



AQUIND Limited

AQUIND INTERCONNECTOR

Statement of Common Ground (Marine)
between AQUIND Limited and Environment
Agency

The Planning Act 2008

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AQUIND Limited

AQUIND INTERCONNECTOR

PINS REF.: EN020022

DOCUMENT: STATEMENT OF COMMON GROUND (MARINE)

DATE: JULY 2020

DOCUMENT

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Date	25/07/2020
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Date	30/07/2020

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1. INTRODUCTION

1.1. PURPOSE OF THIS DOCUMENT

- 1.1.1.1. This Statement of Common Ground ('SoCG') has been prepared with the Environment Agency ('EA') to show where agreement has been reached with AQUIND Limited ('the Applicant') during the pre and post Development Consent Order ('DCO') application consultation and in the course of the DCO Examination.
- 1.1.1.2. This SoCG has been prepared by the Applicant and EA in respect of the marine aspects of the Proposed Development, collectively referred to in this SoCG as 'the parties'. A separate SoCG has been prepared by the Applicant and EA in respect of the onshore aspects of the Proposed Development.
- 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 Government's guidance entitled "Planning Act 2008: examination of applications for development consent" (26 March 2015). Paragraph 58 of that guidance explains the basic function of SoCGs:

"A 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."

- 1.1.1.4. This SoCG comprises a record of agreement which has been structured to reflect topics of interest to EA on the AQUIND Interconnector DCO Application ('the Application'). Topic specific matters agreed, not agreed and actions to resolve between EA 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 between the Applicant and EA are clearly indicated. Points that have not been agreed have been the subject of discussion through iterative drafts of the SoCG and wherever possible disagreements between the parties have been resolved. No points of disagreement remain between both parties.

1.2. THE DEVELOPMENT

- 1.2.1.1. This SoCG relates to the Application made by the Applicant to the Planning Inspectorate ('PINS') under the Planning Act 2008 ("Act"). 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 including:

- High Voltage Direct Current ('HVDC') marine cables;
- HVDC underground cables;
- Converter station
- High Voltage Alternate Current ('HVAC') 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 and operation of marine cables that run from Mean High Water Springs ('MHWS') to the UK/France European Economic Zone ('EEZ') 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. A summary of key meetings and correspondence between the parties can be found in Table 2.1:

Table 2.1: Consultation with EA

Date	Form of Contact	Summary
February 2018	Scoping Opinion Request to the Marine Management Organisation ('MMO')	Scoping Opinion received from MMO in June 2018.
24 October 2018 and 23 November 2018	Email	Contacting EA for information/relevant data on migratory fish in the vicinity of the Proposed Development.
March 2019	Section 42 Consultation	Preliminary Environmental Information Report ('PEIR') consultation.
03 April 2019	Email	Dredge and Disposal Summary note provided to EA for comment.
12 April 2019	Email	EA response following review of Dredge and Disposal Summary note.
29 April 2019	Email	PEIR response from EA.
01 July 2019	Email	Draft Deemed Marine Licence ('DML') shared with EA for review.
28 July 2019	Email	Briefing note detailing the Applicant's response to comments received from EA on the PEIR.
31 July 2019	Email	EA comments received on draft DML.
20 August 2019	Email	EA response to the PIER briefing note.
02 September 2019	Email	Provided draft Water Framework Directive ('WFD') assessment for EA review and comment.

Date	Form of Contact	Summary
03 September 2019	Email	Provided draft Habitat Regulations Assessment ('HRA') for EA review and comment.
26 September 2019	Email	EA feedback on draft WFD and HRA.
27 September 2019 and 30 September 2019	Email	Discussion on assessment of potential impacts to Eastney Bathing Waters.
19 February 2020	s. 56 consultation	Relevant Representation (RR) received from EA.
25 March 2020	Email	Applicant response to RR and draft SoCG shared with EA.
25 March 2020	Teleconference	Discussions on EA RR and draft SoCG.
21 April 2020	Email	Updated draft SoCG shared with EA for second review, along with meeting note of teleconference (25/03/2020) and additional information requested in Table 4.1.
07 May 2020	Email	EA provide further feedback on draft SoCG.
18 May 2020	Email	Revised SoCG issued to EA for third review.
8 June 2020	Email	EA provide further feedback on revised SoCG.
03 July 2020	Email	Revised SoCG issued to EA for fourth review.
17 July 2020	Email	EA provide further feedback on revised SoCG.
31 July 2020	Email	Proposed final SoCG issued to EA.

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');
- Marine Water and Sediment Quality;
- Fish and Shellfish;
- Water Framework Directive ('WFD') Assessment;
- Habitats Regulations Assessment ('HRA'); and
- 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 EA during the consultation undertaken to date between the parties. Given the advanced stage of discussions, the EA has no comment to make on any additional matters.

3. MATTERS WHICH ARE AGREED

3.1. INTRODUCTION

- 3.1.1.1. This section of the SoCG describes the ‘matters agreed’ 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 EA;
- marine water and sediment quality. Chapter 7 (Marine Water and Sediment Quality) of the ES (Ref: APP-122);
 - fish and shellfish. Chapter 9 (Fish and Shellfish) of the ES (Ref: APP-124); and
 - cumulative effects. Chapter 29 (Cumulative Effects) of the ES (Ref: APP-144).
- 3.1.1.5. Tables 3.1 to 3.4 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;
- WFD Assessment (Ref: APP-372); and
 - HRA Report (Ref: APP- 491)
- 3.1.1.6. Table 3.5 outlines the areas of common ground that have been reached in relation to the DML.

3.2. BASIS OF AGREEMENTS

- 3.2.1.1. A summary note outlining the approach to dredge and disposal activities and a technical note discussing the approach to sediment plume modelling were provided to EA on 3 April 2019, along with an invite to a teleconference to discuss the proposals.
- 3.2.1.2. EA reviewed these documents and provided feedback on 12 April 2019, stating that they did not have significant comments on the proposals other than they agreed with the approach to not to dispose of dredged material in WFD water bodies. EA therefore felt they did not need to attend the teleconference to discuss the proposals further (Appendix 1).
- 3.2.1.3. Following the receipt of EA’s response to the consultation on the PEIR, a briefing note was provided detailing the Applicants response to the comments raised (Appendix 2). This note was issued as draft to EA on 28 July 2019. EA confirmed that they were content with the responses in the briefing note on 20 August 2019.

- 3.2.1.4. A draft of the DML was issued to EA on 1 July 2019 to enable EA to review and provide any relevant feedback prior to the submission of the application. Feedback was received from EA on 31 July 2019.
- 3.2.1.5. A draft version of the WFD assessment was issued to EA on 2 September 2019. Feedback was received by email from EA on 26 September 2019. EA's feedback on the WFD assessment can be found in Appendix 3.
- 3.2.1.6. A draft version of the HRA report was issued to EA on 3 September 2019 to allow EA to provide relevant feedback on the draft prior to submission. Feedback was received from EA by email on 26 September 2019. Feedback on the HRA was presented in Appendix 4 of the HRA Report (document reference 6.8.3.4) and is also presented in Appendix 3 of this SoCG.
- 3.2.1.7. The Relevant Representation (RR) on the application from EA was received on 19 February 2020 (see Appendix 4).
- 3.2.1.8. Further engagement has been undertaken with EA through the development of a draft SoCG and a teleconference held on 25 March 2020 to discuss the marine aspects of the EA RR, the draft SoCG and the Examination process. The draft SoCG has undergone iterative reviews by both parties to agree matters under discussion.
- 3.2.1.9. The agreed positions recorded in this SoCG are based on the above consultations and the information in the EA's RR.

Table 3.1: Matters Agreed: Marine Water and Sediment Quality

Ref.	Description of Matter	Agreed Position
EAM 3.1.1	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, Sections 1.3 and 1.4)
EAM 3.1.2		Adequate information has been presented to characterise the contaminated sediment levels in the area of the Proposed Development (Refs: APP-122, Section 7.5; APP-374; APP376).
EAM 3.1.3	Assessment Methodology	The worst-case scenarios for impacts presented in the ES, are appropriate for the Proposed Development(Ref: APP-122, Section 7.6.1).
EAM 3.1.4		The list of potential impacts on Marine Water and Sediment Quality presented in the ES is appropriate (Ref: APP-122, Sections 7.3.4 and 7.3.5).
EAM 3.1.5		The installation methods assessed are clearly set out in the ES (Refs: APP-118; APP-356; APP-122, Sections 7.6.1).
EAM 3.1.6		The methodology used based on Chartered 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: <ul style="list-style-type: none"> • 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); and • The approach to cumulative effects assessment which is based upon PINS Advice Note Seventeen.
EAM 3.1.7	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).
EAM 3.1.8		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 projects or plans are considered to be not significant (Refs: APP-122, Section 7.7; APP-375; APP-144; APP – 486).
EAM 3.1.9		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-375; APP-144).
EAM 3.1.10	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-122, Sections 7.8 and 7.9; APP-489; APP-019, Schedule 15).

