THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

Thanet Extension Offshore Windfarm

Planning Inspector Reference: EN010084

Natural England's Comments on Responses by all Other Parties to the Examining Authority's First Round of Written Questions.

5th February 2019

Thanet Extension - Natural England's Comments on Responses by all Other Parties to Examining Authority's First Round of Written Questions.

Following submission of Natural England's and other consultees responses to the Examining Authority's first written questions regarding the construction and operation of Thanet Extension Offshore Wind Farm, Natural England has reviewed other consultees responses and commented on the major issues within the remit of Natural England. We have not commented on questions which we deem to be outside of our remit. Relevant responses from other consultees are provided in the table below, together with Natural England's position on the comments.

Green Comments – Natural England have no further comments, comments support/agree with Natural England position or does not impact on Natural England concerns.
Amber Comments – Natural England comments may be in contradiction, further advice needed, or potential new issue not included in Natural England comments.
Red Comments – Comments in direct contradiction with Natural England position or represents a significant issue not mentioned in Natural England's comments.
Grey Comments – Comments that are not relevant to Natural England.

Table 1. Natural England comments on responses provided by other consultees to the Examining Authorities first written questions.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
1.1. Biodiversity, Ecology and Natural Environment					
1.1.1.	The Applicant	**Biodiversity: Cable Landfall Location** Chapter 4 of Volume 1 of the Environmental Statement [APP-040] describes the process of identifying the preferred cable landfall location. Areas of search encompassed routes within Joss Bay, Pegwell Bay and Sandwich Flats North / Bay as shown on Figure 4.5 of [APP-040]. a) With reference to Chapter 4, can the Applicant provide further detail to support and explain its decision to screen out the Joss Bay and Sandwich Flats North/Bay locations for cable landfall, with particular reference to the comparative effects on designated nature conservation sites and inter-tidal habitats? b) Could the applicant please explain in full what ecological surveys were undertaken to inform its choice of landfall option (as described at	Not applicable.	a) For the most northerly of the options considered by the Applicant prior to scoping, Joss Bay, it is of note that any subtidal cable burial approaching landfall (and then onward in Indicative Route 1 or 2 as illustrated in Figure 4.5 of the Site Selection and Alternatives Chapter (PINS Ref APP-040/ Application Ref 6.1.4)) would need to cross both the Thanet Coast Marine Conservation Zone (MCZ) and the Thanet Coast Special Area of Conservation (SAC).). These sites are both illustrated in Figure 4.9 of the Site Selection and Alternatives Chapter (PINS Ref APP-040/ Application Ref 6.1.4). Whilst not illustrated within the above referenced chapter it is also worthy of note that Natural England within their responses to scoping and Section 42 (see table 5.5 of the benthic subtidal and intertidal ecology chapter (PINS Ref APP-046/ Application Ref 6.2.5) note that chalk reef is present within the region, and in particular within the designated sites. This is also noted by Kent Wildlife Trust (KWT) in	**a)** Regarding point A Natural England is supportive of the applicant's decision to completely avoid the MCZs within this area. Natural England did raise concerns regarding the removal of the southerly "option 2" at Sandwich Bay within our relevant representations. This was regarding the lack of reasoning of why the Sandwich Bay Option had been dropped and the comparison of the potential damage to habitats when a very damaging option 2 (permanent loss of saltmarsh) at Pegwell Bay was still being considered. This contradicts the applicant's reasoning of putting forward Pegwell Bay has been less damaging, when in many stakeholders' opinions, including Natural England's, the Sandwich

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		paragraphs 4.9.24 – 4.9.37 of [APP-040]? c) Could the applicant please respond to the representation of Kent Wildlife Trust [RR-048] that alternative routes with less of an impact on designated areas have not been adequately assessed?		their responses to S42 consultation. In particular KWT note that "Once the removal of a subtidal chalk habitat has taken place, there is no option for the recovery of this habitat; it will be lost in perpetuity, and therefore the conservation objectives of the site would not be met". KWT further note that the cable routing should avoid Thanet Coast MCZ to avoid these potential impacts. Despite the section of the MCZ that overlaps with the proposed Order Limits being actively dredged for Ramsgate Harbour the Applicant subsequently introduced the cable exclusion zone to avoid potential impacts on the chalk features of the MCZ. To aid in contextualising the locations of the chalk and subtidal rock reefs Annex A "Joss Bay Regional context for ExA" to this response illustrates the extent of the potential chalk and bedrock reef features within the MCZ as presented within the MAGiC web resource1. A further Figure "Joss Bay for ExA" also at Annex A shows Joss Bay at a higher level of resolution to further illustrate the potential comparative effects on the designated nature conservation sites and subtidal/intertidal features present. Therefore, as set out	Bay option had not been sufficiently assessed. Fortunately, the applicant's decision to removal landfall option 2 for the Pegwell Bay landfall site has removed many of Natural England's concerns, however we still strongly favour option 1 and the use of HDD to avoid any impacts upon the saltmarsh. b) Natural England have no further comments to make regarding this question. c) Natural England have no further comments to make regarding this question.

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				above, Joss Bay was removed due to the high likelihood of significant, irreversible effects on chalk reef. This approach is supported by subsequent consultation responses regarding the MCZ from KWT and NE. Further to the South, Sandwich Flats (Indicative Route 5 as illustrated in Figure 4.5 of the Site Selection and Alternatives Chapter (PINS Ref APP-040/ Application Ref 6.1.4))) is characterised by similar levels of designated sites, of a similar nature, to the more southerly 'option 2' landfall that was brought forward at scoping and subsequently dropped prior to publication of PEIR. In this regard Figure 4.10 of the Site Selection and Alternatives Chapter (PINS Ref APP-040/ Application Ref 6.1.4) illustrates the priority habitats present along the coast of Sandwich. To provide greater clarity to the Examining Authority a figure of greater resolution is presented in "Sandwich Flats – higher resolution for ExA" at Annex A of this response, with 'Sandwich Flats' identified in the underlying Ordnance Survey. As noted in section 4.8 of the Site Selection and Alternatives Chapter (PINS Ref APP-040/ Application Ref 6.1.4), in particular from paragraph 4.8.13 onwards t is clear to see	

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				that any route through this area would be required to cross not only intertidal mud habitat as a supporting habitat of the SPA, but Priority intertidal mud habitat. It would then be required to cross the designated coastal sand dune habitat (designated as part of the Sandwich Coast SAC and representing a Priority Habitat) before then crossing areas of Priority Habitat Lowland Fens, Priority Habitat deciduous woodland before then crossing the River Stour which is characterised in the provided map by the Priority Habitats (and SPA supporting habitats) of coastal saltmarsh and intertidal mudflats. As noted in Section 4.8 (Table 4.6) of the Site Selection and Alternatives Chapter (PINS Ref APP-040/ Application Ref 6.1.4) a landfall at Sandwich Flats North and the crossing of the River Stour would both require HDD options to be included, with the associated entry/exit pit infrastructure and temporary road ways to reach the works areas. Furthermore, the landfall would require a contingency measure for trenching to be retained due to the uncertainty of the underlying geology and risks to successful HDD. Therefore, as set out above, Sandwich Bay was removed due to	

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				the risk of long term negative impacts on a number of designated and priority habitats. It is worthy of note that landfall Option 2, which represented a concern for Natural England with regards comparative negative impacts has been removed from the proposed project design envelope. b) In parallel with the landfall decision making process surveys were being undertaken across both 'northern' and 'southern' option areas. The surveys were twofold, initial 'scoping surveys' which record initial habitat appraisal, prior to secondary more detailed surveys and overwintering/breeding bird ornithological surveys. Initial scoping surveys were completed across both option areas, secondary surveys (with the exception of the overwintering/breeding bird surveys) were only carried across the northern Zone of Influence. The overwintering bird surveys were completed and are reported within Annex 6.5.5.4 (PINS Ref APP-100) of the Environmental Statement (Onshore and Intertidal Ornithology Report), see reference 2.2.1 et seq of that report, and more specifically at Appendix 5-4D of that report.	

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				The initial scoping surveys were not presented as these had not been reported prior to the decision being made on landfall choice, and were not presented in the final annexes to the biodiversity chapter (Annexes 5.1 to 5.15 of that chapter (PINS Ref APP-095 to APP-111) as they are not of relevance to the predicted Zone of Influence of the proposed project. The decision process at this stage was therefore based primarily on a comparison of high level constraints and understanding of the designated sites and features which are sufficiently significant as to be able to influence a major infrastructure project. The level of granularity of the scoping site surveys, and the data resulting from them would only be used for amendments to an already selected alignment, for fine tuning, and would not be considered driving factors in establishing the relative merits of one "large scale" option over another as was the case here, and in many other similar options studies, including those carried out in the immediate vicinity for the Richborough project. c) It is the Applicants position that the evidence presented within the Site Selection and Alternatives Chapter	

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				(PINS Ref APP-040/ Application Ref 6.1.4) demonstrates clearly at Table 4.9 which summarises paragraphs 4.9.24 et seq that alternative routes would not result in lesser impacts on designated areas. The consideration of alternatives is well referenced within the ES chapter and in the opinion of the Applicant a proportionate approach has been taken in considering the merits of a number of routes, viable options amongst which have been brought forward for consultation at key stages. This is clearly evidenced by the scoping process having brought forward two options for consideration, followed by design optionality being brought forward for consultation during the formal S42 consultation process; at this latter S42 stage specific options requested by KWT were brought forward for wider consultation. As has been further demonstrated within this response and at paragraphs4.8.13 et seq and Table 4.6 of the Site Selection chapter (APP-040), landfalls to the North (Joss Bay) would have a greater potential for permanent damage to internationally designated habitat, landfalls to the South would also potentially cause permanent damage to international designated	

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				features (Sandwich Bay SAC). This is clearly illustrated through reference to the figures presented at Annex A to this submission in addition to the figures and narrative presented within the chapter (APP-040). The option at Pegwell Bay represents a number of options amongst which there was the potential for permanent loss of a SSSI feature (saltmarsh). As also noted within the chapter and summarised at Tables 4.6 and 4.9 of the chapter it is important to note that whilst ecological/conservation designations are an important facet within the consideration of alternatives they form one facet of a number of other important considerations which are presented within the chapter that should also be given due weight and consideration. On balance the Applicant considered that of the initial three search areas (Joss Bay. Pegwell Bay, and Sandwich Bay) and then the subsequent two search areas (Pegwell Bay and Sandwich Bay) other options were considered to have greater potential impacts than Pegwell Bay.	

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1.1.2.	The Applicant and Natural England	**Habitats Regulations Assessment: Project Design Parameters** Natural England's relevant representation [RR-053] has highlighted some inconsistencies between maximum project design parameters contained within the ES project description, DCO and DMLs. The ExA requests that this point is addressed specifically as follows: a) Summarise in tabular form all of the worst case scenario assumptions as set out in tables 1.4 – 1.35 of [APP-042] and table 5.2 of [APP-031]. Please cross-check the figures included with those presented within the DCO/DMLs. b) The forthcoming statement of common ground between these parties should clearly state any areas where disagreement remains as to any of the presented figures.	Natural England will await a summary table from the applicant and then re-examine and cross check the figures again. According to table 12 within the Natural England technical topics SoCG, the applicant is drafting a clarification note with all the maximum project design parameters being assessed.	A) Annex A, of the Applicants' Response to Relevant Representations (Appendix 1 of the Deadline 1 submission) presents the maximum design parameters of Volume 2, Chapter 1: Project description (Offshore) (PINS Ref APP-042/ Application Ref 6.2.1). This document presents the maximum design parameters in a tabular format, including those in Tables 1.4 to 1.35 of PINS Ref APP-042/ Application Ref 6.2.1. Annex B, of the Applicants' Response to Relevant Representations (Appendix 1 of the Deadline 1 submission) presents an audit of how the design parameters have been transcribed from PINS Ref APP-042/ Application Ref 6.2.1 into the Application documents, including the Report to Inform Appropriate Assessment (PINS Ref APP-031/ Application Ref 5.2). Annex B also presents a cross-check of the design parameters transcribed into the DCO/dML. Where transcription errors have occurred this is presented and considered in both a tabular and written format. B) Annexes A and B of Appendix 1, as presented in the response to 1.1.2.a, have been drafted as part	Natural England will review these additional documents in due course and provide any comments to the applicant. This will also be captured within the SoCG.

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				of the Applicants' Response to Relevant Representations of the Deadline 1 submission. The intention of these appendices is to provide clarity and to reach an agreement in the Statements of Common Ground (SoCG) on the design parameters assessed in the Application. The consideration of transcription of the project description within the Application has been included in the SoCG with Natural England, as a matter under discussion, as part of the Applicant's Deadline 1 submission.	
1.1.3.	The Applicant and Natural England	**Habitats Regulations Assessment: Sweetman II Compliance** Section 6 and table 6.1 of [APP-031] set out 'embedded mitigation' in relation to pollution prevention for subtidal and benthic intertidal habitats, marine mammals and onshore biodiversity which appears to be controlled by the Project Environmental Management Plan (PEMP) and Code of Construction Practice (CoCP) and potentially relied upon to rule out likely significant effects (LSE) on European Sites and their qualifying features screened into the assessment.	a) It is Natural England's opinion that if having agreement with the PEMP is required to reach a conclusion of no likely significant effect from pollution from the landfill in Pegwell Bay and therefore to comply with the People Over Wind Ruling, we advise that this forms part of the mitigation and should be carried through to appropriate assessment.	The Applicant notes that the approach taken to accidental pollution (pollution prevention) within the Report to Inform Appropriate Assessment (RIAA) as submitted in June 2018 with the application (PINS Ref APP-031/ Application Ref 5.2) was considered appropriate complied with the understanding of Sweetman II at that time, however The Applicant understands that since then, implications of interpretation of the Sweetman II ruling has developed since then and evolved. The Applicant is preparing a revised and updated RIAA, which will be submitted at Deadline II, which includes amendments in further response to the evolving understanding Sweetman II	Natural England agree with applicants screening in of accidental pollution for LSE and will review the updated RIAA when it is submitted by the applicant.

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		a) With respect to section 7.5 of [APP-031], and having regard to the Sweetman II judgement, please could Natural England comment on the Applicant's approach in this regard? b) Can the Applicant please confirm their position that conclusions of no LSE have been reached without reliance on avoidance or reduction measures? Natural England has stated section 5.9.1 of [RR-053] that it does not agree with the conclusions at paragraphs 7.5.9 of [APP-031] that no LSE can be concluded in terms of accidental pollution. The Applicant's position as noted above also appears to contradict the evidence in table 1 of Appendix I to the HRA screening report [APP-032], in which the applicant states (in respect of accidental pollution) that "*…a Code of Construction Practice (CoCP) which will set out measures to follow, published guidelines and best working practice for the prevention of pollution events…it is acknowledged that until these*	a) European sites and qualifying features for which these concerns exist: i. Thanet Ramsar features of concern: Turnstone – roosts on the saltmarsh and feeds on the mudflats. ii. The wetland invertebrate assemblage – Natural England understand that this not particularly helpful just naming the assemblage, feedback we also received from the applicant. Therefore, we have provided some advice that was presented to the applicant describing the likely invertebrates of conservation concern (see iii). iii. 6 Nationally Scarce (NS) species, 2 provisional NS species and 2 section 41 species. From best	judgment. These amendments include ruling accidental pollution in for Likely Significant Effect (LSE) for appropriate sites/features. These sites/features were identified within the original Screening Report issued in September 2017 (PINS Ref APP-032/ Application Ref 5.2.1), as accidental pollution at that point had remained screened in for LSE. As such, the Applicant would respond as follows: a) Section 7.5 of the RIAA (Section 7.5 of PINS Ref APP-031/ Application Ref 5.2) refers to confirmation of screening. The RIAA submitted with the application in June 2018 was considered appropriate compliant with the interpretation of the Sweetman II ruling at that time. b) The Applicant can confirm that the revised RIAA, to be submitted at Deadline II, will be amended to screen accidental pollution in for Likely Significant Effect (LSE) for all relevant receptors and taken forward for consideration of adverse effect alone and in-combination. The Applicant does not consider that considering these measures after being screened in will can confirm that the embedded mitigation results in a conclusion of	

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		measures have been agreed, it is not possible to conclude no LSE." c) Can Natural England confirm the European Sites and qualifying features for which these concerns exist, and whether these concerns also relate to the assessment of in-combination effects. d) Can the Applicant please clarify the apparent contradiction noted above. Table 1 of Appendix I to the screening report [APP-032] (Updated Screening following ECJ Ruling (Sweetman II)) provides limited detail with regard to consideration of in-combination effects in the screening assessment. Section 9 of [APP-032] describes the approach to the assessment of in-combination effects, concluding that "*A full assessment of in-combination effects will be undertaken as part of the RIAA and therefore is not presented in this Report*". The ExA is seeking to clarify whether the potential for in-combination effects could exist in these circumstances. e) Can the Applicant please explain how in-combination effects have been assessed	available evidence / records that Natural England hold on S41 species in Pegwell Bay we know that the upper saltmarsh transition zone, if it has any stands of restharrow may well the support the moth, *Aplasta ononaria*. There is also the section 41 species *Colletes halophilus,* a type of bee. These S41 species, in addition to having their own value stand as a proxy for good supporting habitat, alongside the assertion that the site represents excellent saltmarsh habitat in good condition. iv. Thanet SPA Features of Concern: Golden plover and turnstone, roost on saltmarsh and feed on mudflat. The little tern is not currently breeding in the site and historically the bay is	no adverse effect on integrity in any all cases. c) The Screening Report issued in September 2017 (PINS Ref APP032/ Application Ref 5.2.1) included consideration of accidental pollution. At that time, in the absence of draft versions of the embedded mitigation, accidental pollution was screened in for LSE for all receptors associated with sites in close proximity to the works (in consultation with Natural England. Following production of the CoCP during drafting of the PEIR and ES accidental pollution was screened out on the understanding of the Sweetman II ruling at that time. In line with Natural England's concerns and in light of the revised understanding of the Sweetman II ruling, accidental pollution has been rescreened in for LSE for all relevant sites in the revised RIAA), with that information informing the sites/features screened in for LSE as regards accidental pollution within the revised RIAA to be issued at Deadline II. Consideration of accidental pollution impacts has been made for these sites and features alone and incombination within the revised RIAA.	

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		at the screening stage, particularly for those sites and features for which no LSE has been concluded at the screening stage? f) Does Natural England have any comments to make on this point?	not a key breeding site. v. These concerns do not relate to the assessment of in-combination effects. f) Natural England have no further comments to make on this point.	d) The Applicant can confirm that accidental pollution has now been screened in for LSE alone and in-combination for relevant sites and features (as noted in (c) above) and assessed as appropriate within the revised RIAA, for issue at Deadline Specifically, accidental pollution has been assessed for the following sites for all phases of the development: Thanet Coast SAC; Sandwich Bay SAC; Thanet Coast and Sandwich Bay SPA; and Thanet Coast and Sandwich Bay Ramsar. There is therefore no outstanding contradiction. e) Section 9 of the Screening Report issued in September 2017 (PINS Ref APP-032/ Application Ref 5.2.1) summarised the criteria to be applied when identifying projects for consideration in-combination. Section 8 of the RIAA (PINS Ref APP-031/ Application Ref 5.2) provides further detail to the approach taken to screening in-combination, together with the plans and projects identified per receptor. These plans and projects were identified based on a coarse screening tool, namely distance between Thanet Extension and the designated sites considered for LSE alone, that distance being the	

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				maximum screening range relevant to the associated features. Section 12 of the RIAA (PINS Ref APP-031/ Application Ref 5.2) then further considered the plans and projects identified within Section 8, through consideration of: • Level of detail available for project/ plans (to help inform the tiering); • Potential for an effect-pathway-receptor link (where no link exists between effect and receptor, no LSE can be concluded, e.g. as informed by the receptor specific screening range and the location/sensitivity of receptors within a designated site); • Potential for a physical interaction (required for consideration of LSE); and • Potential for temporal interaction (required for consideration of LSE). Section 12 of the RIAA (PINS Ref APP-031/ Application Ref 5.2) applied the above criteria to further refine the list of plans/projects identified in	

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				Section 8 of the RIAA (PINS Ref APP031/ Application Ref 5.2), resulting in a list of plans/projects relevant to be considered through the in-combination assessment with Thanet Extension for individual sites/features. The overall aim was to 'determine the plans or projects that may affect the designated sites considered for potential LSE for the project alone' (paragraph 8.1.8 of PINS Ref APP-031/ Application Ref 5.2). Therefore even if the site/feature had been screened out from LSE for the project alone, these sites/features were still considered through screening in-combination. It is the Applicant's position that there is therefore no potential for incombination effects to exist in these circumstances. The exception to this is marine mammals, as noted in paragraph 8.3.1 of the RIAA (PINS Ref APP-031/ Application Ref 5.2). That exception is based on the distance to all other relevant designated sites from the Thanet Extension boundary, which is such that it removes the risk of an in-combination effect (being 145km, the maximum screening distance applied for marine mammals). f) For Natural England to comment.	

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1.1.4.	The Applicant	**Habitats Regulations Assessment: Methodology** Section 7.3.2 of the applicant's Report to Inform Appropriate Assessment [APP-031] describes the definition of the study area for sub-tidal and intertidal benthic habitats including consideration of "*Designated sites within the maximum range of relevant effect (being up to 14 km from the project boundary)*". However, paragraph 5.4.2 of the Benthic Subtidal and Intertidal Ecology chapter of the ES [APP-046] describes an assessment study area of only a 12km buffer from the proposed development site boundary. Paragraph 7.5.11 of [APP-031] also explains "a range of up to 14 km is noted, subsequently amended to 13km in the ES physical processes chapter". a) Can the Applicant explain these apparent divergences in the study areas? b) Please clarify the bases on which the defined 12/13/14km study areas were derived.	Not applicable.	a) The ExA is correct in that there are different ranges applied with respect to benthic ecology. The 14km figure applied to screening in the RIAA, as noted in the RIAA issued in June 2018 (Paragraph 7.5.10 of PINS Ref APP-031/ Application Ref 5.2), was derived from the physical processes PEIR chapter (issued in November 2017, paragraph 2.10.26 of Volume 2, Chapter 2, Marine Geology, Oceanography and Physical Processes), which provides ~13km as being the spring tidal range for the sediment plume resulting from disturbance during construction predicted at that time – 14km was taken on a precautionary basis in the anticipation of the PEIR being refined through to the ES. That 14km distance was applied during screening of sites where benthic habitats were a designated feature, as a worst case scenario of effect. It is noted that the distance was provided in the physical process chapter for the ES, remaining as ~13km (also presented in paragraph 2.10.26 of Volume 2, Chapter 2, Marine Geology, Oceanography and Physical Processes, PINS Ref APP-043/ Application Ref 6.2.2),	Natural England have no further comments to make regarding this question.

