],

Aquind Interconnector Consultation: Seabed Preparation and Deposit of Dredged Material Summary Note (March 2019)

Thank you for your request dated 3 April 2019 for Marine Management Organisation (MMO) comments on the above document, including your request for a response to specific questions on the Aquind Project Dredge and Disposal Approach.

The Proposal

Aquind Limited ("The Developer") is proposing to construct and operate an electricity interconnector between France and UK. This project includes a new marine and onshore High Voltage Direct Current ('HVDC') power cable transmission link between Normandy in France and the south coast of England, with converter stations in both England and France. The cable will also include fibre optic data transmission cables.

The UK landfall location is at Eastney, to the south-east of Portsmouth, Hampshire. The total length of the Marine Cable Corridor in UK waters is approximately 109 km from the UK/France European Economic Zone (EEZ) boundary line to the landfall at Eastney. The inshore marine cable corridor refers to the section of the marine cable corridor that runs from the UK landfall out to the 12 nautical miles (nm) limit of UK territorial waters, while the offshore marine cable corridor is the section of the marine cable corridor from the 12 nm limit out to UK/France EEZ boundary line.

An estimated 600,000 – 1,500,000 m^3 sediment will be cleared by mass flow excavation or dredging to level seabed features in order to prepare the seabed before cable installation. If dredging is undertaken, a Trailer Suction Hopper Dredger (TSHD) will be used and material will be re-deposited within the marine cable corridor (beyond KP21 and avoiding cable crossing locations) or used in beneficial use projects.

The MMO's role in Nationally Significant Infrastructure Projects

The MMO was established by the Marine and Coastal Access Act 2009 (the "2009 Act") to make a contribution to sustainable development in the marine area and to promote clean, healthy, safe, productive and biologically diverse oceans and seas.

The responsibilities of the MMO include the licensing of construction works, deposits and removals in English inshore and offshore waters and for Northern Ireland offshore waters by way of a marine licence[1]. Inshore waters include any area which is submerged at mean high water spring ("MHWS") tide. They also include the waters of every estuary, river or channel where the tide flows at MHWS tide. Waters in areas which are closed permanently or intermittently by a lock or other artificial means against the regular action of the tide are included, where seawater flows into or out from the area.

In the case of Nationally Significant Infrastructure Projects ("NSIPs"), the 2008 Act enables Development Consent Order's ("DCO") for projects which affect the marine environment to include provisions which deem marine licences[2].

As a prescribed consultee under the 2008 Act, the MMO advises developers during pre-application on those aspects of a project that may have an impact on the marine area or those who use it. In addition to considering the impacts of any construction, deposit or removal within the marine area, this also includes assessing any risks to human health, other legitimate uses of the sea and any potential impacts on the marine environment from terrestrial works.

The MMO has reviewed the above document and I set out our comments below. The MMO reserves the right to make further comments on the Project throughout the pre-application process and may modify its present advice or opinion in view of any additional information that may come to our attention.

I have set out our response for each specific question raised in your request. Our response also takes into account the discussion during the teleconference on 7 May.

Question 1: *Do you agree with how we have considered different seabed preparation activities with particular regards to whether they are classed as disposal activities?*

1. The MMO agrees with the classification of disposal activities in the Approach document, with the exception of "Re-use of material" which should be classified as a disposal. Beneficial use is covered under OSPAR and London Convention guidelines and should be recorded in the same manner as open sea disposal. Beneficial use areas (belowMHWS) will require characterisation and an assessment of the perceived benefits. A disposal site for any beneficial use area must be registered, however it is marked as "beneficial use" rather than normal disposal and limited to operations which provide the desired benefits.

2. As stated by Natural Power in the teleconference on 7 May, there is a potential proposal to infill the Horizontal Directional Drilling (HDD) exit locations with dredge

[1] Under Part 4 of the 2009 Act

[2] Section 149A of the 2008 Act

material. The MMO considers that this HDD site would require registration as a disposal site and should be included in the disposal site characterisation report. This site will need to be designated as a separate location (with a separate disposal site code) to the main route corridor. The site characterisation report should clearly define the purpose of the disposal and the reason it is considered beneficial re-use. If the material being placed here is serving a specific purpose (e.g. construction or habitat restoration) and would otherwise be disposal of at sea, the MMO considers it would classify as beneficial use.

Question 2a: *Do you agree with our approach to identify and map constraints in order to refine the spatial extent of the proposed disposal area?*

3. The MMO agrees with the proposed approach and it is reasonable to define a disposal site area which encompasses the wider cable route and to follow spatial restrictions at the time of disposal. A disposal methods statement (as suggested by the Developer) should determine the areas of avoidance. The MMO would also recommend a post-disposal report to compare the proposed disposal strategy document to the actual activities which are undertaken. This should reflect both where the dredging has been undertaken and where it is disposed.

Question 2b: *Do you have any further comments including the use of and commitment to a proposed disposal strategy document?*

4. To facilitate assessment of bedform recoverability, post-installation bathymetric monitoring reports should also include data regarding the areas of the seabed which were subjected to pre-sweeping and where material was subsequently deposited.

Question 3: *Do you agree with our initial approach to modelling dredge disposal activities? If not, please explain why?*

5. The MMO broadly agrees with the initial approach to modelling dredge disposal activities.
6. However, the MMO advises that TSHD disposal modelling should encompass the worst-case scenarios of all planned activities. As such, modelling of any potential plumes from mass flow excavation method or from the act of the dredging operation itself should be considered, as these would still lead to the generation of elevated Suspended Sediment Concentrations (SSC) and sedimentation.
7. The maximum SSC and sedimentation thickness throughout the model runs should be presented alongside the other proposed outputs outlined in the technical note.

Question 4: *Please provide guidance and best practice examples of seabed characterisation reports used for similar types of projects e.g. construction projects requiring elements of seabed preparation.*

8. The disposal site characterisation should follow the OSPAR guidance (*https://www.ospar.org/documents?d=34060*).

9. Recent examples of disposal site characterisations for specific projects can be found on the NSIP website. For example, the Hornsea Project Three disposal site characterisation report is linked below:

   https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010080/EN010080-000556-HOW03_6.4.3.2_Volume%204%20-%203.2%20-%20Dredging%20and%20Disposal%20(Site%20Characterisation).pdf

10. Some of the bedforms in Table 2 page 4 of the Natural Power Summary Note (March 2019) are described to have a profile of up to 15m in height. The Developer should clarify what depth they will dredge to as this would assist in determining whether existing surface sediment sample data are sufficient to characterise the sediment, or whether subsurface sampling will be required. As the bedforms are mobile, the sediment characteristics are likely to be relatively homogenous near to the surface. For shallow dredging activities, surface sampling would be sufficient, however if dredging depths exceed 1m then this may not be the case.

Further comments

11. As discussed in the teleconference on 7 May, the sample data the Developer has already collected and presented in the Preliminary Environmental Information Report (PEIR) appear to be sufficient to characterise the dredging and disposal activities. The MMO has not however been able to determine the survey dates for the benthic survey reported in the PEIR. The survey dates should be stated in the disposal characterisation report so the timeliness of the data can be confirmed. Repeat samples to confirm the characteristics of the dredge material may be required if dredging does not complete within 3 years of the original samples being collected.

12. While the number of chemistry samples is limited and confined to the nearshore area, there is a considerable number of samples for particle size along the route (appears to be 22 samples). The PEIR report described the Particle Size Analysis (PSA) data as mostly Sandy Gravel. These sediments have a low risk of chemical contamination and therefore the MMO would not expect further chemical analysis to support the disposal site designation. Depending on the timeliness of dredging works samples may be required post-consent to confirm the continued acceptability of material to be disposed at sea.

13. Paragraph 11 only applies however if the surface samples collected are deemed representative of the material to be dredged. The dredge depth (i.e. depth of sediment removal) has not been specifically stated, however in table 2 of the summary note, sandwave heights are quoted up to 15m. Typically surface samples are acceptable to characterise up to 1 m of dredge depth, with core samples required for deeper dredges. The applicant should confirm the dredging depth and present justification that the samples are representative of the horizontal and vertical area.

Licensable Activities

14. The MMO can confirm that the following three activities listed within the summary note can be reasonably considered as being part of cable-laying enabling activities:

    - Pre-lay grapnel run;
    - Boulder removal; and
    - and use of MFE.

    These activities will need to be included as licensable activities within any Deemed Marine Licence (dML) where they take place within the 12 nm limit. They are not required to be included in any dML as a licensable activity where they take place beyond the 12 nm limit, as set out in Section 81 (1) of the Marine and Coastal Access Act 2009.

15. However, the MMO would advise that the use of a TSHD for dredging and disposal activities cannot be reasonably considered as cable-laying enabling activities. Therefore they will need to be included as licensable activities in any dML, whether they take place either within or outwith the 12 nautical mile limit.

16. There may be other activities concerning the cable-laying process which have not yet been identified by the Developer. If any other activities relating to this process are identified, the Developer should seek clarification from the MMO as to whether they can reasonably be considered as cable-laying activities, and whether they should be included in any dML as licensable activities.

Conclusion

This letter comprises the MMO's initial comments in respect of the Aquind Interconnector Dredge and Disposal Approach and is without prejudice to any future representation the MMO may make about the proposed Aquind project and associated documents.

If you require any further information please do not hesitate to contact me using the details provided below.

Yours Sincerely,

[redacted]
Marine Licensing Case Officer
Marine Licensing Team
Marine Management Organisation
D [redacted]
E [redacted]@marinemanagement.org.uk

APPENDIX 5

MARINE LICENCE REQUIREMENTS_MMO EMAIL JULY 2018

[redacted]

From: [redacted] (MMO) [redacted]@marinemanagement.org.uk>
Sent: 12 July 2018 10:36
To: [redacted]
Cc: [redacted] (MMO); [redacted] (MMO)
Subject: RE: Aquind Marine Licence / deemed marine licence requirements eia/2018/00011

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Do not Delete

Dear [redacted],

Regarding your email of 10 July, please find my response below to the matters you raised. (Also, regarding any meeting next month, just to let you know I'll be on leave from Monday 6 August for two weeks, returning on the 20th, but with limited availability towards the end of that week and the following week).

I would caveat that the advice below is based on the information provided in the Aquind Scoping Report (EIA/2018/00011) and other supporting information submitted. The MMO will confirm all licensable activities related to the project once a fully submitted marine licence application or Development Consent Order (DCO) application is received. Any marine licence application or DCO application must include details of all proposed activities within the UK Marine Area.

It remains the developer's responsibility to satisfy themselves as to whether a marine licence is required for an activity.

Exempt Submarine cables
Section 81 (5) of the Marine and Coastal Access Act 2009 (MCAA) states the following:

81 (5) "For the purposes of this section a submarine cable is "exempt" unless it is a cable constructed or used in connection with any of the following—
(a)the exploration of the UK sector of the continental shelf;
(b)the exploitation of the natural resources of that sector;
(c)the operations of artificial islands, installations and structures under the jurisdiction of the United Kingdom;
(d)the prevention, reduction or control of pollution from pipelines."

I can confirm that the MMO considers that the proposed Aquind Interconnector submarine cable, as described in the Aquind Scoping Report, may be considered as an exempt submarine cable, as defined in section 81 (5) of MCAA.

Laying of exempt Submarine cables (inshore and offshore)
Section 81 (1) & (2) of MCAA states:

81 Submarine cables on the continental shelf
(1)Nothing in this Part applies to anything done in the course of laying or maintaining an offshore stretch of exempt submarine cable.
(2)Where subsection (1) has effect in relation to part (but not the whole) of an exempt submarine cable—
(a)the appropriate licensing authority must grant any application made to it for a marine licence for the carrying on of a licensable marine activity in the course of laying any inshore stretch of the cable, and
(b)nothing in this Part applies to anything done in the course of maintaining any inshore stretch of the cable.

Section 81 (1) confirms that the laying of an exempt submarine cable beyond the 12 nautical mile limit (offshore), does not require a marine licence. If the Aquind Submarine cable is considered as an exempt cable (as defined in

Section 81 (5) of MCAA), a marine licence will not be required for the laying of the Aquind cable beyond the 12 nautical mile limit.

Section 81 (2) (a) confirms that a marine licence must be granted for the laying of an exempt cable within the 12 nautical mile limit (inshore).

Specific Cable laying activities (inshore and offshore)
The MMO considers that the following activities, as described in section 3.1.6 of the Aquind Scoping Report, may be considered as cable-laying activities if carried on in relation to the laying of an exempt cable (as defined in Section 81 (5) of MCAA):

- clearance dredging and side casting,
- the use of rock and mattressing to fill gulleys and reduce freespans.

As the act of laying an exempt cable beyond the 12 nautical mile limit (offshore) does not require a marine licence, I can confirm that these activities would not require a marine licence beyond the 12 nautical mile limit, when carried on in relation to the laying of an exempt cable (as defined in Section 81 (5) of MCAA). A marine licence is required for the above activities if carried on within the 12 nautical mile limit.

Maintenance activities
Section 81 (1) and (2)(b) of MCAA confirms that a marine licence is not required for maintaining an exempt cable either within or beyond the 12 nautical mile limit, i.e. inshore and offshore. If the Aquind Submarine cable is considered as an exempt cable (as defined in Section 81 (5) of MCAA), I can confirm that a marine licence would not be required for its' maintenance, either within or beyond the 12 nautical mile limit.

Maintenance activities can include:

- the removal and replacement of defective cable sections,
- removal of sediment to undertake repairs,
- the removal / replacement of cable protection to access the cable.

I would advise however that you should seek advice from the MMO on a proposed maintenance activity method, and submit a supporting detailed method statement, so that we can provide advice as to whether it is exempt from requiring a marine licence. It remains the developer's responsibility to satisfy themselves as to whether a marine licence is required for an activity.

Decommissioning
Section 81 of MCAA relates only to the laying and maintenance of an exempt cable, and I can therefore confirm that decommissioning of a cable, both within and beyond the 12 nautical mile limit, requires a marine licence.

NSIPs and marine licensable activities
I can confirm that the provisions set out in Part 4 (Marine Licensing) of MCAA still apply when considering whether an activity is a marine licensable activity, regardless as to whether it is considered under the Planning Act 2008 as a Nationally Significant Infrastructure Project (NSIP). Specifically, the provisions set out in sections 66 and 81 of MCAA will still apply if the Aquind project is determined by the relevant Secretary of State to be an NSIP. Any DCO application should include full details of all proposed activities in the UK Marine Area.

I can also confirm that a deemed marine licence functions exactly as a marine licence, and that the MMO is responsible for enforcing, post-consent monitoring, varying, suspending, and revoking any deemed marine licence as part of a DCO.

Further information regarding NSIPs and the MMO can be found here:
https://www.gov.uk/government/collections/marine-licensing-nationally-significant-infrastructure-projects

Finally, thank you for confirming that the EIA will consider impacts both within and beyond the 12 nautical mile limit.

Please don't hesitate to contact me if you'd like to discuss this email.

Regards

[redacted]

[redacted] I Marine Licensing Case Officer I Her Majesty's Government – Marine Management Organisation.
Direct Line: [redacted] | [redacted]@marinemanagement.org.uk I Lancaster House, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH
Website | Twitter | Facebook | Linkedin | Blog |Instagram | Flickr | YouTube | Google+ | Pinterest

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From: [redacted] (MMO)
Sent: 11 July 2018 08:58
To: [redacted]@naturalpower.com>
Cc: [redacted] (MMO) [redacted]@marinemanagement.org.uk>; [redacted] @naturalpower.com>; [redacted] (MMO) [redacted]@marinemanagement.org.uk>
Subject: RE: Aquind Marine Licence / deemed marine licence requirements

Dear [redacted],

Thanks for your email, I'm looking forward to meeting Ross again, and working with yourselves.

I'll be drafting a response to the question raised in your email, and will be back in touch in due course.

Regards

[redacted]

[redacted] I Marine Licensing Case Officer I Her Majesty's Government – Marine Management Organisation.
Direct Line: [redacted] | [redacted]@marinemanagement.org.uk I Lancaster House, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH
Website | Twitter | Facebook | Linkedin | Blog |Instagram | Flickr | YouTube | Google+ | Pinterest

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From: [redacted] [redacted]@naturalpower.com]
Sent: 10 July 2018 15:19
To: [redacted] (MMO) [redacted]@marinemanagement.org.uk>; [redacted] (MMO) [redacted]@marinemanagement.org.uk>
Cc: [redacted] (MMO) [redacted]@marinemanagement.org.uk>; [redacted] @naturalpower.com>
Subject: Aquind Marine Licence / deemed marine licence requirements

Dear [redacted]

How are you? Hope you are keeping well. Just an update for you that we are expecting the NSIP decision at the beginning of next month and we are trying to schedule a meeting with PINS (if the decision is favourable for NSIP

APPENDIX 6

BORED TUNNEL EXEMPTION_MMO EMAIL JUNE 2019

[redacted]

From: [redacted] [redacted]@marinemanagement.org.uk>
Sent: 04 June 2019 11:51
To: [redacted]
Cc: [redacted]
Subject: RE: Bored Tunnel Exemption: MMO Meeting Minutes_AQUIND meeting 09/01/2019

Hi [redacted],

Just to add to the below the bored tunnel exemption does not require approval from the MMO, only for prior notification. It is the undertaker of the work's responsibility to deem compliance with the exemption criteria. If you are compliant with the exemption then you will not receive a response from the MMO, however, if you are not compliant with the exemption you may receive a message informing you that a licence will re be required / the activity should be included in the DML.