Table 3.2: Matters Agreed: Fish and Shellfish

Ref.	Description of Matter	Agreed Position
EAM 3.2.1	Existing Environment	The information presented within the ES adequately characterises the Fish and Shellfish baseline (Refs: APP-124, Section 9.5; APP-382).
EAM 3.2.2	Assessment Methodology	The worst-case scenarios for impacts presented in the ES, are appropriate for the Proposed Development (Ref: APP-124, Section 9.6.3, Table 9.9).
EAM 3.2.3		The list of potential impacts presented in the ES is appropriate (Refs: APP-124, Section 9.3.1; APP-382).
EAM 3.2.4		The installation methods assessed are clearly set out in the ES (Refs: APP-118; APP-356; APP-124, Section 9.6).
EAM 3.2.5		The methodology used based on CIEEM represents an appropriate approach to assessing potential impacts of the Proposed Development on Fish and Shellfish (Ref: APP-124, Section 9.4). This includes: <ul style="list-style-type: none"> Assessment is based on expert judgement using knowledge of other sites and available project specific survey data, modelling data and contextual information; and An approach to the cumulative effects assessment that is based upon PINS Advice Note Seventeen
EAM 3.2.6	Assessment Conclusions	The assessment of impacts for construction, operation (maintenance and repair) 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).
EAM 3.2.7	Assessment Conclusions	The cumulative effects assessment undertaken is appropriate and cumulative 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; APP - 486).
EAM 3.2.8		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-383; APP-144).
EAM 3.2.9	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-124, Section 9.8; APP-489; APP-019, Schedule 15).

Table 3.3: Matters Agreed: WFD Assessment

Ref.	Description of Matter	Agreed Position
EAM 3.3.1	Existing environment	Appropriate information has been used to inform the baseline for the assessment (Ref: APP-372).
EAM 3.3.2	Methodology	The methodology for assessment is based on guidance 'Clearing Waters for All' (EA, 2017) and PINS Advice Note Eighteen and is considered appropriate (Ref: APP-372).
EAM 3.3.3	Screening stage	The approach and outcomes of the Screening Stage is appropriate and agreed (Ref: APP-372, Section 1.5).
EAM 3.3.4	Scoping stage	The outcomes of the scoping stage are appropriate (Ref: APP-372, Section 1.6).
EAM 3.3.5	Stage 3 assessment	The assessment undertaken at Stage 3 is appropriate (Ref: APP-372, Section 1.7).
EAM 3.3.6	Compliance	The Marine WFD Assessment undertaken for the Proposed Development is sufficient to demonstrate compliance with the WFD (Directive 2000/60/EC) (Ref: APP-372).

Table 3.4: Matters Agreed: Habitats Regulation Assessment

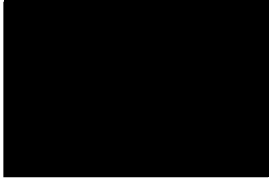
Ref.	Description of Matter	Agreed Position
EAM 3.4.1	Existing environment	The information used to inform the environmental baseline is appropriate (Ref: APP-491, Section 4).
EAM 3.4.2	Pre- Screening	The methods used to identify potential connectivity between the Proposed Development and designated sites are appropriate (Ref: APP-491, Section 6.2).
EAM 3.4.3		The conclusions of the site-based pre-screening assessments for designated sites with Annex II diadromous fish species features are appropriate (Ref: APP-491, Section 6.4.3).
EAM 3.4.4	Determination of Likely Significant Effect ('LSE')	The conclusions of the assessment of LSE for designated sites with Annex II diadromous fish species are considered to be appropriate and acceptable (Refs: APP-491, Section 7.2.2; APP-501).
EAM 3.4.5	In-combination assessment	The projects listed and the approach used to assess for in-combination effects are appropriate (Refs: APP-491, Section 8.2.2; APP-501; APP-503).
EAM 3.4.6		The approach to assessing potential in-combination effects with other plans and projects is appropriate (Ref: APP-491, Section 8.2).
EAM 3.4.7	Mitigation	The approach to the consideration of mitigation in the HRA is appropriate (Ref: APP-491, Sections 3.2.2 and 10.2.5).
EAM 3.4.8	Appropriate Assessment	The conclusion of the assessment of potential adverse effect on site integrity of designated sites is accepted. The assessment concludes that there will be no adverse effect on site integrity for any designated sites (with Annex II diadromous fish species) as a result of the Proposed Development either alone or in combination with other projects (Ref: APP-491, Section 10).

Table 3.5: Matters Agreed: Deemed Marine Licence

Ref.	Description of Matter	Agreed Position
EAM 3.5.1	Deemed Marine Licence ('DML')	The DML sets out appropriate mitigation measures to minimise impacts from the Proposed Development to marine water and sediment quality and migratory fish species, as well as water bodies protected under the Water Framework Directive (Ref: APP-019, Schedule 15).
EAM 3.5.2	Eastney Bathing Water protected area & Langstone Shellfish Water	<p>The impacts to Eastney Bathing Water protected area have been adequately assessed in the ES and WFD assessment. The Applicant has clarified that the closest marine activities are well beyond the 500 m threshold distance from Eastney sampling location highlighted by the EA in previous advice. The additional information regarding distance from the Eastney Bathing Water protected area is provided in Appendix 5 of this SoCG,</p> <p>The works are unlikely to present a significant risk to Bathing and Shellfish Water quality and as such, the Proposed Development is in compliance with the WFD. The EA supports this conclusion.</p> <p>The following conditions will be incorporated into the DML;</p> <ul style="list-style-type: none"> - insert a new condition in the DML in Part 2, Condition 2 Notifications and Inspections as follows; <ul style="list-style-type: none"> <i>The undertaker must notify the Environment Agency at least 10 working days prior to the commencement of Works No. 6 and the temporary HDD entry/exit pits forming part of Work No.7.</i> - insert a new condition in the DML in Part 2, Condition 5 as follows; <ul style="list-style-type: none"> <i>(6) Prior to the commencement of Work No. 6 and the temporary HDD entry/exit pits forming part of Work No. 7, the undertaker must provide the Environment Agency with a copy of any construction programme approved by the MMO pursuant to condition 4(1)(b) and any method statement relating to sediment mobilising activities relevant to the temporary HDD entry/exit pits forming part of Work No.7.</i> <p>The EA finds the proposals to amend the DML acceptable and that these amendments will satisfactorily meet our request to be notified of the works in proximity to the Eastney Bathing Waters. This will allow us to manage our responsibilities under the <u>Bathing Water Directive (2006/7/EC)</u> for monitoring and protecting designated bathing waters in England.</p> <p>Notifications under the amended DML conditions can be sent by email to MarineSE@environment-agency.gov.uk.</p>
EAM 3.5.3	Schedule 15 (1); Construction Environmental Management Plan	The EA finds the proposals to amend the DML (as itemised in 3.5.2 of this table) acceptable and that these amendments will satisfactorily meet our request to be notified of the works in proximity to the Eastney Bathing Waters. This will allow us to manage our responsibilities under the <u>Bathing Water Directive (2006/7/EC)</u> for monitoring and protecting designated bathing waters in England. Notifications under the amended DML conditions can be sent by email to MarineSE@environment-agency.gov.uk .

4. SIGNATURES

Signed on behalf of the Environment Agency:

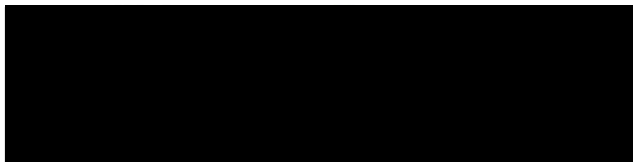


Printed name: Anna Rabone

Position: Sustainable Places Advisor

Date: 2 September 2020

Signed on behalf of AQUIND Ltd:



Printed name: KIRILL GLUKHOUSKOV

Position: MANAGING DIRECTOR

Date 14/09/20

APPENDIX 1

EA FEEDBACK ON DREDGE AND DISPOSAL/MODELLING APPROACH

Sarah Lister

From: Rabone, Anna <Anna.Rabone@environment-agency.gov.uk>
Sent: 12 April 2019 10:09
To: Ross Hodson
Cc: Sarah Lister; Brown, Sophie
Subject: RE: Aquind || Dredge disposal Summary document

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Do not Delete

Dear Ross,

Firstly, please accept my sincerest apologies for the delay in responding to you. This week has been extremely busy!

Our Marine team have had an opportunity to review the summary note and proposed dredge disposal area map as provided in your email dated 3 April 2019. From these documents, we understand that there are no plans to dispose of any material within the WFD water bodies, or within a buffer zone around them. We fully support this approach in order to protect water quality in these water bodies.

Our remit does not extend offshore beyond the WFD boundaries, hence we have no further comments on the other aspects of this strategy.

Given the above, I believe means that we may have little to add to a call regarding modelling about this aspect of the development. However, if you would prefer that we are present on that call, please do let me know and I will make arrangements accordingly.

Thank you very much.