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		c) In terms of adopting a consistent study area, is it appropriate to conclude that a 12km buffer is the extent that has been fully assessed.		although the greater 14km range was retained for screening in the RIAA (PINS Ref APP-031/ Application Ref 5.2) as a precaution (although in practice, the different ranges would not make any difference to the sites/features screened in for assessment given their location relative to Thanet Extension). b) As regards the 12km range applied in the benthic ecology chapter of the ES (paragraph 5.4.2 of PINS Ref APP-046/ Application Ref 6.2.5), that range was derived from the draft physical processes modelling produced during the drafting of the ES. A 1km difference in range (12km to 13km) would make no difference to the benthic ecology chapter of the ES, since all habitat types that would occur within that range are assessed within the benthic ecology chapter. c) Within the RIAA, the study area that has been assessed is 14 km. This remains the case even when considering the 12km distance assessed in the ES as there would've been no additional habitats assessed with a 14 km study area. Furthermore, a 14 km study area in the ES would have	

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				resulted in a small reduction in the magnitude of the impacts from the project as the volumes of sediment displaced would remain the same but spread over a wider area and the associated depth of sediment deposition being less when considered over the whole area. In the same vein, there would also be a reduction in the percentage of habitats temporarily lost/ disturbed by the works at Thanet Extension with a larger study area for the ES which would equates to a potential reduction in the magnitude of the impact. There would be no difference in sites screened in within the RIAA (PINS Ref APP-031/ Application Ref 5.2) regardless of the 12/13/14km screening range – the difference is too small to make a material difference to the designated sites screened in/out of assessment. With regards the ES, the assessment has considered all relevant habitats in any case such that a slight difference in range at the limit of effect has no material effect on the conclusions. Therefore the assessments (both in the ES (PINS Ref APP-046/ Application Ref 6.2.5) and RIAA (PINS Ref APP-031/ Application Ref 5.2)) address the potential for effect on all relevant benthic	

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				habitats and that the potential for impact has been fully assessed in both cases.	
1.1.5.	Natural England	**Habitats Regulations Assessment: Methodology** Does Natural England have any observations on ExQ1.1.4 above and the extent of the study area?	Natural England welcomes any clarification from the applicant on the discrepancies in the different size of the study areas quoted. However, we do not believe these differences will have any impact upon the outcome of the assessments.	The Applicant would refer the ExA to the Applicant's response to 1.1.4, which is clear that the difference in ranges reflects the evolution of the project (and the understanding of the processes) over time. The range applied in the RIAA (PINS Ref APP-031/ Application Ref 5.2) is effectively very precautionary, with the ES reflecting more refined modelling results. In practice, amending either value would have no material difference on the conclusions, as all relevant habitats, sites and features have been assessed regardless of the range (12km, 13km or 14km) applied.	Natural England have no further comments to make regarding this question.
1.1.6.	The Applicant and Natural England	**HRA Methodology: Thanet Coast SAC** Table 7.11 of [APP-032] (European and Ramsar sites for which LSE cannot be discounted) lists both "Reefs" and "Submerged or partially submerged sea caves" as relevant features. Table 8.1 and Appendix I of [APP-032] describe consideration of both features of the site, but consideration of LSE is only made in respect of reefs	The Thanet Coast contains a large number of partly-submerged caves and tunnels in the intertidal area. These caves support very specialised and rare algal and lichen communities, which are restricted to the shaded, damp walls and ceilings of the caves. Natural England is content that there are no likely significant effects from the proposed	a) Table 8.1 of the Screening Report (PINS Ref APP-032/ Application Ref 5.2.1) does include the feature 'sea caves' for Thanet Coast SAC. However, the consideration of LSE found potential for LSE for the reef feature only and not sea caves for the majority of effects – with the notable exception of accidental pollution and invasive non- native species (INNS), both effects being screened in for LSE for sea caves and reefs for Thanet Coast SAC in Table 8.1 of the Screening Report	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		due to the potential physical overlap. The ExA notes that Natural England table 2.2.2 of [RR-053] does not include the submerged caves feature as a concern. Nonetheless, no direct evidence appears to have been provided by the Applicant to explain the exclusion of the sea caves, or how this qualifying feature fits against the criteria in paragraph 7.3.2 of [APP-032]. a) Could the Applicant please explain the basis upon which the "submerged or partially submerged sea caves" feature of the Thanet Coast SAC has been excluded from consideration of LSE, as listed in Table 7.11 of APP-032? b) Could Natural England please identify whether its non-reference to this feature is an oversight, or whether it is content that there is no LSE?	development on this feature of the Thanet Coast SAC.	(PINS Ref APP-032/ Application Ref 5.2.1). During the drafting of the RIAA (as published in June 2018) (PINS Ref APP-031/ Application Ref 5.2), progress was made with regards the embedded mitigation and a decision was made at that time to screen accidental pollution out from LSE for all receptors – resulting in sea caves being screened out from LSE for accidental pollution. Further, INNS were screened out for offshore in paragraph 7.5.8 of the June 2018 RIAA (PINS Ref APP031/ Application Ref 5.2) and therefore screened out for sea caves at Thanet Coast SAC. Comment is provided in paragraph 7.5.12 of the June 2018 RIAA (PINS Ref APP-031/ Application Ref 5.2), as follows: 'Specifically in relation to the Thanet Coast SAC, the Screening Report considered the potential for effect on all features, however for clarity it should be noted that where potential for LSE was found (with the exception of accidental pollution and INNS, addressed above), this related to the chalk reef feature only and not submerged sea caves – the latter having been screened out of assessment and therefore not included here' It is of note that the	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				revised RIAA, to be issued at Deadline II, has screened accidental pollution back in for relevant sites/features including sea caves for Thanet Coast SAC, with sea caves therefore assessed for accidental pollution only within the revised RIAA, concluding no AEoI in all cases. However, INNS remain screened out of LSE for all offshore receptors on the basis that the construction of Thanet Extension does not result in the introduction of a new vector for INNS as the project surrounds the existing Thanet Offshore Wind Farm, therefore, only providing a minor increase to any potential for spread of INNS to that of TOWF and does not introduce a new pathway. The screening and integrity matrices will also be updated for Deadline II to reflect these changes. b) The Applicant would clarify that the exclusion of sea caves in the June 2018 RIAA (PINS Ref APP-031/ Application Ref 5.2) was not an oversight, but purely a function of the screening process as described in a) above. LSE has subsequently been screened in for accidental pollution within the revised RIAA.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
1.1.7.	The Applicant	**HRA Screening and Integrity Matrices: Reference to Evidence** The HRA screening and integrity matrices currently contain minimal references to the evidence in the supporting documents, and where it is provided: reference is typically not made to specific paragraphs. a) Please could the Applicant update the screening and integrity matrices presented as part of [APP-033] to provide further cross-referencing to specific paragraphs / tables / figures in the ES chapters and HRA Report. b) Can the Applicant please ensure that the screening matrices present all qualifying features of the sites within the body of the matrix itself (for example, the "submerged or partially submerged sea caves" feature of the Thanet Coast SAC does not appear in Matrix 1 of APP-033).	Not applicable.	a) The Applicant apologises for providing insufficient cross referencing. The Screening and Integrity Matrices are being updated for issue with the revised RIAA at Deadline II. Additional cross referencing will be added. b) All features associated with designated sites will be checked for the revised matrices to be issued at Deadline II and where missing will be added.	Natural England have no further comments to make regarding this question.
1.1.8.	Natural England	**HRA Screening and Integrity Matrices: Coverage**	The examining authority is correct in stating that this will be covered within the statement of common	a) It is the Applicants understanding, based on consultation during the drafting of the screening report (PINS Ref APP-032/ Application	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		The ExA notes that Natural England has specifically raised the European sites for which outstanding concerns remain in section 2.2 of [RR-053] (with further details later within that document). Specific confirmation as to any other concerns with LSE or adverse effect on integrity (AEoI) conclusions in respect of any of the European Sites would greatly assist the ExA. a) Does Natural England have any specific comments on the Applicant's HRA screening and integrity matrices submitted in [APP-033]? In particular, has the Applicant screened in the correct features and taken the relevant ones forward to appropriate assessment to their satisfaction? b) This may form part of the statement of common ground between Natural England and the Applicant.	ground which will be submitted at Deadline 1. Section 4.1 and Table 3 indicates the current positon and progress Natural England have made on the conclusions for each site.	Ref 5.2.1) and RIAA (PINS Ref APP-031/ Application Ref 5.2), that all sites and features that Natural England expect to see have been screened in for assessment (i.e. all sites/features that should be identified for LSE have been, with the revision of the RIAA for Deadline II amending conclusions on LSE for accidental pollution to conclude LSE and follow through with a full assessment). As regarding the sites for which Natural England have outstanding concerns (identified in section 2.2 of [RR-053]), the Applicant would comment the following in each case. • Thanet Coast and Sandwich Bay SPA – addressed in the Applicants response to Questions 1.1.15, 1.1.37, 1.1.38, 1.1.39 and 1.1.40 and the SoCG with Natural England. • Outer Thames Estuary SPA – addressed in the Applicant's response to Question 1.1.11 and the SoCG with Natural England. • Flamborough and Filey Coast pSPA – addressed in the SoCG with Natural England.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				• Southern North Sea cSAC - addressed in the Applicant's response to Question 1.1.18, 1.1.22 and 1.1.27 and the SoCG with Natural England. • Thanet Coast SAC - addressed in the SoCG with Natural England. • Margate and Long Sands SAC - it is noted that during a meeting between Vattenfall and Natural England on 5th October 2018 to discuss SoCG clarification was sought regarding on this point – Natural England were uncertain as regards the basis for the concern flagged, but considered it likely to be an erroneous inclusion. • Thanet Coast and Sandwich Bay Ramsar – addressed in the Applicants response to Questions 1.1.15, 1.1.37, 1.1.38, 1.1.39 and 1.1.40 and the SoCG with Natural England. b) A Statement of Common Ground is being drafted between the Applicant and Natural England	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				which includes reference to the Report to Inform Appropriate Assessment and other application documents where relevant.	
1.1.9	The Applicant and Natural England	**Offshore Ornithology: Collision Risk Modelling** The applicant explains that due to uncertainties in data collected and reported by the Offshore Renewables Joint Industry Programme (ORJIP) none of the assessments undertaken by the applicant use the ORJIP data (4.1.142 of APP-045). As a result, the applicant's collision risk modelling is based on the Band (2012) ("Option 2") model using only generic bird flight height data (although the applicant explains that Band "option 1" data is also presented as part of the collision risk modelling). In paragraph 5.3.1.10 [RR-053], Natural England states that site specific data could make a "significant difference in the number of predicted mortalities from collision". RSPB raises similar points regarding the use of specific flight height data from the ORJIP study to inform the CRM. a) Please could the applicant respond in detail to the points	Natural England are concerned that by using Option 2 of the Band (2012) model and not Option 1 (which uses site specific flight height data), the predicted mortalities may be underestimated. We have illustrated this using the different Collision Risk Modelling options in our Written Representations (section 6.4.26), based on the same parameters presented in Annex 4-4 (Ref: 6.4.4.4) to demonstrate the potential range for kittiwake. These outputs were generated using the deterministic Band (2012) model and did not include confidence intervals, but was carried out to illustrate the difference that using the ORJIP data could make, and to give an indication of the upper part of the range for predicted mortality.	A separate note provided in response to Natural England's relevant representation (Annex F to Appendix 1 of this Deadline 1 submission) provides the detailed explanation as to why data from the ORJIP Bird Collision Avoidance project was not incorporated into the CRM assessments within the ES Chapter. Due to ongoing uncertainties in the application of the ORJIP data to the Band (2012) collision risk model Options, which are still apparent at the time of this submission (early January 2019) and with little guidance from the SNCBs on the most appropriate use of the ORJIP data in different Band (2012) model Options, there are no plans for the Applicant to use these data. It is the considered view of the Applicant that there is a very low likelihood of large changes in the scale of the CRM outputs resulting from the use of ORJIP data to the extent that the assessment would change from being not significant in EIA terms to being significant. This is because the recorded density of flying birds is very	Natural England's view is that by using generic flight height data (Option 2) the collision risk is likely to be underestimated. However, as stated previously Natural England's position is that the additional predicted mortality from Thanet Extension alone is not likely to have an adverse effect on integrity on kittiwake from Flamborough and Filey Coast SPA, and will not materially alter the significance of the overall in-combination mortality figure. However, it is important the project's contribution to the predicted total is accurately captured. We have recently advised the applicant that we recommend that they re-run the collision risk modelling using the Marine Scotland science stochastic collision risk modelling tool. If Option 2 is used, then the upper confidence intervals should be considered.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		raised by Natural England and RSPB. b) Could Natural England please set out its position in respect of how any such "significant differences" in the collision risk modelling outputs may have a bearing on the applicant's conclusions in respect of the conclusions of adverse effects on the integrity of the relevant European sites (from the project alone and in-combination).	With respect to the question on whether the modelling outputs will have a bearing on the overall conclusions, our view is that they are unlikely to change the Applicants overall conclusions. Even taking the outputs using Option 1 with flight heights from the ORJIP Bird Collision Avoidance study at Thanet (Bowgen and Cook, 2018), Natural England's opinion is that there is no likely adverse effect on integrity from collision mortality for the relevant European sites for any of the species from the project alone. Natural England's advice is that the level of in-combination mortality from collision risk in-combination with other plans and projects in the North Sea is such that although an adverse effect on integrity of the Flamborough and Filey Coast SPA kittiwake population cannot be ruled out beyond reasonable scientific doubt. However	low within the Thanet Extension site across all biological seasons.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			the effect of the additional predicted mortality from Thanet Extension is unlikely to materially alter the significance of the overall in-combination mortality figure, although it is important that the project's contribution to the predicted total is accurately captured.		
1.1.10.	Natural England	**Offshore Ornithology: Use of the Band (2012) Collision Risk Model** The use of the Band (2012) Collision Risk Model for offshore ornithology [APP-048], while agreed as the most appropriate with Natural England, is currently under review by Natural England and Marine Scotland, and new guidance is due to be published. • Please can Natural England provide commentary on the applicant's use of the Band (2012) Collision Risk Model and its suitability given that it is currently under review?	To clarify the use of Band (2012) Collision Risk Model (CRM) is not under review. We have advised the Applicant that we are content for outputs from the Band (2012) CRM to be used, provided that the uncertainty/variability in the densities of birds in flight, avoidance rates, flight heights and nocturnal activity are also presented with the deterministic outputs. This can be done either by presenting multiple deterministic/Band model outputs for the different ranges of input parameters. The uncertainty/variability can also be presented by using the Marine Scotland	It is the understanding of the Applicant that the underlying method of the Band CRM is not 'currently under review'. The Applicant understands that a new software package for inputting data in to the Band model and for that package to facilitate the inclusion of variation (uncertainty) in certain input parameters has been prepared under contract to Marine Scotland. This is the Marine Scotland 'Stochastic Collision Risk Model for Seabirds in Flight' with the software package available at this website: https://dmpstats.shinyapps.io/avian_stochcrm/. The Applicant understands that the outputs from this software package are identical to the Band CRM when parameters are input that have only fixed, single values. The Applicant was informed at a meeting with Natural England that the software package is a 'beta model' and as such	Natural England did not inform the Applicant that the MSS stochastic CRM was a 'beta model' or say that guarantees about its performance cannot be provided. Our understanding is that as part of the testing the applicants ran the stochastic model without variability and got the same result as the deterministic model. Whilst Natural England has not tested it, there is no reason why the MSS stochastic tool should not be used.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			Science stochastic CRM tool (McGregor et al. 2018), which has now been published and is available. A stochastic version of the of the Band (2012) model has been developed by Marine Scotland Science (MSS) and this tool is now available https://www2.gov.scot/Topics/marine/marineenergy/mre/current/StochasticCRM Although we are not in a position to fully endorse the MSS stochastic model, we have advised the Applicant that it would be useful to start using this tool, and to present outputs alongside the outputs from the deterministic Band (2012) model. The Applicant used an earlier version of a stochastic CRM (Masden 2015) at an earlier stage in the process but the outputs were not included in the Environmental Statement due to the outputs being unreliable because the code was found to contain errors. This, and the findings from a review of the Masden model	guarantees about its performance cannot be provided. To the extent that the software package is not fully tested it can be considered to be 'currently under review' and written guidance on its use might be expected at some point from the SNCBs. The validity of the outputs from the Band CRM model when run in MSExcel with single sets of parameters remains unchanged.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			commissioned by Natural England (Trinder, 2017) led to the MSS tool being developed. The core calculations in the MSS CRM tool are largely the same as for Masden's code, and the core deterministic calculations underpinning the Masden code (i.e. without stochasticity) follow that of Band (2012). To conclude, Natural England can confirm that the use of Band (2012) is appropriate, provided the variability is presented. Given the uncertainty around input parameters including flight height and nocturnal activity, we recommend that the Applicant also runs the MSS stochastic model tool, and presents the outputs alongside the Band (2012) outputs. We believe re-running the collision risk modelling using the recommended parameters will provide a more representative figure that can be added to the		

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			cumulative and in-combination totals. References – can be supplied on request from the Examining Authority. Band, W. (2012). Using a collision risk model to assess bird collision risks for offshore windfarms. The Crown Estate Strategic Ornithological Support Services (SOSS) report SOSS-02. SOSS Website. Bowgen, K. & Cook, A., (2018), Bird Collision Avoidance: Empirical evidence and impact assessments, JNCC Report 614. Masden, E. (2015). Developing an avian collision risk model to incorporate variability and uncertainty. Scottish Marine and Freshwater Science Vol 6 No 14. DOI: 10.7489/1659-1. McGregor, R.M., King, S., Donovan, C.R., B. Caneco, B., Webb, A. (2018) A stochastic collision risk		

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			model for seabirds in flight. Marine Scotland Report. Scottish Government website.		
1.1.11.	The Applicant and Natural England	**Offshore Ornithology: Displacement Effects on Red-Throated Divers** The Applicant's approach to the assessment of displacement effects on red-throated divers has made assumptions based on construction monitoring surveys for Thanet Offshore Wind Farm which found that that there was no displacement of red-throated divers beyond the site boundary. Natural England's view is that 100% displacement should be assumed out to a distance of 4km from the site [RR-053] during construction and operation of the proposed development. The RSPB also highlights a divergence in methodologies between the Applicant's approach to displacement assessment and the Joint SNCB Interim Displacement advice note [RR-057]. Given the apparent difference between these methodologies, the ExA is unclear about the evidential basis upon	c) A copy of the SNCB advice note on displacement is attached. The recommendations in the advice note are aimed at capturing the full range of potential impacts, while encouraging developers to present any species-specific evidence to further refine this as part of both Habitat Regulations Assessment (HRA) and Environmental Impact Assessment (EIA) processes. This is why Natural England are not advocating only presenting outputs set out in this advice note, and we are content for the Applicant to present their displacement figures alongside. Since the publication of this note in 2017 further	a & b) The Joint SNCB Interim Displacement advice note provides generic guidance on displacement for a range of seabirds in response to activities associated with the construction and operation of offshore wind farms. It does, however, advocate that where site-specific evidence is available it should be used in assessments in addition to the more generic ranges, the latter of which were all provided in Volume 4, Annex 4-3: Range of Displacement Matrices for Seabird Species Recorded in Thanet Extension (PINS Ref App-079/ Application Ref 6.4.4.3) of the Environmental Statement. In response to queries over the use of post-consent monitoring data collected at Thanet Offshore Wind Farm (OWF) a further note submitted in response to Natural England's relevant representation (submitted as Annex D to Appendix 1 of this Deadline 1 submission) provides additional assessments through an evidence led approach. The evidence in this note makes use of site-specific data from Thanet OWF, Kentish Flats Extension	Natural England notes that whether or not the applicant's or our recommended methodology is used the overall conclusions are unchanged.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		which any appropriate assessment of the project (alone and in-combination) can be made in respect of the relevant sites for which red-throated diver is a qualifying feature. a) Please could the Applicant respond to the specific concerns raised by Natural England and RSPB in this regard, with clear reference to the underpinning evidence. b) Where the methodology has varied from that advocated within the Joint SNCB Interim Displacement advice note, can the Applicant provide further explanation as to the reasons for this. c) In order that it is before the ExA and all interested parties, can Natural England please submit a copy of the document referred to as "*Joint SNCB Interim Displacement Advice Note: Advice on how to present assessment information on the extent and potential consequences of seabird displacement from Offshore Wind Farm (OWF)*	evidence has emerged that red throated diver can be displaced beyond 4km from offshore (for example Webb et al., 2017) which further justifies an approach the takes into account that divers may be displaced beyond 4km. The status of the document is that it is currently used by all SNCBs, including Natural England. d) To clarify, due to the temporary nature of any displacement effects from Thanet Extension alone during the construction period we would agree that there is no adverse effect on integrity to the red-throated diver feature of the Outer Thames Estuary SPA.	OWF and that collected for Thanet Extension which covered the operational site of Thanet OWF. The above Annex (Annex D to Appendix 1) provides additional variation on displacement rates using data collected from the sources referred to above in order to support the original assessments within the ES Chapter (PINS Ref APP045/ Application Ref 6.2.4) accounting for red-throated diver displacement. This additional note (ibid) has undergone revision following consultation on the initial draft with Natural England. c) C&d) For Natural England to provide a response. e) With respect to the final question on red-throated diver and potential in-combination effects this is covered in a separate note (Annex C to Appendix 1 of this Deadline 1 submission) that contains further detail on how the in-combination assessment has been undertaken and the conclusions reached. That additional note (ibid)has been reviewed, revised and updated following consultation with Natural England.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		developments" and explain its status? d) Natural England's comment in relation to point 11.4.14 (page 11 of [RR-053]) is ambiguous. Please could it provide clarified wording in respect of construction and operational effects? e) In light of the Applicant's approach to the assessment of in-combination effects of displacement of red-throated diver (paragraphs 12.4.11 – 12.4.34 of [APP-031]), and the representations of Natural England [RR-053] and the RSPB [RR-057], can the Applicant provide a response to the points raised by these two bodies to further explain how the in-combination assessment has been undertaken and conclusions reached.			
1.1.12.	The Applicant	**Offshore Ornithology: Displacement Effects on Guillemot and Razorbill** Natural England has expressed a view that the assessment of displacement effects on guillemot	Not applicable.	The Joint SNCB Interim Displacement advice note provides generic guidance on displacement for a range of seabirds in response to activities associated with the construction and operation of offshore wind farms. It does, however, advocate that where	Natural England's view is that the assessment of displacement can make use of site specific evidence, but this should be presented alongside results using SNCB methodology. Natural England