Thanks
[redacted]

From: [redacted]
Sent: 04 June 2019 11:14
To: [redacted]@naturalpower.com>
Cc: [redacted]@marinemanagement.org.uk>; [redacted]@naturalpower.com>; [redacted]@marinemanagement.org.uk>
Subject: RE: Bored Tunnel Exemption: MMO Meeting Minutes_AQUIND meeting 09/01/2019

Hi [redacted],

Apologies for not replying sooner. Based on the illustration you provided it appears that the entry and exit points of the HDD locations are not within the marine environment, and therefore would be exempted from requiring a marine licence, assuming the activity meets the conditions listed in Article 35.

For your information, the new Marine Licensing (Exempt Activities) (Amendment) Order 2019 came into force last Friday. The amended Order makes changes to various exempted activities, and lists new exempted activities, although there are no changes to the Bored Tunnel exemption.

Regarding cable activities, the amended Order Article 34 – Cables and pipelines – authorised emergency inspection and repair. This exemption has been amended so that **operators no longer need approval from the MMO** before undertaking works. A notification only to the MMO is now required within 24 hours of commencement of the emergency works. This exemption has also been modified to clarify that **it does not apply to any cable or pipeline protection works**, which require a marine licence.

I've included a link to guidance on our website.
https://www.gov.uk/government/publications/marine-licensing-exempted-activities

Regards

[redacted]

[redacted] I Marine Licensing Case Officer I Her Majesty's Government – Marine Management Organisation.
Direct Line: [redacted] | [redacted]@marinemanagement.org.uk I Lancaster House, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH

APPENDIX 7

MINUTES OF MEETING_SEPTEMBER 2018

Natural Power Meeting Minutes			
To	Aquind Ltd; WSP; MMO	Date	06/09/2018
From	Natural Power	Ref.	1178416

Meeting Minutes

Meeting held at: Marine Management Organisation (MMO) Offices, Newcastle
Date: 06/09/2018
Time: 14:00 – 16:00 hrs
Attendees:

[redacted] (MMO)
[redacted] (MMO)
[redacted] (MMO)
[redacted] (Natural Power)
[redacted] (Natural Power)
[redacted] (WSP)
[redacted] (WSP)
[redacted] (WSP)
[redacted] (WSP)

1. Introduction:

WSP provided an update on the project. WSP also explained the DCO process and high-level programme for the project up to the submission of the application (Q3 2019) and the broad timescales for key elements of the DCO process up to determination (Q4 2020).

2. Statement of Community Consultation:

The MMO now have the Statement of Community Consultation (SoCC) for informal consultation and have passed this onto the MMO coastal office in Portsmouth for their review. Initial feedback is that there are some current omissions in our stakeholder list. These include:

a) Southampton ABP Port and Search and Rescue (SARs)
b) Eastney Harbour
c) Selsey Harbour
d) Chichester and Bembridge Harbour
e) Ferry operators (DFDS)
f) Tanker operators (Exxon Marine)

The MMO also stated that they have a couple of local fisheries organisations that should be engaged. The MMO stated that they were content with locations and timings of public events and with the deposit locations of consultation material.

The MMO will provide a formal advice note on the SoCC with further detail this month.
The MMO to provide contact details for Martin Cooper and Newhaven Fish Society as soon as possible to feed into fisheries meetings invites.
Natural Power requested that the fisheries information is sent on soon as the fisheries meetings will be held week after next.

3. Changes to project since scoping:

Natural Power and Chris talked the MMO through the changes to the marine elements of the project since scoping, primarily;

a) Refinement of the marine cable corridor;
b) Use of dredging equipment to clear sandwaves and large ripples;
c) HDD works in Langstone Harbour

Natural Power outlined that the consultations with Natural England and the Harbour Master in Langstone Harbour about point c) and stressed that no HDD works will occur within the marine environment as the drilling will all be underneath the harbour area. Accordingly, Natural Power considers that the deemed Marine Licence (dML) will not include this activity (although the ES will give consideration of it) but that this will be covered in the main by the onshore assessments as the plant used and HDD exit and entry holes will be above Mean High Water Springs (MHWS). The MMO

agreed with this approach and confirmed that the proposed approach to HDD under Langstone Harbour is exempt from requiring a marine licence.

Sand wave clearance including using dredging techniques (e.g. trailer suction hopper dredger) and potential locations for dredging to occur was discussed. Natural Power also stated that plume modelling would be undertaken to assess the impact of this activity. The MMO confirmed that dredged material cast to the side of the dredged area was not considered to require a separate marine licence if kept within the redline boundary/cable corridor (as has been the case previously for other projects). The MMO will double check to see what the case would be for if dredged material is disposed of elsewhere within the cable corridor. Dredging and side-casting were considered as part of cable laying activities which would only require a license within the 12 nm territorial waters limit. As work progress on developing the description of this works and the modelling, further discussion will be had.

The MMO will advise on whether disposal of dredged material at another part of the marine cable corridor as opposed to side casting would still be considered a cable laying activity.

4. Key outcomes from scoping:

Natural Power then discussed the key outcomes of scoping with the MMO;

a) A **Water Framework Directive Assessment** will be undertaken as per requested by the MMO.
b) A **Contaminated Sediments Assessment** (using previously collected samples) will be undertaken as per requested by the MMO and in consultation with Cefas.
c) Natural Power asked for clarification on the last paragraph in Section 4.5.2 of their Scoping Opinion relating to noise and marine mammals. Is the advice requesting that we undertake a full assessment on this element (noise from seabed preparation, route clearance, cable laying and burial and vessel noise) or is it sufficient that we simply providing justification for not undertaking a full assessment? Natural Power stressed that the latter option seems a more proportionate approach.

The MMO will double check point c) above, and respond with clarification.

d) **UXO:** The EPS risk assessment for UXO survey works and any licence requirement for further investigative or works on UXO removal will be undertaken separately to the DCO application. The MMO understood and are content with this approach.
e) **EMF:** The group had a discussion on the potential of impacts from Electromagnetic Fields (EMF). The MMO explained that they have dealt with an application recently where an Inshore Fisheries and Conservation Agency (IFCA) have raised the issue of EMF. It is likely that this is for HVAC cables however, it is worth taking a look at this.

The MMO will forward on the reference to that application for our information, they will also forward on other guidance (Ospar report and MMO OWF Monitoring Recommendations Report) to assist us.

f) Natural Power queried the request from Cefas to scope in assessment of chemical contamination and accidental spills as Natural Power considers that this is better dealt with through pollution prevention protocols and environmental management plans. The MMO agreed with this approach.

5. Items for discussion:

Natural Power then discussed the following items;

a) **PINS**: Meeting tomorrow to seek advice on whether to re-scope wit PINS or not. The MMO thought that if re-scoping was undertaken, then their response to PINS would be unlikely to change significantly from the MMO's response provided in June 2018. The MMO asked to be informed of PINS' response to re-scoping discussions.
b) **Licensable Activities**: Natural Power went through the advice received from the MMO on licensable activities and non-licensable activities (received on 12/07/2018 via email) to confirm understanding. In relation to cable protection which requires a marine licence application within the 12 nm limit and beyond, the MMO stated that if we assessed the suitability of cable protection measures along the corridor and also could provide an indication of amount of use of protection for maintenance (i.e. propose a reasonable contingency for this), then it is possible to incorporate a mechanism via licence condition whereby a certain percentage of protection can be placed along the corridor when required for maintenance over a 15 year period after cable installation. If this can be achieved then it can reduce the requirement for applying for a marine licence for laying cable protection each time it might be needed for maintenance (or repair) activities.

The MMO will pass on draft licence condition for this (and other draft / standard licence conditions) to Natural Power.

c) **The newer topics within the 2017 EIA regulations.** The MMO agreed with the approach that the topics for population and human health, material assets and air quality, are more relevant for onshore chapters. Biodiversity can be dealt with in our biological assessments and the topic of disasters and accidents can be dealt with through signposting to the navigation risk assessment and shipping/navigation chapter.

d) **Cumulative Assessment:** Natural Power ran through the approach to cumulative assessment in accordance with PINS advice note. The MMO agreed with the proposed approach.

e) **Transboundary Assessment**: Natural Power ran through the approach to transboundary assessment in accordance with PINS advice note. The MMO agreed with the proposed approach.

f) **Decommissioning:** Natural Power ran through the approach to deal with decommissioning (i.e. high-level summary description in the ES, licence condition for "a decommissioning plan (to be agreed with TCE) to be submitted six months prior to commencement of decommissioning" and then separate decommissioning marine licence application prior to decommissioning). The MMO agreed with the proposed approach.

g) **Habitats Regulation Assessment (HRA):** Natural Power ran through the approach to deal with HRA. The approach will be to undertake consultation meetings with Natural England. The MMO stated that although they did not need to be included in all meetings they will need to be kept abreast of any mitigation/monitoring that falls out of this process. Natural Power agreed to keep the MMO informed of HRA developments and the approach to engagement with the MMO on HRA matters under review. They also have Defra group meetings each month where the MMO and Natural England can discuss matters.

h) **Deemed Marine Licence:** Natural Power and the MMO agreed that drafting the dML should begin soon. The MMO and Natural Power also agreed that a skeleton Statement of Common Ground should be worked up during the pre-application process where possible

The MMO will share standard conditions with Natural Power to begin this process.

i) **DCO fees and charges** - MMO fees increased in 01/09/2018 and therefore the fee estimates for the meeting and the SOCC consultation need to be re-accepted as they are slightly more expensive. Moving forward Natural Power asked for clarity on when the MMO will charge during the DCO process as it is currently not clear.

The MMO will review and revert back to Natural Power on this matter.

j) The MMO requested that Natural Power provide an indicative summary of the potential number of meetings that will be need with the MMO during the pre-application process as well as any potential remote advice required such that they can build up one fee estimate for Aquind to accept rather than producing a fee estimate for every single consultation item. They will only ever charge on time spent so the fee estimate is only an indication.

Natural Power to provide an estimate of consultation requirements with the MMO moving forward.

APPENDIX 8

MMO RESPONSE TO ADDITIONAL INFORMATION ON HERRING SPAWNING

Marine Management Organisation

Marine Licensing
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE4 7YH

T +44 (0)300 123 1032
F +44 (0)191 376 2681
www.gov.uk/mmo

[redacted]
Natural Power
The Greenhouse
Dalry
Castle Douglas
DG7 3XS

Our reference: DCO/2018/00016

Email Only

27 August 2020

Dear [redacted],

RE: AQUIND Herring Map

Thank you for your email dated 16 July 2020 containing an interactive PDF herring spawning map (Figure 9.10 Additional Information on Herring Spawning) which was provided following a request from The Centre for Environment, Fisheries and Aquaculture Science (Cefas).

The map was requested due to concerns that cable laying and seabed preparation works for this project transect the Downs herring spawning ground in the English Channel and that there could be significant impacts to spawning herring if such works are permitted during the Downs herring spawning season (November to January inclusive).

Please find below MMO's response to this document following consultation with Cefas.

It is evident that you have fully understood the brief of our requirements and have followed them precisely to present high quality spatial data to inform an evidence-based decision.

The high-quality data presented in the interactive map has enabled the identification of when and where the highest larval densities are likely to be found and which overlap the proposed cable route. The level of detail presented has enabled MMO to refine our recommended mitigation measures temporally and spatially, whilst enabling us to consider other activities taking place in the vicinity (e.g. aggregate dredging) and consider impacts cumulatively.

Temporal Mitigation Recommendation

Temporally MMO recommend a minimum period of 15th December to 15th January where no cable preparation or cable laying works should take place. This is the minimum temporal restriction that MMO consider is appropriate to mitigate impacts to spawning herring and their habitat and allows no time for settlement of disturbed seabed habitat or sediments. MMO consider this to be acceptable for the Aquind Interconnector project as the cable installation is a one-off activity, rather than a continuous one e.g. dredging.

Spatial Mitigation Recommendation

MMO recognise that the recommendation of spatial mitigation using ICES sub-rectangles is not a practical option as it is too broad in relation to the cable route corridor which only just passes through 29E98 and 29F01 and because 29F02 is partly outside of the UK jurisdiction.

Therefore, MMO recommend that the temporal restriction is combined with one of the following spatial restrictions, depending on what the developer finds most suitable in terms of their construction methods and/or practicality:

A) Joint to Joint: No works to be undertaken between the two cable joints (shown on the map) located within ICES sub-rectangles 29E97 and 29F02, during the period of 15th December to 15th January inclusive.

OR

B) KM to KM Distance: No works to be undertaken between the 90 – 100km and 100-110km distances shown on the map, located within ICES sub-rectangles 29E97 and 29F02, during the period of 15th December to 15th January inclusive.

Your feedback

We are committed to providing excellent customer service and continually improving our standards and we would be delighted to know what you thought of the service you have received from us. Please help us by taking a few minutes to complete the following short survey (https://www.surveymonkey.com/r/MMOMLcustomer).

If you require any further information please do not hesitate to contact me using the details provided below.

Yours Sincerely,

[redacted]
Marine Licensing Case Officer

D [redacted]
E [redacted]@marinemanagement.org.uk

APPENDIX 9

AQUIND CABLE PROTECTION TECHNICAL NOTE

AQUIND Limited

AQUIND INTERCONNECTOR

Cable Protection Technical Note

Document Ref.: 1223652

PINS Ref.: EN020022

AQUIND Limited

AQUIND INTERCONNECTOR

Cable Protection Technical Note

PINS REF.: EN020022

DOCUMENT: CABLE PROTECTION TECHNICAL NOTE

DATE: JUNE 2020

DOCUMENT HISTORY

Document Ref.	1223652
Revision	B
Document Owner	Natural Power Consultants Ltd.
Prepared by	Herbert Smith Freehills/Natural Power Consultants Ltd.
Date	29 May 2020
Approved by	Martyn Jarvis/Ross Hodson
Date	12 June 2020

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APPENDIX 5: MMO RESPONSE TO PERCENTAGE CONTINGENCY RATIONALE 25

1. INTRODUCTION

1.1.1. This technical note has been produced in response to discussions between AQUIND Ltd. ('the Applicant') and Natural England ('NE') and the Marine Management Organisation ('MMO') held on the 24 and 26 March 2020 regarding the deployment of cable protection during construction and operation (including maintenance and repairs) of the AQUIND Interconnector (the 'Proposed Development').

1.1.2. This note is supplemental to the documentation submitted on the 14 November 2019 to the Planning Inspectorate ('PINS') that forms the application for Development Consent Order ('DCO') ('the Application') and should be read in conjunction with the Application documentation[1]. Further signposting to relevant application documents will be provided within this note.

1.1.3. This note will be shared with NE and the MMO in order to progress discussions on extended licensing and control measures for cable protection deployment for the Proposed Development during operation. It is acknowledged that both NE and MMO have submitted Relevant Representations (RRs) on the Application already and that NE has already shared '*Appendix 1 - draft paper on Cable Protection'* with PINS and the Applicant as part of the section 56 process, which constitutes NE's current position with regards to extended licencing and control of cable protection.

[1] Available online at: https://infrastructure.planninginspectorate.gov.uk/projects/south-east/aquind-interconnector/?ipcsection=docs (last accessed 22/04/2020)

2. BACKGROUND

2.1. MARINE LICENCING

2.1.1. The following paragraphs provides the Applicant's understanding of the MMO and NE's view on the marine licencing requirements for cable protection in relation to the Proposed Development based on discussions to date with both.

2.1.2. In July 2018, the MMO advised that under Section 81 (5) of the Marine and Coastal Access Act 2009 (MCAA), the offshore cables forming part of the Proposed Development are exempt submarine cables. Section 81(1) MCAA confirms that the laying and maintaining of an offshore stretch of an exempt submarine cable does not require a marine licence. The laying of such a submarine cable within 12 nmi (i.e. the inshore stretch) does however require a marine licence in accordance with Section 66 MCAA.

2.1.3. Section 81 (2)(a) of MCAA confirms that where Section 81(1) has effect in relation to part (but not the whole) of an exempt submarine cable, as is the case in respect of the submarine cables forming part of the Proposed Development, the appropriate licensing authority must grant any application made to it for a marine licence for the carrying on of a licensable marine activity in the course of laying any inshore stretch of cable.

2.1.4. In the advice received from the MMO (see Appendix 1), activities that would be considered as cable laying activities include;

- Clearance dredging and side casting; and
- The use of rock and mattressing to fill gulleys and reduce freespans.

Accordingly, both of these activities (when carried out in relation to cable laying) require a marine licence within 12 nmi but *do not* require a marine licence if undertaken beyond 12 nmi.

2.1.5. Section 81(1) and (2)(b) of MCAA also provides that a marine licence is not required for the maintenance of any part of an exempt submarine cable. The MMO's view[2] is that maintenance activities would include;

- the removal and replacement of defective cable sections,
- removal of sediment to undertake repairs,
- the removal/replacement of cable protection to access the cable.

2.1.6. Accordingly, none of the maintenance activities associated with the submarine cables forming part of the Proposed Development require any form of marine licence.

2.1.7. However, it is the MMO's view that the laying of cable protection in connection with a submarine cable is not an activity comprised in the laying or maintenance of a submarine cable, and therefore Section 81of MCAA does not apply to the deposition of any mattressing

[2] MMO Subsea Cables Desk Note (January 2018). Available online at: https://www.escaeu.org/news/?newsid=71 (last accessed 08/04/2020)

or rock protection required. Therefore the MMO consider a marine licence is required for the laying of cable protection at all times, both within and beyond the 12 nmi limit.