Kind regards,
Anna

Anna Rabone

Sustainable Places Advisor | Solent and South Downs Area
Environment Agency | Chichester Office, Oving Road, Chichester, West Sussex, PO20 2AG

Direct dial: 02077 140525



From: Ross Hodson [mailto:rossho@naturalpower.com]
Sent: 09 April 2019 12:49
To: Rabone, Anna <Anna.Rabone@environment-agency.gov.uk>; Morgan, Richard <Richard.Morgan@naturalengland.org.uk>
Cc: Sarah Lister <sarahl@naturalpower.com>; Ziauddin, Zara <Zara.Ziauddin@naturalengland.org.uk>; Porteous, Linda <Linda.Porteous@marinemanagement.org.uk>; Brown, Sophie <sophie.brown@environment-agency.gov.uk>; Chris Lomax <Chris.D.Lomax@wsp.com>; Qureshi, Mark <Mark.Qureshi@marinemanagement.org.uk>
Subject: RE: Aquind || Dredge disposal Summary document

Dear Anna / Richard

In order to discuss our approach to modelling in a bit more detail, please can you let me know your (and / or relevant staff members) availability for a call (up to two hours but unlikely to be that long) w/c 22 April.

Please let me know if you need to discuss in more detail and I will give you a call

Regards

Ross

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[Disclaimer](#)

From: Ross Hodson
Sent: 03 April 2019 16:37
To: 'Rabone, Anna' <Anna.Rabone@environment-agency.gov.uk>; 'Morgan, Richard' <Richard.Morgan@naturalengland.org.uk>; 'Qureshi, Mark' <Mark.Qureshi@marinemanagement.org.uk>
Cc: Sarah Lister (sarahl@naturalpower.com) <sarahl@naturalpower.com>; Ziauddin, Zara <Zara.Ziauddin@naturalengland.org.uk>; Porteous, Linda <Linda.Porteous@marinemanagement.org.uk>; Brown, Sophie <sophie.brown@environment-agency.gov.uk>; Chris Lomax <Chris.D.Lomax@wsp.com>
Subject: Aquind || Dredge disposal Summary document

Dear Anna, Richard and Mark

We have previously advised that we would produce a dredge and disposal summary note. The note details our thoughts regarding:

- Our construction activities and what is considered to be “disposal” and therefore, needs to be covered by a site characterisation report and disposal sites
- Our approach to mapping constraints to refine the possible disposal locations and the broader strategy to provide flexibility for construction
- It includes specific questions at the end which we would like you to answer.

The document does not include detailed scope of our approach to sediment plume and deposition modelling. It is our proposal that once we have introduced our broader approach (as part of the consultation on this document), we will through meeting / telecom talk you through our approach to sediment plume modelling in more detail including:

- Model set up - parameters / rules
- Modelling scenarios including volumes and disposal locations – so we cover a realistic worst case scenario
- locations of time-series outputs as part of the model e.g. which MPAs should be included in the model to record suspended sediment levels over time

As a result of the consultation and meeting we would hope to gain an understanding and agreement on the sufficiency of our modelling which will underpin the EIA, HRA and WFD assessment for the project.

Please can you acknowledge receipt of the email and in the first instance advise:

- When you expect to be able to provide a response to the summary note; and
- What availability you have for a call (probably up to 2 hours) to discuss physical process modelling – we would be looking for dates around when you expect to be able to provide a written response to the summary doc.

I hope this is clear but please let me know if you are unsure on any of the above?

Regards

Ross

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APPENDIX 2

EA BRIEFING NOTE

Natural Power Memorandum			
To	Environment Agency	Date	July 2019
From	Natural Power	Ref.	1199526

Briefing Note to inform Ongoing Consultation: Responses to PEIR feedback

The following table provides a summary of key items contained within feedback response on PEIR, gratefully received from the Environment Agency.

This briefing note is structured as below aims to provide information to reviewers as to how the applicant proposes to address the comments received as part of the s.42 consultation process.

Item No.	Topic	Comment	Applicant's Response
1	Marine Water and Sediment Quality	In regard to impacts on Shellfish and Bathing Waters, we advise the Applicant to include assessment of short-term effects as part of the WFD assessment.	Acknowledged. An assessment of the short-term impacts to Shellfish and Bathing Waters will be included in the WFD assessment.
2	Fish and Shellfish	Further assessment is required in relation to the impacts on migratory fish, in particular from noise and vibration on certain species such as Sea Trout, Salmon and Eel.	Migratory fish (sea trout, salmon and eel) will be included in the noise and vibration assessment section of the Fish and Shellfish chapter within the final Environmental Statement (ES).
3	Marine Water and Sediment Quality	We are pleased to see a Water Framework Directive (WFD) assessment has been included (Appendix 7.1 of the PEIR), and in particular impacts on marine water and sediment quality, Shellfish Waters and Bathing Waters.	Acknowledged. A finalised WFD Assessment will be provided as part of the DCO application.
4	Marine Water and Sediment Quality	We agree that the impacts on water quality from increases in suspended sediment concentrations will be temporary, including those related to re-suspension of contaminated sediments. However, even temporary deterioration of water quality in proximity to sensitive areas such as Shellfish Waters and Bathing Waters can have negative impacts on the designated sites. Hence, we advise the Applicant to assess even short-term effects as part of the WFD assessment. This will be particularly relevant in the context of any dredging activities and floatation pits near the Eastney bathing water. We would also suggest to screen in any OOS cable removals where they have the potential to give rise to increased suspended sediment concentrations in proximity to sensitive areas.	<p>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 (and therefore will not be assessed).</p> <p>HDD works at landfall are proposed to occur between KP1 and KP 1.6 and no sandwave/large ripple clearance or disposal of dredged material is proposed within waters that are closer to shore than KP 21 (which is outside of the WFD Waterbodies). The potential effects of HDD pit 5 excavation will be assessed used empirical / observational evidence.</p>

Item No.	Topic	Comment	Applicant's Response
			<p>Plume dispersion modelling is currently being undertaken to investigate the extent and sediment concentrations of the passive plumes from disposal of dredged material and area likely to be affected, and an assessment on the HDD works and cable installation activities proposed within the nearshore areas will be presented within the final ES. The results of the modelling will be presented within the ES and the potential impacts assessed accordingly.</p> <p>There have been no OOS cables identified in the vicinity of WFD protected waters (Table 2, Appendix 3.1 of the PEIR) and as such, no assessment of their removal is required within the WFD assessment.</p>
5	<p>Marine Water and Sediment Quality</p>	<p>We would like to emphasise the proximity of the Eastney Bathing Water protected area to the proposed cable corridor and landfall site. Any sediment disturbance in proximity to the bathing water during the Bathing Water Season (May to September) has the potential to impact on bathing water quality and WFD compliance at this site by elevating suspended sediment concentrations and potential faecal contamination.</p>	<p>The impacts to the Eastney Bathing Water area have been scoped in to the WFD assessment being undertaken.</p> <p>HDD works at landfall are proposed to occur between KP1 and KP 1.6 and no sandwave/large ripple clearance or disposal of dredged material is proposed within waters that are closer to shore than KP 21.</p> <p>Plume dispersion modelling is currently being undertaken to investigate the extent and sediment concentrations of the passive plume from disposal of dredged material and area likely to be affected, and an assessment on the HDD works and cable installation activities proposed within the nearshore areas will be presented within the final ES. The results of the modelling will be presented within the ES and the potential impacts assessed accordingly.</p>

Item No.	Topic	Comment	Applicant's Response
6	Marine Water and Sediment Quality	Section 7.5.4. We are pleased that the potential effects on Natura 2000 sites will be assessed within the HRA, and that the findings will be used to update the Marine WFD assessment accordingly. In particular, the potential impacts on the Solent Maritime SAC will need to be assessed due to the close proximity to the proposed landfall location at Eastney.	<p>This work is currently being undertaken and will be submitted alongside the final ES and DCO submission.</p> <p>We have been engaging directly with Natural England (NE) regarding the drafting of the HRA and plan to consult with NE, JNCC and the Environment Agency on the draft HRA prior to DCO submission.</p>
7	Fish and Shellfish	Section 9.4.4.3. Should any of the methods listed in this section, or any alternatives be selected or proposed, then these will need to be assessed and included in the ES.	<p>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 (and therefore will not be assessed).</p> <p>Further information relating to the other construction methods proposed is currently under investigation and will be presented and assessed within the ES if the methods remain part of the design.</p>
8	Fish and Shellfish	Section 9.4.4.7. We agree that a Habitat Regulations Assessment (HRA) will need to be produced and submitted as part of the DCO application.	Acknowledged.
9	Fish and Shellfish	Table 9.3. We agree that Transitional and Coastal waters (TraC) surveys will partly provide a baseline of data for migratory species. As acknowledged, these surveys are only undertaken once or sometimes twice a year, and therefore may not capture all migratory species present at different times of the year. We agree that deeper water fish species are likely to be under represented.	Acknowledged.
10	Fish and Shellfish	Section 9.6.3.26. We agree with the inclusion of fish and shellfish of conservation importance, namely Eel, Atlantic Salmon, Brown/Sea Trout,	Acknowledged.