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		and razorbill during construction and operation should follow its guidance and be extended from a 1km to 2km distance from the proposed development site boundary. • The Applicant is requested to provide the relevant updated displacement matrices (to supplement those presented in section 11.4 of [APP-031])such that the Examining Authority and parties to the examination can consider the potential range of displacement effects that may arise between the Applicant's and Natural England's advocated approaches.		site-specific evidence is available it should be used in assessments in addition to the more generic ranges, the latter of which were all provided in Volume 4, Annex 4-3: Range of Displacement Matrices for Seabird Species Recorded in Thanet Extension (PINS Ref App-079/ Application Ref 6.4.4.3) of the Environmental Statement. It is possible that Natural England did not review the original displacement matrices that were provided in ES Annex 4-3 (PINS Ref APP-079 / Application Ref 6.4.4.3). For clarity these matrices are presented again in Annex E to Appendix 1 of this Deadline 1 submission. In response to Natural England's Relevant Representation (RR-053) that questioned the use of post-consent monitoring data collected at Thanet OWF, additional supporting evidence is provided in Annex E to Appendix 1 of this Deadline 1 submission. The evidence in this note makes use of site-specific data from Thanet OWF and that collected for Thanet Extension, which also covered the operational site of Thanet OWF. Annex E to Appendix 1 provides additional variation on displacement rates using data collected from the sources referred to above in order to support	did review the displacement matrices in ES Annex 4-3. Our point was that the results should be in the main body of the ES, not in an Annex. As stated in our written reps, it is acknowledged that even if the SNCB guidance on assessing displacement were followed, it is unlikely to change the conclusions that there is no significant effect from the project alone or in-combination.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				the original assessments within Volume 2, Chapter 4 (PINS Ref APP-045/ Application Ref 6.2.4) of the Environmental Statement accounting for gannet and auk displacement. This additional note is currently undergoing revision following consultation on the initial draft with Natural England.	
1.1.13.	The Applicant and Natural England	**Offshore Ornithology: In-Combination Assessment – Other NSIPs** The ornithological in-combination assessment assigns other projects to a "tier" depending on the certainty of their delivery. Both Hornsea Project 3 and Norfolk Vanguard are presented as tier 4 projects in Table 8.4 of [APP-031], which does not reflect the fact that both applications for development consent have now been submitted. • Please could the Applicant and Natural England advise the ExA as to intended updates to the in-combination assessment in respect of disturbance, displacement and collision risk effects in light of these changes, and the relevant sites and features for which these apply?	Natural England understands that it is the Applicant's intended approach to take the figures agreed at the end of the EA3 hearing and add Thanet Extension, Hornsea 3 and Norfolk Vanguard to those. However, at the moment there is still disagreement regarding the figures for those three projects and therefore there are no updates to report at the moment.	Tier 4 is defined as 'submitted applications not yet determined', so the classification of both Hornsea P3 and Norfolk Vanguard are categorised correctly according to the Tiering system applied in the Report to Inform Appropriate Assessment (PINS Ref APP-031/ Application Ref 5.2). Categorisation as Tier 4 means that 'low confidence' can be placed in the quantitative contribution that these projects make to the incombination assessment since there are several further iterations that the project will go through (e.g. amendments at the Hearing stage, amendments at detailed design stage and amendments based on award of contract for difference) before it is constructed and its predicted impacts might be realised. An updated RIAA is to be submitted at Deadline 2 but. However, as since the Tier categorisation of these two projects has not changed, there is no	Natural England will consider the updated RIAA when it is submitted by the applicant at Deadline 2. As highlighted in response to 1.1.9. we would advise that the applicant updates the collision totals by running the MSS stochastic CRM tool.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				proposal to change the in-combination assessments with respect to the contribution of these two projects.	
1.1.14.	The Applicant	**Offshore Ornithology: In-Combination Assessment - Other Projects** Paragraph 8.5.4 of [APP-031] states that (in respect of the offshore ornithology in-combination assessment) "*Projects related to marine aggregate extraction, port dredgings disposal, oil and gas extraction, pipelines, shipping, coastal developments and commercial fisheries have been screened out on a series of factors including those that do not overlap spatially with Thanet Extension, those that do not give rise to effects that are cumulative with relevant effects from Thanet Extension, those that are recurring or ongoing from before the baseline period and those that are ongoing activities rather than projects with a consenting process*" • Could the applicant confirm that this paragraph was only intended to apply in the context of the offshore	Not applicable.	The Applicant can confirm that the text about the screening process that is provided in Paragraph 8.5.4 of the Report to Inform Appropriate Assessment (PINS Ref APP-031/ Application Ref 5.2) does only apply to the offshore ornithology assessment.	Natural England note this answer from the applicant and have no further comments.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		ornithology assessment (on the basis that such a statement is only made under section 8.5 of the RIAA, and not in sections 8.2 or 8.3, for example)?			
1.1.15.	The Applicant and Kent Wildlife Trust	**Offshore Ornithology: Screening in Relation to Saltmarsh Habitat** Paragraph 7.5.29 of [APP-031] states that "*Temporary disturbance/ loss of intertidal habitat used by non-breeding European golden plover and ruddy turnstone (during construction and O&M) remains screened in and is addressed as part of the benthic intertidal assessment."* Paragraph 7.5.25 of [APP-031] screens out the permanent loss of saltmarsh habitat in terms of these qualifying features. On the basis that salt marsh is a supporting habitat for European golden plover and ruddy turnstone (qualifying features of the sites), Natural England states that the permanent loss during long term operation should be considered as a likely significant effect (LSE), and that the competent authority will need to consider an	Not applicable.	**Applicant** The Applicant can confirm that it proposes to remove landfall Option 2 has been removed from the project envelope and as such there is no longer be any long term loss of saltmarsh during the operational phase of the project. On the balance of evidence within Pegwell Bay drawn from the existing Thanet OWF, and other regional experience, it is the Applicants position that through adherence to the saltmarsh management and monitoring plan recovery will be complete. This is particularly of note when considering the success following installation of the Thanet OWF cables to the north of Pegwell Bay. **Kent Wildlife Trust** We agree with the comments made by Natural England and believe that due to the ecological importance of the saltmarsh habitat, the permanent loss of saltmarsh should not be screened	Natural England welcomes the applicant's decision to remove landfall Option 2 and await the updated RIAA at Deadline 2.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		appropriate assessment in this respect. Natural England considers that the success of restoration in their post-construction experience of similar situations is not such that a total recovery (and therefore no permanent loss) can be assumed and LSE ruled out. • Can the Applicant and Kent Wildlife Trust please respond to these points?		out. Saltmarsh is an important supporting habitat of the various environmental designations and is used by European golden plover and ruddy turnstone as well as other species, and is an important feature of the Sandwich Bay to Hacklinge Marshes SSSI. Total recovery of damaged or disturbed saltmarsh cannot be assumed and a precautionary approach should be taken by the applicant. Therefore we believe that an appropriate assessment should be carried out for saltmarsh habitat.	
1.1.16	The Applicant	**Offshore Ornithology: Screening in Relation to Barrier Effects** Table 7.3 of the HRA screening report [APP-032] defines the potential for barrier effects (as "*The presence of the operating Thanet Extension could potentially create a barrier to seasonal migratory movements and/ or regular foraging flights*"). Table 8.1 of [APP-032] then concludes (on the basis of post-construction studies at operating Offshore Wind Farms) that barrier effects are not assessed as significant, and this potential effect is then not carried forward	Not applicable.	Further justification that barrier effects are not likely to be significant can be found in Paragraphs 4.1.153 to 155 of Volume 2, Chapter 4: Offshore Ornithology (PINS Ref APP-45/ Application Ref 6.2.4) of the Environmental Statement with those paragraphs providing summary information about, and reference to, five peer reviewed ornithological publications. The conclusion made in that ES Chapter (Paragraph 4.1.155) was that the significance of the barrier effect for all species assessed was 'negligible adverse'. 1.1	Natural England agrees that the significance of barrier effects is negligible.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		into the Report to Inform Appropriate Assessment. • Can the Applicant clarify where further justification is provided in the application documents to support the conclusion that barrier effects are not likely to be significant?			
1.1.17.	The Applicant	**Marine Mammals: Methodology** Natural England highlights the value in the JNCC's Joint Cetacean Protocol data with regard to harbour porpoise densities. • Can the applicant explain the extent to which this dataset has been considered as part of the EIA and the RIAA? If it has not been considered, why not?	Not applicable.	As regards the RIAA (section 1.3 of (PINS Ref APP-031/ Application Ref 5.2)), baseline data is not presented to avoid repetition between project reports, with the relevant project literature referenced instead. Therefore the comment refers to the ES only, with the question addressed in Natural England's Relevant Representation (NE-94). In brief at the time of writing the Thanet Extension ES, there was concern regarding the JCP Phase III densities obtained from the JNCC R software code, as the densities calculated from the code did not match the data provided in the corresponding JNCC density surface maps. This meant that the Applicant did not have confidence in basing any quantitative assessment on these values, but they were presented in the baseline for information. Since then, JNCC have confirmed that the error was with the density surface maps and that the R code should be providing the correct	Natural England is satisfied with the new information presented in Annex G submitted at Deadline 1. Overall, we agree with the conclusion of the modelling that there was no material change to the assessment and the impact significance remains minor.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				density estimate for the user specified area. Therefore, the worst case behavioural disturbance scenario (monopile 5,000 kJ at the East Location) has since been modelled using the average JCP Phase III density estimate of 1.16 porpoise/km2. A note detailing the results of this assessment is presented in Annex G to Appendix 1 of this Deadline 1 submission. The conclusion of this modelling was that there was no material change to the assessment and the impact significance remains minor.	
1.1.8.	The Applicant	**Marine Mammals: In-Combination Assessment** Paragraphs 12.3.14 – 12.3.19 of [APP-031] explain the approach to the assessment of in-combination effects on marine mammals, and that due to uncertainties in overlapping programmes, tier 2 projects (and above) are excluded from consideration. Because of the Contract for Difference process, Natural England is of the view that other tier 2 projects identified could overlap with Thanet Extension. Whilst the ExA recognises the applicant's position that there is "*extreme*	Not applicable.	The Applicant retains the position that the extreme uncertainty around Tier 2 projects means their inclusion within an in-combination assessment would be excessively precautionary. However, the Applicant recognises the concerns of Natural England based on the RIAA as issued in June 2018 (PINS Ref APP-031/ Application Ref 5.2) and can confirm that the RIAA is being redrafted and will be issued at Deadline II. As part of that redrafting, the marine mammal in-combination assessment has been revisited and the Applicant can confirm that where new information has become available in the public domain regarding projects in-combination (including activities, timescale and project) since June 2018	Natural England has no further comment to make until a review of the revised RIAA at deadline 2 has been undertaken.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		uncertainty regarding the potential for the Tier 2, 3 and 4 offshore wind farm projects to come forward in their current form and at a timescale where piling would overlap with UXO clearance and/ or piling activity at Thanet Extension", the information to inform an appropriate assessment must be based on a sufficiently precautionary approach. • Please provide the ExA with a response to Natural England's (RR-053) regarding the exclusion of tier 2 projects.		and until mid December 2018, the assessment has been amended to reflect that. The Applicant can also confirm that the Southern North Sea cSAC/SCI harbour porpoise in-combination assessment will be revised based on Thanet Extension plus Tier 1 projects (as per the document issued with the application in June 2018 PINS Ref APP-031/ Application Ref 5.), together with Thanet Extension plus Tier 1 and Tier 2 projects, in response to the concerns raised by Natural England. The Applicant can also confirm that a Site Integrity Plan has been drafted and will also be issued at Deadline II to accompany the revised RIAA, to provide certainty in the conclusions of no adverse effect on integrity drawn throughout the revised RIAA with respect to the Southern North Sea cSAC/SCI, including the conclusions in-combination with Tier 1 and Tier 2 projects. The revisit of the in-combination assessment did not identify any Tier 3 or Tier 4 projects with the potential to contribute to an effect in-combination with Thanet Extension (based on project location and/or timescale).	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
1.1.19	The Applicant	**Marine Mammals: Piling Noise Effects** Natural England's relevant representation suggests that the maximum hammer energy used for piling assessed in the ES should be set out within the design parameters of the DCO and DMLs with a view to ensuring that noise generated by piling activities does not exceed that assessed within the ES. Similarly, the noise effects of UXO detonation assessed in the ES do not appear to be addressed within the DCO or DMLs. a) With particular regard to proposed hammer energies used during the construction phase and the effect on marine mammals, could the applicant please: i. justify the parameters used during the worst case assessment, ii. confirm how these parameters would be secured within the DCO/DML; and,	Not applicable.	A) The Applicant can confirm that: i) the parameters proposed, i.e. the maximum parameters of the foundations and the maximum hammer energy, are proposed on the basis of experience in the construction of OWFs and through an understanding of the technologies likely to be available at the proposed time of construction. These parameters are in turn used to inform the modelling of underwater noise which informs the assessment; ii) The presentation of these parameters is a requirement of the relevant Construction Method Statements, the provision of which is secured within Condition 12(1)(c) of the Generation Assets dML, and Condition 10 (1)(c) of the export Cable Systems dML. The CMS documents are required to demonstrate that the construction methods used at the time of construction are in accordance with those assessed within the ES. Using hammer energy as an example, it is standard practice refer to the hammer energy value	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		iii. address any discrepancies that exist between the DCO and the assessment in the ES in this regard. b) With regard to the mitigation of noise effects of UXO detonations, please can the applicant describe how a UXO-MMMP (as referenced in table 6.1 of [APP-031]) would be secured?		consented, the proposed hammer energy to be used for construction, and account made for any discrepancy between the consented and proposed value where necessary (i.e. if the parameters are greater and therefore not in accordance with those assessed within the ES the Applicant would need to demonstrate to the regulator (MMO) that there is no material change in the findings of the assessment as a result of the change in parameter). iii) It is the Applicant's position that there is no discrepancy in this regard. B) The Applicant is not including UXO detonation within the draft Order as applied for. This is because it is not possible at this stage to accurately foresee the exact number of UXO detonations that will be required. As such, the final numbers of UXO requiring clearance for the Project will be confirmed by pre-construction site investigations. If required, a separate Marine Licence for UXO detention will then be applied for and this will include the necessary condition to secure a UXO-MMMP. The MMO will have	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				full control over any such licensable activities.	
1.1.20	The Applicant	**Marine Mammals: Construction Noise Assessment** The noise impact assessment contained in [APP-048] is based on the worst-case design scenario as at this stage in the project design there is not sufficient information available to inform a full pile drivability assessment across the site. • Please can the applicant provide an update on the full pile drivability assessment, including the likely timeframe within which it is envisaged that this will be undertaken in order to refine the assessment in the ES?	Not applicable.	A full pile drivability assessment will require site wide pre-construction geotechnical survey and confirmation of the design of foundations. As such this will not be available until pre-construction. There is however sufficient information available through reference to the existing Thanet OWF and other UK developments to be confident that there is sufficient information and understanding for an assessment to be undertaken of the worst case scenario for any foundation design.	Natural England have no further comments to make regarding this question.
1.1.21	The Applicant	**Marine Mammals: Noise Reduction Technologies** The Marine Management Organisation states that noise reduction technologies, such as bubble curtains and acoustic barriers should be considered as a primary means of reducing the	Not applicable.	A requirement for mitigation is driven by the level of impact. Effectively, mitigation is required where an impact exceeds an acceptable level. Marine mammal mitigation is provided for within the Marine Mammal Mitigation Protocol (MMMP PINS Ref APP-146/ Application Ref 8.11) to address the risk of injury. Consideration of further mitigation (namely noise mitigation at source), which would only therefore be	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		acoustic impact of pile driving operations. • Could the applicant please explain what consideration has been given to the use of these at source noise reduction technologies to mitigate the effects on marine species?		required should the risk of disturbance exceed acceptable levels, is addressed in response to Natural England's relevant representation NE-102. It is considered that there is no driver for such a mitigation strategy and in any case, there would be no change to the existing conclusion of the ES should such mitigation be instigated (referenced in Table 7.44 of Volume 2, Chapter 7: Marine Mammals, PINs Ref APP-048 /Application Ref. 6.2.7).	
1.1.22.	The Applicant and Natural England	**Marine Mammals: Deemed Marine Licence (DML) Condition Wording** Natural England has suggested amendments to the wording of Condition 16 of the DML at Schedule 11 to, in effect, provide for the cessation of piling activity in the event that construction noise monitoring shows a significantly different impact to that assessed in the ES. a) Can Natural England please comment on this proposed change in respect of the conclusions of AEoI to the Southern North Sea cSAC and other relevant sites (alone and in combination)?	The comments concerning alterations to the DML condition wording were related to previous Natural England concerns over the effectiveness of the soft start. Natural England refers the Examining Authority to Natural England's statement of common ground with the applicant to be submitted at Deadline 1 and the applicant's response to our relevant representations. It is explained that the report that caused our original concern provided anomalous results. The updated report showed that aside from an initial high	**The Applicant** A) This question is noted as for Natural England. The Applicant wishes to note that the proposed wording is no longer considered to be the position of Natural England. Furthermore, it is the position of the Applicant that the ability to request cessation of works would not materially alter the conclusions of the Report to Inform an Appropriate Assessment with regards effects on the Southern North Sea cSAC. B) As detailed in response to Natural England's RR 49 and MMO's RR 70 it is understood that this no longer represents Natural England's position (or that of MMO). The proposed wording was	Following further consideration and alignment with other projects, Natural England have took the decision to defer back to its original position regarding the condition wording as was submitted at the relevant representations. Further reasoning and suggested changes to the condition are highlighted below. Natural England considers the proposed change to the wording of Condition 16 (3) is required to ensure that in the event that the assessment of the noise monitoring report demonstrates an impact more significant than that assessed

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		b) Please could the applicant confirm whether or not it is agreeable to the revised condition wording proposed by NE? • If not, why not? Is there alternative wording that would be acceptable to both parties?	noise level as the pile initially penetrates the seabed surface, the soft start does act as required in terms of building up the noise levels. Therefore, Natural England have no further request to alter the wording of condition 16 of the DML.	brought forward due to uncertainty in the monitoring results associated with another OWF in construction at the time of writing the representation (summer 2018). Immaterial of this change in position it is the Applicant's position that a condition worded with the amendments suggested is unnecessary. The MMO have the ability to enforce a cessation order at any time, and this enforcement mechanism is understood to have been suggested for the OWF which was in construction at the time of drafting the representation. A further condition explicitly making reference to powers already held by a regulatory authority would therefore not be required. With regards alternative wording on this matter, it is not considered necessary to have any wording for the reasons identified above. **The Marine Management Organisation** At this time the MMO would support the inclusion of the additional wording proposed by Natural England, noting that the content of the proposed noise monitoring is currently under discussion with the applicant. The MMO is seeking to secure additional measures within the monitoring plans	in the ES is occurring, operations cease until appropriate increased mitigation and/or monitoring can be agreed and implemented. If operations are allowed to continue without sufficient mitigation, their impact will not have been assessed in the ES and is therefore out with that which the consent for the project was based on. This poses a major risk of significant impact to the Harbour porpoise feature of the Southern North Sea SCI. Suggested changes to the wording at condition 16(3) is highlighted below: **"16**(3) The results of the initial noise measurements monitored in accordance with sub-paragraph (1) must be provided to the MMO within six weeks of the installation of the first four piled foundations of each piled foundation type. The assessment of this report by the MMO will determine whether any further noise monitoring is required. ***If, in the opinion of the MMO in consultation with Natural England, the assessment***

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				to set out the action that will be taken, in the event that observed noise levels are above predicted levels, to ensure any mitigation remains fit for purpose.	***shows significantly different impact to those assessed in the ES or failures in mitigation all piling activity must cease until an update to the MMMP and further monitoring requirements have been agreed."***
1.1.23	Natural England, the Applicant and Marine Management Organisation	**Marine Mammals: Soft Start Piling** Soft start piling is proposed as one form of mitigation for the possible construction noise effects on marine mammals. Natural England's relevant representation refers to emerging evidence that soft start may not be as effective a form of mitigation as previously thought. a) Please could Natural England provide further detail about the latest evidence in this regard? • What does Natural England consider to	Natural England refers the Examining Authority to Natural England's Statement of Common Ground (SoCG) and the developer's response to our relevant representations, where it is explained that the report that caused our original concern provided anomalous results. The updated report showed that aside from an initial high noise level as the pile initially penetrates the seabed surface, the soft start does act as required in terms of building up the noise levels and acting as mitigation.	**The Applicant** A) As noted in response to ExQ 1.1.22 the Natural England (and MMO) RR reference to uncertainty with regards the effectiveness of soft start piling is understood to be related to the monitoring associated with a different OWF. It is the Applicant's understanding that the emerging evidence referred to by Natural England relates to an OWF under construction in the summer of 2018 that was subject to monitoring challenges which were subsequently addressed to the satisfaction of Natural England and MMO by the developer in question.	Natural England have no further comments to make regarding this question. Natural England is satisfied that soft-start is fit for purpose as previously thought. However, the changes to our position above is in relation to the condition 16(3) provides a mechanism for ceasing activity if significant differences exist between measurements predicted in the ES and noise measurements taken during construction.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		be the specific implications for Thanet Extension Offshore Wind Farm? b) Could the applicant and Marine Management Organisation please respond to Natural England's relevant representation on this matter? c) Please can the applicant demonstrate how mitigation in the form of soft start piling would be secured within the DCO / DMLs?	Therefore Natural England have no further concerns over the soft start.	B) Please note the Applicant's response to part A of this question. C) Soft start piling is presented as a mitigation measure within section 4.5 of the draft Marine Mammal Mitigation Plan (MMMP) (PINS ref APP-146/ Application ref 8.11). The MMMP is secured in the deemed marine licences (dMLs) within the draft Development Consent Order (DCO) (PINS ref APP-022/ Application ref 3.1), specifically in Condition 12(1)(f) of Schedule 11 (Generation Assets dML) and Condition 10(1)(f) of Schedule 12 (Export Cable System dML). **The Marine Management Organisation** Response to b) – The MMO notes Natural England's concerns with observed soft start levels not being significantly different from noise levels at full power. This could affect the validity of the SELcum modelling, and could have implications for the distances animals need to be away at the start of piling to avoid injury. The MMO believes that the concern related to one particular project and was attributed to issues with the monitoring, which was later re-done. However, the MMO considers this reinforces the	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				need for an appropriate mechanism to be secured in the monitoring plans for prompt reporting and resolution of such issues to ensure that the proposed mitigation remains appropriate, or additional mitigation can be applied if needed. The MMO would welcome Natural England's latest position on this in response to part a) of this question to further inform its view on the whether the mitigation proposed is fit for purpose. Response to c) The MMO's considers that the mitigation for injury/mortality to marine mammals will be agreed through the Marine Mammal Mitigation Protocol (MMMP) which is secured in conditions 12(f) and 10(g) of the Deemed Marine Licences (DMLS) respectively in schedules11 and 12 of the DCO. The MMO suggests that, if it becomes evident that soft start mitigation isn't working that the piling must stop until it's been agreed what additional monitoring/mitigation is required. This would be captured by the wording proposed by Natural England that was referred to in Question 1.1.22.	
1.1.24.	The Applicant	**Piling Noise Assessment: Harbour Porpoise**	Not applicable.	As per the Applicant's response to the MMO relevant representation (MMO-159) the Applicant can confirm that the MMO is correct. The PTS ranges	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		Paragraphs 7.4 and 7.5 of the Marine Management Organisation's relevant representation query the use of mean predicted impact ranges, as opposed to maximum impact ranges, in the piling noise assessment for harbour porpoise. • Could the applicant please confirm which impact range it considers to be appropriate in this context and why?		presented in Tables 7.25 and 7.26 of the ES are the mean ranges not the maximum. The mean range was presented in the ES as it is important to note that the mean ranges present an indication of the risk averaged out across all the directions and smooths out the effect of predicted local variations in noise propagation conditions. As such, the average impact ranges present a better indication of the overall risk averaged over space and time. The maximum range indicates the total maximum distance of the impact range but is only accurate for a small number of possible trajectories from the piling site. The impact areas are asymmetrical and as such, use of the maximum range significantly overestimates the overall general extent of the impact. However the MMMP and EPS risk assessment will be updated postconsent to present both mean and maximum ranges before submission to the relevant authorities for approval.	
1.1.25	The Applicant	**Cumulative Underwater Noise Effects on Harbour Porpoise: Residual Effects** The cumulative effects assessment [APP-039] identifies potentially significant adverse	Not applicable.	The initial finding of potential moderate significance resulted from an assessment of medium magnitude combined with a medium assessment of sensitivity. The magnitude assessment of medium was based on considering the summed number of	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		residual effects in terms of cumulative underwater noise impacts on harbour porpoise (as summarised in Annex 3-1 of the ES), but with "no significant long term effect on the size or health of the population". • Please can the applicant provide clarity as to how it is possible to identify potentially significant adverse residual effects and then conclude no significant long term effect?		individuals across all Tier 1 and 2 projects in the cumulative effects assessment, which was a total of 31,455 individuals potentially experiencing disturbance. However, on the basis of current available evidence, expert judgement and modelling exercises, it is not predicted that this level of disturbance, which although potentially affecting a relatively large number of individuals, will result in a significant long term change in the size or trajectory of the harbour porpoise population (Tougaard et al. 2014, Booth et al. 2017, Nabe-Nielsen et al. 2018). In particular, since the production of this ES more recent population modelling using the DEPONS model has demonstrated that the North Sea harbour porpoise population was not affected by the construction of 65 offshore wind farms within the North Sea (Nabe-Nielsen et al., 2018). The modelling results demonstrated that, at the North Sea scale, the population dynamics of the impacted population was indistinguishable from the un-impacted (baseline) population under realistic scenarios. Even when assuming extreme responses, including those which have never been observed in relation to offshore wind farm construction, of large scale displacement of animals to 200 km from the pile driving, resulted in short	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				term effects, with the population size returning to baseline levels shortly after the end of the construction period. Based on this new evidence the Applicant considers the cumulative impact of pile driving on harbour porpoises as being of minor significance.	
1.1.26.	The Applicant	**Cumulative Underwater Noise Effects on Harbour Porpoise: Mitigation** The cumulative assessment predicts that Tier 1 and Tier 2 projects may affect 9% of the harbour porpoise population through disturbance/displacement from underwater noise, and this would lead to a moderate adverse effect on harbour porpoises. The ES states that no additional mitigation is identified, as the relative contribution of the proposed development to the cumulative effect is very low, such that were the impact of the proposed development to be removed, a moderate adverse effect would still be predicted based on the other projects assessed. a) Please could the Applicant provide additional justification	Not applicable.	Paragraph 7.14.40 of Marine Mammals ES chapter (PINS Ref APP-048/ Application Ref 6.2.7): If the impact of Thanet Extension were to be removed from this cumulative assessment, a moderate adverse effect would still be predicted for harbour porpoise based on the levels of impact from the other projects considered. Given this, it would not be possible to reduce this conclusion from a Moderate significance in EIA terms by the application of any mitigation specifically at Thanet Extension. A) Even if Thanet Extension were removed from the cumulative assessment, the total number of animals predicted to be affected cumulatively across Tiers 1 and 2 would reduce from 34,455 to 29,575, reducing as a percentage of the population from 9.1% to 8.6%, which is not a material difference. A moderate adverse effect would still be predicted from	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		for the position that no further mitigation is able to decrease the cumulative effect to below moderate? b) If these effects are based on a "worst case" scenario, is this conclusion the same for all of the foundation piling options? Could the Applicant please provide further detail in this regard?		the combined T1 and T2 projects included in the assessment (under the worst-case concurrent piling scenario). Therefore there are no Project specific mitigation methods that can reduce this significance level as it is very much driven by other Projects. However given the evidence referred to above, it is important to highlight that although 9% in terms of the proportion of the population may be considered a medium magnitude, this is very unlikely to lead to a long term effect on the population. B) As per the Applicants response to Natural England's relevant representation NE-381: The concurrent cumulative scenario is wholly unrealistic, as such numbers do not take into account any spatial overlap in affected areas between projects and does not consider that any effects on individuals are likely to be temporary, reversible and short term. Concurrent piling across multiple sites at once is considered unrealistic as there are not enough piling vessels in existence for multiple overlapping concurrent piling scenarios to be realised. However, if we were assessing single vessel piling across Tier 1 and 2 (including Thanet Extension), this would	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				result in a total impact to 5.6% of the porpoise population. This would be assessed as low magnitude and combined with a medium sensitivity, would result in an impact of minor significance. Without the effect of Thanet Extension the equivalent figure is a total impact to 5.1% of the porpoise population, similarly not considered a material difference.	
1.1.27	The Applicant, Natural England and Marine Management Organisation	**Southern North Sea cSAC: Review of Consents** The ExA is aware that a Review of Consents in respect of the Southern North Sea cSAC is being undertaken[1], and that the Department for Business, Energy & Industrial Strategy (and the Marine Management Organisation) has published a draft HRA for consultation. • Taking this into account, can the Applicant, NE and the Marine Management Organisation provide further comments on potential in-combination disturbance impacts to marine mammals	The Department for Business, Energy and Industrial Strategy (BEIS) published a draft Habitats Regulations Assessment (HRA) of their review of consents (RoC) in autumn 2018 and Natural England submitted a response to this on 13 December. In our response we advised that the draft assessment had not covered sufficient scenarios so we are of the view that the in combination assessment is not yet sufficiently comprehensive. However, despite this, some of the in combination scenarios presented indicate that seasonal noise	**The Applicant** The Applicant is aware of the Review of Consents (RoC). The Applicant would stress that the document is a draft and issued for consultation. The Applicant would also highlight the overriding conclusion of no adverse effect, alone and in-combination, drawn by the report. The Applicant would also highlight that limited reference to Thanet Extension is made in the report, with comment on Thanet Extension made in Table 2 of the RoC (see Appendix II). This states that an application has been submitted, and that there is no requirement to review the consent in the RoC since as the application was made following the designation of the cSAC and no	Natural England have no further comments to make regarding this question.