2.1.8. The Marine Licensing Exempted Activities Order 2011 (as amended) states that a marine licence is not required to carry out emergency inspection or repair work to a submarine cable. Cable operators do not need approval from the MMO to undertake an emergency inspection or repair but are required to notify the MMO within 24 hours of the commencement of the emergency works. This exemption *does not* apply to the deposit of any associated cable protection in relation to the emergency works.

2.1.9. Based on the MMO's previous advice in relation to the above legislative requirements regarding what activities are licensable and the MMO's views on what does and what does not fall within the scope of maintenance activities, the deposition of rock or mattressing onto the seabed which acts as cable protection within the UK Marine Area requires a marine licence where:

- the cable protection is placed during construction of the Proposed Development (which is therefore typically included in the marine licence for the construction of the Proposed Development); and
- the cable protection is placed during the operational phase of the Proposed Development in connection with maintenance or repair activities.

2.1.10. Previous advice from the MMO (Appendix 1) also states that placement of rock or mattressing on the seabed as part cable laying activities to fill gullys and reduce freespans would require a marine licence if located within 12 nmi but would not require a marine licence beyond 12 nmi.

2.1.11. **It would be useful if the MMO could advise as to whether the Applicant's understanding of the MMO's understanding of the legislative requirements is correct, and provide further rationale for any areas of disagreement?**

2.2. CONSULTATION

2.2.1. Discussions relating to the legislative requirements for marine licensing for the Proposed Development began in July 2018 and a meeting was held between the Applicant and the MMO in September 2018. At that meeting, discussions commenced on the potential for an extended licencing for cable protection to be implemented, to cover additional cable protection placed in connection with maintenance and/or repair works during operation (see Item 5(b) of Appendix 2).

2.2.2. The MMO and the Applicant discussed the practicalities of repeated marine licence applications for the laying of cable protection in connection with maintenance and repair works. In order to address the challenges of repeated applications, the MMO highlighted an approach whereby, if a reasonable contingency of cable protection was included in the deemed marine licence, and if the use of this contingency during the operational period was adequately assessed within the Environmental Statement (ES), then it would be possible to

incorporate a mechanism within the marine licence to allow cable protection placement during operation.

2.2.3. At the time, the discussions involved additional cable protection being able to be laid for a 15-year period during operation. This approach had previously been implemented for the Viking Link Interconnector marine licence (Activities 1.6 and 2.4 of Marine Licence L/2018/00075/1) where licence conditions were incorporated into the marine licence to control for this (Licence Conditions 5.2.35 to 5.2.42).

2.2.4. Accordingly, it was agreed during the September 2018 meeting that this approach would be beneficial for all parties, and the Applicant undertook the additional work necessary to include such a contingency within the design parameters and for those additional cable protection parameters to be included within the Application and relevant assessments, including the environmental impact assessment, Habitat Regulations Assessment ('HRA') and Marine Conservation Zone ('MCZ') Assessment undertaken for marine topics. Further signposting of these assessments is provided within the Section 3 of this document.

2.2.5. Further discussion on this matter was then held during a meeting on 09 January 2019 where the MMO agreed that a percentage cable protection contingency could be included for maintenance and repair however further discussion would be required to discuss this percentage (see Appendix 3, Item 9).

2.2.6. The Applicant was at this time in the course of finalising the Preliminary Environmental Information report ('PEIR') which was consulted on in February 2019. A 10% contingency (i.e. 10% of the length of the UK Marine Cable Corridor) was calculated by AQUIND's engineering team to be an appropriate and realistic worst case contingency. This contingency was then included in the design parameters and assessments for cable protection which were undertaken and presented within the PEIR and consulted on as part of the consultation undertaken in accordance with Section 42 of Planning Act 2008.

2.2.7. Feedback on the PEIR from the MMO and NE did not raise any queries or concerns with regard to the way in which cable protection in connection with maintenance and repair had been included or assessed or the resultant preliminary view on the effects. However, ongoing email communications from the MMO requested further clarity and rationale on how the 10% contingency amount had been calculated.

2.2.8. In July 2019, the draft Deemed Marine Licence ('DML') was shared with the MMO and NE for review prior to submission of the Application. Feedback from the MMO highlighted that the mechanisms required for control of cable protection through the DML still needed further discussion, and that the 15-year period was satisfactory and was linked to what was considered to be the reasonable validity of the ES baseline. Feedback from NE on the draft DML however highlighted a need for further discussion, especially as the MMO and NE were not aligned in their advice on the laying of cable protection during the operational period. NE advised that a workshop was to be held with the MMO on 24 September 2019 to discuss this topic, in particular in order to draft guidance.

2.2.9. Given that the Applicant's submission date for the Application was October 2019, further information was provided by email to the MMO in relation to the rationale for a 10% contingency (see Appendix 4). The MMO response advised that they could not provide any feedback until the workshop with NE had been held.

2.2.10. Accordingly, the additional 10% contingency for cable protection in connection with maintenance and repair activities was included within the design parameters for the Proposed Development and was assessed within all relevant assessments submitted with the Application.

2.2.11. On 01 October 2019, the MMO emailed their preliminary position on this matter as follows;

"*Following the workshop, we are finalising our position with NE regarding cable protection.*

I'm not sure at this stage when our position will be finalised and a communication issued. However, I can confirm that the MMO definition of maintenance does not include the laying of new cable protection in new locations. Cable maintenance for interconnector cables itself is not a licensable activity and this includes maintaining cable protection that was placed at the time of construction but this has to be within the footprint of that which was laid during construction.

Any new/ additional cable protection to be laid during the operations lifetime of a cable will be conditioned in the DML such that the Undertaker (Licence Holder) will need to submit an updated cable burial risk assessment and cable burial method statement no less than 6 weeks prior to proposed activity. The activity will only be permissible for 10 years following completion of construction. Surveys will need to be reviewed every 5 years to ensure they are robust and up to date. Please note this is a change to our previous position regarding timescales. This represents less surveying requirements however you'll need to apply for a variation more often."

2.2.12. As this advice was different to previous advice but was not a final position, in order to meet project deadlines, the Applicant submitted the application under the basis of the previous 15-year period advice. In so doing, it was considered that the assessments undertaken to inform the application, and finalised on the basis of previous agreements had, in any case, assessed a worst case cable protection footprint that was considered appropriate for the Proposed Development from engineering and ecological perspectives, regardless of this change of position from consultees.

2.2.13. Further advice received from the MMO later in October (see Appendix 5) stated that the rationale for the 10% contingency was satisfactory. As such, the inclusion of a 10% contingency for maintenance and repair was agreed in principle with the MMO however, it was considered that further discussions on the mechanisms for control within the DML and the timescales of the extended licence were the key items outstanding, and that these matters could be resolved during Examination.

2.2.14. Further meetings held with NE and the MMO in March 2020 has led to the preparation of this Cable Protection Technical Note to summarise the Applicant's position and understanding,

as well as to provide further clarity to consultees with the objective of agreeing the control mechanisms for the DML moving forward.

3. CABLE PROTECTION PARAMETERS AND ASSESSMENT

3.1. CABLE PROTECTION PARAMETERS

3.1.1. The RRs from the MMO and NE have requested further clarification on the cable protection parameters assessed within the ES for the Proposed Development during construction and operational phases.

3.1.2. In addition, on page 3 of the '*Appendix 1 - draft paper on Cable Protection'* provided by NE, there is a requirement that information is presented separately for the phases. Accordingly, this information for the Proposed Development is presented as follows;

- The amount of cable protection to be laid during the construction phase[3] of the Proposed Development includes;
  + 330,000 m^2 for rock placement (2 x rock berms (one for each cable pair) x 11 km x 15 m) where cables are not able to be buried and cable protection is required;
  + 37,800 m^2 for rock placement to be used for the Atlantic Cable Crossing;
  + 900 m^2 for rock placement to be used to fill the HDD pits.
  Therefore, during construction, a total maximum footprint is 368,700 m^2.

- The amount of cable protection to protect assets requiring maintenance and repair during the first 15 years of operation[4] is 330,000 m^2. The rationale for this includes (as described in Appendix 4 and the maximum footprint provided in Appendix 3.2 of the ES);
  + 88,200 m^2 for rock placement (2,940 m x 2 rock berms x 15 m as worst case) where cables become shallow buried or exposed (due to a mobile seabed) and require remedial cable protection for maintenance works;
  + 240,300 m^2 for rock placement (8,010 m x 2 rock berms x 15 m as worst case) where cables require repair due to internal faults (resulting from manufacture, materials or defects resulting from installation) or external faults (resulting from fishing or shipping interactions) and where worst case assumes that the repaired cable/s cannot be re-buried and requires cable protection;
  Therefore, during operation, a total maximum footprint is *c.*330,000 m^2.

---

[3] The construction phase is the period between when the Applicant notifies the MMO prior to commencement of licensed activities (document reference 3.1: DCO, Schedule 15, Part 2, Condition 2(6)) and when the Applicant notifies the MMO on completion of construction of licensed activities (DCO, Schedule 15, Part 2, Condition 2(10)).

[4] This is slightly different wording than the wording required in NE's '*Appendix 1: Draft Paper On Cable Protection'* which is as follows;

'The amount of cable protection required for maintenance of that laid in construction over the lifetime of the project.'

We have changed this wording as NE's wording suggests that we need to identify the amount of cable protection required for maintaining existing cable protection that was laid on the seabed during construction which would already have been covered in the construction design parameters. Replacing existing cable protection is considered exempt from licensing as it is something done in the course of maintenance (as stated in paragraph 2.1.5 of this document).

- Therefore, the total amount of cable protection that has been assessed within the ES and which is to be left in situ at the time of decommissioning (or the total of the above bullet points) is equal to **698,700 m^2 (i.e. rounded up to 0.7 km^2).**

3.1.3. These design parameters for cable protection for the Proposed Development are presented in a different format in Table 3 of Appendix 3.2 of Chapter 3 of the ES (Description of the Proposed Development) (document reference 6.3.3.2) and presented again below for ease of reference. As the table title states, this table provides the parameters for ***both pairs of cables***. To explain further, the information in this table (and above) relates to both trenches (two bundled cable pairs). In addition, the cable protection lengths presented in the table are those considered appropriate for calculating the area/footprint of cable protection as this is the parameter that has been assessed within the ES. The cable protection length presented within the draft DCO (Schedule 15, Part 2 Condition 1) represents the length of cable protection that is anticipated along the Marine Cable Corridor, not the summed total of all cable protection lengths that have been used to calculate the footprint or area.

Table 1 – Non-Burial Protection Measures along the Marine Cable Corridor Worst-Case Design Parameters for Two Bundled Cable Pairs

Activity	Duration / Timing	Disturbance / Footprint	Equipment
Non-burial Protection		Non-burial protection along approx. 11 km (10%) of the Marine Cable Route using one or a combination of the following cable protection measures. An allowance has also been added to include an additional 10% (11 km) non-burial contingency if further non-burial protection is required during maintenance/repair activities during the first 15 years of operation. Worst Case Scenario (WCS) is therefore 11 km + 11 km = 22 km **Concrete/frond mattressing** – Width of protection = 6 m per cable pair Height of protection = 0.3 m WCS therefore 2 x 11 km x 6 m Indicative maximum footprint of mattressing for construction-phase remedial protection= 132,000 m^2 **Rock Placement** - Width of protection = 15 m per cable Height of protection = 1.5 m WCS therefore 2 x 11 km x 15 m Indicative maximum footprint of construction phase remedial protection =330,000 m^2	Mattress installation vessel Rock placement vessel

Activity	Duration / Timing	Disturbance / Footprint	Equipment
		These parameters do not include protection used as HDD exit pits or for the cable crossing design.	
Atlantic Crossing Protection (pre-lay berm) (Post-lay)	Within 2 – 12 months of cable installation, with crossing construction undertaken before and after cable installation	One pre-lay rock berm, which will be covered by the post lay berm eventually, approximately 100 m long and 30 m wide. Total footprint (total for two cable pairs) = 3000 m^2 Height of rock berm = 1.5 m Installation of two post-lay rock berms. Each berm up to approximately 30 m wide and 600 m long. Height of berm above seabed (or pre-lay berm) up to 1.5 m Total maximum footprint (pre-lay and post-lay berm) = Approx. 37,800 m^2	
Horizontal Directional Drilling Exit/Entry Point Protection Measures	After HDD and installation of end caps, until cable installation. Non-burial protection could be in place for up to 12 months. It would be removed as part of the cable pull / installation process.	Rock or mattress protection may be installed at HDD exit/entry points. These may be as 4 discrete locations or as a single berm covering all 4 exit points. Height of temporary protection= up to 0.5 m – will be located in existing pit to ensure navigable depth is maintained. Length of protection= up to 15 m Width of protection = up to 60 m Total footprint of protection = Approx. 900 m^2 Prior to cable pull, protection is more likely to be rock bags than rock berms, but after cable pull the rock bags would be recovered and replaced with a permanent rockfill within the pit. This would be 60 x 15 x 3 m = 2700 m^3.	

3.1.4. The information within the first row within Table 3 provides the parameters for Non-Burial Protection (i.e. Cable Protection) during construction and operation but does not provide the total maximum footprint of cable protection for both construction and operational phases which is assessed within the ES topic chapters (see Section 3.2 of this document) and which is now provided for clarity above in paragraph 3.1.2.

3.1.5. Table 3 states that non-burial protection for both cable pairs is anticipated along approximately 11 km of the UK Marine Cable Corridor for construction activities. This information is based on the Cable Burial Risk Assessment and geophysical and geotechnical surveys undertaken for the Proposed Development. Rock placement is considered to be the worst case as this has the greatest maximum footprint (i.e. 330,000 m^2). This parameter is

the maximum footprint for rock placement to be used during construction where cables are not able to be buried and cable protection is required.

3.1.6. This same row also describes that a worst-case allowance has also been included for an additional 11 km of cable protection to be used during maintenance and repair activities. Although not made explicit within Table 3 (but is now clarified in paragraph 3.1.2), using a similar calculation, rock placement has been considered as worst case and therefore the maximum footprint during operation would be 330,000 m^2.

3.1.7. The second row of Table 3 identifies the amount of rock protection to be used for Atlantic Cable Crossing. This identifies a maximum footprint of 37,800 m^2.

3.1.8. The third row of Table 3 identifies the amount of rock protection that will be used to fill the Horizontal Direction Drilling ('HDD') pits. This identifies a maximum footprint is 900 m^2.

3.1.9. Therefore, the amounts of cable protection presented and assessed within the ES and which is to be left in situ at the time of decommissioning (or the total of the above) is equal to **698,700 m^2 (i.e. rounded up to 0.7 km^2).**

3.2. ASSESSMENT OF CABLE PROTECTION

3.2.1. Accordingly, the relevant assessments undertaken within the ES have assessed the potential impacts associated with the placement of 0.7 km^2 of cable protection. This is described within the following areas within the ES;

- Chapter 6 Physical Process (Ref: APP-121, Section 6.6.3, Table 6.15);
- Chapter 8 Intertidal and Benthic Habitats (Ref: APP-123, Section 8.6.2, Table 8.6);
- Chapter 9 Fish and Shellfish (Ref: APP-124, Section 9.6.3, Table 9.9);
- Chapter 11 Marine Ornithology (Ref: APP-126, Section 11.6.6, Table 11.10);
- Chapter 12 Commercial Fisheries (Ref: APP-127, Section 12.6.3, Table 12.7);
- Chapter 13 Shipping, Navigation and Other Marine Users (Ref: APP-128, Section 13.6.2);
- Chapter 14 Marine Archaeology (Ref: APP-129 Section 14.6.3); and
- Habitat Regulations Assessment (Ref: APP-491).

3.2.2. The Outline Marine Construction Environmental Management Plan ('CEMP') has provides that a study will be undertaken to identify the most appropriate rock material for cable protection requirements.

3.2.3. Therefore, in response to the MMO's comment (Paragraph 7.30) within their RR;

"*Schedule 15 Deemed marine licence Part 1 – Additional cable protection during operations can be included in the DML but the distinction between this and cable protection during laying needs to be clear. They both need to be assessed in the ES.*"

It is our position that this information has been made clear and that signposting has been provided to clarify that cable protection to be used during construction and that to be used

during operations. Both have been assessed, with no significant effects having been identified as a consequence of the maximum footprint or profile of cable protection resulting from the construction, or ongoing protection of assets during operation.

3.2.4. In addition, both MMO and NE have requested that both units of volume and area are provided within the Design Parameters within the DML[5]. As both maximum footprint or area and height of cable protection are the parameters that are relevant to the impacts being assessed within topics (e.g. permanent habitat loss impacting benthic receptors, potential alteration to physical processes including the development of scour or reduction of navigable depth to shipping), it is not clear what benefit the addition of volume units provides. Indeed, the inclusion of volume units for cable protection may lead to unnecessary variations required for the DML simply to change volumes.

3.2.5. An example of this can be explained if assessing the potential impacts of rock placement for scour protection. In this case, the footprint of scour and the area required for rock placement is clear and should be assessed, however the volume of rock required to fill the scour footprint can change according to the 'depth' of the scour, and any increase in volume to fill depth will not impact the footprint of seabed. Including volume could unintentionally and unnecessarily limit the amount of cable protection that could be laid to an amount less than that which has been assessed as appropriate.

3.2.6. Control measures for area or footprint, rather than volume, have previously been conditioned by the MMO within the marine licence for Greater Gabbard (L/2020/00067/1) for deployment of cable protection and scour protection to their export cables (Condition 5.2.8). Similarly, for cable protection for the Proposed Development, it is the Applicant's position that the area and height of cable protection above the seabed are the relevant parameters for the purposes of assessment, and that the inclusion of volume units, for the reason stated above, could lead to unintended limits being placed on the Proposed Development, ultimately requiring variations of the licence to permit what has already been assessed and in turn permitted.

