



AQUIND Limited

AQUIND INTERCONNECTOR

Consultation Report – Appendix 1.7D Marine
Specific – Briefing Note of Meeting with MMO
18 July 2019

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations
2009 – Regulation 5(2)(q)

Document Ref: 5.1.7D

PINS Ref.: EN020022

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PINS REF.: EN020022

DOCUMENT: 5.1.7D

DATE: 14 NOVEMBER 2019

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| Natural Power Memorandum | | | |
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| 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.

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| 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. |

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| | | 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 (<i>Hippocampus hippocampus</i>) and spiny seahorse (<i>Hippocampus guttulatus</i>) 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 IFCA's'. 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. | <p>This comment is acknowledged and the information relating to impacts on sandeels will be reviewed and updated accordingly within the final ES.</p> <p>We have acknowledged that the Marine Space <i>et al.</i>, (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 <i>et al.</i>, 2010 have been used to interpret data derived from PSA.</p> <p>Cook, D., & Moran, J., (2016). Goodwin Sands Aggregate Dredging Scheme Marine Licence Application. Further Environmental Information. Dover Harbour Board. Reference: I&BR001D01¹:</p> | <p>GE advised that Greenstreet <i>et al.</i> also has limitations. GE recommended that the use of MarineSpace <i>et al.</i>, for sandeels is considered best practice and once she has reviewed the Goodwin Sands document, she will provide further advice in writing.</p> <p>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.</p> <p>GE to provide a written advice.</p> |
| 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. | <p>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.</p> <p>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.</p> |
| 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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| | | <p>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.</p> | <p>been updated to reflect the high larval densities recorded by IHLS between 2007 and 2017 which includes the assessment of temporary habitat disturbance/loss.</p> <p>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.</p> <p>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.</p> <p>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.</p> | <p>availability and can lead to over or under representation of the spawning area impacted.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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).</p> <p>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)</p> |
| 31 | Fish and Shellfish | <p>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.</p> | <p>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.</p> <p>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.</p> | <p>AP advised that the impacts of EMF on migratory fish needs to be assessed. The IFCA's (Eastern IFCA not Sussex or Southern IFCA's) have raised this an issue.</p> <p>GM advised that it is important to state in our chapter where the uncertainties lie and Cefas are content with this response and approach.</p> <p>Post meeting note: salmonids and cod have been assessed for potential EMF impacts within the revised final ES chapter.</p> |
| 32 | Fish and Shellfish | <p>The PEIR has not considered or acknowledged whether dredging operations may cause entrainment of fish eggs, larvae, juveniles or adults. The MMO recommends</p> | <p>The final ES chapter will be reviewed and updated to include assessment on entrainment by dredging activities</p> | <p>Cefas and the MMO have no further response.</p> |

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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 8.64km ² 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. | <p>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.</p> <p>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.</p> <p>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.</p> |
| 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. | <p>Acknowledged.</p> <p>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.</p> <p>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.</p> | 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. | <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.</p> <p>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.</p> <p>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.</p> <p>A Habitats Regulations Assessment Report will be produced and will support the DCO application.</p> <p>The cumulative assessment and MCZ assessment will be presented within the final ES.</p> | 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 |

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| | 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 in 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. | <p>should be using pre-application.</p> <p>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.</p> <p>JL will send the results template to Natural Power via MQ.</p> <p>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.</p> <p>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 micro-siting to avoid these bedforms may be sufficient to avoid dredging altogether.</p> <p>KM advised that it is appreciated that nearshore areas are higher risk however, it would be useful if the assessment included rationale 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.</p> |
| 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 affects 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. |

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| | | | 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). | <p>Acknowledged.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> | 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. |

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| | | 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:

Mark Qureshi (MMO)
 Abbey Pennington (MMO)
 Andrew Griffiths (Cefas)
 Katie Musgrave (Cefas)
 Zara Ziaddun (NE)
 Alex Fawcett (NE)
 Nick Moore (JNCC)
 Hannah Lawson (JNCC)
 Sarah Lister (Natural Power)
 Ross Hodson (Natural Power)
 Jack Poleykett (Partrac)
 Matt Wright (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.