[1] https://www.gov.uk/government/consultations/southern-north-sea-review-of-consents-draft-habitats-regulations-assessment-hra

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		of the Southern North Sea cSAC?	thresholds for the cSAC as advised by the Statutory Nature Conservation Bodies (SNCBs) could be exceeded by windfarm projects constructing at the same time (and also in conjunction with other noisy activities from other marine sectors). The RoC HRA shows there is a potential overlap with a number of offshore wind projects which could be in construction at the same time. This therefore confirms that developers including for the Thanet extension project (as well as other industries with noisy activities) may need to include mitigation to reduce the spatio-temporal disturbance footprint (e.g. through the use of noise mitigation systems or alternative foundations, by ensuring the location of simultaneous piling reduces the spatial extent within the cSAC, or by looking at concurrent piling in close proximity so the deterrence footprints overlap).	consent decision was available to review. The RIAA submitted in June 2018 (PINS Ref APP-031/ Application Ref 5.2) made full consideration of the Southern North Sea cSAC, alone and in-combination, including assessment of disturbance impacts on harbour porpoise, and concluded no AEoI in all cases. The Applicant can confirm that the revised RIAA, to be issued at Deadline II, will includes an updated in-combination assessment, taking account of project progress and changes in-combination since that date and until midDecember 2018, together with further consideration of Tier 2 projects. The methodology applied to the assessment within the RIAA (PINS Ref APP-031/ Application Ref 5.2) and revised RIAA follows that applied in previous such reports and Appropriate Assessments issued by BEIS (for example see Appendix II) and the MMO (for example see Appendix III), with Natural England agreeing the assessment approach during the Evidence Plan process (see HRA Technical Panel Meeting Minutes dated 02/10/17 contained in PINS Ref APP-138/ Application Ref 8.5.1). The Applicant considers the assessment of disturbance with respect to harbour porpoise and the Southern North Sea cSAC, as presented in the RIAA (PINS	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			In our response to the consultation on the RoC draft HRA we expressed our concern that there remains a lack of clarity on how Site Integrity Plan SIP conditions will ensure that mitigation will be put in place to prevent exceedance of the SNCB thresholds for disturbance. A process will need to be developed by the regulators to ensure continuing adherence to the SNCB thresholds as multiple SIPs are developed over time, especially when piling can take place over several years, and new projects can come online during this time. Should potential exceedance of the thresholds occur, a process for dealing with this issue needs to be in place – the affected developers / industries will need to work together with the regulator and SNCBs to prevent adverse effect on the SCI. While this list is not exhaustive, Natural England would expect the	Ref APP-031/ Application Ref 5.2) and the forthcoming RIAA, to be full and complete and in compliance with the requirements of Natural England. **The Marine Management Organisation** The MMO is not in a position to draw any firm conclusions at this stage, given that the HRA that has been published is only a draft and the review of consents has not been completed. The MMO does, however, note section 18.2 of the draft Appropriate assessment (AA), suggesting that a preconstruction condition requiring a Site Integrity Plan (SIP) will be attached to each relevant project's Marine Licence. The effect of the SIP will be to limit each wind farm to the parameters that have been assessed by the HRA and ensure that draft thresholds are not exceeded.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			following to be included in the SIP: • A finalised design plan; • An updated HRA; • Updated mitigation measures (if required) – outlining potential mitigation that can and cannot be used and the reasoning. • Where modelling via the RoC has been updated (e.g. the Dogger projects), further mitigation may be required to ensure porpoises are out of an enlarged Permanent Threshold Shift zone than was predicted in the original EIA. • Detail the requirement for EPS licences and Marine Licences for UXO detonation. Provide a timetable for development of the plan. E.g. Post CfD, and again pre FID to ensure timely agreements and		

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			timeframes for finances to be agreed.		
1.1.28.	The Applicant	**Offshore Ecology: Fish and Fisheries** The Marine Management Organisation raises a number of detailed matters in respect of the assessment of effects on fish ecology and fisheries. a) Please could the applicant provide a table which responds in turn to the points raised by the Marine Management Organisation in relation to assessment of the effects on fish ecology (in particular Herring, Sole and Sandeel) at paragraphs 6.2-6.17 of its relevant representation (RR-049).	Not applicable.	A table of responses to the points raised by the MMO in its Relevant Representation (RR-049) (paragraphs 6.2 to 6.17) in relation to the assessment of effects on fish ecology is included at Appendix 1 (Applicant's response to Relevant Representations) to this Deadline 1 submission. In brief, it is the Applicant's position that the findings of the assessment conclude that the potential impacts are not significant. It is understood from the MMO's relevant representation, and the draft Statement of Common Ground, that these conclusions are agreed with the MMO. In light of the impacts being not significant there is no further need for mitigation measures, any such measures would be disproportionate given the scale of predicted effect. It is further worthy of note that the assessment is based on the best available data, approved noise metrics, and as such there is limited uncertainty in the assessment.	Natural England have no further comments to make regarding this question.
1.1.29	The Applicant	**Offshore Ecology: Shellfish** The Marine Management Organisation considers that the data indicates that the magnitude	Not applicable.	The potting fishing grounds data illustrated in Figure 3.8 of Annex 9-1: Commercial Fisheries Technical Report (PINS Ref APP-088/ Application Ref 6.4.9.1) was collated	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		of the impact from loss or restricted access to traditional fishing grounds on the potting fleet should be increased from 'minor' to 'medium'. a) Could the applicant please respond to the Marine Management Organisation's reasoning at paragraph 6.29 of its relevant representation?		by Thanet Fishermen's Association (TFA). This identified potting grounds as being very close to and within the development site. The subsequent Succorfish data obtained during 2017 from TFA members' vessels (Figure 3.21 – 3.29 ibid) illustrated that vessels work a wider range of grounds, several of which move through the array area in order to work grounds beyond the site. It is acknowledged, however, that one vessel appears to work along the eastern edge of the site boundary and another in the north-west corner. As listed in Paragraphs 9.17.11 - 9.17.14 of Volume 2, Chapter 9: Commercial Fisheries (PINS Ref APP-050/ Application Ref 6.2.9), the UK potting fleet has a medium sensitivity due to restrictions on operational range, available grounds etc. However, the magnitude is assessed as low due to the limited and temporary nature of the duration of activities and the range of other grounds that can be targeted, as shown by the Succorfish data. Potting has been shown on other projects to successfully return to operational wind farms. Furthermore, scour protection and other measures can provide refuges for commercially important shellfish species, particularly lobsters. This confirms the temporary nature of the magnitude of the impact.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
1.1.30.	The Applicant	**Benthic Ecology: Subtidal Biogenic Reef** Paragraph 2.7.28 of APP-043 states that Drill Stone Reef, within the array area, is thought to be formed by Sabellaria Spinulosa reef. However, APP-046 indicates that there is no such reef within the study area. a) Could the applicant please clarify whether or not there is believed to be the presence of Sabellaria Spinulosa reef within the study area, providing full reference to the supporting evidence. b) Could the applicant and NE please respond to the suggestion of Kent Wildlife Trust and the Marine Management Organisation that post-construction benthic monitoring, to include monitoring of scour protection / cable protection to measure the presence of biogenic reefs and species on the sediment overlaying the cables, should be incorporated into the conditions of the DML.	Within the Biogenic Reef Mitigation Plan (BRMP) it states in section 5.1.1 "Post construction monitoring will consist of geophysical surveys of the whole development site. A comparison can then be made based on any change in reef extent and position between pre and post-construction surveys and the success of micrositing mitigation measures assessed." Although Natural England welcome the above commitment, further expansion of the benthic surveys outside of core reef areas across the development site, including scour protection and cable protection would be welcome, particularly in designated sites. This would ascertain whether construction impacts have been avoided through the proposed mitigation measures and determine if there has been any recovery. Geophysical surveys should be	A) Paragraph 5.7.10 of Volume 2, Chapter 5: Benthic Subtidal and Intertidal Ecology (PINS Ref APP-046/ Application Ref 6.2.5) of the Environmental Statement identifies that it is thought that Drill Stone Reef has been formed by Sabellaria spinulosa and that reef was found on this feature during the surveys for TOWF. However, it was confirmed within the characterisation surveys undertaken in 2016 that no S. spinulosa reef was identified at that time on the section of Drill Stone Reef within the Thanet Extension array area. However, it is considered likely, based on the results of the TOWF post-construction surveys (Pearce et al., 2014), that S. spinulosa reef exists in the wider study area and may therefore develop within the array area or OECC prior to the start of construction. As such, the Biogenic Reef Mitigation Plan (PINS Ref APP-149/ Application Ref 8.15) to be produced prior to construction will incorporate the pre-construction surveys which will include benthic investigations for S. spinulosa reef. B) The Applicant considers that the post-construction monitoring	Natural England wish to reiterate points made below, that only one swath bathymetry survey at year 1 will not be sufficient to identify the impact on or recovery of biogenic reef. As per our answer to this question Geophysical surveys should be adequately ground truthed for *Sabellaria spinulosa* using drop down video and grab samples. We recommend that this is conditioned as part of the dMl. Surveys may be required for more than one year if impacts are detected and recovery is yet to be determined, therefore the dMl should make provision for this. In addition, further targeted surveys pre and post construction should be undertaken where cable installation activities intersect with Goodwin Sands pMCZ, to allow any potential effects of cable burial and cable protection to be monitored. This needs to be reflected within the DML.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			adequately ground truthed for *Sabellaria spinulosa* using drop down video and grab samples. This should be reflected in a licence condition within the DML. Furthermore, it is stated in our written representations (6.4.17 (a)) that Natural England is concerned that only one swath bathymetry survey at year 1 will not be sufficient and further targeted surveys within designated sites, such as Goodwin Sands pMCZ, should be added to allow any potential effects of cable burial and cable protection to be monitored. Natural England welcome further engagement with the applicant on this issue.	requirement (at Condition 17 of the Generation Assets dML (Schedule 11) and Condition 15 of the Export Cable Systems dML (Schedule 12)) which requires geophysical survey provides adequate post-construction monitoring of scour protection/ cable protection. The Applicant does not consider that it is necessary to undertake further broadscale benthic species monitoring as there is limited justification with regards uncertainty or validation of ES predictions to do so. This is also supported by the MMO's 2014 review of post-construction monitoring which confirmed limited value for broadscale benthic monitoring. With regards biogenic reef monitoring the Applicant considers that post-construction monitoring to measure the presence of biogenic reef is only appropriate where biogenic reef is identified within the array area or OECC during the pre-construction surveys as this would then provide evidence of the impact of construction on the reef features and of the recovery of the features. Post-construction monitoring for biogenic reef where no reef has been identified pre-construction is considered to be overly onerous on the Applicant as it would not serve	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				any purpose in confirming the predictions made within the ES. On multiple other offshore wind farm projects that had a requirement for post-construction monitoring for sensitive benthic habitats, this condition has been varied post-consent following pre-construction surveys that have confirmed the lack of any biogenic reef features to remove the need for post construction monitoring. Therefore, the Applicant considers that any wording of a condition requiring post-construction monitoring for biogenic reef should have the caveat that this only take place where biogenic reef is identified in the preconstruction surveys or in areas identified as core reef through the Biogenic Reef Mitigation Plan (ibid).	
1.1.31	The Applicant	**Benthic Ecology: Construction Effects** Section 5.8 of APP-046 sets out the key parameters for the assessment of effects on benthic ecology and Table 5.10 presents the worst case scenario that has been defined for the main potential effects assessed, in line with the Rochdale Envelope approach.	Not applicable.	A) The assessment has grouped the total volume of sediment that may be disturbed through any construction method as outlined in Table 5.10 of Volume 2, Chapter 5: Subtidal Benthic and Intertidal Ecology (PINS Ref APP-046/ Application Ref 6.2.5) of the ES and then considered the impacts of this total volume of material in terms of the impacts from increased suspended sediment	Natural England are not content that the assessment of impacts of deposition from sandwave clearance are sufficiently detailed to ensure sediments are deposited on similar sediment type to avoid the loss of / changes to benthic habitat. At present the entire array area and export cable corridor are proposed as deposition sites and a full

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		a) In respect of table 5.10 of APP-046, please can the applicant confirm how the impacts of deposition of sediment from 'pre sweeping', in terms of temporary habitat loss and disturbance, has been taken into account as part of the assessment? b) Please could the applicant respond to the specific points raised by NE in respect of the scale of deposition material, and the effects of that material resulting from sandwave clearance as described at 5.10.33 of **APP-046**, where it is stated that *"The impacts of sediment deposition are not known at this stage as the volume of material that may need to be removed is unknown."*		concentrations (SSC) and sediment deposition in the assessment, including those from pre-sweeping. Sediment deposition from dredging (i.e. released at the sea surface) is not considered to result in temporary habitat loss as the depth of sediment expected to result will not prevent use of the habitat by those species that are present. This is particularly relevant for the infaunal species present which are all identified within the assessment to be tolerant of smothering by sediment. Furthermore, there are high levels of natural sediment transport within the area around Thanet Extension and all species can tolerate variations in SSC and the degree of sediment deposition. Consequently, the sediment released from dredging during presweeping will not result in temporary habitat loss or disturbance as there will be no change in the use of these habitats by those species present. As such, the only consideration of temporary habitat loss and disturbance from pre-sweeping is within the physical footprint of the pre-sweeping which is considered within direct disturbance.	benthic survey is not proposed prior to construction In order to avoid habitat loss or change sediments must be deposited on those of similar grain size. Natural England believes that further evidence needs to be provided on the proposed disposal locations as the current areas are too broad to provide advice on. License conditions should be applied to ensure that the sediment type at those locations is similar enough to the dredged material to support the same communities and that those communities are not sensitive to smothering to depths of 0.28 m as described in section 14.6.21 of the disposal site characterisation report. Essentially a license condition is needed that requires the disposal of dredged material to be placed on material of similar grain size and at least 50 m from agreed areas of *Sabellaria* reef. For example: *a) Produce a sandwave clearance plan for all*

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				B) The Applicant notes the specific points raised by Natural England on this issue and has responded in full within the Applicants Response to Natural England's Relevant Representations (Appendix 1 of the Applicant's Deadline 1 Submission). In summary, the total volume of material displaced during the construction phase includes that from sandwave clearance (sandwave clearance will result in the removal of up to 1,440,000 m3 of sediment) as described in Table 5.10 of APP-046 and has been taken into consideration in the assessment in a qualitative manner. Furthermore, the assessment goes identifies that any impacts from sediment deposition will be of a temporary and short-term nature and that appropriate buffers will be placed around any habitats of conservation importance (to be agreed post-consent with Natural England through the Biogenic Reef Mitigation Plan) to prevent any smothering of these habitats.	*designated sites affected, including details of the volumes of material to be dredged, timing of works, locations for disposal and monitoring proposals and demonstrating avoidance of biogenic reef.* *b) The licence holder must submit an Options Appraisal Document detailing the rationale behind the proposed cable route and protection within the Goodwin Sands pMCZto the MMO for approval prior to the submission of the cable specification and installation plan. This document must demonstrate that if cable protection in the form of rock placement or rock mattressing is proposed, it is the only viable option* *Reason: To ensure that all options have been considered to minimise the potential impact of the development on Goodwin Sands pMCZ.*