3.2.7. It is for this reason the Applicant has not, and does not intend to, include volume units in addition to length and area parameters for cable protection.

[5] See paragraph 7.31 of MMO RR and Section 5.1, Issue 4 of the NE RR.

4. APPROACH TO CABLE PROTECTION CONTROLS

4.1. INTRODUCTION

4.1.1. Section 2 of this document outlines our current understanding of the licensing requirements for the laying of cable protection and Section 3 provides clarification on the assessment of the maximum footprint of cable protection, and its profile / height above the seabed, for the Proposed Development during construction and operation.

4.1.2. This Section 4 sets out the scope of the controls relating to the laying of cable protection in connection with construction activities, and in relation to maintenance and repair activities of the Proposed Development during the operational period. In addition, this section identifies the comments received from the MMO and NE relating to those controls and seeks agreement as to the approach to be taken, or otherwise requests an explanation of the necessity for any amendments to what has been provided in the DML contained in the draft AQUIND Interconnector DCO (Application Document Reference: 3.1).

4.2. CONTROLS FOR CABLE PROTECTION

4.2.1. It is proposed that cable protection measures can be controlled through the DML and controlling documentation conditioned within the DML as follows;

- Schedule 15, Part 2, Condition 4(1)(c) requires a Cable Burial and Installation Plan to be submitted to and approved by the MMO prior to construction, which must include details of;
  - (iii) controls to prevent cable protection laid during construction reducing navigable depth to intolerable levels to ensure existing and future safe navigation; and
  - (iv) proposals for monitoring cables and cable protection during the operation of the Proposed Development which includes a risk based approach to the management of unburied or shallow buried cables.
- Schedule 15, Part 2, Condition 10(3) requires that within 3 months of completion of construction, survey data is to be submitted to the MMO confirming final clearance depths over cables and cable protection.
- Schedule 15, Part 2, Condition 11 requires the production of a Cable Burial Management Plan and post installation survey results to be submitted to and approved by the MMO following completion of construction which must include;
  - As built plans showing location of marine cables and cable protection;
  - details of proposed frequency and extent of future cable burial surveys;
  - details and justification for the installation of any additional cable protection; and
  - proposals for monitoring cables and cable protection during operation which includes a risk based approach to the management of unburied or shallow buried cables.

Condition 11 (3)[6] also allows the document to be updated from time to time subject to the approval of the MMO. In addition, it is anticipated the plan will be capable of review as specified within it, for instance following cable burial surveys, installation of additional cable protection or periodically as required.

4.2.2. These requirements and controls would regulate the permitted licensed activities detailed in Schedule 15, Part 1 of the DML. The permissible design parameters for the Proposed Development discussed above, and which would not be able to be exceeded, are provided at Schedule 15, Part 2, Condition 1 of the DML.

4.2.3. In outlining the above, it is hoped that a clear response has been provided to the comment made by the MMO in paragraph 7.39 of the MMO RR, that reference to 'additional cable protection' within Condition 11 (1)(c) only relates to that being laid during operation in connection with the maintenance and repair activities, up to the maximum amount of cable protection permissible in accordance with the conditioned design parameters.

4.2.4. In Section 1 of NE's '*draft paper on Cable Protection'*, NE advises that a condition be applied to all DMLs with wording as (or similar) to the below;

(1) Not more than 4 months following completion of the construction phase of the authorised scheme, the undertaker must provide the MMO and the relevant statutory nature conservation bodies with a report setting out details of the cable protection used for the authorised scheme.

(2) The report must include the following information—

(a) location of the cable protection;

(b) volume and area of cable protection; and

(c) any other information relating to the cable protection as agreed between the MMO and the undertaker.

4.2.5. It is the Applicant's position that the wording of this proposed condition is similar to the wording that is already provided within Schedule 15, Part 2, Condition 11 'Cable Burial Management Plan' and therefore, the content of the 'report' being requested within the above proposed condition would in effect be contained within the Cable Burial Management Plan.

4.2.6. **Does the MMO and NE agree that Condition 11, in addition to the restrictions provided by the conditioned design parameters, is appropriate to control the laying of additional cable protection during operation in connection with maintenance and repair activities? If not, then please explain what alternative mechanism would be preferred and why such alternative mechanism is considered to be necessary in the circumstances?**

4.2.7. **If content with condition 11 in principle but not with specific wording, could the MMO and/or NE provide advice on what wording amendments they would wish to see within**

[6] Please note the numbering in the draft DML is incorrect and this is to be amended to Condition 11(2) in due course.

Condition 11 and explain why such amendments are considered to be necessary in the circumstances?

4.2.8. Paragraph 7.46 of the MMO RR proposes;

Schedule 15 Deemed marine licence Part 2 – Cable Protection Activities. The MMO would require that a condition be included to submit a post construction phase cable protection plan must be submitted to the MMO for approval a minimum of 6 weeks prior to the commencement of any cable protection works required during the operational phase.

4.2.9. It is unclear whether this is proposed as a requirement over and above the condition that is proposed by NE as discussed in paragraphs 4.2.4 and 4.2.5 of this document. Again, we consider that Schedule 15, Part 2, Condition 11 Cable Burial Management Plan provides the appropriate mechanism for the submission and approval by the MMO of information relating to the deployment of assessed cable protection post consent.

4.2.10. **Could the MMO advise on whether they anticipate a requirement for a Cable Protection Plan over and above what is already proposed in Condition 11 of the DML and if so, why one is considered to be necessary in the circumstances?**

4.3. MAINTENANCE CONTROLS

4.3.1. Paragraph 7.4 of the MMO RR requests that an outline Operations and Maintenance Plan is provided as part of the Application.

4.3.2. Given that the majority of maintenance works, under Section 81 of MCAA (as identified in paragraph 2.1.5 of this document and in Schedule 15, Part 2, Condition 13 of the DML) do not require a licence, this requirement is considered to be onerous, and previous discussions with NE have confirmed that this is not considered by them to be required.

4.3.3. It is the Applicant's position that Condition 13 adequately identifies and controls the scope of maintenance activities in connection with the Proposed Development, such that no further plans are necessary to be submitted and approved in connection with the maintenance of the Proposed Development during its operation.

4.3.4. **Please could the MMO advise that they are satisfied that an outline Operations and Maintenance Plan is not required? If not, can the MMO please advise why one is considered to be necessary in the circumstances?**

5. MMO COMMENTS AND NE DRAFT GUIDANCE ON CABLE PROTECTION

5.1. PERIOD WITHIN WHICH CABLE PROTECTION ACTIVITIES MAY BE UNDERTAKEN

5.1.1. In Section 3 of NE's '*Appendix 1 draft paper on Cable Protection'*, NE supports longer term licences during operation for laying of additional cable protection in areas outside Marine Protected Areas ('MPAs'). This is supported for a period of up to 10 years during operation. It has been communicated via email (see Appendix 5) that the MMO takes a similar position.

5.1.2. As outlined in Section 2.2 of this document, up until October 2019, it had been agreed that extended licencing for a 15 year period during operation for the Proposed Development was considered appropriate. As changes to this advice arrived close to submission of the Application, the worst case parameters to calculate amounts of additional cable protection that may be used during the operational period were based on a 15 year period rather than a 10 year period post construction.

5.1.3. Accordingly, the Application has assessed an amount of rock protection considered to be sufficient in connection with maintenance and repair activities over a 15 year period. The assessments have concluded that no significant effects are predicted to result from the laying of cable protection during the 15 year operational period. In addition, the Proposed Development is not located within any MPAs, and adverse effects on the integrity of MPAs resulting from any indirect impacts from the Proposed Development can be excluded beyond reasonable scientific doubt.

5.1.4. The comments from the MMO discussed in paragraph 3.2.3 of this document agree with our position, that the parameters and the ability to lay cable protection during the operational period should be permitted within the DML.

5.1.5. However, paragraph 7.45 of the MMO RR requests that a '*licence condition be included stipulating that cable protection maintenance activities must not extend for longer than 10 years from the date of completion of cable laying activities'.*

5.1.6. Further, paragraph 7.38 of the MMO RR states;

'The benthic assessment included in the ES will not remain valid for the lifetime of the project and it is recommended that new benthic surveys are undertaken prior to installation of rock protection for cable repairs to ensure that any required mitigation for protected habitats such as Sabellaria reef can be properly secured at the time. Benthic surveys should be carried out every 5 years and the method statement should be agreed with the MMO prior to construction.'

5.1.7. NE's '*Appendix 1 draft paper on Cable Protection'* supports the requirements requested by the MMO, stating that;

'*Data less than 5 years old will be required to support laying of additional cable protection along with descriptions of the seabed habitat and information regarding what cable protection has been laid to date. Justification will need to be made as to why cable protection is necessary considering risk and alternatives and every effort made to minimise amounts required to reduce environmental impact*.'

5.1.8. The Applicant acknowledges that the MMO and NE are wanting to ensure the validity of the assessments within the ES in supporting the laying of cable protection in the future, recognising that an ES will not be valid indefinitely and where the baseline changes such that the assessment is no longer valid, additional information and an additional or varied licence will be required to permit such activities.

5.1.9. The MMO (in Appendix 5) stated that the reasoning behind the 10 year approach is to recognise that environmental conditions change over time and that there may be a long period of time elapsed between baseline surveys informing the Application and when cable protection is laid during the operational period of a project. Whilst the Applicant understands the rationale e.g. ensuring that the EIA is still valid, it is not immediately clear why a 10 year period has been chosen, nor why the licence would expire at 10 years if it can be demonstrated that the EIA is still valid beyond this period.

5.1.10. It is the Applicant's position that if the baseline used for the purposes of the assessment of the Proposed Development can be shown to remain valid at a point post construction, and if any additional works remain within the parameters assessed within the ES, the effects assessed within the ES will remain valid such that there is not a need to limit the continuation of activities which have been assessed to be appropriate. In those circumstances, there does not seem to be a logical basis for the 10 year period, or indeed for any particular period of years to be identified as the cut-off date for when a new licence will be required to permit the continued laying of cable protection measures during the operational period.

5.1.11. In this case, it is the Applicant's position that it should be permissible to lay additional cable protection in connection with maintenance and repair activities where it can be evidenced (using appropriately up to date data) that the benthic baseline has not materially changed, on the basis that the impacts associated with that licensed activity have already been assessed. Therefore, provided the data show that there is no material change to the baseline benthic environment and that the effects associated with the proposed activity remain within the scope of the effects assessed in the environmental statement, there should not be a 10 year expiration on the ability to lay cable protection in connection with maintenance and repair activities.

5.1.12. It is recognised that for this approach to be appropriate, controls would need to be included requiring data of less than 5 years old to be available to confirm the baseline remains in conformity with that used for the purpose of assessment in the locations where the laying of additional cable protection is proposed, to support the laying of additional cable protection in that particular location. In this regard, the requirement for additional benthic investigation to be undertaken once the existing baseline data is greater than 5 years old is acknowledged,

and if subsequent benthic investigations confirm that the relevant part of baseline has not changed beyond what was already assessed it is unclear why there should be a 10 year expiration on the ability to lay cable protection giving rise to already assessed impacts determined to be acceptable, as evidenced by the DML being granted permitting those activities.

5.1.13. **Can the MMO and NE please advise on why the permission to deploy cable protection post construction would expire at 10 years and a new licence application would be needed if it is evidenced that the baseline had not changed during this time, where the maximum assessed worst case parameters had not been reached and the effects fall within the scope of those assessed in the ES?**

5.2. THE EXTENT OF REQUIRED FUTURE SURVEYS

5.2.1. The baseline survey submitted with the Application has already characterised the benthic habitats on the seabed along the whole of the UK Marine Cable Corridor. The assessments have considered how susceptible to change the identified habitats/biotopes are. Most benthic sedimentary habitats shouldn't change too much over time and are not sensitive to impacts from cable protection deployment.

5.2.2. It is considered that a requirement for discrete benthic surveys seems to be captured pragmatically within the Viking Link marine licence (Activities 1.6 and 2.4 of Marine Licence L/2018/00075/1), where survey requirements are on a case by case basis in relation to the works needing to be undertaken (which would be the case regardless of whether a benthic survey was undertaken at 5 year intervals anyway), rather than stipulating a frequency and extent for surveys irrespective of the works that will be required.

5.2.3. In this regard, condition 5.2.35 of the Viking Link licence states that;

'The cable protection maintenance activities must not extend for longer than 15 years from the date of completion of the cable laying activities.'

5.2.4. Condition 5.2.39 states that

'*A post construction phase cable protection plan must be submitted to the MMO for approval a minimum of 6 weeks prior to the commencement of any cable protection works required during the operational phase unless otherwise agreed by the MMO. The plan must include:*

(i) a cable protection method statement;

(ii) a desk based environmental assessment including but not limited to: features of historical interest and features of nature conservation interest;

(iii) locations and timings; and

(iv) details of notifications to other sea users

***The requirement to undertake any additional surveys to inform the environmental assessment must be agreed with the MMO**.*

Each instance of cable protection works must not commence until written approval for that instance of cable protection works is provided by the MMO.

5.2.5. Any laying of cable protection in connection with maintenance and repair works is to be located within the existing Marine Cable Corridor, where the habitats present have been characterised, and where pre-construction ground condition surveys will be undertaken to identify an physical changes to the seabed (amongst other things) and allow the Marine Cable Route to be finalised within the Marine Cable Corridor.

5.2.6. Accordingly, it is considered that the data required to inform revalidation of the benthic baseline would be sufficient if collected from the geophysical survey and either drop down video ('DDV')/Remotely Operated Vehicle ('ROV') for visual inspections during engineering surveys used to monitor the cables and investigate for maintenance/repair works.

5.2.7. Data collected from the geophysical survey and ROV would likely be more detailed for a specific repair/maintenance event than a general swathe bathymetry survey and any new emerging reef features, which are the sensitive features at greater risk, could be detected from geophysical data (and further characterised by DDV if required). It is noted that this type of data has been requested previously by the MMO in the marine licence issued to Greater Gabbard OWF after placing cable protection down along their export cable L/2020/00067/1.

5.2.8. In the meeting held on the 26 March 2020, the MMO stated that the benthic survey requirement at 5 years should encompass the whole of the UK Marine Cable Route. However, historically, when cable protection is dealt with through repeated applications for marine licences, it is disproportionate to require repeated post construction benthic surveys of the *whole* development area where the proposed works relate to a much smaller area. It is therefore, proposed that further surveys of the benthic baseline should only be required for the discrete areas where additional cable protection works are proposed to be undertaken. This focussed survey area should only cover the zone of influence of cable protection works, and the zone of influence of works could be agreed with the MMO through the Cable Burial Management Plan for example. Whether the baseline has changed or not beyond that zone of influence is not relevant to the works in question.

5.2.9. In this regard we note that within the Greater Gabbard marine licence, data is only requested by the MMO post installation from the area of cable works (L/2020/00067/1; Condition 5.2.4) rather than the whole development area of the wind farm.

5.2.10. It is the Applicant's position that a benthic survey of the whole Marine Cable Route is disproportionate and should not be required.

5.2.11. **In the context of the above information, can the MMO and/or NE please advise on their position and rationale regarding extent of surveys and survey methods required?**

5.3. CABLE PROTECTION PLAN REQUIREMENTS

5.3.1. Finally, there are two remaining comments from the MMO RR relating to additional condition requirements for cable protection.

5.3.2. Comment 7.44 states;

'*Schedule 15 Deemed marine licence Part 2 – Cable Protection Activities. The MMO would require that conditions be included to notify the relevant authorities (MMO and UKHO) and local mariners before commencement of the activities. Additionally, a condition should be included to notify the MMO following completion of these activities.*'

5.3.3. Comment 7.47 states;

'Schedule 15 Deemed marine licence Part 2 – Cable Protection Activities. The MMO would require that a condition be included so that unless otherwise agreed with the MMO, the licence holder must submit International Hydrographic Office (IHO1A) approved sonar or Multi Beam Echo Sounder survey data to the MMO and UKHO, confirming the final clearance depths over the protected cables.'

5.3.4. The Applicant considers that both conditions would relate to the cable protection activities during operation (post construction). It is our position that these controls would be included within the Cable Burial Management Plan that is already proposed in Condition 11.

5.3.5. **What is the MMO's position on incorporating these measures (as described in 5.3.2 and 5.3.3) within the control documentation proposed in Condition 11 (i.e. in the Plan that requires MMO approval and implementation and compliance thereafter)? If the MMO does not agree with an approach of including this detail in Condition 11, please can they explain why it is not considered that they can be included in the controlled documentation in Condition 11 that is approved by the MMO (in consultation with the statutory nature conservation body)?**

6. SUMMARY

6.1.1. This document has been produced by the Applicant to set out and clarify proposals relating to the laying of cable protection for the Proposed Development for consultation with the MMO and NE.

6.1.2. Section 1 provides a summary of the Applicant's understanding of the MMO and NE's view on the marine licencing requirements for cable protection in relation to the Proposed Development based on discussions to date with both.

6.1.3. Section 2 of this document provides a summary of the consultation undertaken to date on this matter and the marine licencing requirements for cable protection activities during construction and operation of the Proposed Development.

6.1.4. Section 3 of this document clarifies the current proposals for cable protection parameters and how they have been assessed for the Proposed Development in the ES.

6.1.5. Section 4 presents the current proposals for controls for cable protection within the DCO and seeks clarification from the MMO and NE on this matter in the context of their feedback provided within their respective RRs.