Item No.	Topic	Comment	Applicant's Response
		and other migratory fish such as River and Sea Lamprey, and Allis and Twaite Shad.	
11	Fish and Shellfish	Section 9.5.4.7. The presence of Sea Trout has been confirmed by observation in Langstone and Portsmouth Harbour. The presence of Salmon is also confirmed in Portsmouth Harbour as demonstrated by survey data on the River Wallington. Therefore, regard must be given for these species.	The final ES will assess the potential effects of the Proposed Development on sea trout and salmon.
12	Fish and Shellfish	Sections 9.6.3.29 & 9.6.3.52. The background concentration of suspended solids is required to enable these figures to be used in context. We also need to understand how far these suspended solids will move. Therefore, currently we are unable to agree that temporary increase in suspended solids is not significant for Salmon and Sea Trout. This issue should be addressed within the ES.	<p>Plume dispersion modelling is currently being undertaken to investigate the extent and sediment concentrations of the passive plume from disposal and area likely to be affected, and an assessment (using empirical methods) on the HDD works and cable installation activities proposed within the nearshore areas will be presented within the final ES.</p> <p>The results of the modelling will be presented within the ES and the potential impacts assessed accordingly.</p>
13	Fish and Shellfish	Sections 9.6.3.53/54/55. We agree there is potential for elvers to be present within the proposed development. We agree that a temporary increase in suspended solids is not significant for Eel, Sea and River Lamprey and Twaite and Allis Shad.	Acknowledged.
14	Fish and Shellfish	Section 9.6.3.60. Salmon, Sea Trout and Eel must be included as hearing specialist fish, and it must be demonstrated within the ES that there will be no impact on these species from noise and vibration.	Although salmon and sea trout are hearing generalists and eels do not possess the ability to hear they have been included in the assessment for noise and vibration. References have been included to justify the conclusion that this effect is not significant for these species.
15	Fish and Shellfish	Section 9.6.3.67. Salmon and Sea Trout have not been included in this section. As hearing specialist fish, these need to be assessed against the noise and vibration generated by HDD. If these are to be screened out,	Although salmon and sea trout are hearing generalists they have been included in the assessment for noise and vibration from HDD. References have been included to

Item No.	Topic	Comment	Applicant's Response
		then evidence needs to be provided. Such evidence can be provided by a review of relevant literature.	justify the conclusion that this effect is not significant for these species.
16	Fish and Shellfish	Section 9.6.4.2. The potential impact of EMF on migratory salmonids has not been included. If these are to be screened out then evidence needs to be provided. Such evidence can be provided by a review of relevant literature.	Salmon and sea trout have been included in the assessment for potential effects from EMF. As the minimum cable burial depth is 1 m the level of EMF at the seabed will be just 42 μ T. No effects were found in salmon from levels of EMF at 95 μ T so it is concluded that there will be no significant effects on salmon and sea trout from EMF. Full references have been included in the ES to justify this conclusion.
17	Fish and Shellfish	Table 9.7. Species of commercial importance should also include Brown Trout (rod and line) and Eel (commercial eel fishery).	<p>Both the brown trout (rod and line) and eel fishery (commercial eel fishery) are conducted in a riverine environment with no overlap with the Proposed Development. Therefore, no connectivity exists with these fisheries, and they are not therefore considered in the Fish and Shellfish chapter (or Commercial Fisheries chapter) as species of commercial importance.</p> <p>The potential impacts on eels and brown trout has been assessed in the ES and it was concluded that all effects were not significant for eel or brown trout.</p>
18	Fish and Shellfish	Table 9.8. Cable depth is cited as being between 0.6 and 5.1 metres. It is unclear how the depth of cable will be determined at any given location. This should be specified within the ES. The likelihood of impact, on migratory fish, from suspended solids and/or others, is increased the deeper the depth of the trench.	<p>Cable depth is dependent on seabed conditions, and the likely burial depths will be informed by a Cable Burial Risk Assessment (CBRA). Further detail will be covered within the description of the Proposed Development once it has been refined.</p> <p>The effect of suspended sediment concentration (SSC) on migratory fish will be assessed in the final ES chapter.</p>

Item No.	Topic	Comment	Applicant's Response
19	Fish and Shellfish	Table 9.9. This table will need to be re-assessed in light of our comments in regard to Chapter 9.	Acknowledged.
	Fish and Shellfish	Section 9.9.1.6. We agree that cumulative effects of this and other projects needs to be included in the ES.	Acknowledged.
20	Fish and Shellfish	Section 9.9.1.10 We cannot agree with the conclusion of no potentially significant effects until our comments in regard to Chapter 9 are addressed.	Acknowledged.
21	Fish and Shellfish	Section 9.10.1.1 We agree that an HRA is required for SAC's with fish features listed.	Acknowledged. It is currently proposed that the Environment Agency will be consulted on a draft HRA prior to DCO submission.

APPENDIX 3

EA FEEDBACK ON WFD AND HRA

BY EMAIL: sarahl@naturalpower.com
& rossho@naturalpower.com

Natural Power Consultants Ltd

Our ref: ENVPAC/1/SSD/00079
Your Ref: Aquind Interconnector
PINS ref: EN020022

26 September 2019

Dear Sarah and Ross,

Aquind Interconnector – review of draft WFD assessment and draft HRA report

Thank you for accepting our offer to provide detailed planning advice. We have reviewed the following documents:

Draft WFD assessment (marine)

- DRAFT Appendix 7.1 Marine Water Framework Directive Assessment – August 2019
- DRAFT Appendix 6.X Modelling Technical Report – undated
- Figure 1 WFD Study Area
- Figure 66_UK Proposed Dredge Disposal Area Map

Draft HRA report

- DRAFT Habitat Regulations Assessment Report – July 2019
- DRAFT Appendix 1: Screening and Integrity Matrices - undated
- DRAFT Appendix 2: Pre-Screening for Marine Mammals – 29 March 2019
- DRAFT Appendix 3: In Combination Project Tables – August 2019
- Figure 4.1: Annex I Habitats Sites in UK marine area
- Figure 4.2: Annex I Habitats Transboundary sites
- Figure 4.3: Fish Sites within the UK marine area
- Figure 4.4: Fish Transboundary sites
- Figure 4.5: Marine Mammals Sites in UK marine area
- Figure 4.6: Marine Mammals Transboundary sites
- Figure 4.7: Marine Ornithology Sites in UK marine area
- Figure 4.8: Marine Ornithology Transboundary Sites
- Figure 8.1 Location of In Combination Projects

We are providing this advice under Agreement No. ENVPAC/A/SSD/00079.

Environment Agency Advice

Comments on draft WFD assessment (marine)

In general, the WFD assessment is very comprehensive and has made good use of the data available. Please find our further specific comments set out below:

Section 1.7.3.24

We disagree with the conclusion that the dredging and excavation activities required for the exit pit and cable trenches do not pose a risk to Bathing Water quality at the Eastney Bathing Water. Sediment disturbance bears the risk of deteriorating Bathing Water quality by transferring sediment-bound bacteria into the water column, as described in the assessment. In the immediate vicinity of a designated Bathing Water, this may reduce Bathing Water quality significantly.

No clear indication of the location of the landfall site has been given – when this becomes clear it would be helpful for us to be informed of this.

In order to eliminate the risk to Bathing Water compliance, we would ask that no dredging and excavation activities are carried out within 500m of the Eastney Bathing Water during the Bathing Water Season (May-September). This should be reflected in the WFD assessment and construction-related documents accordingly.

Our answers to your questions

<i>Do you agree that appropriate data sources, baseline information and relevant guidance has been used?</i> <i>If not, please advise why not?</i>	Yes, we agree that appropriate data sources, etc has been used.
<i>Do you agree with our approach and the outcomes of the screening stage?</i> <i>If not, why not?</i> <i>Please identify if there are any activities or waterbodies which should be scope in to further assessment.</i>	Yes, we agree with your approach and the outcomes of the screening stage.
<i>Do you agree with the outcomes of the scoping stage?</i> <i>If not, why not?</i>	Yes, we agree with the outcomes of the scoping stage.

<p><i>Please identify if there are any receptors which should be included in the stage 3 assessment?</i></p>	
<p><i>Do you agree with the assessment undertaken at stage 3?</i></p> <p><i>If not why not?</i></p>	<p>Mostly yes, except for Bathing Waters – please see our comments above on Section 1.7.3.24.</p>
<p><i>Do you agree with the conclusion of the WFD assessment that the Proposed Development will not prevent the water bodies from meeting the environmental objectives specified within the South East RBMP, and will not impact current status of water bodies, or prevent improvement of WFD status in the future, and is therefore, WFD compliant?</i></p> <p><i>If not, please advise why you disagree?</i></p>	<p>See above.</p>
<p><i>The EA provides data specifically on WFD habitats (low and high sensitivity) and refers assessors to both the tabulated form of the data, and MagicMaps. We have experienced that in some cases these data sets don't appear to align with each other. In addition, due to copyright rules, we can't map MagicMaps and therefore we have used a combination of EA's data and then used our own survey data to refine the impact assessment. For areas of and distances to habitats, we have used the areas give in the tables provided by the EA and used MagicMaps to calculate rough distances to high sensitivity habitats.</i></p> <p><i>Is this approach acceptable?</i></p> <p><i>If not please could you advise how to resolve these matters?</i></p>	<p>Yes, this approach is acceptable.</p>
<p><i>We have assumed that as nutrient sensitive areas are impacted by land management measures that there is no direct impacts from marine works on this.</i></p>	<p>We agree in this case.</p>

Can you confirm if you agree with this approach and if not, why not?	
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Comments on draft HRA report

We have reviewed the HRA report in terms of potential impacts on migratory fish and protected areas from the proposed project. The report is comprehensive and we agree with the conclusions given in the report.