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
					c) *Within 3 months of completion of licensed activities, an 'as built' plan displaying the location of the cable as laid with specific details of the locations of buried and surface-laid cables, the placed location and quantity of rock placement or rock mattressing used in these works must be submitted to the MMO.* *Reason: To reduce the risk of unnecessary amounts of material deposited below MHWS and subsequent damage to Goodwin Sands pMCZ.*
1.1.32.	The Applicant	**Benthic Ecology: Operation and Maintenance Effects** APP-042 describes a number of maintenance activities in respect of the offshore infrastructure. The effect of these activities does not	Not applicable.	A) The effects of the relevant maintenance effects have been identified within Table 10.5 of Volume 2, Chapter 5: Subtidal Benthic and Intertidal Ecology (PINS Ref APP-046/ Application Ref 6.2.5) of the ES and	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		appear to have been carried through to the benthic ecology chapter (APP-046). a) Please could the applicant provide an assessment of the effects of these maintenance activities on benthic ecology? Please include details of the maximum design scenario assessed in line with Table 5.10 of APP-046.		consequently carried through to the assessment in Section 5.11 (PINS Ref APP-046/ Application Ref 6.2.5). It is the Applicants position therefore that no further assessment is required. The Applicant notes that whilst Table 10.5 of APP-046 has not duplicated all parameters presented within Volume 2, Chapter 1: Project Description (Offshore) (PINS Ref APP-042/ Application Ref 6.2.1) the assessment is fully based on those parameters. Specifically, the assessment identifies the activities that will take place (e.g. cable repairs along the export cable) and the determination of the magnitude of the effect is noted to be no greater than that of the construction phase as the scale of any works will be smaller. This leads to confirmation of the effects for maintenance activities being of minor adverse effect, which is not significant in EIA terms. B) For ease of reference, full details of the maximum design scenario for maintenance activities is provided within Annex A of Appendix 1 to the Applicant's Deadline 1 Submission – Project Description Audit note.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
1.1.33.	The Applicant, Natural England and the Marine Management Organisation	**Benthic Ecology: Post-Construction Monitoring** Section 5 of [APP-149] states that post-construction monitoring will consist of geophysical surveys of the whole development site, but Table 5.5 of APP-046 states that post-construction monitoring will only be undertaken where core reef is identified within the order limits during pre-construction surveys. The Marine Management Organisation (paragraphs 5.5 -5.8 of its representation) raises concerns with this approach and the methodology proposed for defining core reef. In addition, the Marine Management Organisation questions whether there is sufficient evidence to demonstrate that only one year of post-construction monitoring is sufficient and recommends post construction monitoring is extended to three years. a) Could the applicant please clarify the approach to post-construction monitoring in this regard?	Natural England welcomes the clarification requested by the examining authority from the applicant in point a. With regards to point c, and as stated above, Natural England would like to see: • Further expansion of the benthic surveys outside of core reef areas across the development site, including scour protection and cable protection would be welcome, particularly in designated sites. Geophysical data must be ground truthed using drop down video and grab samples to provide adequate benthic monitoring. Natural England is concerned that only one swath bathymetry survey at year 1 will not be sufficient and further targeted surveys within designated sites, such as Goodwin Sands pMCZ,	**The Applicant** A) The Applicant wishes to note that geophysical monitoring in the context of the Thanet Extension post-construction phase forms dual purposes which should be distinguished from one another but utilise the same data. The Applicant can therefore confirm that monitoring of benthic habitats will be limited to those areas of relevance to the sensitive habitats being monitored, i.e. biogenic reef plans. The Applicant can also confirm however that geophysical monitoring will be conducted across the whole area in which construction was undertaken for the purposes of ensuring other features (such as archaeological features) have been avoided and that the project has been installed as expected (i.e. cables buried, cable protection installed where predicted, scour protection installed where predicted etc. B) The Applicant has noted the MMO (and Natural England as the relevant Statutory Nature Conservation Body) relevant representation and further comments provided on the Biogenic Reef Plan. A revised	Natural England wish to reiterate our point above in response to 1.1.30. Surveys for biogenic reef need to be ground truthed and not just consist of geophysical surveys. Additional surveys are required to validate the assessment of impacts of cable installation and any cable protection on Goodwin Sands pMCZ. Both of these need to be adequately conditioned in the DML. We support the MMOs position to retain the provision of three years survey to assess impacts.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		b) Please could the applicant respond to the Marine Management Organisation's concerns about the methodology for defining core reef. c) Please could the applicant explain how the proposed monitoring strategy set out in APP-147 and APP-149 is sufficient to understand the longer term effects of the proposed development? • Comments from Natural England and the Marine Management Organisation are also invited on this point.	should be added to allow any potential effects of cable burial and cable protection to be monitored. We would like to retain the provision of three years of surveys in case recovery is not as suspected. However, if recovery has been good then discussions on the need for further surveys can be held.	Biogenic Reef Plan (Version B Appendix 43) has been submitted to Natural England for further comment and the subsequent revision (RevB) has been submitted with the Deadline 1 submissions for agreement. C) The monitoring strategy laid out in the Saltmarsh Mitigation, Reinstatement and Monitoring Plan (PINS Ref APP-147/ Application Ref 8.13) has been informed by the data collected during the post-construction of the saltmarsh for TOWF (within a connected area of saltmarsh to that assessed for Thanet Extension). The TOWF surveys clearly demonstrated complete recovery of the saltmarsh within the timescales anticipated for the Thanet Extension surveys. With complete recovery demonstrated, there will be no long term effects from the proposed development on the saltmarsh. In the unlikely scenario that recovery is not complete at the end of the monitoring period, a mechanism for monitoring recovery of the saltmarsh will be agreed with the MMO and Natural England as appropriate. With respect to the Biogenic Reef Mitigation Plan, the purpose of the monitoring is to confirm that there have been no	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				physical impacts from construction on the core reef features. As such, where the monitoring confirms this, there would not be any longer terms effects from the proposed development. If impacts are discovered as part of the monitoring, a way forward would be agreed with the MMO and Natural England. **The Marine Management Organisation** The MMO has concerns regarding using the Core Reef approach at Thanet Extension due to the limited data available. The MMO queries the suitability of the characterisation survey as a pre-construction survey which was not designed to target areas of biogenic reef, as opposed to a specific survey designed to use the acoustic data to identify areas of potential reef and ground truthing these areas with video. The MMO understands that this will only be undertaken as part of the pre-construction survey, therefore there will only be one year of suitable data to use in the core reef assessment. The MMO suggest that all types of reef should be identified during the pre-construction survey, and the MMO is consulted on the results to inform and agree that all appropriate areas of 'reef' have been identified. The MMO also	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				considers that a single year of post construction monitoring is not sufficient to understand the long term impact of the proposed development, and suggest that monitoring is undertaken over at least three (non-consecutive) years. The MMO required more evidence to justify whether the approach is appropriate and hopes to continue to discuss this with the applicant to reach agreement on the monitoring approach.	
1.1.34.	The Applicant	**Benthic Ecology: Decommissioning** [APP-046] recognises that direct loss of benthic species and habitats could occur as a result of removal of foundations during the decommissioning phase. • Could the applicant please confirm whether or not it deems it appropriate to include a condition within the DMLs requiring that a survey of any species, habitats and reef structures present on the foundation structures is undertaken prior to decommissioning.	Not applicable.	The revised draft Order submitted at Deadline 1 includes a Decommissioning condition in both of the deemed marine licenses (Schedule 11, Condition 20 and Schedule 12, Condition 19). This condition requires the undertaker to submit a plan for the carrying out of decommissioning activities to the MMO for approval at least six months before the intended start of decommissioning. The plan produced in accordance with this condition will include the details of any surveys, which requires the approval of the MMO prior to any decommissioning being undertaken. As such, the condition as currently worded is drafted very widely, requiring as it does any necessary plans (including survey work to demonstrate the appropriateness of those plans) to be submitted to, and approved by, the	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				MMO. Therefore the Applicant does not consider it appropriate to include such an element of specificity in the draft DCO, when the decommissioning plan provides for this.	
1.1.35.	Natural England, Marine Management Organisation and all IPs	**Subtidal and Benthic Intertidal Habitats: In-Combination Assessment** In respect of the Subtidal and Benthic Intertidal Habitat in-combination assessment, paragraph 8.2.4 of [APP-031] states that "*…it is considered that there is potential for LSE in-combination with Thanet Extension. The potential for such an effect will vary, depending on parameters such as the timing of works and the nature of those works, with these to be considered in full in the determination of AEoI*". Paragraph 12.2.1 of [APP-031] then explains that no plans of projects have been scoped into the in-combination assessment (of AEoI) for Subtidal and Benthic Intertidal Habitats. • Are Natural England, Marine Management Organisation	As stated in our written representation, further consideration needs to be given to impacts, sensitivity and recoverability of habitats to deposition of material from sandwave clearance / pre-sweeping including the habitat and size of area affected. Disposal areas should avoid protected sites and areas of habitats of conversation interest. For completeness, this aspect of the assessment should include an in combination assessment with other known dredging and disposal activities for the pressure of siltation/sedimentation. Natural England notes that impacts from suspended sediments associated with the Nemo cable do not coincide with the proposed development, and is	**The Applicant** The Applicant would like to take this opportunity to clarify the statement made in paragraph 12.2.1 of the Report to Inform Appropriate Assessment (RIAA) (PINS Ref APP-031/ Application Ref 5.2). Table 12.2 of the RIAA (PINS Ref APP-031/ Application Ref 5.2) screens the sites identified as having the potential for an in-combination Likely Significant Effect (LSE) based on the potential for a temporal overlap with the construction, operation and decommissioning stages of Thanet Extension. It is in Table 12.2 that it has been identified that, due to there being no temporal overlap or the chances of a temporal overlap being very low, and all effects on benthic receptors being temporary, there will be no potential for an in-combination effect with Thanet Extension. Specifically, the disposal sites are either for construction works for Nemo Interconnector which has now completed construction or primarily for dredging at Ramsgate harbour and it is highly unlikely on the basis of the	Natural England reiterates the need for further clarity regarding disposal locations. With regards to ongoing dredge and disposal associated with Ramsgate Harbour; whilst it is difficult to know when their activities will take place, the applicant could look at historic figures and present a realistic worst case scenario of overlap. However, Natural England will await the updated RIAA.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		and any other parties satisfied that an in-combination assessment of AEoI for Subtidal and Benthic Intertidal Habitat effects has not been undertaken on the basis that no relevant plans or projects are identified (paragraph 12.2.1 of [APP-031])? If not, why not?	therefore content for this to be screened out of further assessment. While it may be difficult to predict future dredging and disposal volumes and timings, a check of previous activity is possible and could be used as a basis for undertaking a reasonable assessment going forward.	proximity of the cable route to the harbour that any dredging works would occur during cabling installation or operational works on Thanet Extension. As such no plans or projects have been taken forward to an assessment of the potential for an in-combination adverse effect on integrity on any of the relevant sites. The Applicant notes that an updated RIAA will be submitted for Deadline 2 and this update will include increased clarity on this point. **The Marine Management Organisation** Table 8.1 in APP-031 identifies the plans and projects, and their proximity to designated sites that should be considered in-combination with Thanet Extension (TE) for benthic subtidal and/or intertidal habitats. Chapter 12 of APP-031 has assessed whether any of these plans or projects screened in for assessment of in-combination effects with TE are likely to have Adverse Effects on Integrity (AEoI) of the designated sites. Paragraph 12.1.7 states that 'for a plan or project to have a potential in-combination effect with Thanet Extension, there needs to be sufficient information on which to base an assessment and the construction timeframe needs to be such that there is potential for temporal overlap of	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				effect(s).' According to table 12.2 there will be no temporal construction overlap with Nemo Interconnector cable. There is potential for permanent habitat loss only if cable protection is used within a designated site, but it is not currently known whether or not this will occur. For the open disposal sites, there is limited information on the volumes and timings for disposal as disposal is intermittent and volumes are unknown in advance. Therefore, the Applicant is unable to determine where or not the use of the sites will overlap with the impacts from the construction of Thanet Extension. The MMO acknowledges the areas of uncertainty identified by the applicant, however defers to the advice of the Statutory Nature Conservation Bodies (SNCBs) for advice on HRA. **Kent Wildlife Trust** We believe that the proposed (and consented) dredging of an area of the Goodwin Sands for the Dover Harbour Port Development1 needs to be considered for incombination assessments. The decision to consent to the dredging of this area was announced by the MMO on 26th July 2018. The area to be dredged is located close to the Thanet Extension	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				site and will impact subtidal benthic habitats.	
1.1.36.	The Applicant	**Saltmarsh Habitat: Study Approach** Table 5.9 of Chapter 5 of Volume 2 of the Environmental Statement [APP-046] provides details of the Valued Ecological Receptors within the project's benthic ecology study area. a) Could the applicant please explain why Saltmarsh has not been included in this table? b) Please could the applicant provide full details for Saltmarsh equivalent to those set out in Table 5.9.	Not applicable.	A) The Applicant notes that the omission of saltmarsh from Table 5.9 of Volume 2, Chapter 5: Subtidal Benthic and Intertidal Ecology (PINS Ref APP-046/ Application Ref 6.2.5) and agrees that this should have been included. However, the Applicant also notes that the importance of saltmarsh is described in paragraph 5.7.42 alongside the other features described in Table 5.9 (PINS Ref APP-046/ Application Ref 6.2.5) and the omission of saltmarsh in Table 5.9 did not affect the associated sensitivity of the habitat in the conclusions of the chapter. B) The equivalent details for saltmarsh are as follows: Habitat summary – Saltmarsh; Representative biotope – N/A; Protection status – SSSI; Conservation status – Protected feature within the Sandwich Bay to Hacklinge Marshes SSSI. Identified as a supporting habitat for the Thanet Coast and Sandwich Bay Ramsar. UK BAP Priority Habitat; Justification and regional importance – National - included as	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				a protected feature of the Sandwich Bay to Hacklinge Marshes SSSI. International - supporting habitat of the Thanet Coast and Sandwich Bay Ramsar.	
1.1.37.	The Applicant	**Saltmarsh Habitat: Effects of Landfall Option 2** Under Landfall Option 2, the sea wall extension would result in the permanent loss of an area of inter-tidal Saltmarsh. Table 5.10 [APP-046] sets out the maximum design scenario assessed. a) What is the evidential basis for the applicant's statement at paragraph 5.11.19 (APP-046) that the saltmarsh in this area extends between approximately 45 – 110 m in a seaward direction from the location of the existing sea wall? b) Please could the applicant provide full details of the basis upon which its statements about the quality of the saltmarsh habitat across the Pegwell Bay area, and the landfall location in particular, are made	Not applicable.	The Applicant wishes to note that it proposes to withdraw Landfall Option 2 has been withdrawn from the project envelope. A document outlining the implications of this for the existing application material is in preparation and will be discussed with relevant stakeholders as part of the statements of common ground process, before submission at Deadline 2. In light of this there is no longer a scenario under which there will be permanent loss of saltmarsh as a result of the proposed project. The following answers have been provided for clarity, noting that the underlying basis for concern (Landfall Option 2) no longer exists. A) The Applicant has undertaken a GIS analysis of the saltmarsh extent data provided by the Environment Agency. This is understood to be the best available data. Further reference has also been made to 2016 satellite data (Google maps via ESRI basemaps) to chart likely saltmarsh extent through reference to the	Natural England are glad to see the withdrawal of landfall option 2 from the project envelope. However, as stated in our relevant and written representation option 1, the use of HDD, still remains our favoured option and we believe should still be pursued, even other option 3. Regarding point B, Natural England are still of the opinion that the saltmarsh quality is either a higher quality than described within the ES, or it is the same quality throughout the bay as Spartina has spread throughout unfortunately. This has been noted with joint informal site visits alongside colleagues from the EA.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		c) Could the applicant please respond to the concerns of the Environment Agency that the seawall extension proposed under Landfall Option 2 could bisect the existing continuous saltmarsh habitat leading to its fragmentation. d) Could the applicant please respond to the concerns of the Environment Agency and Natural England that the seawall extension would cause local erosion / scour of saltmarsh habitats immediately adjacent to it. e) Please could the applicant respond to the Environment Agency's evidence about the value of Saltmarsh at Pegwell Bay in providing a food source and refuge for a range of marine fish species • Please explain how the impact of the permanent loss of saltmarsh on fish and fisheries has been assessed.		delineation of the sea wall and the intertidal mudflats. B) The basis upon which the statements are made on saltmarsh habitat quality is derived from a combination of intertidal survey, site visits, and the provision of information during the evidence plan process. The latter drew on information provided by Natural England and the Environment Agency which indicated that saltmarsh quality to the North of Pegwell Bay was of a higher quality than that to the south. The former (PINS Ref APP081/ Application Ref 6.4.5.1 Annex 5-1 Export Cable Route Intertidal Report) provided provisional qualitative data on the extent of 'saltmarsh habitats', noting at paragraph 3.1 that saltmarsh hems the western fringes at the high shore of Pegwell Bay, with this illustrated at Figure 20. With regards site visits a number of informal site visits have been undertaken with the project team noting, and discussing with relevant parties during evidence plan meetings, that immediately adjacent to the seawall, and extending down the shore in an easterly direction the habitat is dominated by tall grasses, cord grasses, and the invasive	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				saltmarsh species Spartina rather than low lying high value Salicornia saltmarsh. The presence of this species is noted by a number of sources, including the Environment Agency during evidence plan meetings and the 'Thanet Coast North East Kent Marine Protected Area' network records. C) The Applicant considers this question to no longer be relevant due to its proposal to withdraw Landfall Option 2 being withdrawn from the application envelope. D) The Applicant also considers this question to no longer apply due to its proposal to withdraw as Landfall Option 2 has been withdrawn from the application envelope. E) The Applicant has responded in detail to the Environment Agency's relevant representation in Appendix 1 of the Applicant's Deadline 1 submission. In brief the Applicant notes that whilst the saltmarsh clearly has ecological value the importance of it, as presented within the ES, is based on its designation as a SSSI and Ramsar habitat. Saltmarsh in other areas within the UK, for example the Wash, forms Annex I designated habitat as a result of its quality, this	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				is an important differentiation that has been captured within the application documents submitted in support of the Thanet Extension proposal. F) The Applicant notes that this question is no longer considered to be relevant as Landfall Option 2 is proposed to be has been withdrawn from the application envelope.	
1.1.38	The Applicant and Natural England	**Mitigation of Effects on Intertidal Habitats: Saltmarsh Mitigation, Reinstatement and Monitoring Plan** Paragraphs 11.2.20, 11.2.22 and 11.2.25 of [APP-031] state that on the basis of the Saltmarsh Mitigation, Reinstatement and Monitoring Plan (SMRMP) [APP-147], no potential for AEoI to the intertidal habitats used by the designated features of the Thanet Coast and Sandwich Bay SPA and Ramsar sites exist for the project alone (in relation to temporary habitat loss or disturbance during construction and decommissioning). In their relevant representation, Natural England raises a series of "further mitigation and management	Natural England's primary concern regarding the permanent loss of saltmarsh as a supporting habitat was associated with option 2, and we understand that the applicant is no longer pursuing this option. As highlighted in our answer to question 1.1.40. though, due to experience from the recent Nemo installation there is some risk associated with the uncertainty of saltmarsh recovery post construction even if best practice measures are employed. This should be factored into the appropriate assessment.	A) The Applicant notes the relevant representation made by Natural England [RR-053] and is content to update the Saltmarsh Mitigation, Reinstatement and Monitoring Plan with the recommendations made with the exception of point a which refers to working during summer months to coincide with low tides and dry months. The Applicant wishes to clarify that 'spring tides are low [within the driest months of year]' is not however considered to be accurate as there is not a clear corollary that dry months result in a reduced spring tide height. Furthermore, the Applicant has already committed to a seasonal restriction between October and March which is understood to be the most sensitive period for the SPA (and therefore the supporting	Natural England have no further comments to make regarding this question and will await the submission of the updated SMRMP.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		measures" that they would like to see implemented. a) Could the applicant respond as to whether or not it intends to incorporate these measures into the SMRMP? b) In light of these additional measures, could Natural England confirm its residual potential concerns (in terms of AEoI) relate to the permanent loss of habitat and assessment of an additional species in the Ramsar invertebrate assemblage (bug Orthotylus rubidus)?	In terms of residual concerns relating to invertebrates, please see questions 1.1.47 and 1.1.48 where Natural England has expanded on the progress made on determining any effects upon invertebrate species of importance. However, Natural England's concerns regarding permanent loss were associated with option 2, and we understand that the applicant is no longer pursuing this option.	habitats). A revised Saltmarsh Mitigation, Reinstatement and Monitoring Plan will be submitted at Deadline 2 following further discussion with Natural England and the Environment Agency. B) The Applicant wishes to note that the mitigation and management measures referred to in the Saltmarsh Mitigation, Reinstatement and Monitoring Plan does not apply to areas of temporary disturbance. The Applicant also wishes to note that decision to remove 'landfall Option 2'means that there will be no predicted permanent loss of saltmarsh. Landfall Options 1 and 3 do not result in a permanent loss of saltmarsh.	
1.1.39.	The Applicant, Natural England, Environment Agency, Kent Wildlife Trust, Kent County Council, Thanet District	**Saltmarsh Mitigation, Reinstatement and Monitoring Plan: Effects of Permanent Loss of Saltmarsh** The applicant's Saltmarsh Mitigation, Reinstatement and Monitoring Plan [APP-147] relates to the temporary construction effects of the export cable. The document states (para 1.2.1) that 'any permanent loss of saltmarsh will be addressed in a separate	Natural England are yet to receive this separate document relating to the permanent loss of Saltmarsh. However, following the applicant's decision to drop landfall option 2 from the application we suspect we will not be receiving further information on addressing permanent loss of saltmarsh habitat.	**The Applicant** A) The Applicant can confirm that Landfall Option 2 is proposed to be has been removed from the proposed project consent 'envelope. As such the reference to an additional plan/document to address permanent loss of saltmarsh is no longer necessary and as such subsequently the reference will be removed from the Saltmarsh Mitigation,	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
	Council and Dover District Council	document through further consultation with the relevant stakeholders'. a) With regard to this separate document, please could the applicant outline: • its scope and purpose • its current status • the intended timetable for production • whether or not it is intended to be submitted during this examination • any consultation undertaken or planned; and, • how the measures contained therein would be secured. b) The views of the local authorities, Natural England and the Environment Agency on the above points (i-vi) are invited.		Reinstatement and Monitoring Plan. **Environment Agency** The withdrawal of the landfall option by the applicant (option2) will prevent permanent loss of saltmarsh, therefore the separate document that addresses this issue will no longer be required. **Kent Wildlife Trust** Without reference to permanent loss, the Saltmarsh Mitigation, Reinstatement and Monitoring Plan document is misleading as it only refers to worst-case scenario for temporary disturbance to saltmarsh habitat, whereas the actual worst case scenario involves the permanent loss of saltmarsh. We look forward to receiving the answers to the above points from the applicant and if still relevant, to seeing the additional document where permanent loss will be addressed. Comments from KWT regarding the Saltmarsh Mitigation, Reinstatement and Monitoring Plan more widely are raised in the Written Representation. **Kent County Council** The new, separate document relating to the permanent loss of saltmarsh is an important document for the	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				applicant to demonstrate that appropriate mitigation can be implemented, the site will be monitored, and additional works implemented, if the monitoring identifies the habitat is not re-establishing as proposed. This does therefore need to be submitted by the applicant. KCC also advises that mitigation is based on the results of saltmarsh monitoring from similar projects. **Thanet District Council** Thanet District Council have no comment at this stage **Dover District Council** DDC do not have the in-house expertise to adequately comments on a Saltmarsh Mitigation Strategy and would anticipate Natural England and Kent Wildlife Trust to address this aspect of the proposal. However, DDC would expect the outline Saltmarsh Mitigation, Reinstatement and Monitoring Plan (Doc ref: 8.13) to form part of the application documents and be incorporated within the scope and provisions of the DCO.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
1.1.40.	The Applicant, Natural England, Environment Agency, Kent Wildlife Trust, Kent County Council, Thanet District Council and Dover District Council	**Saltmarsh Mitigation, Reinstatement and Monitoring Plan: Recovery Assumptions** NE's relevant representation has referred to the experience of the recent construction of the NEMO link, from which it states that the saltmarsh has been slower to recover than expected. a) In this context, how would the need for further post-construction mitigation (if required, depending on the success of the restoration) be determined and delivered within the provisions of the Thanet Extension Offshore Wind Farm DCO? b) What are the potential options for managing this eventuality?	a) The SMRMP states "Surveys will be undertaken on a monthly basis for 1 year following installation and once yearly up to 5 years' post-installation, or until recovery is agreed with Natural England in line with the SMRMP." The mechanism …"until recovery is agreed with Natural England…" will allow Natural England to determine the level of recovery each year and request further surveys or other mitigation measures if recovery has not been acceptable. The SMRMP is conditioned with the DCO and therefore the developer is bound to these commitments. b) It is quite hard to determine what the potential options for mitigation would be considering the uncertainty around the potential landfall options	**The Applicant** A) The Applicant can confirm that a revised Saltmarsh Mitigation, Reinstatement and Monitoring Plan will be submitted at Deadline 2. The revision will account for the additional measures requested by Natural England in their Relevant Representations and, where possible, the lessons learnt from the Nemo Interconnector. It is noted that works are still ongoing for the Nemo Interconnector project and as such it may be necessary to delay submission to fully account for any lessons learnt. In the current understanding of the Applicant the updates are likely to be limited to reference to topographical survey of the saltmarsh and measures taken to ensure compression and/reduction in height is minimised through appropriate reinstatement. The mitigation measures proposed within the Saltmarsh Mitigation, Reinstatement and Monitoring Plan, and additional measures to be included in the revised document, are in the view of the Applicant considered to be appropriate and, deliverable. These measures, and are secured in the submitted plan and associated	A key part of the SMRP is that monitoring will be undertaken until agreement has been reached on whether the saltmarsh has successfully recovered. This holds the applicant to continue monitoring if recovery is slow. We may also request further mitigation measures to remedy any problems. Natural England agree with the EA's suggestion of monitoring the change in topography and this seems to be acknowledged by the applicant also.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			and how the landfall area will react to the construction works. This has been proven by the relatively quick recovery displayed by the original Thanet cable and the slow recovery displayed by the NEMO cable. What is certain is that the SMRMP needs to be finalised and agreed with the relevant stakeholders and a thorough pre-construction baseline survey needs to be carried out so impacts can be measured There is a risk that no mechanisms can be identified to further recovery in the event that recovery is slow / does not happen. However, Natural England advises that if temporary disturbance of saltmarsh is permitted provision should still be made to ensure that management options can be explored with the developer and implemented where	conditions within the dMLS at Schedule 11, Condition 15 and Schedule12 (Part 4 conditions, Condition 1315)12 of the DCO. The need for the mitigation measures to be implemented would be determined through consultation with Natural England and the MMO, as the relevant SNCB and regulator respectively. B) The Applicant would draw the ExA's attention to the existing monitoring arrangements in Pegwell Bay for the existing Thanet offshore windfarm. The monitoring was undertaken until agreement was reached that the saltmarsh had recovered to pre-construction quality. This stage of recovery was reached after two years. If at this stage recovery for TEOWF was not complete the monitoring would, in consultation with Natural England and the MMO, be extended for an appropriate period. **Marine Management Organisation** Response to b) – the MMO advises that saltmarsh reinstatement would be secured in the Saltmarsh Mitigation, Reinstatement and Monitoring Plan.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			possible post construction.	**Environment Agency** The key issue that arose from the NEMO link saltmarsh disturbance and restoration was the change to the topography along the cable corridor. Salt marsh communities are extremely sensitive to change in bed level as this affects the extent and duration of tidal emersion. The reinstated sediment that was excavated for the cable trench settled to a level below the adjacent saltmarsh bed level. This was compounded by the impact of compaction by the machinery in the working corridor. This resulted in a tidal breach of the saltmarsh that is damaging the surrounding habitats. Therefore we suggest that the Saltmarsh Mitigation, Reinstatement and Monitoring Plan should cover the potential for change to the current topography and have a plan with a clear timetable to assess the degree of level change pre/post construction and if the levels are significant, an action plan is required to increase the saltmarsh level back to an acceptable level. **Kent Wildlife Trust** In accordance with the Society for Ecological Restoration, ecological restoration should „seek the highest	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				and best recovery outcomes to both compensate for past damage and to progressively effect an increase in the extent and healthy functionality ecosystem2 " and we believe this should be the aim for the saltmarsh at Pegwell Bay. Monitoring the restoratoration of the saltmarsh following the disturbance caused by the construction phase will be imperative. The applicant could include some or all of the key ecosystem attribute targets for establishing the success of ecological restoration, including determining: an absence/ cessation of threats; restoration of physical conditions; presence of desirable species; reinstatement of spatial habitat diversity; recovery of ecosystem functionality (e.g. high quality saltmarsh). We also advocate longer-term monitoring of the saltmarsh following construction, e.g. 15-20 years rather than 5 has been recommended for freshwater marshes. Taken from Denning, 20172 , mitigation measures to be considered and incorporated into the DCO could include: • use option 1 - HDD construction method • locate work and storage compounds outside sensitive habitats;	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				• use low-ground pressure vehicles with caterpillar tracks to distribute vehicle weight more evenly; • use trackways (e.g. aluminium panels in saltmarsh) to distribute vehicle weight. Underlay trackways with a suitable grade geotextile membrane. Do not leave the trackway in-situ; • for construction equipment (e.g. excavators) use approved biofuels and avoid refilling when working in saltmarsh; • ensure all contractors have received a toolbox talk on the site ecology, including information on why a site is important, and how they can help minimise impacts on the habitats and species present; • Restrict the number of vehicle movements, and limit the number of people accessing the site, even along trackways, to minimise vegetation trampling; • where trackways are laid over vegetation, minimise the number of days it is left in-situ so to prevent complete die-back of plants; • reduce noise by, for example turning off vehicle engines when stationary. This can minimise disturbance to birds when feeding or resting in and around the saltmarsh and surrounding	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				habitats. We believe that there may also be opportunities to enhance the saltmarsh habitat at Pegwell Bay. **Kent County Council** This needs to be addressed within the Saltmarsh Mitigation, Reinstatement and Monitoring Plan. It needs to clarify the minimum number of years that saltmarsh monitoring will be carried out and detail the measures to be implemented if the habitat establishment has not occurred at the end of the time period. There will be a need for funding information for the re-establishment of the saltmarsh, which would need to be at the applicant's expense. **Thanet District Council** Thanet District Council has no comments to make on this matter as it does not have sufficient expertise in saltmarsh recovery. The Council defers to Natural England's findings and knowledge on this matter. **Dover District Council** DDC would refer to Natural England and Kent Wildlife Trust to address these aspects of the mitigation strategy due to their expertise on ecology. As	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				above, it would be expected that postconstruction mitigation is addressed within the provisions of the DCO.	
1.1.41.	Natural England	**Information to Inform an Appropriate Assessment: Conservation Objectives** In light of the references to conservation objectives, site improvement plans and supplementary advice for sites considered to be likely to experience significant effects as a result of the proposal (provided in section 9 of the RIAA [APP-031], can NE confirm that all the relevant information is correct such that an appropriate assessment could be made in light of those conservation objectives?	Natural England can confirm that the information is correct. We also point the examining authority to section 4 of our written representation which also provides additional information on sites that are could experience significant effects as a result of the proposal. If additional information is needed, or Examining Authority feels something is missing or new information has come to light we would be happy to provide it at the examiners request.	The information was considered correct and up to date at the time of writing (June 2018) (PINS Ref APP-031/ Application Ref 5.2). It should be noted that the information in section 9 of the RIAA (PINS Ref APP-031/ Application Ref 5.2) is being revisited and updated for the revised RIAA (to be submitted at Deadline II). In particular, it has been confirmed that the French sites do not have conservation objectives, that the Southern North Sea cSAC should be referred to as cSAC/SCI, that additional documents are available for the Outer Thames Estuary SPA (SPA citation and Conservation Objectives) and that the Flamborough and Filey Coast is now a SPA (no longer pSPA) and has been merged with the Flamborough Head and Bempton Cliffs SPA. These changes/additions have been reflected in the revised RIAA to be issued at Deadline II. None of these changes alter the conclusions of the assessment.	Natural England have no further comments to make regarding this question and will comment on the revised RIAA when it is submitted by the applicant.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
1.1.42		**Information to Inform an Appropriate Assessment: Flamborough and Filey Coast pSPA** With regard to the Flamborough and Filey Coast pSPA, the ExA is aware that on 23 November 2018 Natural Englans published recommendations to DEFRA[2] regarding the outcomes of a consultation process on the formal designation of this SPA (as well as the Flamborough Head pSAC, which would not appear to have been identified as being potentially affected by the proposed development). • Can Natural England and the Applicant please comment on the implications of this consultation outcome in respect of: i. The status of the pSPA; ii. Implications on the assessment undertaken by the	i) With regards to the status of the pSPA please section 5.2.3 of Natural England's Written Representations. The following is taken from that section: "The Flamborough and Filey Coast SPA has now been classified as an SPA under the provisions of the Birds Directive. The public consultation concluded in April 2014 and the minister publicly noted the intention to classify the site as an SPA in late 2018. ii) Once a European site is a proposed Special Protection Area (pSPA) it is considered to have a material	With respect to the three questions: i) It is the understanding of the Applicant that the site is now a classified SPA as evidenced by: a. The 'classification citation' of the Flamborough and Filey Coast SPA (accessible2) that bears the date of registration as an amendment of 23 August 2018 and the text "The site was extended and renamed Flamborough and Filey Coast SPA on 23rd August 2018". b. The map of the boundary of the Flamborough and Filey Coast SPA, published by Natural England as a pdf format map (accessible3), that bears the text "SPA Extension Classified by the Secretary of State for Environment, Food and Rural Affairs. Date: 23/08/2018" ii) The site was assessed (See section 9.14 of the RIAA (PINS Ref APP031) as if it were a classified SPA in accordance with Government policy. As a result the assessment does not	Natural England have no further comments to make regarding this question.