6.1.6. Section 5 of this document confirms agreement with the MMO of including laying cable protection during operation of the Proposed Development within the DCO. This section also presents contextual information to inform further discussion on the appropriate controls for laying of cable protection during operation. In addition, the Applicant's position with regards the length of the licensing period for cable protection and the requirement for additional surveys to revalidate the benthic baseline is presented in the context of the current requirements proposed by the MMO and NE within their RRs.

6.1.7. The Applicant would be grateful if the MMO and NE could respond to the specific questions that have been posed in this document in order to progress discussions towards agreement on permitting the laying of cable protection during operation and the appropriate mechanisms of control.

APPENDIX 1: MMO ADVICE JULY 2018

[redacted]

From: [redacted] (MMO) [redacted]@marinemanagement.org.uk>
Sent: 12 July 2018 10:36
To: [redacted]
Cc: [redacted] (MMO); [redacted] (MMO)
Subject: RE: Aquind Marine Licence / deemed marine licence requirements eia/2018/00011

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Do not Delete

Dear [redacted],

Regarding your email of 10 July, please find my response below to the matters you raised. (Also, regarding any meeting next month, just to let you know I'll be on leave from Monday 6 August for two weeks, returning on the 20th, but with limited availability towards the end of that week and the following week).

I would caveat that the advice below is based on the information provided in the Aquind Scoping Report (EIA/2018/00011) and other supporting information submitted. The MMO will confirm all licensable activities related to the project once a fully submitted marine licence application or Development Consent Order (DCO) application is received. Any marine licence application or DCO application must include details of all proposed activities within the UK Marine Area.

It remains the developer's responsibility to satisfy themselves as to whether a marine licence is required for an activity.

Exempt Submarine cables
Section 81 (5) of the Marine and Coastal Access Act 2009 (MCAA) states the following:

81 (5) "For the purposes of this section a submarine cable is "exempt" unless it is a cable constructed or used in connection with any of the following—
(a)the exploration of the UK sector of the continental shelf;
(b)the exploitation of the natural resources of that sector;
(c)the operations of artificial islands, installations and structures under the jurisdiction of the United Kingdom;
(d)the prevention, reduction or control of pollution from pipelines."

I can confirm that the MMO considers that the proposed Aquind Interconnector submarine cable, as described in the Aquind Scoping Report, may be considered as an exempt submarine cable, as defined in section 81 (5) of MCAA.

Laying of exempt Submarine cables (inshore and offshore)
Section 81 (1) & (2) of MCAA states:

81 Submarine cables on the continental shelf
(1)Nothing in this Part applies to anything done in the course of laying or maintaining an offshore stretch of exempt submarine cable.
(2)Where subsection (1) has effect in relation to part (but not the whole) of an exempt submarine cable—
(a)the appropriate licensing authority must grant any application made to it for a marine licence for the carrying on of a licensable marine activity in the course of laying any inshore stretch of the cable, and
(b)nothing in this Part applies to anything done in the course of maintaining any inshore stretch of the cable.

Section 81 (1) confirms that the laying of an exempt submarine cable beyond the 12 nautical mile limit (offshore), does not require a marine licence. If the Aquind Submarine cable is considered as an exempt cable (as defined in

Section 81 (5) of MCAA), a marine licence will not be required for the laying of the Aquind cable beyond the 12 nautical mile limit.

Section 81 (2) (a) confirms that a marine licence must be granted for the laying of an exempt cable within the 12 nautical mile limit (inshore).

Specific Cable laying activities (inshore and offshore)
The MMO considers that the following activities, as described in section 3.1.6 of the Aquind Scoping Report, may be considered as cable-laying activities if carried on in relation to the laying of an exempt cable (as defined in Section 81 (5) of MCAA):

- clearance dredging and side casting,
- the use of rock and mattressing to fill gulleys and reduce freespans.

As the act of laying an exempt cable beyond the 12 nautical mile limit (offshore) does not require a marine licence, I can confirm that these activities would not require a marine licence beyond the 12 nautical mile limit, when carried on in relation to the laying of an exempt cable (as defined in Section 81 (5) of MCAA). A marine licence is required for the above activities if carried on within the 12 nautical mile limit.

Maintenance activities
Section 81 (1) and (2)(b) of MCAA confirms that a marine licence is not required for maintaining an exempt cable either within or beyond the 12 nautical mile limit, i.e. inshore and offshore. If the Aquind Submarine cable is considered as an exempt cable (as defined in Section 81 (5) of MCAA), I can confirm that a marine licence would not be required for its' maintenance, either within or beyond the 12 nautical mile limit.

Maintenance activities can include:

- the removal and replacement of defective cable sections,
- removal of sediment to undertake repairs,
- the removal / replacement of cable protection to access the cable.

I would advise however that you should seek advice from the MMO on a proposed maintenance activity method, and submit a supporting detailed method statement, so that we can provide advice as to whether it is exempt from requiring a marine licence. It remains the developer's responsibility to satisfy themselves as to whether a marine licence is required for an activity.

Decommissioning
Section 81 of MCAA relates only to the laying and maintenance of an exempt cable, and I can therefore confirm that decommissioning of a cable, both within and beyond the 12 nautical mile limit, requires a marine licence.

NSIPs and marine licensable activities
I can confirm that the provisions set out in Part 4 (Marine Licensing) of MCAA still apply when considering whether an activity is a marine licensable activity, regardless as to whether it is considered under the Planning Act 2008 as a Nationally Significant Infrastructure Project (NSIP). Specifically, the provisions set out in sections 66 and 81 of MCAA will still apply if the Aquind project is determined by the relevant Secretary of State to be an NSIP. Any DCO application should include full details of all proposed activities in the UK Marine Area.

I can also confirm that a deemed marine licence functions exactly as a marine licence, and that the MMO is responsible for enforcing, post-consent monitoring, varying, suspending, and revoking any deemed marine licence as part of a DCO.

Further information regarding NSIPs and the MMO can be found here:
https://www.gov.uk/government/collections/marine-licensing-nationally-significant-infrastructure-projects

Finally, thank you for confirming that the EIA will consider impacts both within and beyond the 12 nautical mile limit.

Please don't hesitate to contact me if you'd like to discuss this email.

Regards

[redacted]

[redacted] I Marine Licensing Case Officer I Her Majesty's Government – Marine Management Organisation.
Direct Line: [redacted] | [redacted]@marinemanagement.org.uk I Lancaster House, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH
Website | Twitter | Facebook | Linkedin | Blog |Instagram | Flickr | YouTube | Google+ | Pinterest

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From: [redacted] (MMO)
Sent: 11 July 2018 08:58
To: [redacted]@naturalpower.com>
Cc: [redacted] (MMO) [redacted]@marinemanagement.org.uk>; [redacted]@naturalpower.com>; [redacted] (MMO) [redacted]@marinemanagement.org.uk>
Subject: RE: Aquind Marine Licence / deemed marine licence requirements

Dear [redacted],

Thanks for your email, I'm looking forward to meeting Ross again, and working with yourselves.

I'll be drafting a response to the question raised in your email, and will be back in touch in due course.

Regards

[redacted]

[redacted] I Marine Licensing Case Officer I Her Majesty's Government – Marine Management Organisation.
Direct Line: [redacted] | [redacted]@marinemanagement.org.uk I Lancaster House, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH
Website | Twitter | Facebook | Linkedin | Blog |Instagram | Flickr | YouTube | Google+ | Pinterest

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From: [redacted] [redacted]@naturalpower.com]
Sent: 10 July 2018 15:19
To: [redacted] (MMO) [redacted]@marinemanagement.org.uk>; [redacted] (MMO) [redacted]@marinemanagement.org.uk>
Cc: [redacted] (MMO) [redacted]@marinemanagement.org.uk>; [redacted]@naturalpower.com>
Subject: Aquind Marine Licence / deemed marine licence requirements

Dear [redacted]

How are you? Hope you are keeping well. Just an update for you that we are expecting the NSIP decision at the beginning of next month and we are trying to schedule a meeting with PINS (if the decision is favourable for NSIP

APPENDIX 2: MEETING MINUTES SEPTEMBER 2018

Natural Power Meeting Minutes			
To	Aquind Ltd; WSP; MMO	Date	06/09/2018
From	Natural Power	Ref.	1178416

Meeting Minutes

Meeting held at: Marine Management Organisation (MMO) Offices, Newcastle
Date: 06/09/2018
Time: 14:00 – 16:00 hrs
Attendees:

[redacted] (MMO)
[redacted] (MMO)
[redacted] (MMO)
[redacted] (Natural Power)
[redacted] (Natural Power)
[redacted] (WSP)
[redacted] (WSP)
[redacted] (WSP)
[redacted] (WSP)

1. Introduction:

WSP provided an update on the project. WSP also explained the DCO process and high-level programme for the project up to the submission of the application (Q3 2019) and the broad timescales for key elements of the DCO process up to determination (Q4 2020).

2. Statement of Community Consultation:

The MMO now have the Statement of Community Consultation (SoCC) for informal consultation and have passed this onto the MMO coastal office in Portsmouth for their review. Initial feedback is that there are some current omissions in our stakeholder list. These include:

a) Southampton ABP Port and Search and Rescue (SARs)
b) Eastney Harbour
c) Selsey Harbour
d) Chichester and Bembridge Harbour
e) Ferry operators (DFDS)
f) Tanker operators (Exxon Marine)

The MMO also stated that they have a couple of local fisheries organisations that should be engaged. The MMO stated that they were content with locations and timings of public events and with the deposit locations of consultation material.

The MMO will provide a formal advice note on the SoCC with further detail this month.
The MMO to provide contact details for Martin Cooper and Newhaven Fish Society as soon as possible to feed into fisheries meetings invites.
Natural Power requested that the fisheries information is sent on soon as the fisheries meetings will be held week after next.

3. Changes to project since scoping:

Natural Power and Chris talked the MMO through the changes to the marine elements of the project since scoping, primarily;

a) Refinement of the marine cable corridor;
b) Use of dredging equipment to clear sandwaves and large ripples;
c) HDD works in Langstone Harbour

Natural Power outlined that the consultations with Natural England and the Harbour Master in Langstone Harbour about point c) and stressed that no HDD works will occur within the marine environment as the drilling will all be underneath the harbour area. Accordingly, Natural Power considers that the deemed Marine Licence (dML) will not include this activity (although the ES will give consideration of it) but that this will be covered in the main by the onshore assessments as the plant used and HDD exit and entry holes will be above Mean High Water Springs (MHWS). The MMO

agreed with this approach and confirmed that the proposed approach to HDD under Langstone Harbour is exempt from requiring a marine licence.

Sand wave clearance including using dredging techniques (e.g. trailer suction hopper dredger) and potential locations for dredging to occur was discussed. Natural Power also stated that plume modelling would be undertaken to assess the impact of this activity. The MMO confirmed that dredged material cast to the side of the dredged area was not considered to require a separate marine licence if kept within the redline boundary/cable corridor (as has been the case previously for other projects). The MMO will double check to see what the case would be for if dredged material is disposed of elsewhere within the cable corridor. Dredging and side-casting were considered as part of cable laying activities which would only require a license within the 12 nm territorial waters limit. As work progress on developing the description of this works and the modelling, further discussion will be had.

The MMO will advise on whether disposal of dredged material at another part of the marine cable corridor as opposed to side casting would still be considered a cable laying activity.

4. Key outcomes from scoping:

Natural Power then discussed the key outcomes of scoping with the MMO;

a) A **Water Framework Directive Assessment** will be undertaken as per requested by the MMO.
b) A **Contaminated Sediments Assessment** (using previously collected samples) will be undertaken as per requested by the MMO and in consultation with Cefas.
c) Natural Power asked for clarification on the last paragraph in Section 4.5.2 of their Scoping Opinion relating to noise and marine mammals. Is the advice requesting that we undertake a full assessment on this element (noise from seabed preparation, route clearance, cable laying and burial and vessel noise) or is it sufficient that we simply providing justification for not undertaking a full assessment? Natural Power stressed that the latter option seems a more proportionate approach.

The MMO will double check point c) above, and respond with clarification.

d) **UXO:** The EPS risk assessment for UXO survey works and any licence requirement for further investigative or works on UXO removal will be undertaken separately to the DCO application. The MMO understood and are content with this approach.
e) **EMF:** The group had a discussion on the potential of impacts from Electromagnetic Fields (EMF). The MMO explained that they have dealt with an application recently where an Inshore Fisheries and Conservation Agency (IFCA) have raised the issue of EMF. It is likely that this is for HVAC cables however, it is worth taking a look at this.

The MMO will forward on the reference to that application for our information, they will also forward on other guidance (Ospar report and MMO OWF Monitoring Recommendations Report) to assist us.

f) Natural Power queried the request from Cefas to scope in assessment of chemical contamination and accidental spills as Natural Power considers that this is better dealt with through pollution prevention protocols and environmental management plans. The MMO agreed with this approach.

5. Items for discussion:

Natural Power then discussed the following items;

a) **PINS**: Meeting tomorrow to seek advice on whether to re-scope wit PINS or not. The MMO thought that if re-scoping was undertaken, then their response to PINS would be unlikely to change significantly from the MMO's response provided in June 2018. The MMO asked to be informed of PINS' response to re-scoping discussions.
b) **Licensable Activities**: Natural Power went through the advice received from the MMO on licensable activities and non-licensable activities (received on 12/07/2018 via email) to confirm understanding. In relation to cable protection which requires a marine licence application within the 12 nm limit and beyond, the MMO stated that if we assessed the suitability of cable protection measures along the corridor and also could provide an indication of amount of use of protection for maintenance (i.e. propose a reasonable contingency for this), then it is possible to incorporate a mechanism via licence condition whereby a certain percentage of protection can be placed along the corridor when required for maintenance over a 15 year period after cable installation. If this can be achieved then it can reduce the requirement for applying for a marine licence for laying cable protection each time it might be needed for maintenance (or repair) activities.

The MMO will pass on draft licence condition for this (and other draft / standard licence conditions) to Natural Power.

c) **The newer topics within the 2017 EIA regulations.** The MMO agreed with the approach that the topics for population and human health, material assets and air quality, are more relevant for onshore chapters. Biodiversity can be dealt with in our biological assessments and the topic of disasters and accidents can be dealt with through signposting to the navigation risk assessment and shipping/navigation chapter.

d) **Cumulative Assessment:** Natural Power ran through the approach to cumulative assessment in accordance with PINS advice note. The MMO agreed with the proposed approach.

e) **Transboundary Assessment**: Natural Power ran through the approach to transboundary assessment in accordance with PINS advice note. The MMO agreed with the proposed approach.

f) **Decommissioning:** Natural Power ran through the approach to deal with decommissioning (i.e. high-level summary description in the ES, licence condition for "a decommissioning plan (to be agreed with TCE) to be submitted six months prior to commencement of decommissioning" and then separate decommissioning marine licence application prior to decommissioning). The MMO agreed with the proposed approach.

g) **Habitats Regulation Assessment (HRA):** Natural Power ran through the approach to deal with HRA. The approach will be to undertake consultation meetings with Natural England. The MMO stated that although they did not need to be included in all meetings they will need to be kept abreast of any mitigation/monitoring that falls out of this process. Natural Power agreed to keep the MMO informed of HRA developments and the approach to engagement with the MMO on HRA matters under review. They also have Defra group meetings each month where the MMO and Natural England can discuss matters.

h) **Deemed Marine Licence:** Natural Power and the MMO agreed that drafting the dML should begin soon. The MMO and Natural Power also agreed that a skeleton Statement of Common Ground should be worked up during the pre-application process where possible

The MMO will share standard conditions with Natural Power to begin this process.

i) **DCO fees and charges** - MMO fees increased in 01/09/2018 and therefore the fee estimates for the meeting and the SOCC consultation need to be re-accepted as they are slightly more expensive. Moving forward Natural Power asked for clarity on when the MMO will charge during the DCO process as it is currently not clear.

The MMO will review and revert back to Natural Power on this matter.

j) The MMO requested that Natural Power provide an indicative summary of the potential number of meetings that will be need with the MMO during the pre-application process as well as any potential remote advice required such that they can build up one fee estimate for Aquind to accept rather than producing a fee estimate for every single consultation item. They will only ever charge on time spent so the fee estimate is only an indication.

Natural Power to provide an estimate of consultation requirements with the MMO moving forward.

APPENDIX 3: MEETING MINUTES – JANUARY 2019

Natural Power Meeting Minutes			
To	AQUIND Ltd; WSP; HSF; MMO	Date	09/01/2019
From	Natural Power	Ref.	1187035

Meeting Minutes

Meeting held at: Marine Management Organisation (MMO) Offices, Newcastle
Date: 09/01/2019
Time: 14:00 – 16:00 hrs
Attendees:

[redacted] (JF: MMO)
[redacted] (MQ: MMO)
[redacted] (SL: Natural Power)
[redacted] (RH: Natural Power)
[redacted] (CL: WSP)
[redacted] (MJ: HSF)
[redacted] (KM: Cefas)

1. Natural Power (NP) provided an update on outcomes of PINS Scoping Opinion.
2. HSF provided an update on the status of the Statement of Community Consultation (SoCC). The MMO will be provided with the final SoCC once it is ready for publication, anticipated to be within the next couple of weeks.
3. Natural Power provided an update on preparation of the Preliminary Environmental Information Report (PEIR). HSF advised on what documentation would be published for the Section 42 consultation. There was a quick discussion in relation to timescales and DCO application submission dates.
4. MQ queried build out timescales. CL confirmed that in so far as it is possible the intention is for the development to be constructed during all seasons. In addition, CL confirmed an iterative approach to discharging conditions will be sought in the Deemed Marine Licence (discussed in more detail below.)