Our answers to your questions

<p><i>Do you agree that appropriate data sources, baseline information and relevant guidance has been used?</i></p> <p><i>If not, please advise why not?</i></p>	<p>Yes, we agree that appropriate data sources, etc has been used.</p>
<p><i>Do you agree with our approach and the outcomes of the screening stage?</i></p> <p><i>If not, why not?</i></p> <p><i>Please identify if there are any effects which should be scoped in to further assessment.</i></p>	<p>Yes, we agree with your approach and the outcomes of the screening stage.</p>
<p><i>Do you agree with the outcomes of the LSE assessment?</i></p> <p><i>If not, why not?</i></p> <p><i>Please identify if there are any sites which should be included in the AA?</i></p>	<p>Yes, we agree with the outcomes of the LSE assessment.</p>
<p><i>Do you agree with the assessments undertake at AA?</i></p> <p><i>If not why not?</i></p>	<p>Yes, we agree with the assessments undertaken at AA.</p>
<p><i>Do you agree with the conclusion of the HRA Report that the Proposed Development will not result in any adverse effect on site integrity and is therefore compliant?</i></p> <p><i>If not, please advise why you disagree?</i></p>	<p>Yes, we agree with this conclusion.</p>

<p><i>Is it OK that we have treated the restriction of disposal to beyond KP 21 as mitigation for HRA but for the EIA, it is not additional mitigation but part of the design?</i></p> <p><i>However, given the previous ECJ case law we thought it best to treat in this way.</i></p>	<p>Yes, this is OK with us.</p>
<p><i>Are you content with the projects that we have assessed for in combination assessment in Appendix 3?</i></p>	<p>Yes, we are content with the projects assessed for the in combination assessment.</p> <p>You should add the Southsea Coastal Defence Project as well – planning application 19/01097/FUL (Portsmouth City Council) & marine licence application MLA/2019/00316.</p>
<p><i>At AA stage, we have only considered Conservation Objectives which are relevant to our possible effects we are considering?</i></p> <p><i>Please see para' 10.2.6.2 – 3.</i></p> <p><i>Please provide your views on the matter.</i></p>	<p>We are happy with this approach.</p>
<p><i>At AA stage the attributes from Supplementary advice where they are relevant to the effects which are being assessed. E.g. for the Solent maritime SAC we have not considered attributes which relate to freshwater sources, as they are not relevant to our project and its associated effects. Please can you advise whether you are content with the approach?</i></p>	<p>We are content with this approach.</p>
<p><i>Are you content with how we have considered mitigation through the 2 stages of assessment?</i></p>	<p>Yes, we are content with how you have considered mitigation through the two stages of assessment.</p>

I hope the above is helpful. If you have any queries, please do not hesitate to contact me.

Yours sincerely,

Anna Rabone
Sustainable Places Advisor
Environment Agency

Direct dial: 02077 140525

Email: anna.rabone@environment-agency.gov.uk

Disclaimer

Our opinion is based on the information available to us at the time of the enquiry. When the formal Development Consent Order application is submitted, our position may change if there have been changes to environmental risk or evidence, and/or planning policy.

APPENDIX 4

EA S. 56 RELEVANT REPRESENTATION

The Planning Inspectorate
National Infrastructure Planning
Temple Quay House
2 The Square
Bristol
BS1 6PN

Our ref: HA/2020/121925/01
Your ref: EN020022

Date: 19 February 2020

Dear Sir or Madam,

Application by AQUIND Limited for an Order Granting Development Consent for the AQUIND Interconnector.

Please find enclosed our relevant representation for the AQUIND Interconnector Project, which follows after our introductory comments below:

1. The Role of the Environment Agency

The Environment Agency has a responsibility for protecting and improving the environment, as well as contributing to sustainable development.

Our work helps to support a greener economy through protecting and improving the natural environment for beneficial uses, working with business to reduce waste and save money, and helping to ensure that the UK economy is ready to cope with climate change. We will facilitate, as appropriate, the development of low carbon sources of energy ensuring people, and the environment, are properly protected.

We have three main roles:

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

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

We are an environmental advisor – we compile and assess the best available evidence and use this to report on the state of the environment. We use our own monitoring information and that of others to inform this activity. We provide technical information and advice to national and local governments to support their roles in policy and decision-making.

One of our specific functions is as a Flood Risk Management Authority. We have a general supervisory duty relating to specific flood risk management matters in respect of flood risk arising from rivers classified as ‘Main Rivers’ or from the sea.

2. Environment Agency area affected

The proposed interconnector cable passes through one Environment Agency area – Solent & South Downs.

3. Pre-application engagement

Consultants for the Applicant (AQUIND Limited) approached us in March 2018 to discuss their initial plans for the project and the potential environmental issues that they would need to address. Since this early contact we have had a number of meetings and email correspondences with representatives of the Applicant (namely WSP UK Limited and Natural Power Consultants Limited).

On 29 April 2019, we provided a formal response to the Applicant’s Section 42 (Planning Act 2008) consultation .

4. Outstanding information and issues of concern

Our relevant representation outlines where further work, clarification or mitigation is required to ensure that the proposal has no detrimental impact on the environment.

In regard to this proposed development, our particular focus has been on the following matters:

- Protection of sensitive groundwater at the site of the converter station at Lovedean. The site is located within the Bedhampton and Havant Springs Source Protection Zone 1 (see **Figure 19.4 of Document Ref 6.1.19** (Environmental Statement - Volume 1 - Chapter 19 Groundwater)). The groundwater is utilised by Portsmouth Water to provide public water supplies to around 250,000 homes. There are known to be karstic features present within the underlying bedrock in the converter station area. Karstic features can form when water dissolves channels and flow paths in an underlying bedrock. These can result in very rapid direct pathways for contaminants to underlying sensitive geology. Therefore, the protection of groundwater at this location from the risk of pollution both during construction and operation of the converter station is of paramount importance.
- The methods for the proposed cable route where it crosses designated Main Rivers, and the impacts of these techniques on surface water receptors and associated ecology such as fish, eel, otter and water vole.

The Applicant has acknowledged the requirement to obtain Flood Risk Activity Permits (FRAPs) from us before commencement of works in, under, over or within 8 metres of the top of the bank of any designated Main River. However, we have not yet received any detailed methodology for such works, and therefore are not able to comment on this aspect, nor indicate whether such permits can be obtained, or advise upon any requirements that would be applied to such permits if obtained. The Applicant does not intend to disapply the need for FRAPs under section 150 of the Planning Act 2008, and has stated their intention that once they have appointed contractors, those contractors will liaise with us to obtain FRAPs

prior to commencement of works. Should this position change, and the Applicant intends to seek disapplication of the need for FRAPs, we will expect such methodologies to be provided for our examination (with sufficient time granted for this work) and also recommend that a number of protective provisions are included in the DCO.

Note for the Planning Inspectorate: the Environment Agency have responsibility for protecting designated 'Main Rivers'. Local Authorities are responsible for protecting 'Ordinary Watercourses'. There are both Main Rivers and Ordinary Watercourses along the proposed cable route. The applicant would separately have to apply for an Ordinary Watercourse Consent from the Lead Local Flood Authority where required.

- The impacts of offshore cable installation techniques on diadromous migratory fish namely Salmon, Sea Trout, Allas and Twaite Shad, Sea and River Lamprey. In particular, the risks posed by increased suspended sediments including impacts on migratory routes, associated reduced oxygen and respiratory effects on these fish.
- The potential impacts of the project on European sites designated for nature conservation, as well as the potential risk to Annex II diadromous fish (under the *Habitats Directive*, as transposed in UK legislation by the *Conservation of Habitats and Species Regulations 2010*).
- The potential impacts on freshwater and transitional waterbodies under the Water Framework Directive (WFD).
- Potential impacts of the cable installation upon planned coastal flood defences (being delivered by the Eastern Solent Coastal Partnership) along the coast of Portsea Island. These coastal defences are of vital importance for communities and seek to prevent 8,000 homes and businesses from flooding. Our understanding is that the Applicant has had pre-application engagement with the Eastern Solent Coastal Partnership, and there are on-going discussions regarding the potential crossing under the high ground bund at Milton Common.

- Assessment of the impacts on marine water and sediment quality, Shellfish Waters and Bathing Waters.

During the pre-application engagement with the Applicant's representatives, we have been given sufficient reassurance in regard to the above matters to conclude that we do not have any outstanding issues of significant concern. However, there remain some matters that require clarification as detailed in our relevant representation below. For these matters, it may be acceptable for additional information to be provided later, by requirement. These are:

- Groundwater and land contamination;
- Flood risk and watercourse crossings – including construction methodologies; and
- Biodiversity and fisheries – including biodiversity net gain/enhancement.

Please do not hesitate to contact us if you require any further information. We look forward to continuing to work with the Applicant to resolve the matters outlined above and contained within our relevant representation, finalise any necessary requirements, and to ensure the best environmental outcome for this project.

Yours faithfully,

Anna Rabone

Sustainable Places Advisor

Environment Agency, Solent & South Downs

Email: anna.rabone@environment-agency.gov.uk

Relevant Representation on behalf of the Environment Agency

Summary of outstanding issues

1.1 Converter station at Lovedean

The proposed converter station is to be located within a parcel of land at Lovedean, Hampshire. The exact location of the converter station within this parcel of land is not yet confirmed, with two options presented in the submitted document entitled 'Indicative Converter Station Layout Plans' (**Document Ref: 2.7**). However, we note that the Applicant intends to notify relevant parties once a decision has been made about the exact location (Schedule 2, paragraph 4 of the submitted draft DCO (**Document Ref: 3.1**)). We find this satisfactory.