[2] https://www.gov.uk/government/consultations/flamborough-and-filey-coast-potential-special-protection-area-pspa-and-flamborough-head-possible-special-area-of-conservation-psac

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		applicant (and their conclusions); and, iii. Any other relevant matters that may have a bearing on the Secretary of State's ability to undertake an appropriate assessment in respect of the pSPA (such as revised conservation objectives).	consideration and is afforded the same level of protection as fully designated SPAs. The applicants have identified this within the Report to Inform Appropriate Assessment and as the site is treated equally, as if it was fully designated or not, there should be no implications on the assessment or conclusions the applicants have reached. However, please note that the seabird assemblage total given on the pSPA citation has increased from 215,750 to 216,730 (see http://publications.naturalengland.org.uk/publication/5400434877399040?category=5758332488908800). This reflects revised calculations	change and the conclusions of the assessment do not change. iii) The assessment carried out was based on the conservation objectives published by Natural England in 2014. The conservation objectives published by Natural England in 2018 do not differ other than to be rephrased without the words 'potential' and 'may'. As a result the assessment does not change and the conclusions of the assessment do not change. The assessment carried out was based on the named seabird interest feature population figures published by Natural England in 2014. The named seabird interest feature population figures published by Natural England in 2018 do not differ. As a result the assessment does not change and the conclusions of the assessment do not change. It is noted that in light of the removal of landfall Option 2 from the proposed project design envelope the RIAA is being redrafted and submitted at Deadline II; all relevant stakeholders have been informed of this.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			regarding the number of puffin present at the site (the contribution of this species to the assemblage having increased from 980 to 1960). This revision is not likely to affect the applicant's conclusions regarding impacts on the seabird assemblage feature. For the SPA qualifying species, given that the Applicant, has carried out an assessment of impacts on all of these as pSPA features, the change in status neither requires additional information from the applicant regarding these. Nor does it affect Natural England's advice. Furthermore, Flamborough Head pSAC should not		

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			be affected by this development. iii) Currently only high level conservation objectives for this site have been published, which provide a framework for informing any Habitats Regulations Assessment. These high level objectives have been provided at deadline 1. Supplementary advice to support the conservation objectives is not currently available, however may become available further into the examination process and will be provided by Natural England in due course should this be the case.		
1.1.43.	Dover District Council	**Habitats Regulation Assessment: Cable Route Selection** Dover District Council's relevant representation [RR-029]	Not applicable.	This matter is now the subject of agreement with DDC and is captured within the associated SoCG submitted at Appendix 3 of this Deadline 1 submission.	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		questions whether sufficient information in relation to the cable route selection has been provided for an Appropriate Assessment to be undertaken. • Please could Dover District Council explain the basis for raising this question and the specific nature of its concerns in this regard?			
1.1.44.	The Applicant	**Marine Conservation Zone Assessment: Goodwin Sands** In its relevant representation [RR-053], Natural England highlights that the Goodwin Sands rMCZ is now a proposed Marine Conservation Zone (pMCZ). It is not satisfied that it can be concluded beyond all reasonable scientific doubt that the project would not hinder the conservation objectives of the Goodwin Sands pMCZ. Paragraph 5.3.3 of the MCZ Assessment [APP-083] states that "*MCZs not designated or brought forward for consultation are not required to be considered however the Applicant has undertaken a proxy MCZ assessment for the Goodwin Sand rMCZ…*". Chapter 6.2.5 of the ES [APP-046] also explains	Not applicable.	In its response to Natural England's' relevant representation [RR-053], the Applicant has outlined its position that a further MCZ Assessment for the Goodwin Sands pMCZ is not required. The then Goodwin Sands rMCZ was brought forward for formal consultation just before the Thanet Extension application and became a pMCZ after application in July 2018. However, an assessment (in the absence of any specific conservation objectives) was undertaken as part of the MCZ Assessment process (Volume 4, Annex 5-3: Marine Conservation Zone Assessment (PINS Ref APP-083/ Application Ref 6.4.5.3)). The assessment focused on the habitats and features present within Goodwin Sands pMCZ as assessed within the (Volume 2, Chapter 5: Benthic Subtidal and Intertidal Ecology (PINS Ref APP-046/ Application Ref: 6.2.5) of the	Natural England is not confident that the information presented to characterise the benthic habitats of the MCZ is sufficient to support impact predictions; there is a lack of site specific ground truthed data. We are therefore concerned that there is a lack of certainty regarding the ability to microsite / avoid the most sensitive features (*Sabellaria*, mussel beds and moderate energy circalittoral rock) at the time of construction. Cabling through these habitats may hinder the conservation objectives of these features. Natuarl England advises that if given permission to cable through the site, it should be a condition of the marine license

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		that ….*whilst the habitats in the vicinity of Goodwin sands are considered where appropriate the Goodwin Sands rMCZ has not been brought forward for consultation and is not therefore considered within this assessment or the associated MCZ assessment*". • Can the applicant please provide a revised Marine Conservation Zone Assessment to reflect the change in status from Goodwin Sands rMCZ to pMCZ after it was included in Tranche Three of MCZ consultation, which was announced on 8 July 2018.		Environmental Statement) and found all potential effects to be of no greater than minor significance, including as a result of secondary deposition from sandwave clearance. The nature of overlap between the Thanet Extension Offshore Export Cable Corridor and the Goodwin Sands pMCZ is partial and limited in extent (1.13km2) relative to the overall area of the pMCZ (277km2). All habitats and features within the cable corridor, including those in the area of overlap with the Goodwin Sands pMCZ have been appropriately considered. The MCZ Assessment (Volume 4, Annex 5-3: Marine Conservation Zone Assessment (PINS Ref APP-083/ Application Ref 6.4.5.3) of the Environmental Statement) concluded that any cable rock protection (if required) would become covered by surficial sediments within a matter of weeks to months, depending on local sedimentary deposition rates. The habitats and features in the area of overlap are not expected to be sensitive to the level of increased sedimentary deposition resulting from cable installation activities. Indeed, the "Consultation on Sites Proposed for Designation in the Third Tranche of Marine Conservation Zones" for Goodwin Sands (DEFRA, 2018) concludes that renewable energy and cable activities are not likely to be	that these habitats are avoided. Natural England is concerned that this lack of evidence means there is no certainty that burial depths required can be achieved within the sediment habitats. This latter point is required in order to prevent / limit the use of rock protection, which can lead to loss of / change in subtidal habitat and may hinder the conservation objectives of the site. The assessment considers rock protection as a loss of habitat, and focusses on the percentage loss within the site. This does not take into account the loss per feature; the function of the habitat lost (site specific biotope information is not available to support what this may mean); or the in combination impact of habitat lost to existing rock used within the site. The applicant has since added that rock protection would be covered naturally by sediment, but Natural England has not seen any evidence presented to confirm this; how stable this would be; or if the area would be able to support the same

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				damaging to the features of interest at this site. In relation to biogenic reefs, DEFRA (2018) 1 identifies that there are no reef features within the area of overlap. Furthermore, the Applicant has committed to undertaking pre-construction surveys with micro-siting around any identified biogenic reef features. In addition, the Applicant has made a commitment to monitoring sensitive biogenic reef features identified.	communities after recovery. Therefore Natural England is not confident that the use of rock protection will not hinder the conservation objectives of subtidal sand and subtidal coarse sediment. The assessment in general is not site specific and relies too much upon the generic benthic assessment for the whole area; the footprint and duration of all interactions with each feature e.g. sandwave clearance; sediment plumes; disposal of sediment etc. should be clearly identified within the MCZ assessment. Disposal locations are not clear; for example if there are discrete locations within and / or in close proximity to the site these should be defined and used within assessments. If disposal is continuous, the assessment should still clearly present impacts per feature. If disposal does occur on features, it should be ensured that sediment is of the same grain size in order to ensure the habitat can retain its function in relation to

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
					supporting communities found there. This avoids habitat loss and should be a condition of the marine license. Disposal on non-sediment features should be avoided. Should the development be given consent, provision of a disposal plan should form a marine license condition and be agreed with Natural England pre-construction. In combination impacts need to be considered; for example navigational maintenance dredging/disposal and aggregate extraction may contribute to suspended sediments; rock protection has been used within the site for Nemo. The aggregate extraction may/may not be occurring at the same time, but considering the scale of that activity and the area impacted this should not be automatically screened out of in combination assessment. The area temporarily impacted by the extraction will be in a state of recovery and will rely on surrounding sand for species to recolonise.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
					Whilst there is some biotope information used within the assessment, there is a lack of site specific information. Other information on biotopes is available, which could potentially be used to help inform conclusions of recoverability for temporary impacts – i.e. the Thanet Coast MCZ package identifies further biotopes found in the region, also Dover Harbour Board's extraction licence application includes biotope information from within the site. It should be checked that this has been used and considered. Pre-construction surveys are welcomed; they should examine all features and should be used to help microsite around sensitive features and ensure sufficient burial depth. However, as noted above Natural England is not confident that these mitigations can be fully implemented due to the lack of site specific ground truthed data. Post construction will also be required as a marine license condition to validate

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
					predictions and monitoring recovery of features from cable installation. Future maintenance and cable repairs resulting in temporary impacts is discussed in the MCZ assessment, but the impact on the recovery of habitats following multiple disturbances (ie disturbance from construction in conjunction with maintenance) has not been considered. Monitoring used to confirm the validity of ES predictions should be highlighted within the assessment. Natural England advises that if any rock protection is allowed it should be subject to monitoring to see if burial does occur. Natural England advise that direct impacts on the site could be avoided by installing cables within the areas of the cable corridor that do not intersect with the pMCZ.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
1.1.45.	The Applicant	**Goodwin Sands pMCZ: Benthic Ecology** The ES does not clearly set out evidence to demonstrate that no benthic Features of Conservation Importance in the Goodwin Sands rMCZ would be affected by the proposed cable works. • Please could the Applicant clarify the data sources used in arriving at the conclusion that no benthic Features of Conservation Importance in the Goodwin Sands rMCZ would be affected by the cable works, including site preparation works such as sandwave clearance, and provide further explanation as to how this data has informed the assessment.	Not applicable.	The Applicant has considered all relevant available data sources in the baseline environmental characterisation including site-specific data in the cable corridor section that partially overlaps with the Goodwin Sands pMCZ. The sources used to inform the MCZ Assessment (Volume 4, Annex 5-3: Marine Conservation Zone Assessment (Application Ref 6.4.5.3) of the Environmental Statement) are as follows: • Site-specific data collected for the Thanet Extension baseline characterisation (Figure 5.9 of Volume 4, Annex 5-3: Marine Conservation Zone Assessment (PINS Ref APP-083/ Application Ref 6.4.5.3) of the Environmental Statement); • EU SeaMap broad-scale predictive habitats mapping (Figure 5.9 of Volume 4, Annex 5-3: Marine Conservation Zone Assessment (PINS Ref APP-083/ Application Ref 6.4.5.3) of the Environmental Statement); • Goodwin Sands rMCZ subtidal verification data (Cefas, 2014) (Figure 5.10 of Volume 4, Annex 5-3: Marine Conservation Zone Assessment (PINS Ref APP-083/	As highlighted throughout Natural England's written representations, we consider there is not enough site specific data and site specific assessment provided to determine the potential impacts upon the Goodwin Sands pMCZ. There needs to be a meaningful assessment of the ecological impacts of the installation, maintenance and decommissioning of any potential cables, particularly upon the proposed features of the pMCZ. This should include an assessment of likely volumes of rock protection, dredged and pre-swept material that will be displaced, including any in combination issues. With regards to sandwave clearance, the best practise to minimise impacts is to deposit any material dredged immediately upstream of where it is removed to allow natural infill as soon as possible rather than removal to another or central site. Natural England advice that material removed from the export cable route within the pMCZ should

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Application Ref 6.4.5.3) of the Environmental Statement); • Volume 2, Chapter 5: Benthic Subtidal and Intertidal Ecology (PINS Ref APP-046/ Application Ref: 6.2.5) of the Environmental Statement; and • Volume 2, Chapter 2: Marine Geology, Oceanography and Physical Processes (PINS Ref APP-043/ Application Ref 6.2.2) of the Environmental Statement. The baseline data indicated that the habitats present within the area of overlap with the Goodwin Sands pMCZ (predominantly clayey to silty sand, with fine to coarse sand and much smaller pockets of gravelly sand and sandy gravel). No circalittoral rock habitats were identified within the area of overlap. No Ross worm (Sabellaria spinulosa) reefs or blue mussel beds were identified as being present within the area of overlap with the Goodwin Sands pMCZ. S. spinulosa reefs are known to be non-sensitive to light increases in sediment deposition4. Therefore, the only features of conservation importance that could be affected by cable works, including site preparation works such as sandwave clearance are subtidal sand and	be deposited back within the pMCZ and not removed to the offshore windfarm site or other part of the cable corridor. Discrete locations for deposition of material should be agreed with ourselves and the MMO. Additionally any sediment deposited should be deposited on material of a similar grain size to avoid habitat change whether inside or outside of an MPA. Any disposal will need to be at least 50 m from *Sabellaria spinulosa* reef identified in pre-construction surveys, which is consistent with nearshore aggregates advice. If the sediment is to be surface released then this needs to be taken account of and release points identified at specific states of the tide that will ensure the resting place of the bulk of the material is a minimum of 50 m from *Sabellaria spinulosa* reef identified in pre-construction surveys (noting *Sabellaria spinulosa* is tolerant to a certain amount of smothering, but the volumes being

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				subtidal coarse sediment. The proxy MCZ Assessment for the Goodwin Sands pMCZ draws upon information from the Volume 2, Chapter 5: Benthic Subtidal and Intertidal Ecology (PINS Ref APP-046/ Application Ref: 6.2.5) of the Environmental Statement, which itself draws upon information from the Volume 2, Chapter 2: Marine Geology, Oceanography and Physical Processes (PINS Ref APP-043/ Application Ref 6.2.2) of the Environmental Statement. As detailed in paragraph 5.10.44 Volume 2, Chapter 5: Benthic Subtidal and Intertidal Ecology (PINS Ref APP-046/ Application Ref: 6.2.5) of the Environmental Statement, "sandwave clearance and cable installation are likely to occur where the cable corridor passes through the Goodwin Sands rMCZ. The features of the rMCZ that may be affected include subtidal coarse sediment and subtidal sand. It is likely that any impacts from the construction works for Thanet Extension would be limited to tens to hundreds of metres from the source and would not result in the introduction of non-native sediments to the rMCZ. Therefore, it is considered that there will be no significant impacts on the features of the rMCZ." This assessment was also informed by the MarESA5 assessments on benthic habitats for the impacts of increased	discussed are large). This needs to be a license condition. Due to the lack of ground truthed information, we cannot be sure that the cable can avoid / microsite around the most sensitive features (*Sabellaria*, mussel beds, rock), in particular there could be real difficulties if the rock was found along the cable route.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Suspended Sediment Concentrations (SSC) and smothering. For the biotopes identified within the area of overlap between the export cable corridor and the Goodwin Sands pMCZ, the sensitivity assessments concluded that these biotopes were not sensitive or had low sensitivity to the impacts of changes to SSC, light smothering and heavy smothering (Table 5.14 of Volume 2, Chapter 5: Benthic Subtidal and Intertidal Ecology (PINS Ref APP-046/ Application Ref: 6.2.5) of the Environmental Statement).	
1.1.46.	Marine Management Organisation, the Applicant	**Goodwin Sands pMCZ: Other Consents** Kent Wildlife Trust's relevant representation [RR-048] refers to an extant consent to dredge part of the Goodwin Sands pMCZ. a) Could the Marine Management Organisation please provide a copy of that consent, including a map showing the extent of the permitted works. b) Please could the applicant clarify to what extent the ES has evaluated the cumulative impacts of the proposed	Not applicable.	**Marine Management Organisation** A copy of the Marine Licence is provided in Annex 1 to this response (file 'EN010084 - Thanet Extension - Deadline 1 - MMO Response to ExA Questions Annex 1'). The decision documents can also be viewed on the MMO's public register, available here. The Environmental Impacts Assessment Consent Decision and Decision Report that was completed to document MMO's decision making process includes maps of the licensed dredge location (p.5), the location of the licensed activities in relation to European and Ramsar sites (p.25), and in relation to SSSIs and Goodwin Sands pMCZ (p.27) – copies of these	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		dredging activity as part of the assessment for Thanet Extension Offshore Wind Farm?		maps are provided in Appendix 1 of this document. **The Applicant** The extant consent to dredge part of the Goodwin Sands pMCZ refers to the Dover Harbour Board marine license to use dredged material from the south Goodwin Sands as for land reclamation and berth construction as part of the Dover Western Docks Revival project. This consent was granted on 26th July 2018. Appendix 1 of Volume 1, Annex 3-1: Cumulative Effects Assessment (PINS Ref APP-039/ Application Ref 6.1.3.1) of the Environmental Statement identified an open status aggregate extraction and option area operated by Dover Harbour Board, with high data confidence attributed to the status of this project. At the time of drafting, it was considered that this project would be in the consenting/ preconstruction phase and was therefore considered that there would be no temporal overlap between the two projects. Additionally, any potential overlapping effects from Thanet Extension and the dredging on discrete features of the pMCZ would only be short-term and temporary in nature (i.e. temporary increases in suspended sediment which would rapidly decrease to background levels within hours after	Regarding the potential cumulative impacts upon Goodwin Sands from the Dover Harbour Board marine license, we encourage the applicant to consider the extent of impact caused by their own activities in combination with those caused by the Dover Harbour dredge. Whilst the activities causing the impacts may not coincide temporally, both activities will cause temporary impacts to subtidal sand and both areas will require un-impacted habitat to provide the means of recolonization.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				the end of activities) as there is no physical overlap between the RLB for Thanet Extension and the dredging area. It is now clear that works are anticipated to be undertaken between September 2019 and 2020. Offshore works for Thanet Extension are anticipated to be undertaken between Q1 2021 and Q2 2023 and as such there is no potential for temporal overlap of activities. The aggregate extraction and option area was screened out of the cumulative assessments for benthic ecology and fish and shellfish ecology.	
1.1.47.	Natural England	**Onshore Biodiversity: Survey Methodology** Section 5.6 of [APP-061] describes "Uncertainty and Technical Difficulties Encountered" as part of the onshore biodiversity assessment. Access restrictions prevented access to certain parts of the study area, which has affected a number of surveys including the Phase 1 habitat survey and surveys for great crested newts, reptiles, bats, water vole and otter. In some cases survey restrictions were temporary but in other areas surveying has been prevented entirely. The applicant	Natural England are aware of the access restriction that have hampered the applicant's data acquisition as part of the baseline assessment for onshore biodiversity. In terms of European and National Protected Species such as great crested newt, reptiles, bats, water vole and otter, Natural England have determined the proposed development in unlikely to impact these legally protected species. However, the onus is on the developer to ascertain	Although this question is specifically addressed to Natural England, to provide further context and clarity, access restrictions are summarised below in respect of each of the affected surveys: • Phase 1 habitat survey – access was not granted to four areas for Phase 1 habitat survey, although the habitats within all four areas were able to be mapped using recent aerial photography (see Volume 5, Annex 5-10: Additional Phase 1 Habitat Survey Report (PINS Ref APP-106/ Application Ref 6.5.5.10) of the Environmental Statement (ES)). Of these, three are located outside the Red Line	Natural England have no further comments to make regarding this question – please refer to our original answer for any further information.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		states that most of these cases refer to areas in which significant effects are unlikely or where existing data is available. In addition, changes to the red line boundary have meant that some areas were not subject to a full suite of surveys. This includes the proposed tenant relocation area, which was added to the red line boundary in early 2018. • Please can Natural England provide commentary as to the sufficiency of the Applicant's assessment in the onshore biodiversity aspect chapter, and in particular whether the worst case scenario has been adequately assessed, in light of the survey access restrictions?	the likelihood of impacts upon these protected species and whether any wildlife licences will be required. We are encouraged by the applicant's assurances to carry out further pre-construction surveys to further determine the likelihood of these species being present. Similar shortcomings have been highlighted within the invertebrate surveys, which were limited to only one visit late in August, where a few visits should have been undertaken. Natural England have provided further information to the applicant, which included further information on the potential invertebrate species that could reside in this area and their conservation status. Furthermore, and as highlighted within the applicants OLEMP a Terrestrial Invertebrate Mitigation Strategy is to be developed. This is alongside further pre-construction surveys to	Boundary (RLB) and will not be affected by the Project. The other relates to intertidal habitat, which is assessed in Volume 2, Chapter 5: Benthic Subtidal and Intertidal Ecology (PINS Ref APP-046/ Application Ref 6.2.5) of the ES. • Great crested newt (GCN) survey – one waterbody within 250m of the RLB was not accessible for survey (waterbody 196 within Pegwell Bay Country Park) (see Volume 5, Annex 5-11: Additional Great Crested Newt (GCN) Survey Report (PINS Ref APP-107/ Application Ref 6.5.5.11) of the ES). Given the lack of GCN records within 2km this waterbody is very unlikely to support GCN. Furthermore, as a precaution, a pre-construction survey of this pond will be undertaken to confirm absence (see Table 5.11 in Volume 3, Chapter 5: Onshore Biodiversity (PINS Ref APP-061/ Application Ref 6.3.5) of the ES). • Reptile survey – access for survey was not granted to the Richborough Energy Park (REP) site. However, existing reptile survey data exists for this site and no suitable habitats for these species were present within the parts of the REP site that could be	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			further identify invertebrate species of importance at the landfall location, to act as a baseline and to aid in post construction comparisons. In terms of assessing the worst case scenario, which is landfall option 2, and the permanent loss of saltmarsh, Natural England were concerned at the level of surveys that had been carried upon the saltmarsh considering the potential for adverse effect on site integrity of the SPA and Ramsar. Following the decision from the applicant that landfall option 2 has now been dropped our concerns have been lessened to a degree, however we will await formal confirmation from the examining authority. Therefore, for landfall options 1 and 3, the measures secured in the OLEMP such as the TIMS and pre-construction surveys, but also measures within the Saltmarsh Mitigation Plan has allowed Natural England to	affected by the proposed development in March 2018 (see paragraph 5.7.77 (PINS Ref APP-061/ Application Ref: 6.3.5). • Bat survey – access to Pegwell Bay Country Park and Stonelees Nature Reserve was not permitted for the bat activity surveys undertaken in April and May 2018 (see Volume 5, Annex 5-12: Additional Bat Survey Report (PINS Ref APP-108/ Application Ref 6.5.5.12) of the ES). However, no potential roost features are located within these areas and the areas were covered by bat activity surveys undertaken between August and October 2017. • Water vole and otter survey – a number of watercourses within the wider survey area (i.e. within 500m of the RLB) were not able to be accessed (see Volume 5, Annex 5-2: Water Vole and Otter Survey Report (PINS Ref APP-098/ Application Ref 6.5.5.2) of the ES). However, all watercourses within or adjacent to the RLB, including all watercourses potentially affected by the Project, were accessible for survey. None of the access restrictions set out above have affected the validity of the	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			determine that the current information is sufficient.	assessment or the assessment conclusions. None of the access restrictions set out above have affected the validity of the assessment or the assessment conclusions. The proposed tenant relocation area was not included in most of the species-specific faunal surveys undertaken in 2017, although it was covered by the Phase 1 habitat survey. A precautionary approach has been taken with regard to this area's potential to support notable invertebrate species, reptiles and bats and no other protected or notable species are likely to be present within this area (see Section 3.2 of PINS Ref APP-106/ Application Ref 6.5.5.10). As stated in paragraph 5.10.76 of PINS Ref APP-061/ Application Ref 6.3.5 the habitats within the proposed tenant relocation area will be retained in situ and the land use is expected to be similar to its current use, i.e. vehicle storage. Given the limited potential for impacts and the precautionary approach adopted the lack of survey data for some species groups has not affected the validity of the assessment or the assessment conclusions. The Applicant notes that the implications of the various access restrictions have been discussed through the Evidence	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Plan process and that Natural England has previously agreed that the survey data obtained are sufficient to inform the assessment. For example, paragraph 3.1 of Natural England's Relevant Representation (PINS Ref RR-053) states "Natural England considers that the documents presented to the Planning Inspectorate, to support the application for Development Consent, are of sufficient quality and detail to allow a considered assessment of the impacts on nature conservation issues…" The Applicant also notes that in their letter dated March 8th 2018 (at Annex B of this Deadline 1 submission) Natural England state that "the current NVC survey, plus the addition of the Phase 1 habitat survey has provided sufficient information to determine the baseline conditions and the vegetation communities that occur within the red line boundary of the proposed development." The applicant also refers to the minutes of a telephone conference with Natural England on 17th May 2018, presented within the EIA Evidence Plan (PINS Ref APP-137/ Application Ref 8.5) at which Natural England confirmed that the available data in respect of GCN are adequate for the EIA.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
1.1.48	Natural England and the Applicant	**Onshore Biodiversity: Terrestrial Invertebrates** Natural England at page 38 of its relevant representation [RR-053] states that "Given the relatively limited invertebrate survey work to date and the potential reliance on embedded mitigation we would advise that a conclusion of no AEOI on the Ramsar invertebrate assemblage through temporary habitat loss / disturbance is premature". a) Could Natural England confirm whether, in light of this comment, they expect further definition of invertebrate surveys and at what stage (eg as embedded mitigation through the OLEMP)? b) Does Natural England consider that further work is necessary to enable the ExA to reach meaningful conclusions around AEoI during this Examination? c) Could the Applicant indicate whether they intend to carry out further work?	a) Natural England has discussed this issues with the applicant. We have provided further information to the applicant on the potential invertebrate species that could reside within the Pegwell Bay area. As stated above, we have raised the shortcoming in the invertebrate surveys with the applicant. However, following the publication of the OLEMP, which includes further pre-construction surveys and a dedicated TIMS which will be developed in consultation with ourselves and other stakeholders we feel the further information provided at the pre-construction stage will successfully	Although part a) is specifically addressed to Natural England, to provide further context and clarity, the Applicant notes that Table 5.11 in Volume 3, Chapter 5: Onshore Biodiversity (PINS Ref APP-061/ Application Ref 6.3.5) of the ES states: "a terrestrial invertebrate mitigation strategy (TIMS) will be developed post consent and will form part of the detailed LEMP [Landscape and Ecological Management Plan]. The TIMS will be informed by a detailed invertebrate survey of affected areas prior to production and agreement of the detailed LEMP." Further details regarding the proposed invertebrate survey are provided in Table 5.1 in the Outline LEMP (PINS Ref APP-142/ Application Ref 8.7). Table 5.1 in PINS Ref APP-142/ Application Ref 8.7 also provides details of the proposed survey timing, i.e. May to September, prior to development of the detailed LEMP. The detailed LEMP will be produced and agreed with Thanet District Council and Dover District Council, in consultation with Natural England, post consent but prior to construction commencing. Although part b) is specifically addressed to Natural England, the Applicant notes that Natural England has previously agreed, in their letter dated March 8th 2018 (Annex B to this submission),	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			characterise the area further. b) Apart from the further work described above, such as the TIMS and the pre-construction surveys at this stage Natural England deem further work is not necessary. However, it should be noted that this in line with the applicant dropping landfall option 2.	that "the current assessment [i.e. a draft version of Volume 5, Annex 5-6: Terrestrial Invertebrate Assessment Report (PINS Ref APP-102/ Application Ref 6.5.5.6) of the ES] has provided sufficient data to characterise and evaluate the value of the site for terrestrial invertebrates." The Applicant notes that comments in Section 5.9.1 (Points 7.5.27-28) of Natural England's Relevant Representation (PINS Ref RR-053) regarding consideration of the bug Orthotylus rubidus. This species, which is associated with glassworts, is not found on open saltmarshes, but occurs in areas which, though saline, are not regularly inundated by the sea (see Table 3.1 in PINS Ref APP-102/ Application Ref 6.5.5.6). O. rubidus is therefore not likely to be present within the area that would be affected by cable laying operations and the works at the landfall, which is characterised by open saltmarsh and mudflats. The above notwithstanding, as the possible presence of this species cannot be conclusively ruled out, an assessment of adverse effect is included in an updated version of the Report to Inform Appropriate Assessment (PINS Ref APP-031/ Application Ref 5.2) (to be submitted at Deadline 2). Given the very low chance that O. rubidus is present within the affected area and following the implementation of the embedded mitigation, the assessment	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				concludes that there is no potential for AEoI. With respect to embedded mitigation the Applicant confirms that the TIMS and associated pre-construction invertebrate survey (as referred to in Table 5.11 in PINS Ref APP-061/ Application Ref 6.3.5 and Table 5.1 of PINS Ref APP-142/ Application Ref 8.7) will include O. rubidus. With respect to part c) the Applicant confirms that they intend to carry out further survey work for invertebrates. As stated above the survey will be undertaken prior to development of the detailed LEMP, post consent but prior to construction commencing.	
1.1.49.	The Applicant and Forestry Commission	**Onshore Biodiversity: Trees and Woodlands** Please could the applicant provide a comprehensive statement outlining any trees or woodlands that are likely to be lost as a result of the project. a) What mitigation measures are proposed to minimise the risk of net deforestation as a result of the project and how are those measures (if any) secured?	Not applicable.	**The Applicant** As set out in Table 5.7 in Volume 3, Chapter 5: Onshore Biodiversity (PINS Ref APP-061/ Application Ref 6.3.5) of the ES, 1.24 ha mapped as broad-leaved woodland during the Phase 1 habitat survey is present within the onshore RLB. This is located in three areas (see Figures 5.4ad in PINS Ref APP-061/ Application Ref 6.3.5): 1) A triangular area of relatively young woodland in the south-west corner of Pegwell Bay Country Park, dominated by the non-native white	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		b) What compensation measures (if any) are proposed and how are those measures secured? c) Do the applicant and Forestry Commission consider that any Ancient Woodlands and Ancient or Veteran Trees would be affected by the project? • If so, please provide details.		poplar Populus alba with abundant field maple Acer campestre and occasional ash Fraxinus excelsior; 2) An area of immature, relatively open broad-leaved woodland at the southern end of Stonelees Nature Reserve, with trees including ash and occasional oak Quercus robur and white poplar and a number of shrubs such as hawthorn Crataegus monogyna; and 3) A strip of woodland containing various broad-leaved tree species along the western edge of the proposed tenant relocation area. The strip of woodland along the western edge of the proposed tenant relocation area will not be affected by the Project but some tree removal will be required in the other two areas. The maximum area mapped as woodland that could be affected by the Project is approximately 0.37 ha, although the precise number, species and age of the trees that will be lost within these areas will not be known until the detailed design stage. In addition to the areas mapped as woodland, four lines of trees (mapped as scattered trees in Figures 5.4a-d in PINS Ref APP-061/ Application Ref	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				6.3.5) will be affected by the Project. These are situated in the following locations: 1) a line of non-native Lombardy poplars Populus nigra Italica in the north-west corner of the Baypoint Sports Club site, along its boundary with Stonelees Nature Reserve; 2) A line of trees along the western boundary of the Baypoint Sports Club, along the route of the proposed new access from Sandwich Road; 3) A line of white poplars at the south-eastern corner of the Baypoint Sports Club pitches; and 4) A line of semi-mature trees (mostly white poplar) and shrubs (mostly hawthorn) at the boundary between the Baypoint Sports Club and British Car Auctions sites. The maximum length of tree line affected by the Project is 95m (i.e. three lengths of up to 30m along the cable route plus 5m at the location of the new access into the Baypoint Sports Club site. The precise number, species and age of the trees that will	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				be lost will not be known until the detailed design stage. <u>Mitigation Measures</u> Mitigation measures will be employed to minimise the number of trees removed and to protect retained trees from inadvertent damage. As set out in Section 4 of the Outline LEMP (PINS Ref APP-142/ Application Ref 8.7) working areas will be kept to the minimum area necessary with the extent of the working area dependent upon the final design solution adopted. All retained trees located directly adjacent to working areas will be protected by Root Protection Areas (RPAs) during construction, in accordance with BS 5837:2012 (British Standards Institution, 2012). Working areas and the location and extent of any RPAs will be specified in the detailed LEMP. In addition, as set out in paragraph 1.6.1 of PINS Ref APP-142/ Application Ref 8.7, a suitably qualified Ecological Clerk of Works will be employed for the duration of the construction period and would oversee the implementation of the mitigation measures. These mitigation measures will be secured via the submission, agreement and implementation of the detailed LEMP, as per Requirement 23	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				(Landscape and Ecological Mitigation Plan) in the draft DCO. <u>Compensation Measures</u> It is not possible to replace felled trees along the cable route for operational reasons, i.e. because access to the cable route may be required and to avoid tree roots damaging cables. However, additional tree planting is proposed to provide screening of the substation (see Section 4 and Figures 2 and 3 in PINS Ref APP-142/ Application Ref 8.7), which will provide compensation for the loss of trees along the cable route and at the new access to the Baypoint Sports Club. The total extent of the proposed tree planting at the substation will be between approximately 0.36 ha and 0.41 ha, with the precise area dependent on the detailed design solution adopted. Although this is likely to be slightly smaller than the area of woodland and tree lines to be lost tree planting is likely to take place at a higher density than the density of trees to be removed. Planting will also feature a higher proportion of native species than will be removed. The Applicant is also willing to carry out additional tree planting, if the number of trees to be removed is greater than the number of trees to be planted at the substation. Additional tree planting	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				would take place within the RLB (away from buried cables) or adjacent to it, in agreement with the relevant landowner(s). Any additional planting would involve native species appropriate to the site. Although this additional tree planting is not proposed within the ES the proposals set out here have been included within an updated version of the Outline LEMP (PINS Ref APP-142/ Application Ref 8.7), also submitted at Deadline 1 (Appendix 42 to Deadline 1. These compensation measures will be secured via the submission, agreement and implementation of the detailed LEMP, as per Requirement 23 in the draft DCO. In addition, the tree planting at the substation will be secured via the submission, agreement and implementation of a substation landscaping management scheme, as per Requirement 12 (Onshore Substation Landscaping) of the draft DCO. Ancient Woodland and Ancient or Veteran Trees There are no areas included on the Ancient Woodland Inventory and no areas identified as wood pasture or historic parkland (which can represent ancient woodland but do not always appear on the Ancient Woodland Inventory because their low tree density did not register as woodland on historic maps) within	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				2km of the RLB. This has been checked by reference to the MAGIC website (Natural England, 2019). No veteran trees, as defined in paragraphs 3.2.4-3.2.5 of Volume 5, Annex 5-1: Extended Phase 1 Habitat Survey Report (PINS Ref APP-097/ Application Ref 6.5.5.1) of the ES, have been identified within 50m of the RLB (see paragraph 4.3.11 of PINS Ref APP-097/ Application Ref 6.5.5.1 and Volume 5, Annex 5-10: Additional Phase 1 Habitat Survey Report (PINS Ref APP-106/ Application Ref 6.5.5.10) of the ES. No ancient woodlands and ancient or veteran trees will therefore be affected by the Project. **The Forestry Commission** No comment.	
1.1.50.	The Applicant	**Onshore Biodiversity: Classification of Scrub** In describing habitat types within the study area, Tables 5.7 and 5.8 together with Figures 5.4a-5.4d of Chapter 5 of Volume 3 of the Environmental Statement [APP-061] refer to 'Scrub-Dense/Continuous' and 'Scrub-Scattered'.	Not applicable.	Under the Phase 1 habitat survey classification (JNCC, 2010) scrub is defined as "seral or climax vegetation dominated by locally native shrubs, usually less than 5 m tall, occasionally with a few scattered trees." It goes on to state that "the following should, amongst others, be included in this category: stands of mature Crataegus monogyna [hawthorn], Prunus spinose [blackthorn] or Salix cinerea [grey willow], even if more than 5 m tall…; and all willow carr less than 5 m tall."	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		a) Noting the contents of the relevant representation of the Forestry Commission, please could the applicant provide further clarity sufficient to ensure the correct classification of the identified scrub land. b) In particular, clarity is sought as to the extent to which any of the identified scrub land should be considered to be woodland for the purposes of the EIA regulations.		As set out in paragraph 4.3.8 of Volume 5, Annex 5-1: Extended Phase 1 Habitat Survey Report (PINS Ref APP-097/ Application Ref 6.5.5.1) of the ES, scrub within the Phase 1 habitat survey study area was typically dominated by hawthorn and willow Salix sp. with abundant dogwood Cornus sanguinea, frequent blackthorn and bramble Rubus fruticosus and occasional dog rose Rosa canina and ash saplings. The scrub within the study area has therefore been correctly classified under the Phase 1 classification. The Phase 1 classification currently remains the standard method for habitat survey in the UK and its use to inform the EIA was agreed through the Evidence Plan process. The scrub mapped within the study area also meets the definition of scrub used by Mortimer et al. (2000), as referenced in Forestry Commission's Relevant Representation (PINS Ref RR-019). Mortimer et al. state that: "scrub includes all stages from scattered bushes to closed canopy vegetation, dominated by locally native or non-native shrubs and tree saplings, usually less than 5m tall, occasionally with a few scattered trees." It is acknowledged that Forestry Commission (PINS Ref RR-019) uses a different definition and that areas within the RLB that were not mapped	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				as woodland in the Phase 1 habitat survey (PINS Ref APP-097/ Application Ref 6.5.5.1), mostly within Pegwell Bay Country Park, are defined as woodland on the National Forest Inventory. However, the Applicant's position is that scrub has been identified correctly in accordance with the widely accepted definitions and the methodologies agreed through the Evidence Plan process. The Applicant also notes that the current Pegwell Bay Country Park Management Plan includes objectives for the control of scrub to promote grassland diversity and prevent trees from maturing and potentially damaging landfill capping (see paragraph 6.1.9 of the Outline LEMP (PINS Ref APP-142/ Application Ref 8.7)). Removal of scrub within the Country Park, much of which is defined as woodland on the National Forest Inventory, is therefore likely to take place whether or not the Project takes place.	
1.1.51.	The Applicant	**In Principle Monitoring Plan** Natural England has raised concerns that there is no In Principle Monitoring Plan (IPMP) included within the application, which it appears to have been expecting to be submitted as part of the application as a result of correspondence through the	Not applicable.	A) It is the Applicant's view that whilst the inclusion of an IPMP may be appropriate for other projects of a larger scale or proposed in new/novel areas, it would be disproportionate for a comparatively small extension project. The Project includes detailed monitoring proposals that	As raised within our relevant representations and again within our written representations, Natural England still have concerns regarding the lack of in principle monitoring.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		evidence plan process. The ExA recognises the existence of the Schedule of Mitigation document [APP-135] but nevertheless requires further clarity on this point. a) Please can the Applicant explain why an IPMP does not form part of the application? b) Could the Applicant please confirm whether or not such a plan will be prepared and if so, by when? c) If an IPMP is not to be made available at Deadline 1, can the Applicant please provide a single document which consolidates all of the monitoring requirement plans and provides clarity as to what relevant monitoring will be carried out to validate conclusions within the ES and HRA Reports. i. Please do so by onshore and offshore topic areas, and in particular in respect of ornithology and benthic ecology. ii. Please set out how each of these		are based on the uncertainties present. By virtue of the Project being an extension to an existing wind farm which has been subject to a number of programmes of ecological monitoring since construction, the uncertainties that remain with regards the sensitivity of the receiving environment to change are therefore very limited. The monitoring undertaken includes benthic and geophysical monitoring, and ornithological monitoring. The latter in particular is worthy of note as it was undertaken under the auspices of Offshore Renewables Joint Industry Programme with a view to reducing uncertainty at offshore windfarms. B) Furthermore the Project position on monitoring has been informed by the Marine Management Organisation's review of post-construction monitoring which concluded inter alia that there is limited justification for monitoring of ecological receptors such as fish and shellfish, and monitoring in the wider sense should be focussed on specific questions and uncertainties rather than generic or broad scale monitoring. The monitoring proposals put forward are therefore very focussed,	We acknowledge that monitoring should focus on specific questions and uncertainties rather than generic or broad scale monitoring, however we deem that the monitoring currently does not go far enough and is vague. In terms of pre-construction surveys for biogenic reef, and in line with the MMO's comments at question 1.1.33, a specific pre-construction survey which identifies areas of potential / core reef and ground truthing this data with drop down video for example will allow for more accurate determination of reef areas. With regards to post construction monitoring ground truthing in areas where biogenic reef has been identified and potentially impacted will allow us, the MMO and the applicant determine any long term impact to these areas. Where an impact has clearly been seen post-construction surveys beyond one year will be required in this area to monitor