The MMO are to be provided with two memory sticks containing the PEIR consultation documentation. These can be sent directly to Mark Qureshi. One copy will be for the MMO and one for Cefas. The Section 42 Consultation letter/pack needs to be sent to the MMO generally to ensure it is properly documented on the marine case management system. A copy of this is to be sent to MQ and JF by e-mail in addition.

DREDGING AND DISPOSAL

5. Discussion on dredging and disposal activities in reference to the MMO's recent advice in scoping response.

   The MMO consider the use of mass flow excavation, plough displacement and water jetting methods of displacement as side -casting which is an exempt activity (s81 of Marine and Coastal Access Act 2009) falling under cable laying activities. Use of a trailing suction hopper dredger where the material is removed from the marine environment and is then deposited back on the seabed is based on the current information considered as disposal and will be a licensable activity (rather than exempt as part of laying an exempt cable). Suggestion that the deposited material may be used for construction (e.g. as backfill or infill), and therefore not be an act disposal was discussed. WSP/Natural Power to submit written request via MCMS for advice from Cefas on dredge/disposal matters ~~MMO to consider further and discuss with Cefas once questions posed in writing.~~

6. It is likely that any areas of disposal will need to have a characterisation report presented within the ES as a separate chapter or technical appendix. The characterisation report would not be required to be as in-depth as for a regular disposal site and should be proportional to the nature and scale of the project. AQUIND would be seeking for a closed disposal site that was only for use of the Project.

WSP/Natural Power to produce a short document outlining the disposal options being considered and send through to the MMO for Cefas. Cefas to advise on what level of characterisation required.

MMO to provide guidance relating to disposal site characterisation and an example of a characterisation report for information to NP (e.g. for no port / harbor dredge and disposal applications.

7. NP summarised the current approach being taken to identifying areas within the Marine Cable Corridor for disposal. WSP and NP are undertaking a short constraints mapping exercise to identify areas suitable for disposal which have the least engineering or environmental constraints. These locations will then feed into the ongoing modelling to assess the potential impacts from the sediment plume to inform design and impact assessments. This will also feed in to the site characterisation process.

NP to issue the parameters and results of the constraints exercise to MMO (Cefas) and NE for feedback.

LICENSABLE ACTIVITIES

8. Discussion and run through of previous advice on what activities are exempt and what are considered as licensable activities. Previous advice still stands except that clearance and dredging of the sandwaves/large ripples are considered exempt but the disposal of the dredged material on the seabed is licensable.
9. MMO is in agreement with the approach of including an agreed % of ~~10%~~ rock placement contingency to cover potential requirement for rock placement within the Marine Cable Corridor during repair and maintenance activities. The Environmental Statement (ES) needs to be clear on the maintenance activities.

Commented [QM(1)]: [redacted], I think we need further discussion on the actual % of rock placement, and how the figure is derived, eg surveys etc.

FLOTATION PITS

10. AQUIND is currently considering the use of flotation pits as a construction method within the nearshore area of the Proposed Development. WSP provided a brief description of typical flotation pits.
11. NP/WSP are considering the best way to approach this, whether it is possible to include this within the current DCO application timelines or whether this will be better dealt with through a standalone marine licence. The MMO would, in principle, be in agreement with the approach whereby the use of flotation pits was dealt with through a standalone marine licence if it is not included within the DCO application. The MMO expressed that they would be keen that if this was the case, their potential use is made transparent within any consultation with local communities, and sufficient time was provided for consideration of the application to be determined prior to the proposed works.
12. The group discussed the experiences of Rampion Offshore Wind Farm (where a standalone licence for floatation pits was submitted) and the MMO advised that NP/WSP look to their marine licence for flotation pits to see the level of assessment required. The requirement for consideration of the works as part of EIA, Habitats Regulation Assessment (in close proximity to Solent Maritime SAC) and Water Framework Directive was discussed.

It was agreed that NP/WSP would produce a scope of works document in relation to the use of flotation pits for the Proposed Development. The MMO can then provide advice on this document through the Defra Family Working Group on the scope of works and the method of assessment to be presented within the final ES.

NP to pass on Environment Agency contact details to MMO.

CONTAMINATED SEDIMENTS

13. NP queried the MMO reference within their scoping response to using the MMO dredging and disposal guidelines. NP are not sure that these are appropriate for this scheme but are more appropriate for dredging of harbours, channels etc. Discussion with the MMO that it might be more relevant to the laboratory that undertakes the sample analysis., ~~the lab needs to be validated by Cefas although exceptions have been made.~~The MMO recommends that the chemical analysis conforms to the MMO dredge disposal laboratory guidelines .

NP to pass on the name of the laboratory who has undertaken the analysis thus far to Cefas. Cefas will also review the contaminated sediment survey report within the PEIR.

DEEMED MARINE LICENCE

14. The MMO agreed that HSF should provide the draft deemed marine licence (DML) and that they would rather receive a well worked up draft DML, as opposed to a draft which is more a template of standard conditions.
15. The MMO highlighted that the DML should capture all licensable activities up to Mean High Water Spring (MHWS) and acknowledged some works were exempt.
16. It was agreed that the HDD works being undertaken within Langstone Harbour would not need to be included within the DML. *Post meeting note: HSF review of the definition of "UK marine area"[1] confirms this includes the bed and subsoil of the sea, with the definition of "sea" including "the waters of every estuary, river or channel, so far as the tide flows at man high water spring tide", and further, the location where those works are proposed are within the South Inshore Marine Plan Area. Noting the above, confirmation is required from the MMO for why those HDD works in that location would not be licensable.*

~~16.~~ Post meeting note: MMO will require further information regarding actual location of the proposed HDD works, in relation to above or below mean high water springs. Depending on the location, the MMO considers that the use of HDD may be considered as exempt under Article 35 of the 2011 Marine Licensing (Exempted Activities) Order 2011 (as amended). This states that activities associated with the construction or operation of a bored tunnel that are carried out

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[1] See Section 42 of the Marine and Coastal Access Act 2009.

wholly under the seabed do not need a licence. The MMO advises that if the activity does fall under Article 35, advance written notification to the MMO of the activity would be required.

17. MMO ~~KPI for reviewing~~review of a draft of the DML is likely to ~~be 4-6~~be up to 6 weeks. HSF are to send drafts to all relevant consultees and MMO will liaise with Defra Family consultees before returning comments on the draft DML.

The MMO will review the PEIR with a view to providing advice on what mitigation/monitoring they would expect for this type of Project within their Section 42 consultation response.

NP will keep MMO informed about the progression of drafting the DML and when they are likely to seek MMO review of the DCO/DML.

DCO CONSULTATION FEES

18. The DCO fee structure is still under review within the MMO.

MMO to provide an update on the review next week.

MMO will provide an informal ball park estimate of time/costs of consultation for discrete pieces of work. This will allow NP to track the use of the formal fee estimate agreed with the MMO and AQUIND.

APPENDIX 4: PERCENTAGE CONTINGENCY RATIONALE

[redacted]

From: [redacted]
Sent: 09 September 2019 12:49
To: [redacted]
Cc: [redacted]
Subject: AQUIND Rationale for Non Burial Contingency

Importance: High

Dear [redacted],

In the PEIR, AQUIND had proposed an additional 10% non-burial contingency to our worst case scenario to try and prevent incremental increases of additional cable protection through separate licences over the operational period of the project. Through our consultations on the draft deemed Marine Licence, we have been advised that the MMO seek that this contingency would only cover the first 15 years of the operational period rather then the whole lifetime of the project (40 years). You have also requested the rationale behind the contingency. I took this back to the project design engineering team who have undertaken the necessary calculations and investigations below to explain the reasoning behind the contingency. As always, we advised that they assume a worst case scenario and we think that the approach below seems reasonable. Similar to the PEIR, each technical topic is including this contingency into their worst case parameters for assessment.

I would be grateful if you and your colleagues could review the rationale below and let me know if the MMO is content with this approach. If you do not agree with this approach then we would be grateful if you could let us know why and what better approach could be taken?

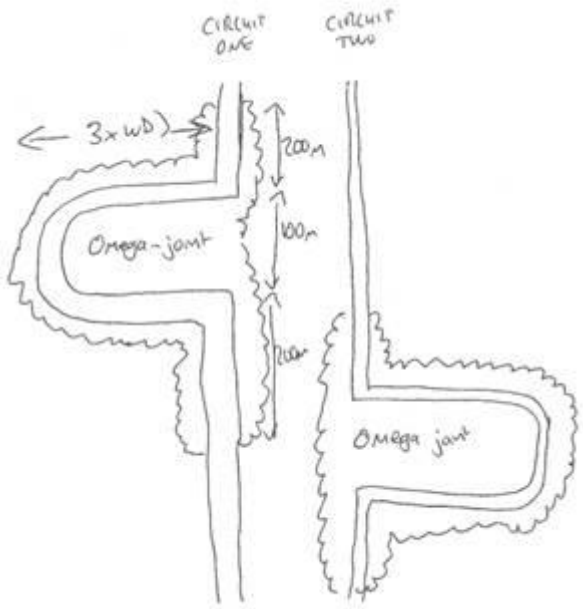
Many thanks and kind regards, [redacted]

AQUIND Interconnector – Remedial Rock Placement, First 15 Years Life

It is assumed that a repair might be required once every 10-12 years (over the 40-year life span of the Proposed Development) then 4 repairs may be required. Whilst these might be spread evenly over the lifetime, i.e. every 10 years, they equally could all happen in the first 15 years, therefore a worst case of 4 faults in the first 15 years is assumed. These could be internal faults, resulting from cable manufacture, materials or defects resulting from installation, or external faults resulting from factors such as fishing gear and ships anchors.

Information collected by SSE, and presented by Tang *et al.* (2018)[1] suggests that joints are 3 times more likely to cause failure than cable through faulty installation. The length of the Proposed Development, existence of 4 cables within the two pairs, and the unknown number of joints at this stage suggest an allowance for at least one additional joint failure should be made.

If the repair occurs in deeper water (worst case) then typically, 3 x water depth (3 x 65m) of cable is required to be recovered plus some additional lengths to allow for slack management for repair works to be undertaken. This would amount to approx. 1,100 m of cable to typically be recovered and re-layed for each repair. Worst case assumes that this length would not be able to be reburied and would require non-burial protection.

	Omega joint assumed to be 3x water depth long i.e. 3x65 m in each leg, plus 100 m wide. Transition for cable from surface to re-trenched is assumed to be 200 m. Assume both pairs are damaged in worst case (eg anchor drag). Therefore one fault equates to: 200 m + (3 x 65 m) + 100 m + (3 x 65 m) + 200 m for each circuit, totalling 890 m per circuit. Four faults = 4 x 2 x 890 m = 7,120 m One additional joint fault assumed the replacement of one circuit = 890 m Total for repairs = 7,120 + 890 = 8,010 m

Whilst the Cable Burial Risk Assessment has assumed that cable burial will be below a designated stable seabed level, at this stage the stable seabed level estimate is based on measurements from a single survey. A more refined estimate will be achieved after the pre-installation survey. Therefore, for maintenance activities within areas where the cable is buried in seabed that is more mobile it is more likely that in-service inspections will identify areas as requiring remedial protection (i.e. sandwaves and large ripples are currently present for up to 4,200 m of the route). If it is assumed that approx. 10% of the cable within these areas may require remedial protection (420 m), assessed through each of the regular surveys. The survey frequency is not defined yet, but for this purpose is assumed to be after 6mo, 1yr, 2yr, 3yr, 5yr, 10yr and 15yr. Therefore 7 surveys, each identifying 420 m, results in a further 2,940 m of non-burial protection may be required if the cable cannot be reburied.

Accordingly, if the values for repair and maintenance are summed then this additional length of non-burial protection amounts to 10,950 m or approx. 10% of the total cable route (total length of cable route is *c.* 109 km). Accordingly, the worst-case scenario parameters presented include an additional 10% contingency for non-burial protection which is also assessed within the technical topic chapters.

[1] Tang, W, Brown, K, Flynn, D and Pellae, H. (2018). “Integrity Analysis Inspection and Lifecycle Prediction of Subsea Power Cables”, 2018 Prognostics and System Health Management Conference, Chongqing, China, 2018

[1] Wenshuo Tang, Hugues Pellae, David Flynn and Keith Brown. "Integrity Analysis Inspection and Lifecycle Prediction of Subsea Power Cables", Prognostics and System Health Management Conference , Chongqing, 2018

[1] Wenshuo Tang, Hugues Pellae, David Flynn and Keith Brown. "Integrity Analysis Inspection and Lifecycle Prediction of Subsea Power Cables", Prognostics and System Health Management Conference , Chongqing, 2018

APPENDIX 5: MMO RESPONSE TO PERCENTAGE CONTINGENCY RATIONALE

[redacted]

From: [redacted] @marinemanagement.org.uk>
Sent: 11 October 2019 08:30
To: [redacted]
Cc: [redacted]
Subject: RE: AQUIND Rationale for Non Burial Contingency

Follow Up Flag: Follow up
Flag Status: Flagged

Hi [redacted]

Thanks for your email and apologies for delay in my reply.

Regarding the cable burial contingency approach, it looks satisfactory. However, it would be helpful if you could separate out the 10% (and stated in metres) into the following categories:

- Amount of cable protection to be laid during construction of the project (construction period being defined as ending when developer notifies MMO of end of construction).
- Amount of cable protection required for maintenance of that laid during construction (maintenance being defined as replacing protection that was laid during construction) .
- Amount of additional/ new cable protection that may be required to protect assets that become exposed during operation of the cable.

Separating the amount into the 3 categories will provide a picture as to what will be required over and above initial construction. For Interconnector cables, maintenance isnt licensable, however it would be helpful to have the overall picture.

The reasoning behind the 10 year approach is to recognise that environmental conditions can change over time, and there will likely already be a good period of time elapsed from the date of any baseline surveys informing an application, to the point of consent. So reducing the licensing period gives MMO and SNCBs some assurance. The conditioned surveys would provide up to date data, and inform the need for further ground truthing if necessary.

As post construction surveys to assess the asset condition are already planned, hopefully these would be able to provide the environmental data required, and therefore not too onerous for the developer.

The above approach is likely to be taken for all cable-related projects, but will take into account project design differences between sectors.

I hope this provides more clarity, happy to discuss.

Regards

[redacted] I Marine Licensing Case Manager I Her Majesty's Government – Marine Management Organisation.
Direct Line: [redacted] | [redacted]@marinemanagement.org.uk I Lancaster House, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH
Website | Twitter | Facebook | Linkedin | Blog |Instagram | Flickr | YouTube | Google+ | Pinterest

From: [redacted] [redacted]@naturalpower.com]
Sent: 02 October 2019 14:04
To: [redacted]@marinemanagement.org.uk>; [redacted]@naturalpower.com>
Cc: [redacted]@marinemanagement.org.uk>; [redacted]
[redacted]@marinemanagement.org.uk>
Subject: RE: AQUIND Rationale for Non Burial Contingency

Hi [redacted]

The initial email was really to get some feedback on our rational for the cable burial contingency, as this was previously requested by the MMO at previous meetings? Therefore, please can you confirm whether what we provided below is satisfactory for explaining where the contingency volumes came from? I think this is distinct and separate to the to how best to licence cable protection post construction.

Regarding the approach to licensing post construction cable protection, given we will be submitting the DCO application in less than month I expect we will proceed on the basis that we have assessed and will be seeking permission for cable installation for up to 15 year post consent. This is in line with advice provided by the MMO over 12 months ago, and is consistent with MMOs approach for recent interconnector licences which have included this when granting consent. Once submitted, it will allow us to focus discussions about DML conditions including any concerns about post construction installation and the mechanics/ operationally of how certain conditions will work, what will be included in various documents (including cable burial management plans) etc.

A couple of initial thoughts though following your email which might be worth considering for future discussion:

- What is the rational for reducing from 15 to 10 years?
- What surveys are you referring to? And for what purpose would we be submitting these results to you i.e. what are you approving?

Regards

[redacted]

[redacted]
Principal Environmental Consultant
naturalpower.com
renewable energy consultants

tel: +44 1661 897 670
mobile: [redacted]
email: [redacted]@naturalpower.com

From: [redacted]@marinemanagement.org.uk>
Sent: 01 October 2019 14:43
To: [redacted]@naturalpower.com>; [redacted]@naturalpower.com>
Cc: [redacted]@marinemanagement.org.uk>; [redacted]
[redacted]@marinemanagement.org.uk>
Subject: RE: AQUIND Rationale for Non Burial Contingency

Hi [redacted],

Thanks for your email. Following the workshop the we are finalising our position with NE regarding cable protection.

I'm not sure at this stage when our position will be finalised and a communication issued. However, I can confirm that the MMO definition of maintenance does not include the laying of new cable protection in new locations. Cable

APPENDIX 10

MMO RESPONSE TO CABLE PROTECTON TECHNICAL NOTE

Marine Management Organisation

Marine Licensing
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Newcastle upon Tyne
NE4 7YH

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F +44 (0)191 376 2681
www.gov.uk/mmo

[redacted]
Natural Power
The Greenhouse
Dalry
Castle Douglas
DG7 3XS

Our reference: DCO/2018/00016

Email Only

27 August 2020

Dear [redacted],

RE: AQUIND Cable Protection Technical Note

Thank you for sending us the AQUIND Cable Protection Technical Note on 24 June 2020. The MMO have been in consultation with Cefas and Natural England on this document and have answered the questions posed by the applicant below.