As noted above, this location, regardless of which of the two locations are picked for the converter station, is located upon the Bedhampton and Havant Springs Source Protection Zone 1 and Principal Aquifer. Portsmouth Water utilise this aquifer for public water supply to around 250,000 homes within the area. This is the largest spring supply of water in Europe.

Karst features are present in the area. Karstic features can form when water dissolves channels and flow paths in an underlying bedrock. These features are known for rapid direct pathways to the aquifer. To provide context, a Source Protection Zone defines the travel time of a contaminant from ground to abstraction as less than 50 days. However, in Chalk with Karst features present, travel time can be in hours rather than days. Therefore, it must be appreciated that such rapid pathways mean that there is little time to prevent contaminants from reaching the public water supply. The Applicant has identified two Karst features within the converter station area, and propose to 'block' these features – this is an approach we support.

We have advised the Applicant to keep a watching brief for such features during construction as there may be further Karst features present that are not yet identified.

Should the aquifer be rendered unusable in order for work to be done to remove pollutants and/or allow turbidity to disperse, this will impact on the availability of water for homes in the area, which in the worst case scenario could cause grave difficulties for water supply if this occurred during a time of significant water stress (i.e. during drought). The South East area is classified as a water stressed area¹.

The risks to the public water supply from the converter station are as follows:

- Spills/leakages from the storage of hazardous substances (such as from diesel oil for generators, glycol for cooling purposes). In particular, there are known Karst features on the site which can create quick pathways for hazardous substances to reach the aquifer.
- Infiltration of water contaminated with hazardous substances following any efforts to deal with incidents such as a fire on the site.
- Piling activities during construction causing turbidity.
- Spills/leakages of hazardous substances from construction activities (such as petrol/diesel or oil leaks from construction equipment and vehicles).
- Leaks from foul drainage on site.

We, alongside Portsmouth Water, have sought sufficient reassurance during pre-application engagement with the Applicant that robust measures will be put in place to decrease the risks as far as possible. For the most part, we have been given such reassurance and support the general principles proposed by the Applicant and set out

¹ <https://www.gov.uk/government/publications/water-stressed-areas-2013-classification>

in the Aquifer Contamination Mitigation Strategy document (**Document Ref: 6.3.3.6**). The main principles are summarised below:

- There will be no underground storage of hazardous substances. It is recognised that there will be an underground dump tank for oil containments to be contained in the event of failure. This will be double lined and have the necessary controls to isolate any discharge as necessary.
- All hazardous substances will be stored in double-skinned tanks and these will be contained within concrete bunded areas, with alarm systems in place to identify spills/leakages quickly. Bunds will only discharge run-off from rain water, with appropriate automatic shut-off systems in place to prevent discharge in the event of contaminants being detected as present.
- All oil pipes will have alarm systems to identify leaks/spills quickly. They will be located in fully impermeable (concrete) channels, in order to contain any leaks.
- The foul drainage system will be a small volume cesspool (i.e. a fully sealed double lined container) for the convenience of any personnel visiting the site, and this will be pumped out at appropriate intervals. The shower facility (required as some electrical equipment will contain SF6 gas) will also connect to the cesspool. An alarm will be connected to the cesspool.
- Surface water drainage with the potential for containing contaminants such as oil, will be directed to oil separators/interceptors prior to discharge.
- Piling will utilise pre-cast driven piles.
- Pollution prevention measures will be utilised during construction activities.

It should be noted that the converter station will be an unmanned site. The Applicant will monitor the site 24/7 remotely via alarms and CCTV (referenced by the Applicant as a SCADA system).

Whilst we are reassured that in general, suitable protections will be put in place, we still require clarification on the following points:

- The response time for any personnel to be on site in the event of any alarm trigger. We would hope the response times would be within hours after any alarm has been triggered indicating a significant possibility of hazardous substances being leaked/spilled, and in the event of an incident such as a fire.
- Details of the maintenance schedule for checking alarms, pipework and equipment. As this is unlikely to be able to be provided until the Applicant has appointed a contractor, we would recommend this is specified in a requirement within the DCO.
- A document identifying a Pollution Incident Plan. As this is unlikely to be able to be provided until the Applicant has appointed a contractor, we would recommend this is specified in a requirement within the DCO.
- During earlier engagement with the Applicant, it was agreed that the Applicant would endeavour to cover the transformer, to minimise rainwater collection in underground storage tanks. We can see no evidence within the submitted documentation that this is to be done, and would like this to be clarified.
- Details of how fire water will be contained in the event of a fire, and how the water will be subsequently dealt with.

There is minimal reference to groundwater within the Onshore Outline Construction Environment Management Plan (CEMP) (**Document Ref: 6.9**). In particular, though they appear on maps, there is no specific reference, assessment or acknowledgement of the Source Protection Zone 1 (SPZ1), which covers a significant proportion of the northern section of the development. Impact to the groundwater quality in the Source Protection Zone 1 could have potentially strategically significant impacts to regional water supply. As such, we regard this as a major shortfall of the CEMP. We would request that this document is revised, and that Requirement 15 of Schedule 2 to the draft DCO (**Document Ref: 3.1**) is amended to provide that the Environment Agency, in addition to the relevant planning authority, must also be required to approve the

CEMP prior to the commencement of any phase of the authorised development. We would expect the CEMP to include a Piling Works Risk Assessment.

Further specific comments on the Onshore Outline CEMP (**Document Ref: 6.9**) are shown below:

- Listed Receptors - there is no specific reference here that the converter station is located in a Source Protection Zone. While “Water Users” and “groundwater” is included in the potential receptor list, there is no explicit reference to the Source Protection Zone.
- We have significant concerns regarding the spill management procedure specified in paragraph 4.6.2.1. This does not appear to give any attention to risks to groundwater. This is a major concern in an area of Source Protection Zone 1, where losses to ground could have potentially strategically significant impacts to regional water supply.
- Section 5.6.1 (Groundwater) - this again makes no specific references to the Source Protection Zone 1 or underlying Principal Aquifers. Many of the measures to protect groundwater appear to relate to surface water (silt traps), or air (dust suppression), and their relevance to groundwater is not clear.
- Section 5.6.1.4 – there is no reference to our [‘Groundwater Protection Position Statements, February 2018, Version 1.2’](#). This is our core document on groundwater protection and should be referenced.
- Section 6.2.5.4 – the Applicant notes that permits may be required from us for dewatering and discharges to ground/surface water. However, there are no specific volumetric limits specified. We would comment that returning clean uncontaminated unaltered groundwater back to the same aquifer it was abstracted from may not require a permit.
- Section 6.2.5.5 (Drilling fluid losses) - we welcome this section, though if there are any significant losses of drilling fluid (even in the Lambeth group strata),

Portsmouth Water and the Environment Agency should be informed immediately. This should be reflected within this section.

- Section 6.3.5 - we welcome the reference to a temporary surface water management plan for this section of the development. We can confirm that we would wish to be consulted on this management plan.
- Section 6.3.5.11 – similarly to our comments on section 5.6.1.4, this section should include reference to our groundwater protection position statements.
- Section 6.4.3.1 - we welcome the recommendation in this section regarding groundwater, where the Applicant is identifying that the trenches in the vicinity of Kings Pond and Denmead Meadows will be undertaken at the end of summer.
- Section 6.9.2 - measures to ensure that groundwater (Secondary Aquifers) and surface water are protected during any works affecting the landfill should be outlined in this section.
- In the event of contamination of land or ground water it is important that any remediation measures taken in accordance with Requirement 13 of Schedule 2 to the draft DCO (**Document Ref: 3.1**) have a positive effect upon the contamination. Given the sensitivity of groundwater in the vicinity of the converter station, we would request that Requirement 13 of the draft DCO (**Document Ref: 3.1**) is amended to provide for the Environment Agency to approve, in addition to the relevant planning authority, any verification report that is produced following a contamination incident.

1.2 Groundwater protection along the cable route

We have advised the Applicant that some of the cable route itself falls within Source Protection Zone 1. During laying of the cable, the Applicant's contractors should keep a watching brief for Karst features, and ensure sufficient pollution prevention measures are in place to minimise risks of contamination of the underlying aquifer.

If any significant unexpected contamination is encountered during the development, then we should be informed on the extent and nature of any contamination. The Onshore Outline CEMP should include a method statement on steps and safeguards that will be utilised to ensure that any contamination present along the route is not mobilised into the wider controlled water environment.

We note that Chapter 19 Groundwater (**Document Ref: 6.1.19**) references Phase 1 and Phase 2 ground investigation works (section 19.5.4.4). It would be helpful to have sight of these reports.

1.3 Main River crossings

There are 8 Main Rivers along the cable route; 5 of these will be crossed by the cables (as specified in 'Appendix 20.3 Watercourses Summary' (**Document Ref: 6.3.20.3**)):

- Soake Farm South;
- Old Park Farm;
- North Purbrook Heath (North);
- Broom Channel; and
- Great Salterns Drain.