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		monitoring commitments would be secured as part of the DCO/DMLs.		advanced and created to address the very limited areas of uncertainty. The offshore monitoring proposals put forward are the Saltmarsh Mitigation, Reinstatement and Monitoring Plan and the Biogenic Reef Mitigation Plan. C) The Applicant acknowledges the Examining Authority's request for a single document consolidating the monitoring requirement plants. However, as these plans are very concise, to avoid where possible the administrative burden of submitting an additional document, these plans have been clearly set out within this response. If the Examining Authority remains of the view that an additional document will assist, the Applicant is content to provide this document as may be requested. Requirement 35 (Certification of plans etc.) of the draft Order requires the undertaker to submit copies of both the Saltmarsh Mitigation, Reinstatement and Monitoring Plan and the Biogenic Reef Mitigation Plan to the Secretary of State for certification as soon as possible after the Order is made. The Pre-construction monitoring surveys condition in both deemed marine licenses (Schedule 11, Part 4,	recovery. This should be conditioned within the DCO / DML. An area of concern from Natural England's perspective, and where monitoring should be focussed, is Goodwin Sands pMCZ. Sufficient pre construction monitoring, as described above, to determine the features that could be impacted and their recoverability is essential.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Condition 15 and Schedule 12, Part 4, Condition 13) requires the undertaker to conduct "appropriate surveys to determine the location and extent of any biogenic reef features (Sabellaria spinulosa) inside the area(s) within the Order limits in which it is proposed to carry out construction works, as provided for in the biogenic reef mitigation plan" before commencement of the licensed activities. The Pre-construction monitoring surveys condition in the export cable license (Schedule 12, Condition 13) requires the undertaker to carry out "appropriate surveys in order to monitor the impact of development authorised by the Order within any areas of saltmarsh, as provided for in the Saltmarsh Mitigation, Reinstatement and Monitoring Plan" before commencement of the licensed activities. The onshore monitoring proposals are secured through the Landscape and Ecological mitigation plan. Requirement 23 (Landscape and Ecological Mitigation plan) requires the undertake to provide a Landscape and Ecological mitigation plan before commencing any stage of the connection works. The Plan is required to include an	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				implementation timetable and must be carried out as approved.	
1.1.52.	The Applicant	**Project Environment Management Plan (PEMP)** The PEMP appears to be relied upon as one form of embedded mitigation to reach a conclusion of no adverse effects on site integrity. DML conditions include some headline requirements for inclusion in the PEMP, but little further detail has been provided. a) Could the applicant please explain why it is appropriate for the PEMP to be secured through DML condition rather than DCO requirement? b) Can the applicant provide an outline structure for the PEMP and a table itemising the particular environmental performance that will be secured within it?	Not applicable.	A) The Applicant would draw the attention of the ExA the fact that the PEMP relates to works below MHWS and is therefore applicable to the marine environment, rather than the terrestrial/onshore environment. It is therefore appropriate that it is secured within the DML(s) at Schedule 11, Condition 12 (d) and Schedule 12, Condition 10(e). A Construction Environmental Management Plan (amongst a number of other onshore management plans) which relates to onshore matters is secured within the DCO. (Requirement 15). It should also be noted that the PEMP will not, in the most recent revision of the RIAA to be submitted at Deadline 2, be relied on as embedded mitigation. The PEMP requires development of inter alia marine pollution contingency plans which are a requirement of works within the marine environment and are embedded as such within the EIA. In light of the Sweetman II rulings, despite these types of plans being required by the London Convention (on the Prevention of Marine Pollution by Dumping of Wastes	Natural England have no further comments to make regarding this question. We shall review the PEMP in due course and provide our advice to the MMO.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				and Other Matter) 1972, they are no longer 'embedded' for the purposes of the RIAA. In light of the above the PEMP is to be secured within the dMLs as it is the MMO as the relevant regulator that is ultimately responsible for the approval of the document. B) The Applicant can confirm that the contents of the PEMP will reflect the condition(s) within the DML(s). The requirements are to provide a marine pollution contingency plan which will provide the Applicant (developer) proposed structure to ensure that pollution events are addressed rapidly and appropriately and in line with strategic and regional marine pollution contingency plans. The additional requirements, to provide a chemical risk assessment, waste management, and disposal arrangements further ensure that the Applicant and any contractors working on behalf of the Applicant will manage chemicals and waste appropriately to ensure that nothing is released to the marine environment. The requirements are underlined by inter alia the London Convention (on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter) 1972. In light of the proposed contents of	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				the PEMP being detailed within the dML(s), and the environmental performance it will secure is compliance with either those commitments or other Conventions, the Applicant would request further clarification as to what an outline PEMP should include.	
1.1.53.	The Applicant	**Ornithology Clarification in Non Technical Summary** Please review and clarify [APP-129] Non Technical Summary: Offshore Ornithology para 120, which seems to be incorrectly proofed.	Not applicable.	The Applicant acknowledges this proofing error and provides a clarified paragraph as follows (bold text represents revised text): "The assessment of potential impacts to offshore ornithology is focused on individual birds, populations and colonies, rather than the integrity of nature conservation sites (e.g. SPAs and Ramsars) designated for those ornithological receptors. Only where likely significant effects (in HRA terms) on birds are predicted, are those designated sites taken into account, with a full HRA submitted separately. Nature conservation designations are also considered in Volume 2, Chapter 8: Offshore Designated Sites (Document Ref: 6.2.8). The offshore ornithology study area includes the operational TOWF array area, the proposed Thanet Extension array area with a 4 km buffer around it, as well as the OECC up to the Mean Low Water Springs (MLWS) mark. The	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				assessment considers potential effects on offshore ornithology in the construction, O&M and decommissioning phases of the proposed development, using existing data, site-specific survey data as well as results from collision Risk Modelling (CRM). A full description of the assessment can be found within the ES (Volume 2, Chapter 4: Offshore Ornithology (Document Ref: 6.2.4)).”	
1.1.54.	Natural England	**Competent Authority for HRA** Point 2 of the Actions arising from Issue Specific Hearing 1 (ISH1) requests that the Applicant provides legal submissions on the question of who is the competent authority for HRA appropriate assessment when the relevant sites are in France. It further seeks views as to whether the Secretary of State can call on UK statutory nature conservation bodies (SNCBs) for advice on these sites. a) Can Natural England (which was not represented at ISH1) please provide its considered opinion in respect of this matter?	In Natural England's considered opinion, it is not within our remit to comment upon HRA issues and assessments when the relevant designated sites are in France. These should be addressed by the relevant nature conservation body in the country of concern. Natural England points the examining authority to sections 2.1.5 and 2.2.1 of our written representation which explains in more detail our current remit.	The Applicant refers the Examining Authority to Appendix 27, Annex E of Deadline 1 Submission: Defining "Competent Authority" in relation to Transboundary HRA issues which sets out the Applicant's understanding of the competent authority for HRA appropriate assessment for sites in France. As detailed within the Note, the Applicant confirms that section 1(3) of the Natural Environment and Rural Communities Act 2006 makes clear that "except where otherwise expressly provided, Natural England's functions are exercisable in relation to England (including, where the context requires, the territorial sea adjacent to England] only." This is not expressly stated to the contrary in the Planning Act 2008 or any other associated relevant primary or secondary legislation.	Natural England does not agree with the applicant's response and reiterate that it is not within our current remit to comment upon HRA issues and assessment where the relevant designated sites are in France.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		b) In particular, it would assist the Examining Authority to understand whether Natural England considers its remit to include providing advice as to the likely significant effects of projects in England or English waters on European sites in France or French waters?			
1.3. Compulsory Acquisition, Temporary Possession and other Land or Rights Consideration					
1.3.1. – 1.3.10.	Various stakeholders		Natural England consider these questions to be outside of our remit and have thus not commented on them further.		Natural England have not commented any further upon these questions as they are outside of our remit.
1.5. Debris, Waste and Contamination					
1.5.1. – 15.2.	Various stakeholders.		Natural England consider these questions to be outside of our remit and have thus not commented on them further.		Natural England have not commented any further upon these questions as they are outside of our remit.
1.6. Electric and Magnetic Fields (EMFs)					
1.6.1	All IPs	**Effects on Human Health** Public Health England states that it is satisfied that the project	Not applicable.	The Applicant notes that it has nothing to add to this ExQ at this time beyond noting that following multiple phases of	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		would not pose a significant risk to public health in terms of the potential impact of electric and magnetic fields. • Do any IPs disagree with this view? If so, please explain why.		consultation PHE agreed this position to be accurate.	
1.6.2.	The Applicant, Natural England and Marine Management Organisation	**Effects on Benthic Ecology** The embedded mitigation identified within the ES includes burying offshore cables to a maximum target depth of 3m *"where possible"* to reduce received Electric and Magnetic Field effects on benthic species. As cables will be buried to a maximum target depth only where possible, there is some uncertainty as to how these embedded mitigation measures will be secured. a) In respect of table 5.11 of APP-046, can the applicant explain (with reference to the DCO, DMLs and/or other documents) how the embedded mitigation measures identified are capable of being secured as part of the scheme design?	Natural England confirm no further mitigation is needed to reduce the impacts of EMFs on benthic species. We refer the Examining Authority to Natural England's relevant representations where we state on page 30 in relation to table 5.11: "Electromagnetic Fields - If it is not be possible to bury cables to 1.5 m, Natural England do not want cable protection to be used as de facto to minimise the impacts from EMF. The use of cable protection should be minimised and agreed on a case by case basis depending on what will lead to the lowest environmental impact. In environmental terms, it may be better to	The Applicant notes that, due to the inherent uncertainty as to whether burial to the target depth can be achieved, the worst case parameters assessed within Volume 2, Chapter 5: Subtidal Benthic and Intertidal Ecology (PINS Ref APP-046/ Application Ref 6.2.5) assumed that the full length of all cables installed for the proposed development would be buried to less than 1.5m (i.e. the depth at which electromagnetic fields (EMF) from the cables will be detectable). A) The Applicant will undertake a Cable Burial Risk Assessment (CBRA) as part of the engineering works which will inform the Cable Specification and Installation Plan (CSIP) which is one of the required pre-commencement documents outlined in the dMLs (Condition 12(g) of the Generation Assets dML and Condition 10(h) of the Export Cable System dML). These documents will detail the burial	Natural England reiterates that we do not want cable protection to be used as de facto to minimise the impacts from EMF. The level of cable protection should be minimised throughout cable burial, particularly in designated sites. In some instances, it may be better to leave a cable surface laid or at the very least shallow buried.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		b) What will be the approach taken in areas where it is not possible to bury cables at the desired depth and where are the EMF effects of this scenario assessed? c) As no significant effects resulting from the proposed development are identified, no further mitigation is proposed as necessary beyond those measures embedded in the project design. Please could NE and the Marine Management Organisation confirm whether or not they are satisfied that no further mitigation is proposed?	leave a cable surface laid or shallow buried."	methodologies and how the target burial depth will be met or what measures will be used if the target burial depth is not achieved. These documents will be submitted to the MMO at least 4 months prior to construction for approval and the MMO will consult with Natural England to ensure that they are content that the methodology is appropriate. B) Where it is not possible to bury the cables to the target burial depth, it is likely that cable protection will be used. This typically comprises of rock deployed in a berm or concrete mattresses, but full detail of this cable protection will be provided to the MMO for approval in the CSIP, based on the information provided in Volume 2, Chapter 1: Project Description (Offshore) of the ES (PINS Ref APP-042/ Application Ref 6.2.1). The worst case scenario for EMF effects is that all cables will be buried to less than 1.5 m depth (i.e. assumed full effects of EMF received by benthic organisms) and this has been assessed in section 5.11 of Volume 2, Chapter 5: Subtidal Benthic and Intertidal Ecology (PINS Ref APP-046/ Application Ref 6.2.5).	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				C) The Applicant notes that this question is not directed at them but considers that it would aid the ExA to clarify that the embedded mitigation (i.e. cable protection) will be fully implemented for the project and where the target burial depth is not achieved, cable protection will be deployed to ensure the integrity of the cable, therefore also providing a degree of mitigation for EMF effects. **The Marine Management Organisation** Table 5.11 of APP-046 states that 'Inter-array and export cables will be buried to a maximum target depth of 3m, subject to a cable burial risk assessment. Where it is not possible to bury the cables sufficiently, cable protection will be used. While cable protection or burial does not decrease the strength of EMF at source, it does increase the distance between the cables and benthic receptors, thereby reducing the received EMF (from attenuation of the EMF) and potentially reducing the effect on those receptors.' The MMO considers that this is satisfactory mitigation for cable burial for EM, however the MMO recognises that the use of scour protection could	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				result in additional negative impact on other receptors, and the worst case scenario for all receptors should be assessed when considering whether or not scour protection should be used. The MMO also notes that reduced burial depth could occur during the construction phases (i.e. the target depth could not be achieved), as well as during the operational phase (for example cable becoming expose due to sandwave movement), and expects that the detailed management/mitigation of this will be captured in the cable specification, installation, and monitoring plan.	
1.7. Electricity Connections and Other Utility Infrastructure					
1.7.1. – 1.7.4.	The Applicant and Nemo Link Ltd.		Natural England consider these questions to be outside of our remit and have thus not commented on them further.		Natural England have not commented any further upon these questions as they are outside of our remit.
1.11. Marine and Coastal Physical Processes					
1.11.1.	The Applicant	**Scour Protection: Volumes** The Marine Management Organisation has provided detailed comments in paragraphs	Not applicable.	A) Annex A, of the Applicants' Response to Relevant Representations (Appendix 1 of the Deadline 1 submission) presents the maximum design parameters of	Natural England note the clarifications provided by the applicant and will review these changes in line with our written and relevant representation