2.1.11.
It would be useful if the MMO could advise as to whether the Applicant's understanding of the MMO's understanding of the legislative requirements is correct, and provide further rationale for any areas of disagreement?

The MMO is content with the Applicant's understanding of the legislative requirements.

3.2.4.
MMO are generally content with your reasoning for not wanting to provide units of volume, but as a minimum you must at least provide details of the unit area and height above the seabed.

4.2.6. and 4.2.7.
Does the MMO and NE agree that Condition 11, in addition to the restrictions provided by the conditioned design parameters, is appropriate to control the laying of additional cable protection during operation in connection with maintenance and repair activities? If not, then please explain what alternative mechanism would be preferred and why such alternative mechanism is considered to be necessary in the circumstances?

If content with condition 11 in principle but not with specific wording, could the MMO and/or NE provide advice on what wording amendments they would wish to see within Condition 11 and explain why such amendments are considered to be necessary in the circumstances?

The MMO is in agreement that Condition 11, in addition to the restrictions provided by the conditioned design parameters, is appropriate to control the laying of additional cable protection during operation in connection with maintenance and repair activities.

4.2.10.
Could the MMO advise on whether they anticipate a requirement for a Cable Protection Plan over and above what is already proposed in Condition 11 of the DML and if so, why one is considered to be necessary in the circumstances?

MMO are content that Condition 11 satisfies this and no further plan is required.

4.3.4.
Please could the MMO advise that they are satisfied that an outline Operations and Maintenance Plan is not required? If not, can the MMO please advise why one is considered to be necessary in the circumstances?

MMO are satisfied that an outline Operations and Maintenance Plan is not required.

5.1.13. Can the MMO and NE please advise on why the permission to deploy cable protection post construction would expire at 10 years and a new licence application would be needed…

MMO review licence lengths on a case by case basis. The MMO have consulted with Cefas and Natural England and are content for the licence to have a length of 15 years provided that all the appropriate controls are in place including the following (as set out in Appendix 1 draft paper on Cable Protection'): 'Data less than 5 years old will be required to support laying of additional cable protection along with descriptions of the seabed habitat and information regarding what cable protection has been laid to date. Justification will need to be made as to why cable protection is necessary considering risk and alternatives and every effort made to minimise amounts required to reduce environmental impact,'

5.2.11.
In the context of the above information, can the MMO and/or NE please advise on their position and rationale regarding extent of surveys and survey methods required?

MMO are content with the applicant's proposal to only undertake surveys in the discrete areas where additional cable protection works are proposed to be undertaken. This logic is based on a scientific need to ensure that any marine features that are likely to be affected by proposed cable protection works are surveyed, described and the significance of potential impacts on them subsequently assessed.

5.2.13.
Can the MMO and NE please advise on why the permission to deploy cable protection post construction would expire at 10 years and a new licence application would be needed if it is evidenced that the baseline had not changed during this time, where the maximum assessed worst case parameters had not been reached and the effects fall within the scope of those assessed in the ES?

MMO review licence lengths on a case by case basis. The MMO are content to extend the licence length to 15 years provided that timely data is supplied in the form of surveys every 5 years.

5.3.5.
What is the MMO's position on incorporating these measures (as described in 5.3.2 and 5.3.3) within the control documentation proposed in Condition 11 (i.e. in the Plan that requires MMO approval and implementation and compliance thereafter)? If the MMO does not agree with an approach of including this detail in Condition 11, please can they explain why it is not considered that they can be included in the controlled documentation in Condition 11 that is approved by the MMO (in consultation with the statutory nature conservation body)?

5.3.2 - The MMO would require that conditions be included to notify the relevant authorities (MMO and UKHO) and local mariners before commencement of the activities. Additionally, a condition should be included to notify the MMO following completion of these activities. This is to ensure safe navigation. The MMO may not be consulting with local mariners or the local MMO coastal office on the document provided in Condition 11, therefore it is important that it is made clear to other users of the sea that work is commencing and when it has finished. This also enables our enforcement team to be aware of activities taking place at the coast.

5.3.3 – The MMO requests a separate condition stating that unless otherwise agreed with the MMO, the licence holder must submit International Hydrographic Office (IHO1A) approved sonar or Multi Beam Echo Sounder survey data to the MMO and UKHO, confirming the final clearance depths over the protected cables. Whilst it is acknowledged that Condition 11 includes the requirement for "as built plans" to be submitted, it is important that the applicant sends the final approved data to the UKHO. This is the responsibility of the applicant rather than the MMO through consultation.

Your feedback

We are committed to providing excellent customer service and continually improving our standards and we would be delighted to know what you thought of the service you have received from us. Please help us by taking a few minutes to complete the following short survey (https://www.surveymonkey.com/r/MMOMLcustomer).

If you require any further information please do not hesitate to contact me using the details provided below.

Yours Sincerely,

[redacted]
Marine Licensing Case Officer

APPENDIX 11

MMO FEEDBACK RECEIVED 18 NOVEMBER 2020

Marine Management Organisation

Marine Licensing
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE4 7YH

T +44 (0)300 123 1032
F +44 (0)191 376 2681
www.gov.uk/mmo

[redacted]
Email only

Our reference:
DCO/2018/00016

18 November 2020

Dear [redacted]

AQUIND Interconnector – Herring Mitigation and Sampling Condition Queries

Please find below the MMO's response to the points raised within the November 2020 iteration of the Statement of Common Ground (SoCG) following consultation with The Centre for Environment, Fisheries and Aquaculture Science. The MMO will include a summary and reference to this letter in our response to the Statement of Common Ground (SoCG).

Herring Mitigation (point 4.1.4 of the SoCG)

1. MMO have recommended a temporal and spatial restriction to cable preparation and installation works for the Aquind Interconnector Cable. The recommendation was made to mitigate impacts to spawning herring and their habitat for the Downs herring population in the English Channel.

2. The recommendation was made following a review of an interactive PDF map presented by the applicant which was requested by Cefas fisheries advisors in order to spatially and temporally define the areas where the highest concentrations of herring spawning activity is likely to occur in relation to the Aquind Interconnector cable route.

3. The interactive map contained a suite of data to support the assessment including broadscale maps of known herring spawning grounds (Coull *et. al* (1998) and Ellis *et al*. (2012)), International Herring Larval Survey (IHLS) data for years 2007 – 2017 and Particle Size Analysis (PSA) data collected from the Aquind cable route.

4. The applicant has requested further justification for the proposed mitigation and believes that the MMO and its advisors have misunderstood parts of the assessment within the Application, i.e. that the key Downs herring spawning ground depicted by Coull *et al.* (1998) and Ellis *et al.,* (2012) were in fact in French waters not the UK.

5. MMO recognise that the section of Aquind cable which crosses through the herring spawning ground depicted in Coull *et al.* (1998) and Ellis *et al.* (2012) is located within French waters.

6. This publication was written over 20 years ago using historic data that preceded the date of publication. Whilst the maps are still relevant today, they aim to provide broadscale information on known historical spawning and nursery grounds in British waters.

7. Coull *et al.* (1998) make the following important caveats regarding interpretation of the spawning maps:

   - '*Spawning areas for most species are not rigidly fixed'*.
   - The maps '*should not be seen as rigid, unchanging descriptions of presence or absence'*.
   - '*Spawning distributions are under continual revision*.'
   - '*The species spawning and nursery area maps are constantly revised in the light of the latest information.*'
   - '*In any given year the sensitivity of the presence of spawners in a particular area may change sufficiently to allow licence conditions to be redefined'*.

8. Ellis *et al.* (2012) provided a revised version of the spawning and nursery ground maps which included additional data collected during ichthyoplankton surveys and groundfish surveys. This technical report states: '*This report describes the sources, spatial and temporal coverage and limitations of the data, including where there are data gaps. Using the maps in isolation may result in misrepresentations of the data,.*'

9. Accordingly, it is important to recognise the limitations of the data within Coull *et al.* (1998) and Ellis *et al.* (2012). These publications provide a 'broadscale' indication of the general location of spawning and nursery grounds, but do not delineate spawning or nursery grounds. Much more recent IHLS data are now available compared to those used to inform Coull *et al.* (1998) and Ellis *et al.* (2012).

   <u>IHLS Data</u>

10. The IHLS provides the most recent and accurate data available on herring spawning activity, based on the locations of herring larvae <11mm. The IHLS surveys are carried out annually and the data used to inform this assessment have been collected and analysed by scientists with expertise in their fields of ichthyoplankton taxonomy and fisheries science, therefore we have a high level of confidence in these data.

11. The IHLS data can be mapped over a timescale, e.g. a 10-year period, to provide an overall view of the spatial extent larval densities, as has been done by the applicant for the years 2007 - 2017. The IHLS data for 2007-2017 mapped by the Applicant show that the highest larval densities (1000.1 – 7131 per m^2) typically occur in ICES sub-rectangles 29E98, 29F01 and 29F02 from mid-December to mid-January. The Aquind cable passes through these ICES sub-rectangles within UK territorial waters.

12. The interannual variations in the location and density of herring larvae can been seen by interrogating individual years of mapped IHLS data. This demonstrates that herring do not return to the precise same location to spawn each year.

13. IHLS data have been used as the best available evidence to inform the need for mitigation for numerous offshore activities including windfarms and aggregate dredging, subsea cables and offshore disposal, therefore it is considered highly appropriate data for use in the assessment for Aquind Interconnector.

PSA Data

14. The Particle Size Analysis (PSA) data acquired through the collection of seabed sediments provides ground-truthed data of the specific sediment types within the Aquind cable corridor. The PSA data show that all sediment samples collected between the 50km point and 110km point of the cable route in UK territorial waters are classified as '*preferred*' herring spawning substrate when following the method described in MarineSpace (2013).

15. PSA data are routinely used in combination with IHLS data to determine herring spawning habitat suitability for various offshore anthropogenic activities including offshore windfarm developments and aggregate dredging. This is primarily because IHLS and PSA data are the most recently available data and therefore provide the highest level of confidence.

16. Herring spawning substrate typically consists of gravel and coarse sand and forms part of a highly mobile benthic environment, therefore we must accept that there will be periodical shifts in the exact location of suitable spawning substrate. Accordingly, localised variations in the suitability of spawning substrate must be considered, particularly when utilising the historical maps in Coull *et. al* (1998) and Ellis *et al*. (2012).

MMO Position

17. For the reasons provided above, we maintain our position that the recommended spatial and temporal mitigation is necessary for the Aquind project in order to protect the Downs herring stock and the substrate on which the herring spawn. The recommendation has been based on best and most recently available evidence and is proportionate to the scale and duration of the works.

18. MMO have endeavoured to be proportionate in our recommended mitigation, to ensure that any burden incurred by the applicant does not unreasonably outweigh the risk to fisheries receptors. In summary, the proportionality of our recommendation comprises the following:
    - We have recognised that not all of the cable route is suitable as a herring spawning ground.
    - We have used the PSA data and IHLS data to enable us to propose the mitigation spatially.
    - We were also able to refine the mitigation temporally by interrogating each of the three data sets (December, Early January and Late January IHLS surveys) in order to establish the peak of larval densities for the cable route

area.

- We have also recognised that, unlike aggregate dredging, which occurs in the vicinity of the cable route and is subject to more stringent seasonal dredging restrictions, the cable laying activities will be a single event of disturbance, rather than the continuous one associated with aggregate extraction.

Sampling Condition (point 4.1.1 of the SoCG)

1. The MMO agree with the assumption that previous comments concerning data validity and timeliness concerns the dredging activity at the HDD site. Previous Cefas advice (Joe Perry, 10th January 2020) agreed that sediment in the offshore areas were sufficiently coarse so as not to warrant chemical characterisation. On this basis, MMO do not think recommending chemical characterisation of offshore sediments after 5 years would be proportionate to the risk posed.

2. Secondly, MMO welcome the applicant's acknowledgement that unforeseen delays can bring about situations where additional evidence may be required. Stipulation of such a condition will give some provision to responding to any such delays if they are to occur. MMO have no further comments to make in this regard.

3. The wording of the condition MMO recommend merges two common conditions stipulated for dredge and disposal licences, and reads:

   "Should dredging at the HDD location not be conducted by 2022, the licence holder must obtain sediment sampling advice from the MMO at least 6 months prior to the end of 2022, to determine whether new sediment analysis is required to dredge from XXX 2023 onwards.

   Reason: To ensure material remains suitable for disposal at sea."

4. The wording "from XXXX 2023 onwards" should correspond to the actual date of the original sampling. For example, if the sample date was May 2018, then the wording for the condition should read "from May 2023 onwards" and so forth. Similarly, the wording "6 months prior to the end of 2022" should correspond to 6 months before 5 years from the date of sampling. For example, if the sample date was May 2018, then the wording should read "by December 2022". The reason listed is the standard reason recommended by Cefas.

Yours Sincerely,

[redacted]

[redacted]
Marine Licensing Case Officer

APPENDIX 12

MMO FEEDBACK RECEIVED 21 DECEMBER 2020

[redacted]

From: [redacted] [redacted]@marinemanagement.org.uk>
Sent: 21 December 2020 11:46
To: [redacted]
Cc: [redacted]; [redacted]; [redacted]
Subject: FW: AQUIND latest position_Items for discussion outstanding

Importance: High

Dear [redacted]

Please find the MMO's comments to the SOCG below.

Kind regards
[redacted]

[redacted] | Marine Licensing Case Manager | Marine Licensing | Her Majesty's Government
Marine Management Organisation
Lancaster House | Hampshire Court | Newcastle upon Tyne | NE4 7YH
[redacted] |☎ 020822 57691 | [redacted]

Working hours: I work Tuesdays, Wednesdays and Thursdays. I also work alternate Mondays and will be working on the 9th and 23rd November and 7th and 21st December 2020.

From 1 January 2021 the rules for trading with the EU will change. Find out how you can prepare your business on GOV.UK/Transition

Our MMO Values: Together we are **Accountable, Innovative**, **Engaging** and **Inclusive**
Website Blog Twitter Facebook LinkedIn YouTube

During the current health emergency, the Marine Management Organisation is continuing to provide vital services and support to our customers and stakeholders. We are in the main working remotely, in line with the latest advice from Government, and continue to be contactable by email, phone and on-line. Please keep in touch with us and let us know how we can help you https://www.gov.uk/mmo

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From: [redacted]@naturalpower.com>
Sent: 08 December 2020 18:54
To: [redacted]@marinemanagement.org.uk>; [redacted]@marinemanagement.org.uk>
Cc: [redacted]@marinemanagement.org.uk>; [redacted]@hsf.com>; [redacted]@naturalpower.com>
Subject: AQUIND latest position_Items for discussion outstanding
Importance: High

Dear [redacted]

In light of the MMO's recent feedback received on 26 November, I would like to respond to some of the matters that remain under discussion in the hope that some of these items may be closed out soon. This table below condenses information in Table 4.1 of the SoCG but also includes all of the other DML items under discussion to reflect the very latest positions and for us to propose some amendments to the DML for your consideration. The **bold black** text is the MMO's latest feedback on matters (26/11/2020). The text in green highlights our latest position as of this afternoon. I would be very grateful if you could respond to our latest information as soon as possible and then I can endeavour to submit a revised SoCG for Deadline 6 with some of these matters agreed (hopefully) or at least progressed.