During our pre-application engagement with the Applicant, we advised that our preferred method for crossing a Main River is Horizontal Directional Drilling (HDD), as this presents the least risk in terms of flood risk and effects on migratory fish and other species using the river. HDD essentially involves drilling underneath the river.

An alternative method to cross is open trench cutting, which involves excavating a trench, installing the cable, and refilling the trench. This method poses a much greater risk to the fish, ecology and geomorphology of a river system.

The Applicant will be using HDD to cross the following Main Rivers:

- Soake Farm South; and
- Broom Channel (this is the longest HDD crossing).

The Applicant will be crossing the other 3 Main Rivers by utilising existing culverts with the carriageway.

We are in principle supportive of the proposed methods for crossing the 5 Main Rivers. However, we have not yet seen any detailed methodology for these works (i.e. HDD crossings, and crossings utilising the existing culverts). The Applicant is aware that they will need to obtain Flood Risk Activity Permits (FRAPs) from us for these works. The Applicant is not proposing to apply for the disapplication of the FRAPs under section 150 of the Planning Act 2008, and has stated their intention that once they have appointed contractors, those contractors will liaise with us to obtain FRAPs prior to commencement of works. The detailed methodologies will be an important aspect for us to determine whether a FRAP can be issued for any particular works, and therefore we are unable to provide certainty at this stage that the Applicant can obtain such permits. We are also unable to advise upon any particular requirements that may be applied to such permits, if obtained.

In regard to the proposed crossings utilising existing culverts, it should be noted that culverts are critical assets, and the issue of a FRAP for those works will be dependent on a methodology that provides sufficient evidence that the works are not causing damage to the culvert (whether such culverts are owned/maintained by the Environment Agency or other third parties).

We would recommend that a requirement is included in the DCO to cover the need for such permits to be obtained prior to works being undertaken.

Note for the Planning Inspectorate: Any works in, under, over or within 8 metres of the top of the bank of any Main River require a Flood Risk Activity Permit (FRAP) from the Environment Agency under the Environmental Permitting (England and Wales) Regulations 2016.

1.4 Landfall and Langstone Harbour

The cable makes landfall at Eastney, and will then be installed using HDD underneath Langstone Harbour. This is the preferred method for reducing any impacts on the ecology of Langstone Harbour, which is highly designated for nature conservation (Chichester and Langstone Harbours SPA (Special Protection Area), Solent Maritime SAC (Special Area of Conservation and Langstone Harbour SSSI (Site of Special Scientific Interest) – see **Figure 16.1 of Document Ref: 6.1.16** (Environmental Statement - Volume 1 – Chapter 16 Onshore Ecology)). We are therefore supportive of the HDD method for this location. However, a FRAP will need to be obtained prior

to the commencement of such works and so our comments in section 1.3 above about obtaining a FRAP also apply to this aspect of the project.

1.5 Flood risk across the cable route

Given the nature of the development (cables being installed underground), flood risk is not of particular concern across the cable route. Our concern would be regarding activities during the laying of the cables and ancillary works (such as storage of soil, etc), to ensure that these activities do not increase flood risk elsewhere. In general, we can support the approach proposed by the Applicant to manage flood risk.

The converter station site is located in Flood Zone 1 (low risk of flooding from rivers or the sea). Therefore, this is of no concern in regard to fluvial or tidal flood risk.

The Lead Local Flood Authority (Hampshire County Council) may have comments regarding surface water flood risk across the cable route.

Note for the Planning Inspector: the Environment Agency are responsible for managing the risks of flooding from fluvial and tidal sources. The Lead Local Flood Authority are responsible for managing the flood risks from surface water drainage and groundwater (unless it is within an area that has critical drainage problems – there are no critical drainage problems within the boundary of this project). This separation of responsibilities was set out in the Town and Country Planning (Development Management Procedure) (England) Order 2015 which came into force on 15 April 2015.

1.6 Interaction with coastal defences

The Applicant has been in pre-application discussions with the Eastern Solent Coastal Partnership regarding the potential interactions of the cable with the coastal flood defences, and possible overlapping of their respective construction activities whereby space may be needed for construction compounds, etc.

The delivery of the coastal defences is of utmost importance for the community of Portsea Island. Whilst the details of any agreement would be between the Applicant and Eastern Solent Coastal Partnership, we would expect to see written confirmation during the DCO process that the coastal flood defences will not be negatively impacted by the cable during construction and operation.

We understand specifically that there are on-going discussions relating to the cable crossing of the high ground bund for flood risk protection at Milton Common. This discussion must be satisfactorily concluded prior to any DCO being granted.

1.7 Dewatering

Dewatering is likely to be required during construction as high groundwater levels are likely to be encountered at particular points along the cable route when digging trenches.

The Applicant may need to apply for permits for dewatering activities from us (unless an exemption applies). The Applicant has determined that such permits will be applied for at the relevant time. This is satisfactory to us.

However, we would like to see further details regarding the proposed principles for any dewatering activities. The CEMP should cover these principles.

Dewatering activities will be more of a concern when in the area designated as Source Protection Zone 1, mainly in regard to the pumping and subsequent discharge of water. Sufficient measures should be put in place to ensure that the water discharged does not contain contaminants. Discharges of dewatering water may require an environmental permit from us.

Dewatering activities should not increase flood risk elsewhere.

1.8 Bathing Water

The cable route and landfall site at Eastney are within proximity of the Eastney Bathing Water protected area. Any sediment disturbance in proximity to the bathing water during the Bathing Water season (May to September), has the potential to impact on bathing water quality and Water Framework Directive Assessment compliance by elevating suspended sediment concentrations and potential faecal contamination.

We would like to see details regarding any proposed works in that area during Bathing Water season, and be notified in advance of any works taking place. Ideally, no works which have the potential to disturb sediment during May to September would take place. Further clarification regarding the timing of works is required.

1.9 Biodiversity net gain/enhancement

During a pre-application meeting with the Applicant on 23 July 2019, we stated that a project of this scale should seek opportunities for biodiversity net gain/enhancement. This is in keeping with the Overarching National Policy Statement for Energy (EN-1). Paragraph 5.3.4 of which states that *“The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests”*.

At the meeting, we were informed that incorporating biodiversity enhancement would be a key part of the design work going forward. We were informed that the project team were working on identifying opportunities for environmental enhancement/gain. We would wish to see details of the opportunities identified, and which opportunities will be carried forward by the Applicant.

We believe that biodiversity enhancement should be intrinsic to a development of this scale. We are disappointed that this point has not been addressed sufficiently within the submission, and believe this is a missed opportunity for the environment. The cable route is located within and adjacent to areas of high nature conservation value and areas that provide opportunities for biodiversity enhancement.

1.10 Comments on the Draft Development Consent Order

In addition to the recommended inclusions specified in other sections above, we have a few additional comments to make in relation to the Draft Development Consent Order (**Document Ref: 3.1**):

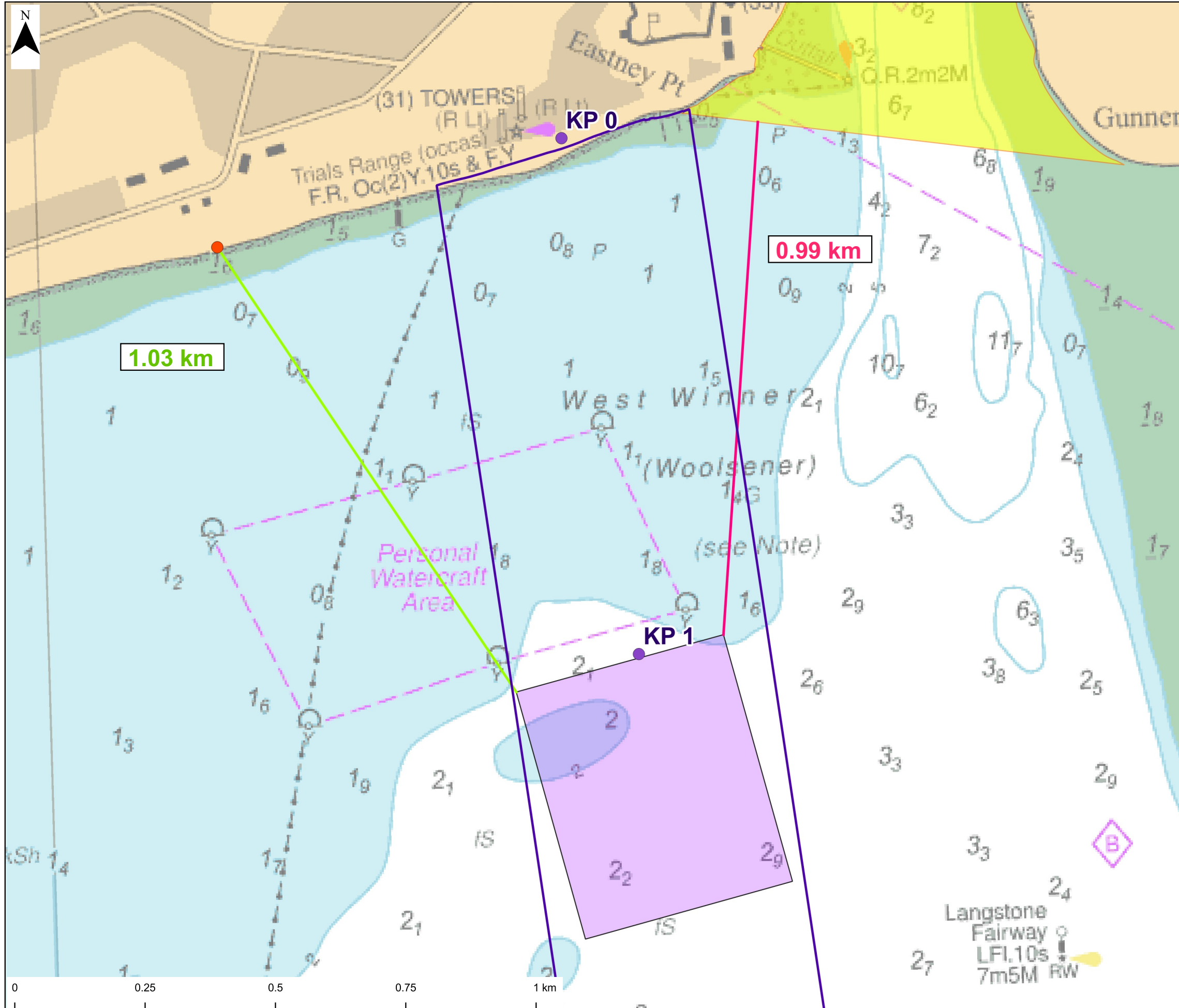
- Article 2(1) – It would be helpful if the definition of “watercourse” distinguishes between ‘Ordinary Watercourses’ (which fall within the remit of Local Authorities) and ‘Main Rivers’ (which fall within the remit of the Environment Agency).
- Article 19(1) – Trial holes, trenches, etc can cause risks of turbidity in underlying aquifers in some circumstances. This section may need to acknowledge that in