With thanks and kind regards, [redacted]

Ref	Description of Matter	AQUIND's Position	MMO's Position
Contaminated Sediments			
MMO 4.1.1	The MMO has advised that should dredging not commence within 5 years from the date of sampling, additional contaminant analysis may be required and recommends this as a licence condition (paragraph 7.35 of RR-179).	The Applicant understands the purpose and principle behind the request to seek advice from the MMO as to whether contaminated sediment sampling is required at the HDD location if works are to be undertaken 5 years beyond the date of the original samples analysis. However, the samples collected to inform the baseline are very low level of contaminants in the location of the HDD and therefore considered low risk. The wording for the licence condition proposed by the MMO is still under review by the Applicant and, as stated by the MMO, still relates to dredge and disposal licences. In latest feedback contained within the SoCG, the MMO has stated the following; "*The applicant specifically requests examples of where this requirement has been imposed for operations of a similar nature. Cefas does not document this information in such a way that it can be answered within the scope of this consultation. When pre-application sampling advice is provided by Cefas for marine licence applications, the following caveat is typically included:* *'Cefas will take a pragmatic approach to the requirement of repeat samples in relation to projects where works have not commenced however due to the dynamic nature of the marine environment and the potential for changes in the quantity and quality of sediments, there may be a need for some sediments to be re-sampled and analysed if the project has not commenced within two years of the time of sampling'* ". Whilst the Applicant acknowledges the Cefas advice and the MMO's interpretation of this, we have some concern that it has not been possible to provide examples of how this has been applied to projects of similar nature to our own. It would be helpful if the MMO could provide reassurance to the Applicant that they are taking a consistent approach in this regard across similar projects (e.g. cables/OWF) that include dredge and disposal activities and/or HDD methods.	The MMO provided further information on this matter on the 18th November and in their submission at Deadline 5 (REP5-100). This requirement for sampling is added to all similar applications where analysis of results have been provided and there may be a considerable gap between permitting and construction/implementation/dredging. As results are a snapshot in time, the need for additional sampling always needs to be considered on a case by case basis and at relative time scales to ensure protection of the marine environment. Therefore, the MMO will not be providing examples of other licences where this condition is included, as every licence is different and the MMO makes decisions on a case by case basis. However, the MMO can confirm that where there is considerable lag (3-5 years) or opportunity for contamination of material to occur (spills, anthropogenic input etc.), additional sampling and analysis are often required to ensure decisions made are still properly supported. A low-volume dredge/disposal can be discounted from repeat sediment analysis when it falls under the 500 m^3 exemption threshold. The argument that a low-volume dredge (which is not under 500 m^3) should be discounted from repeat sediment analysis on the basis that it is low volume does therefore not follow: the purpose of repeat sediment analysis is to ensure that decisions are not made using outdated data so as to account for any changes or new inputs into the surrounding environment. The OSPAR guidance gives a threshold for repeat sediment analysis is 3 – 5 years, therefore, the proposed condition is already at the latest end of the date range. Further, contaminant levels obtained previously would have to have indicated that the contamination was below the limit of detection or extremely low for the repeat sediment analysis requirement to be considered not required. In MMO's opinion, the contaminant levels presented do not fit these criteria. It may be worth noting that this condition is not being recommended for the offshore sediments the applicant plans to dredge. The difference between the HDD location sediments and those offshore is that certain assumptions can be made about the offshore sediments, notably, that particle size data have confirmed that they are coarse in nature. This is sufficient justification to not require the need to repeat sediment analysis in those areas, and assumptions about the likely risk to the marine environment can be appropriately made. The proposed works at the HDD location and the sediments in that area are the focus of the repeat analysis as they do not hold the same assumptions and underlying justification as that of the material being relocated offshore. To reiterate comments made previously, the proposed condition is a necessary part of a risk-based approach. Such an approach can be changed according to local context or an individual project's components, however, sufficient justification and/or evidence must be presented to warrant such a change. MMO are not convinced that the evidence that has been proposed for the HDD works is sufficient justification to warrant such a change. All previous comments with regard to this condition should be regarded. Whilst contaminant levels did not preclude the material from disposal at sea at the time of the original assessment, repeat sediment analysis will be considered if deemed necessary due to a lag between the consent and the implementation of the project after five years. Based on this, MMO consider that not stipulating the proposed condition would be inappropriate.
Fish and Shellfish			

Ref	Description of Matter	AQUIND's Position	MMO's Position
MMO 4.1.2	Herring Mitigation	The Applicant is currently reviewing the MMO's latest feedback from 18th November on this matter and will respond in due course.	The MMO provided further written justification on the need for mitigation (i.e. 4 week restriction from 15 Dec to 15 Jan). The MMO has not changed its position on the requirement for a timing restriction.
Underwater Noise MMO RR (RR-179) comment on Underwater Noise in paragraph 8.95			
MMO 4.1.3	Paragraph 8.95	The Applicant has issued an assessment on 26 November 2020 in regard to underwater noise as requested by the MMO. The assessment considered the cumulative noise exposure from vibro hammering in accordance with NOAA 2018 guidance as requested by the MMO.	**The MMO will respond to the Applicant by 09 December 2020.** MMO believe that the Applicant has now presented sufficient evidence to support their assessment and conclude that the risk of significant impact from this activity is likely to be low.
DCO and Deemed Marine Licence - MMO RR (RR-179) feedback on AQUIND's responses to MMO comments on DCO and DML (see most recent Appendix 8 of this SoCG provided by the MMO on 27 August 2020)			
MMO 4.1.4	Paragraphs 7.10 to 7.17 Arbitration and Appeals	The Applicant maintain their position and this will be discussed during ISH1.	The MMO maintains its position.
MMO 4.1.5	Paragraphs 7.25 to 7.27 Arbitration and Appeals	The Applicant maintains its position and this will be discussed during ISH1.	The MMO maintains its position.
MMO 4.1.6	Paragraph 7.32 8 week time limit for determination (Appeals)	The Applicant maintains its position and this will be discussed during ISH1.	The MMO maintains its position.
MMO Responses to ExQ1 (REP1-211)			
MMO 4.1.7	**DCO1.5.18** In dDCO [APP-019] Schedule 15, the Deemed Marine Licence: • Is the definition of cable protection acceptable, especially the reference to 'unlikely'?	[The Applicant amended the definition to the following if this is more acceptable; "*cable protection" means physical measures for the protection of cables principally by use of rock or rock bag/gravel placement and/or concrete/frond mattresses with supplemental use of tubular protection and grout bags*." The Applicant now proposes the following definition to be amended to; *"cable protection" means physical measures for the protection of cables including rock, rock bags and gravel placement, concrete or frond mattresses, tubular protection and grout bags"* In terms of the temporary use of grout bags, the Applicant wishes to highlight that the MMO will be required to approve the deployment of cable protection (during construction and operation) as per licence conditions in the DML including Part 2, Condition 4 Cable Burial and Installation Plan and Cable Burial Management Plan in Condition 11 respectively. .	The MMO agree that 'unlikely' is not a clear term. **The MMO acknowledges that the applicant has updated the definition to a more preferable definition. However, the MMO is concerned with the use of the word "principally" as this brings with it the implication that whilst the majority of the cable protection will be carried out using the materials specified here, other forms of cable protection will be used as long as they are not the main form of cable protection employed. The cable protection that is authorised under the DCO and the associated DML needs to be linked to the cable protection that was assessed under the EIA and the HRA which supported the application. In the phone call on the 19th, it was agreed that the MMO are content for grout bags to be used as a temporary measure. However the MMO requests the applicant to confirm how this is secured in the DML.** The MMO is content with the proposed definition. The MMO acknowledges the Applicant's explanation regarding the approval of cable protection. The MMO would appreciate the applicant highlighting exactly which part of condition 4 and condition 11 will enable the MMO to approve the deployment of cable protection. Providing this is made clear the MMO is in agreement.
MMO 4.1.8	**DCO1.5.19** In the Deemed Marine Licence in the dDCO [APP-019], at Part 1, 10 'Details of Licensed Marine Activities', does the inclusion of the modifier 'likely' add a subjective test and room for argument? Should it be deleted, or the wording changed to make it more precise? The corresponding paragraphs for the authorised development section of the dDCO [APP-019] at Schedule 1 (2) (e) says 'such other works as may be necessary or expedient for the purpose of or in connection with the construction or use of the authorised development and which do not give rise to any materially new or materially different environmental effects from those assessed as set out in the environmental statement.' Would this wording be preferable in the Deemed Marine Licence?	The ExA will be aware that the EIA (IP) Regs require the reporting of 'likely' significant effects on the environment. The wording used reflects the statutory scheme to identify effects, and is drafted as it is on that basis, providing the same level of certainty as the regulations which govern assessment. Part 1 10 of the DML and Schedule 1 (2) (e) (now (p)) are not corresponding paragraphs. One relates to works, whereas the other relates to amendments and variations of details to be submitted for approval. The ExA will note the corresponding wording is that which is provided at Part 1, paragraph 4 (5) to the DML, with both sets of wording being identical. The ExA will also note the wording in Requirement 25 (2) uses the same wording as is used in Part 1 10 of the DML (and corresponds to it). The Applicant notes that wording of the same effect to that used in the draft Order is used in the recently made Norfolk Vanguard Offshore Wind Farm Order 2020, which	The MMO agrees that 'likely' adds a subjective test and room for argument and therefore ambiguity. The MMO is not content with the use of 'materially' in the proposed wording as this means "new or different in a significant way". Therefore, the MMO proposes the following wording: "Any amendments to or variations from the approved details must demonstrate that the subject matter of the approval sought will not give rise to any new or different environmental effects from those assessed in the environmental statement". **The MMO would appreciate the Applicant explaining the purpose behind Part 1 paragraph 10. The MMO understand that this is in relation to amendments and variations to the approved details. The DML authorises the licensable marine activities listed in Part 1, 2 where they relate to the activities described in Part 1, 3. These appear to be titles of works packages, that are approved via the DCO, and the DCO has the requirement for the need for the details of the works packages to be approved and provided mechanisms to amend these descriptions. The approved details are for projects that are wider than the DML, therefore the MMO would appreciate an explanation on why is there a need to put into the DML Part 1, 10.**

Ref	Description of Matter	AQUIND's Position	MMO's Position
		uses the terminology 'unlikely' and 'materially new' and 'materially different' (see Schedule 9, Part 2, paragraph 4, for example). Noting the Applicant's response to ExA WQ DCO1.5.19 (REP1-091) and that similar wording appears in recently made Orders, it is not considered there is a need to amend the wording included at Part 1, paragraph 10 of the DML at Schedule 15 to the dDCO. The wording used in the Norfolk Vanguard Offshore Wind Farm Order 2020 is as follows: *Any amendments to or variations from the approved plans, protocols or statements must be minor or immaterial and it must be demonstrated to the satisfaction of the MMO that they are unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.* **The Applicant has no issue with the above wording and confirms it will include this wording where the MMO prefer it.** Details will be approved by the MMO pursuant to the DML. It may be necessary to amend the details which have been approved. Part 1 paragraph 10 allows for such amendments to approved details to be made, but when any such amendment to approved details is sought the variation must demonstrate it accords with the ES (i.e. the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those already assessed. Without this wording, there is no ability to make any such minor variations. As such, a provision to this effect must remain in the DCO. The MMO's comments in bold are not fully understood, but it is confirmed nothing in this paragraph would permit a variation of what the works are, as appears to be suggested, and it is not the case that the paragraph has a wider application than the details approved pursuant to the DML, again as appears to be suggested. Paragraph 10 needs to be read with paragraph 9, being the paragraph which confirms what approved details may be amended and to which paragraph 10 then refers.	The MMO note the wording from Norfolk Vanguard Offshore Windfarm Order 2020 (Vanguard). However, this wording used was referring to the plans, protocols and statements that are put to the MMO for approval under condition 14 which are the pre-constructions plans and monitoring plans. Vanguard does not refer to the 'approved details' but plans, protocols and statements. The term 'approved details is not defined in the DML it is a terms used in the main body of the order to refer to the specification of the wider project design. The DML is authorising the carrying on of the 'licensable marine activities' (as per the definition in s66 of MCAA, deposits, removals etc) that are required in relation to the overall construction authorised through the DML and which is to be carried out in accordance with the 'approved design'. If changes are made to the approved details of Works No 6 and 7, but this is not mirrored in the main body of the Order this could be problematic. The MMO suggest that the applicant reviews this and would appreciate an explanation as to what is trying to be achieved through the inclusion of this phrase and what it is intending can be amended and varied.
MMO 4.1.9	**DCO1.5.20** Part 2, Condition 5(2) Is this wording acceptable to the MMO? Could it permit damaging works not in accordance with the EIA?	Condition 5 (2) is clear that where the MMO fails to determine the application for approval it is deemed to be approved. Only where a refusal is issued would the route of appeal then be able to be followed. The Applicant's position regarding the necessity for Part 3 of the DML at Schedule 15 to be included is set out in the SoCG with the MMO (REP1-110). Proposing that a route of Judicial Review is followed to address issues with MMO decision making is wholly inappropriate.	The MMO maintains its position in regard to Arbitration and Appeals.
MMO 4.1.10	**HAB1.8.10** A 'worst-case' construction programme has been assumed in the HRA [APP-491] for both the marine and onshore works. Should this be secured through the DML in the dDCO [APP-019]? At present, the DML sets out the need for an agreed programme at condition 4(1)(b) but this is not referenced to the HRA assumption.	Please refer to the Applicant's response to ExA WQ HAB1.8.10 at Deadline 1 (REP1-091). Necessary, controls are provided for within the dDCO in relation to time and seasonal sensitivities. Noting the above, it is not necessary for further Requirements to be included in the Order or conditions included in the DML requiring the programme for the works to be in accordance with the indicative programme used for the purpose of the assessment. The worst-case likely significant effects have been assessed and controls included in the dDCO ensure the required mitigations apply. The purpose of submitting and approving a construction programme to the MMO is so that they are aware of when the works are proposed to be carried out and the timeframes for this. This is not required in any way to mitigate impacts. The Applicant maintains this position. There is no precedent that the Applicant is aware of where the assumed construction programme used for assessment is sought to be secured. Permissions and licences are time limited in respect of their implementation and the point at which the permission is lost if development is not commenced is therefore secured. This is the appropriate control that already applies in this regard. The Applicant will not in any circumstances accept an unprecedented condition requiring works to be undertaken	**The MMO is in agreement. The HRA has assessed a worst-case construction programme, but this includes terrestrial and marine works and so this should be secured through the DCO. The plan required under the DML condition 4(1)(b) is about providing the MMO with the finer details of the works that will be carried out under the DML before they start and therefore the MMO is content that the plan does not reference the HRA.** To confirm, the MMO is in agreement with the applicant.

Ref	Description of Matter	AQUIND's Position	MMO's Position
		in accordance with the assumed programme used for assessment purposes. Any such condition is wholly unnecessary and would be unduly restrictive.	
MMO 4.1.11	**ME1.10.9** In relation to paragraph 7.30 of the MMO Relevant Representation [RR-179], is there adequate assessment of additional cable protection during both laying and operation set out in the ES?	The Applicant now proposes the following wording to secure 5 year data timescales used to inform the justification of the requirement for additional cable protection within the DML as requested by the MMO although the location of this wording within the DML will be confirmed by the Applicant in due course; "…*details and justification for the installation of any additional cable protection to be informed by survey data less than 5 years old, unless agreed with the MMO, in the location/s where the laying of additional cable protection is proposed;"* The Applicant will remove paragraph 4(5), as the minor development to which it may relate is considered to already be captured by paragraph 4 which confirms that such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised development and which fall within the scope of the work assessed in the environmental statement is permitted.	The MMO is content that the DML will contain the cable protection conditions rather than a separate marine licence. Within the Cable Protection Technical Note the MMO had requested that "data less than 5 years old will be required to support laying of additional cable protection along with descriptions of the seabed habitat and information regarding what cable protection has been laid to date. Justification will need to be made as to why cable protection is necessary considering risk and alternatives and every effort made to minimise amounts required to reduce environmental impact". Can the applicant please identify where this is secured in the draft DML? **However, the MMO is unclear about the purpose of the DML Part 1, 4(5) permitting any "other works as may be necessary or expedient" and there is some concern that it could introduce scope for additional cable protection to be added without the necessary marine licence being sought.** **The MMO would like the Applicant to clarify the purpose of this provision.** **In the meeting on the 19th November, the applicant confirmed that the "other works" would be minor ancillary works. The MMO have requested that the applicant review this condition to clearly state that these are minor works.** The MMO appreciates the proposed wording. The MMO would like to see the condition securing the need to provide descriptions of the seabed habitat and information regarding what cable protection has been laid to date. This is to ensure that the presence of ephemeral species that may not have been present at baseline surveys are identified. The MMO is content for this condition to be placed where the applicant sees fit, providing we are in agreement that it's purpose is to ensure that if additional cable protection is required, data less than 5 years old must be provided along with a description of the seabed habitat and justification for the cable protection. The MMO proposes the following wording: "details and justification, including a description of the seabed habitat and information regarding what cable protection has been laid to date, for the installation of any additional cable protection to be informed by survey data less than 5 years old, unless agreed with the MMO, in the location/s where the laying of additional cable protection is proposed." With regards to Part 1,4(5), the MMO welcomes its removal. However the MMO would appreciate an explanation on what Part 1, 4 is intended for. It is the MMO's understand that this is intended to 'authorise' any licensable marine activities which are not undertaken in relation to works Nos. 6 and 7 but which would be further associated development. However the wording does not appear to create or deliver that authorisation. The MMO recommend that this is reviewed.
MMO 4.1.12	**ME1.10.18** In relation to paragraph 6.6.4.10 of the ES [APP-121], Schedule 15 Part 2 of the dDCO (the DML) [APP-019] and the Atlantic cable crossing protection, are the parameters assessed appropriate and can reliance be placed on the Applicant's assessment of significance?	The Applicant proposes that rather than include this item in Part 2, paragraph 1 which would mean that the current parameters listed would need to be amended so that there is no double counting (and the details of which currently match the parameters as reported in all of the assessments and mitigation documentation), that additional text is added to Part 1, Paragraph 4(1) as follows; *(1) cable protection, including the Atlantic Cable Crossing cable protection (pre-lay berm, 100 m x 30 m and post-lay berms of approximately 600 m x 30 m) covering a maximum footprint of 37,800 m^2.* Further, the Applicant is content to amend Part 2, Condition 11 to include provision for details of scour/erosion around the Atlantic Cable crossing, and the justification for any additional protection which may be required. The Applicant proposes the following wording to be included in Condition 11 as subparagraph:	The MMO is content that the Applicant has acknowledged our request to define the length and area of protection required at the Atlantic Cable Crossing and is content that the applicant proposes to include this in Part 1, Paragraph 4(1). The MMO notes that Applicant is content to amend Part 2, Condition 11 to include provision for details of scour/erosion around the Atlantic Cable Crossing, and the justification for any additional protection which may be required. The MMO awaits for proposed wording from the Applicant. The MMO is content with this.

Ref	Description of Matter	AQUIND's Position	MMO's Position
		(c) details of scour/erosion around the Atlantic Cable crossing described in Schedule 15, Part 1, Paragraph 4(1)….	
MMO 4.1.13	**ME1.10.19** In relation to paragraph 6.6.4.42 of the ES [APP-121], Schedule 15 Part 2 of the dDCO (the DML) [APP-019] and the proposals for HDD, are the parameters assessed appropriate and can reliance be placed on the Applicant's assessment of significance?	**See response (Item MMO 4.1.7) above to DCO1.5.18.**	Providing grout bags are a temporary measure as detailed in the Applicant's response to the MMO, the MMO is content with the methods of non-burial protection for the cable. However, the MMO asks the applicant to confirm where this is secured in the DML. See response above (Item MMO 4.1.7)

[redacted]
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