areas where Portsmouth Water abstract for public water supplies, prior approval from them should be sought before any digging (of sufficient depth) occurs.

- Schedule 2, paragraph 4 'Converter station option confirmation' – We would seek to be informed of which converter station perimeter option has been decided upon. This section does not specify who will be informed.
- Schedule 2, paragraph 6 – We would also seek to be consulted upon the detailed design for the converter station.
- Schedule 2, paragraph 13 (5) – This should also include reference to consultation with the Environment Agency.
- Schedule 15 (1) – This should also include reference to consultation with the Environment Agency on the Construction Environment Management Plan.
- Schedule 2, paragraph 18 (2) – In the event of a pollution incident, the Environment Agency must be informed as soon as possible by contacting our incident hotline on **0800 80 70 60** (24-hour service). This paragraph says that only the planning authority will be informed.

APPENDIX 5

ADDITIONAL INFORMATION ON LANDFALL MARINE ACTIVITIES



AQUIND Interconnector

- Marine Cable Corridor (MCC)
- Kilometer Point (KP)
- Eastney Bathing Waters sampling location (Grid Ref: SZ6741098774)
- Envelope for Horizontal Directional Drilling (HDD) exit (KP 1.0 - KP 1.6)
- Distance measured between Eastney sampling location and HDD extent at KP 1
- Distance measured between Langstone Harbour Shellfish Waters and HDD extent at KP 1

Shellfish waters

- Langstone Harbour

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

REV	DATE	BY	DESCRIPTION	CHK	APP
03	14/04/2020	AJ	THIRD DRAFT	SL	XX
02	06/04/2020	AJ	SECOND DRAFT	SL	XX
01	30/03/2020	AJ	FIRST DRAFT	SL	XX

DRAWING STATUS: DRAFT

natural power

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CLIENT: **AQUIND**

PROJECT: AQUIND Interconnector

TITLE: Distances from closest marine activities to Bathing and Shellfish Waters

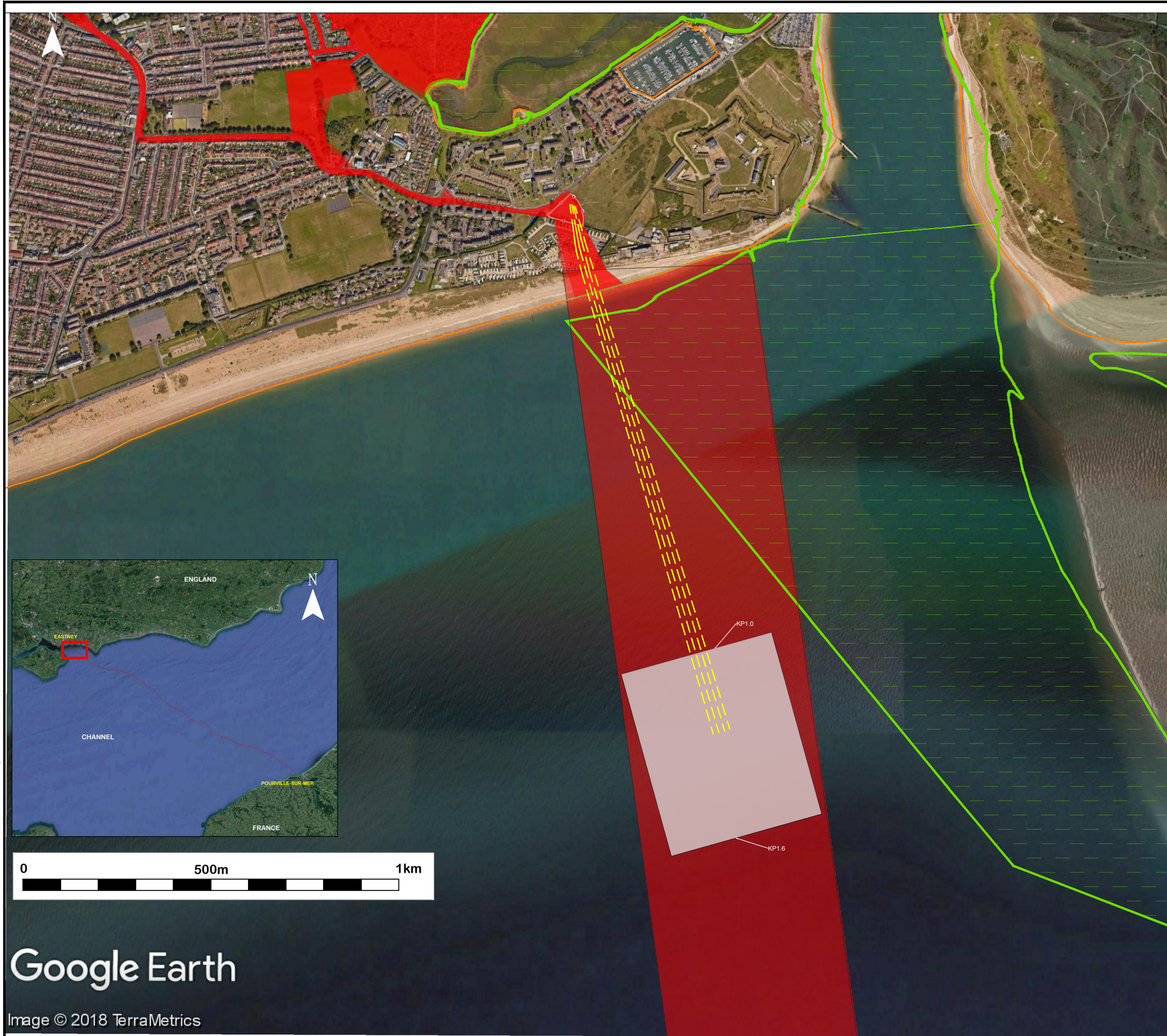
SCALE AT A3: 1:7500	CHECKED: SL	APPROVED: XX
PROJECT NO: GB201394	DESIGNED: AJ	DRAWN: AJ
DRAWING NO: XXX-XXXX-XXX		REV.NO: 03

GB201394_M_137_A

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File name \\UK.WSPGROUP.COM\CENTRAL DATA\PROJECTS\62100XXX\62100616 - AQUIND VO NO.3\IE MODELS AND DRAWINGS\300 - SITE\340 - TASK 9 MARINE ROUTE\CURRENT\ENVIRONMENTAL STATEMENT\UK\REV 1\FIGURE 3.3 UK LANDFALL.DWG



KEY

- APPROXIMATE HDD DUCT LOCATIONS
- MARINE CABLE CORRIDOR/ORDER LIMITS
- ENVELOPE FOR HDD EXIT (KP1.0-KP1.6)
- MHWS
- SPECIAL AREA OF CONSERVATION

Note: Whilst HDD exit shown as KP1.25, the final position could be at any location between KP1.0 and KP1.6 depending on final design hence envelope shown

Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 - Regulation 5(2)(a)

REV	DATE	BY	DESCRIPTION	CHK	APP
01	01/10/2019	SMA	FIRST ISSUE	CDL	CDL

DRAWING STATUS: **FINAL**



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CLIENT:

PROJECT:
AQUIND Interconnector

TITLE:
Figure 3.3 - UK Landfall

SCALE AT A3: 1:10000	CHECKED: CDL	APPROVED: CDL
PROJECT No: EN020022	DESIGNED: SA	DRAWN: SA
DRAWING No: EN020022-ES-3.3		DATE: 01/10/2019
		REV: 01

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