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		1.12-1.20 and 1.59 of its relevant representation [RR-049] regarding the maximum total volumes of scour protection presented within the ES project description and limited by requirement in the DCO or condition in the DMLs. Uncertainty between these relate to seemingly differing cable protection, scour protection and disposal volumes. a) Please respond to these points using a comparative schedule or similar method of presentation: i. Please clarify the total volume of scour protection that has been assessed within the ES for the turbine structures and offshore substation; ii. Please confirm whether or not these maximum parameters are correctly reflected within the appropriate DCO requirement and DML conditions; and, iii. If not, please provide an updated version of the relevant DCO		Volume 2, Chapter 1: Project description (Offshore) (PINS Ref APP-042/ Application Ref 6.2.1). This document presents the maximum design parameters in a tabular format, including the total scour protection volume assessed. The Applicant seeks to consent a maximum total scour protection volume of 1,112,647.4 m3 and 39,269.9 m3 for all wind turbine generator (WTG) foundations and the offshore substation (OSS) foundation (if required) respectively. The Applicant notes that there is a discrepancy in the transcription of scour protection volumes into the draft DCO, which is presented in Annex B of the Applicants' Response to Relevant Representations (Appendix 1). The Applicant has submitted a revised DCO (and dMLs) (Appendix 35) which has been updated as per the changes outlined in the DCO changes log (Annex B of Appendix 35) of the of the Applicants' Response to Relevant Representations of the Deadline 1 submission). B) The Applicant can confirm it is seeking the provision of scour protection for the Met Mast. A maximum volume of 39,269.9 m3 is being sought for the Met Mast.	comments on the maximum design parameters in the DCO / DML.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		requirement and DML conditions. b) Please confirm whether any scour protection is proposed for the offshore met mast foundation? • If so, please: specify the parameters of the Rochdale Envelope, signpost to where this has been assessed within the ES and advise whether and where this should be dealt with in the DCO/DMLs.		Full details of the maximum design parameters of the Met Mast being sought for consent is provided in Annex A, of the Applicants' Response to Relevant Representations (Appendix 1 of the Deadline 1 submission). Annex A, of the Applicants' Response to Relevant Representations (Appendix 1 of the Deadline 1 submission) presents the parameters for all relevant parameters inclusive of the offshore met mast foundation. As noted in response to part A, a revised DCO (and DMLs) is included in Appendix 35 of the of the Applicants' Response to Relevant Representations of the Deadline 1 submission.	
1.11.2.	The Applicant	**Cable Protection: Offshore** Natural England has raised concerns as to the worst case scenario that has been assessed for the cable protection, which is noted as 25% of the total cable length in the array area and the export cable corridor. Natural England believes that this figure is incorrect in view of the number of developments foreseen in the area.	Not applicable.	The Applicant can confirm that 25% of cable length for additional cable protection has been put forward as a conservative upper limit for the amount of cable protection that may be required for the Thanet Extension Cables. The Applicant understands the concerns that the respondents have with regards to excessive amounts of above ground protection and will work to keep such protection to a minimum as it offers less through project life protection for cables and requires additional ongoing monitoring and	Natural England appreciate the applicant taking our advice to consider experience from other OWFs and the Thanet project in providing an assessment for a realistic amount of cable protection. What Natural England would like to see is this amount justified in terms of the likelihood of burial in the different sediment types that are predicted to be

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		• Please provide further justification for the worst case scenario that has been assessed for the cable protection (25% of the total cable length). The response should make reference to the maximum permissible volumes for cable protection (and lengths of cabling) that have been specified in DCO requirement 4.		maintenance over and above that required for buried cables. Noting the project will endeavour to keep cable protection to a minimum it is also felt important to balance this with the request made by Natural England to ensure lessons learnt from the existing Thanet OWF and NEMO interconnector are applied. The project has therefore sought to ensure appropriate methods of trenching are included within the design envelope, alongside adequate cable protection.	encountered based on existing evidence and experience from the Thanet project. I.e. the percentage chance of burial and therefore cable protection needed in each sediment type. This is alongside detailed evidence from the Thanet project as to burial success and percentage of cable protection that was required at that project. At the moment we are unclear what the 25 % is based on – is this the amount that was needed for cables at the Thanet project? The applicants answer does not provide any further evidence in this regard. Natural England's concern is that the applicant may be inclined to use the amount of cable protection consented as a precaution once construction has commenced. We would therefore only like to see fully justified amounts assessed and considered for consenting. There is nothing to limit the amount placed within the 25 % aside from this unconditional statement from the applicant:

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
					"The Applicant understands the concerns that the respondents have with regards to excessive amounts of above ground protection and will work to keep such protection to a minimum as it offers less through project life protection for cables and requires additional ongoing monitoring and maintenance over and above that required for buried cables." We consider further evidence is still required to justify the 25 %.
1.11.3.	The Applicant, Natural England, Marine Management Organisation	**Scour Protection: Additional DCO Parameters** Natural England's relevant representation [RR-053] states that additional parameters are required such that scour and cable protection should be limited by both volume of material and area of impact. a) Could Natural England please provide further specific detail about the recent experience alluded to in its relevant representation in this regard?	a) The relevant experience relates to an issue which arose in relation to post consent applications for burial / reburial and sandwave clearance at a windfarm in the southern North Sea. It highlighted that the use of volume for assessing benthic impacts was not sufficient as the	A) The Applicant can confirm that the introduction of scour protection to the receiving environment has been assessed in the following assessments on the basis of lessons learnt from other projects and consideration of the receiving environment: • Benthic Subtidal and Intertidal Ecology (PINS Ref APP-046/ Application Ref 6.2.5); • Fish and shellfish (PINS Ref APP-047/ Application Ref 6.2.6); • Offshore Archelogy and Cultural Heritage chapters	Natural England are in agreement with the MMO's comments and see no reason why the figures should not be provided within the DML.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		• What does Natural England consider to be the implication of this experience for Thanet Extension Offshore Wind Farm? b) Please could the applicant and Marine Management Organisation respond to Natural England's suggestion that the use of volume parameters alone no longer provides sufficient certainty? c) Could the Applicant please comment as to whether it would be possible and /or appropriate for the DCO and DMLs to provide maximum scour protection areas per turbine.	area impacted by area exceeded that assessed in the application, despite the volume being the same. Based on this experience NE and the MMO determined that in relation to benthic impacts it is more appropriate to condition the activity on volume and area of impact in order to avoid the footprint of the impact exceeding that assessed. i) The implications are that the applicants should specifically state the area of impact that will be affected by scour and cable protection, so it is clear what the worst case scenario will be. This is	(PINS Ref APP-054/ Application Ref 6.2.13); and • the RIAA (PINS Ref APP-031/ Application Ref 5.2). These assessments concluded that the effects associated with the presence of the requested consent volume of scour protection (1,191,187.2 m3) was not significant in EIA or HRA terms. B) It is the Applicants position that the assessment considers volume, height, and area where relevant within the assessment. As such all parameters associated with scour protection are presented with sufficient clarity to give certainty to the regulatory body. As identified in the Applicant's response to Natural England's Relevant Representation (response to NE-40), the Applicant is content to provide the maximum cable protection volumes and maximum scour protection volumes on the face of the DMLs in the revised draft Order submitted for Deadline 1. A scour protection management and cable protection plan is secured in Schedule 11, Part 4 (12)(e) and Schedule 12, Part 4 (10)(f) of the DCO which will be required to be approved in writing by the MMO and provides	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			particularly pertinent in designated sites, where it is necessary to determine any potential effects upon the designated features. Without this information being available and conditioned in the DCO there is potential for the actual impacts to be more significant than those assessed using volume alone.	amongst other things the opportunity for a 'sense check' of volumes and areas assessed within the ES and the volumes/areas proposed to be utilised as part of the final design. As such the Applicant does not feel that it is necessary to include this information of the face of the DML. **The Marine Management Organisation** The MMO notes Natural England has provided comment on a UK offshore windfarm where the developer only adhered to the volume on the marine licence. The MMO can provide an example that relates to seabed preparation works of sandwave levelling prior to cable installation being undertaken for Race Bank Offshore Wind Farm (Marine Licence number L/2016/00094). The licence was issued in 2016 for permitted quantities of dredging and disposal, and a request to increase the permitted dredge volumes for the second cable installation was submitted on January 2017. It was evident from the supporting environmental information at for the first phase of sandwave levelling that the footprint of seabed was much greater than the maximum footprint assessed and permitted in the marine licence, although the actual	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				volumes dredged had remained within the permitted quantities. This resulted in an impact greater than that which was assessed under Habitats Regulations Assessment (HRA) for the Inner Dowsing Race Bank North Ridge SCI (now SAC) and the Wash and North Norfolk Coast SAC. The MMO supports Natural England's suggestion that the use of volume parameters alone no longer provides sufficient certainty, as indicated in the example above, volumes of permitted quantities were within the assessment however, the footprint impacted was greater than assessed, which could have led to an adverse effect on integrity on a designated site. The MMO considers the above should also be taken into consideration for scour and cable protection.	
1.11.4.	The Applicant	**Effects on Wave Climate** Paragraph 2.11.94 of APP-043 states that changes to local wave height as a result of the Thanet Extension Offshore Wind Farm would dissipate over distance towards the coast and be 'immeasurable'. a) Please could the applicant provide further detail to support this statement and	Not applicable.	A) The predicted reduction in significant wave height due to interaction with WTG foundations in the Thanet Extension Array area is approximately 2.5%. This includes the realistic worst-case effect of WTGs in both the Thanet Extension Array area and TOWF. The predicted reduction in the overall sea state wave height is small in both relative and absolute terms. The relative reduction will be smaller than the difference in	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		the conclusion that there would be no morphological changes to any of the coastal feature receptors. b) Could the applicant explain how the assessment has taken account of the potential combined effects of turbines from the Thanet Extension Offshore Wind Farm together with those from the existing Thanet Offshore Wind Farm on wave regime in assessing the consequential effects on coastal geomorphology.		height between the individual waves that are present at any given time, and smaller than the difference in significant wave height over time (e.g. from hour to hour, varying from calm to everyday to storm conditions). The predicted small reduction in wave height is the maximum expected reduction, which will occur at the downwind edge of the Thanet Extension Array area. With time and distance downwind of the Thanet Extension Array area, wave height will recover toward unaffected conditions due to further input of energy from wind and wave spreading. Any remaining difference in significant wave height at the adjacent coastlines is expected to be so small that it would not be practicably measurable ('immeasurable') using normal wave measurement technology. Coastal morphological processes are primarily controlled by the wave climate, i.e. the magnitude, frequency and direction of incoming wave energy. As there will be no measurable change to the wave climate at the coast, it is concluded that there will be no measurable change to the naturally occurring rates and patterns of morphological change.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				B) The method for the assessment of potential impacts on wave height is described in Section 7.4 of Volume 6, Annex 2-1: Marine Geology, Oceanography, Physical Processes Technical Report (PINS Ref APP-070/ Application Ref 6.4.2.1) of the Environmental Statement. The assessment takes account of the potential combined effects of both Thanet Extension and TOWF by accounting for the total obstacle cross section presented by the realistic worst-case and actual installed WTG foundations in the two areas, respectively.	
1.11.5.	The Applicant	**Effects of Migration of Sandwaves** In Relevant Representation Winckworth Sherwood on behalf of Port of London Authority (PLA) [RR-054] notes ongoing concerns about the "*potential migration of sandwaves into navigable waters between the North East Spit and the shore. The proposals would result in an adverse impact on coastal processes, reducing further the amount of sea room*…".	Not applicable.	The naturally occurring migration rate or distribution of nearby sand wave (and sand bank) features are very unlikely to be altered by the presence of turbine foundations in the Thanet Extension Array area. The reasons for this are set out in paragraph 2.11.26 et seq. and paragraph 2.11.77 et seq. of Volume 2, Chapter 2: Marine Geology, Oceanography and Physical Processes (PINS Ref APP-043/ Application Ref 6.2.2) of the Environmental Statement. In brief, this is because the patterns of sediment transport controlling the morphology and evolution of sand wave features will be primarily determined by the	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		• Would the Applicant please provide a response?		patterns of tidal currents and sediment supply, none of which will be measurably influenced at this distance and orientation from the Thanet Extension Array area. The source of the potential effect has no clear pathway to the receptor in this case.	
1.12. Navigation: Maritime and Air					
1.12.1. – 1.12.33	Various stakeholders.		Natural England consider these questions to be outside of our remit and have thus not commented on them further.		Natural England have not commented any further upon these questions as they are outside of our remit.
1.16. Townscape, Landscape, Seascape and Visual					
1.16.1.	Kent County Council, Thanet District Council, Dover District Council and local business and resident Interested Parties	**Onshore and Seascape Landscape and Visual Impact Assessment** Has the Applicant proposed adequate siting and design landscape and visual mitigation measures for onshore works, taking account of public access to and recreational use of the Pegwell Bay Country Park, National Nature Reserve and foreshore areas? If not, what additional measures should be taken and why?	Not applicable.	**The Applicant** The Applicant notes that this is a question to Kent County Council, Thanet District Council, Dover District Council and local business, residents and Interested Parties, however the following response is put forward by the Applicant to help the ExA understand the rationale for the proposals. 3 options for the landfall and cable works within Pegwell Bay Country Park were presented in the ES Chapter 1: Project Description (Onshore) (PINS Ref APP-057/	Natural England have no further comments to make regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Application Ref 6.3.1). Option 2 is no longer part of the design envelope. The surface laid berm within Pegwell Bay Country Park included as part of Option 2 is therefore no longer proposed. The onshore cable will be trenched through Pegwell Bay Country Park and NNR as described in the landfall and cable works Options 1 and 3 presented in the ES Chapter 1: Project Description (Onshore) (PINS Ref APP-057/ Application Ref 6.3.1). Proposals to trench the onshore export cable and re-establish the existing ground profile and groundcover along its route are considered to be suitable siting and design mitigation measures, taking account of public access to and recreational use of the Pegwell Bay Country Park/National Nature Reserve. Option 1 uses Horizontal Directional Drilling from the Pegwell Bay Country Park to the Intertidal Mudflats; and Option 3 uses open trenching through the existing sea wall. In both options, the onshore export cables will be buried for the entirety of the onshore cable route, avoiding the need for a surface laid berm through the Country Park. This therefore results solely in short-term and temporary effects during construction, and largely avoids long-term and permanent effects on the landscape and visual amenity of the Country Park	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				during operation. Under Options 1 and 3, habitats would be reinstated following construction of the landfall and installation of the cables. The overall aim of the reinstatement would be to enable either the reestablishment of existing grassland habitats or the creation of speciesrich grassland. The omission of Option 2 in favour of Option 1 and 3 is considered to achieve good practice in accordance with guidance (GLVIA3), insofar as it achieves mitigation at the highest possible level in the hierarchy i.e. one of prevention/avoidance, with primary mitigation measures to avoid a surface laid berm within the Country Park, now embedded into the project design. It is considered that the design mitigation measures for the onshore works are 'reasonable' insofar as the National Policy Statement (EN-1, Paragraph 5.9.8 and 5.9.16) is concerned having been 'designed carefully, taking account of the potential impact on the landscape' and 'providing reasonable mitigation where possible and appropriate' in order to 'minimise harm on the landscape'. The landscape and visual mitigation measures for the onshore works are therefore considered to be adequate by the Applicant, but also in accordance with relevant standards for landscape mitigation.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Kent County Council Within Options 1 and 3 for the cable route, the design, landscape and visual mitigation is adequate and takes considerations around public access, recreational use and park management into account. However, the cumulative impact with the Nemo link needs to be better understood by the applicant. There is a possibility of the two cables running parallel to each other (even if trenched) and firmer measures need to be in place to ensure a 'valley' feature is not created, which will adversely affect the management and access of the park. KCC acknowledges that Option 2 has been removed from the DCO application. The Local Impact Report details the specific LVIA measures to be taken for Options 1 and 3. **Thanet District Council** Thanet District Council considers the required submission of an Landscape and Ecological Mitigation plan, to include reinstatement and restoration of the landscape from the installation of the cabling, will adequately manage the visual impact after construction**.** **Dover District Council**	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				DDC is of the view that the Applicant has proposed adequate siting and design landscape and visual mitigation measures for onshore works, taking account of public access to and recreational use of the Pegwell Bay Country Park, National Nature Reserve and foreshore areas. This is largely addressed in the submitted Outline Access Management Strategy (Doc. 8.4). In view of the nature of the proposed underground works in these areas, DDC at this stage, could not identify any further measures or steps to minimise and mitigate these matters further other than minimising as far as possible the timescale for each construction phase across these areas, minimising the work area and construction compound size and undertaking works outside of the peak summer time season.	
1.16.2.	Kent County Council, Thanet District Council, Dover District Council, Kent Wildlife Trust,	**Outline Landscape and Ecological Management Plan (Onshore)** Application document [APP-142] sets out outline landscape management measures to be delivered in tandem with ecological measures. a) Are the proposed landscape screening measures at the	In reviewing the Environmental Statement Natural England has no outstanding concerns regarding landscape issues.	**The Applicant** The Applicant notes that this is a question to Kent County Council, Thanet District Council, Dover District Council and local business, residents and Interested Parties, however the following response is put forward by the Applicant to help the ExA understand the rationale for the proposals. The proposed landscape screening measures at the substation,	In line with our original answer, Natural England has no outstanding concerns regarding landscape issues.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
	Natural England, National Trust, local business and resident Interested Parties	substation set out in Chapter 3 adequate to address the landscape and visual impacts of the proposed substation (Work No.13) and if not, what changes should be made to the document; and **b)** Are any other landscape screening or enhancement measures to address the onshore landscape and visual effects of the proposed development required and if so, why and in what terms should they be added to the document?		set out in Chapter 3 and Figures 2 and 3 of the OLEMP (PINS Ref APP-142/ Application Ref 8.7), are considered by the Applicant to be adequate to address the landscape and visual impacts of the proposed substation. Whilst not considered to be necessary mitigation, due to the industrial context of the substation site, general absence of sensitive receptors and the presence of existing tree belts that provide screening around the boundary of the substation site, further woodland/shrub belt planting is proposed to the north and east of the substation site (Figure 2 and 3 of the OLEMP). Tree planting to the north of the proposed substation has been included as specific visual enhancement through consultation with Dover District Council. Planting is proposed to screen views of the substation experienced by motorists and walkers from the Richborough Roundabout/Ramsgate Road (A256) (Viewpoint 1)). This would also strengthen existing screening from more distant views, such as from the England Coastal Path, near Shell Ness (Viewpoint 4). The Applicant considers that the proposed screen planting for the onshore substation would be effective and deliverable, in order to address the onshore landscape and visual effects of the proposed substation.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Kent County Council a) KCC is satisfied with the proposed landscape screening measures at the substation. b) As detailed in the Local Impact Report, within Option 1 (HDD), it is stated in the Outline Landscape and Ecological Mitigation Plan (OLEMP) that a larger work area will be required (around 50x60m). It is unlikely this will be possible in the area outlined as the 'works area', as this space is not available on site. This is due to the proximity of the main road, the sustrans path and the NEMO bund leaving little space to develop a work area. The allocated space within the OLEMP will need to be reviewed with the relevant KCC officers to redetermine the 'works area'. Within Option 3 (open trenching), the England Coast Path (ECP) will be affected, if not temporarily closed, due to the planned works. The applicant should work closely with relevant KCC officers to ensure the path is adequately re-routed to allow access across the park, whilst the works are undertaken. The OLEMP states that 'where possible, soils will be carefully restored'. This will need to	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				be looked at in detail with KCC officers to agree the reinstatement of the soil and a method of colonisation of vegetation. KCC would also stipulate that any stock fencing (added or removed) during the proposed works for the onshore cabling is carried out by an approved KCC contractor and at the applicant's expense. **Thanet District Council** a) Thanet District Council defers to Dover District Council on the matter as the relevant local authority. b) Thanet District Council considers the required submission of an Landscape and Ecological Mitigation plan, to include reinstatement and restoration based on the outlined methods in the outline landscape and ecological management plan, will be suitable to adequately managing the visual impact after construction. **Dover District Council** a) The proposed outline landscape management measures to provide landscape screening measures for the proposed sub-station are	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				considered adequate to mitigation the landscape and visual impacts of the proposed substation set out (Work No. 13 of the Draft DCO). The additional information submitted, in respect of the potential visual impact of the sub-station to address DDC's concerns raised in the S42 consultation, has been of assistance and has adequately addressed all the concerns raised. Of the two options being put forward in the Outline Landscape and Ecology Management Plan (Doc. Ref. 8.7) Option A would be the preferred scheme, due to providing enhanced landscape screening at the entry/exit onto the roundabout. The outline proposals to include retention of existing trees, additional screen planting and habitat enhancement are all welcomed and in the long term should minimise the visual impact of the proposed structures, subject to detailed consideration of the proposed tree species. b) DDC at this stage are of the view that there is limited scope for other landscape screening or enhancement measures to address the onshore landscape and visual effects of the proposed substation development.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Kent Wildlife Trust KWT do not have any points to make about these points in particular, however we have made comments on the revised OLEMP document as a whole and these have been sent to the applicant and are included in the written representation. The areas of „poor habitat" (bare ground) need to be maintained and managed as bare ground up until commencement of construction in order to ensure that reptiles will not be present when construction begins. Vegetation clearance is to be supervised by an Ecological Clerk of Works (ECoW). In terms of breeding birds, the vegetation to be cleared should be checked for active nests by the ECoW approximately 48 hours before clearance. If active nest are found, the „applicable area" radius will need to be defined to ensure minimal disturbance to nesting birds.	
1.16.3.	Kent County Council, Thanet District Council, Dover District Council,	**Landscape and Visual Effects of Cable Alignments in Pegwell Bay Country Park and National Nature Reserve** Have adequate siting and design mitigation measures been taken to address the landscape and visual effects of cable alignments	In reviewing the Environmental Statement Natural England has no outstanding concerns regarding landscape issues.	**The Applicant** The Applicant notes that this is a question to Kent County Council, Thanet District Council, Dover District Council and local business, residents and Interested Parties, however the following response is put forward by the Applicant to help the ExA	In line with our original answer, Natural England has no outstanding concerns regarding landscape issues.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
	Kent Wildlife Trust, Natural England, National Trust, local business and resident Interested Parties.	in Pegwell Bay Country Park and National Nature Reserve? If not, please identify if any additional measures are sought and for what purpose. In particular, please provide your assessment of the adequacy of the following measures. If you conclude that any are not adequate, please identify how you recommend that the measures should be changed. a) Changes to the sea wall at the landfall location in Pegwell Bay Country Park (Work No.3B); b) Reinstatement and management of the cable alignment from the landfall location through Pegwell Bay south west to the boundary of the National Nature Reserve (Works Nos.4 and 4A); and **c)** The landscape and visual relationship between the cable alignment from the landfall location through Pegwell Bay south west to the boundary of the National Nature Reserve and the adjacent existing Nemo Link		understand the rationale for the proposals. Three options for the landfall and cable works within Pegwell Bay Country Park were presented in the ES Chapter 1: Project Description (Onshore) (PINS Ref APP-057/ Application Ref 6.3.1). Option 2 is no longer part of the design envelope. The surface laid berm within Pegwell Bay Country Park included as part of Option 2 is therefore no longer proposed. The onshore cable will be trenched through Pegwell Bay Country Park and NNR as described in the landfall and cable works Options 1 and 3 presented in the ES Chapter 1: Project Description (Onshore) (PINS Ref APP-057). Responses are provided to parts (a), (b) and (c) as follows. A) In respect of changes to the sea wall at the landfall location, Option 1 uses Horizontal Directional Drilling from the Pegwell Bay Country Park to the Intertidal Mudflats; and Option 3 uses open trenching through the existing sea wall. Option 1 will negate the need to interact with the sea wall and saltmarsh, as cables will be installed underneath the sea wall connecting the transition joint bays	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		cable alignment (Works Nos.4 and 4A).		(TJBs) (sited below ground) to offshore punch-out locations seaward of the existing sea wall. Option 3 requires the installation of a temporary cofferdam and temporary removal of the sea wall, however the sea wall would be reinstated to its pre-construction condition, TJBs will be installed below ground (as with Option 1) and cables would be buried. Potential changes to the sea wall associated with Option 3 are therefore short-term and temporary. The landscape and visual siting and design mitigation measures to address the changes to the sea wall at the landfall location are therefore considered by the Applicant to be adequate. B) In respect of reinstatement and management of the onshore export cable, under Options 1 and 3, habitats would be reinstated following construction and installation of the cables. The overall aim of the re-instatement would be to enable either the re-establishment of existing grassland habitats or the creation of species-rich grassland, as detailed in the OLEMP (2.1.7 – 2.1.12). Revegetation of reinstated soils is most likely to take place via natural colonisation but could also take	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				place via seeding. Reinstated habitats will be subject to an initial aftercare period of 12 months following reinstatement. The methods of aftercare are likely to include the management of undesirable weeds and (if seeding is used) at least two cuts during the initial 12 month aftercare period, with seeded areas protected from disturbance by people or grazing animals. Following this initial aftercare period, it is envisaged that ongoing management would revert back to the existing management regimes. C) . In respect of the landscape and visual relationship of the onshore export cable alignment with the existing NEMO Link cable alignment, the onshore export cable will be trenched for both Options 1 and 3, avoiding the need for a surface laid berm through the Country Park. The potential landscape and visual effects of an additional surface laid bund, adjacent to the existing NEMO Link bund, have therefore been avoided through the primary mitigation measures now embedded into the project design. The cable route has been aligned to run parallel to the Nemo bund, thereby consolidating and limiting the spread of effects	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				into the wider country park and NNR. Proposals to trench the onshore export cable and re-establish the existing ground profile and groundcover along its route are considered to be suitable siting and design mitigation measures. The omission of Option 2 in favour of Option 1 and 3 is considered to achieve good practice in accordance with guidance (GLVIA3), insofar as it achieves mitigation at the highest possible level in the hierarchy i.e. one of prevention/avoidance. These design mitigation measures for the onshore export cable works are also 'reasonable' insofar as the NPS (EN-1, Paragraph 5.9.8 and 5.9.16) is concerned having been 'designed carefully, taking account of the potential impact on the landscape' and 'providing reasonable mitigation where possible and appropriate' in order to 'minimise harm on the landscape'. The landscape and visual siting and design mitigation measures to address the landscape and visual effects of cable alignments are therefore considered by the Applicant to be adequate, but also in accordance with relevant standards for landscape mitigation.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Kent County Council a) KCC's preference is for the Transition Joint Bay (TJB) to be underground, as this will reduce the impact on access and recreation in the Park. If the TJB is sited overground, this will adversely affect the flat coastal path. Under Option 1, the sea wall would be kept as it currently is. Under Option 3 (trenching), if the England Coast Path (ECP) is temporarily diverted, KCC would like to see the entire section of the coast path upgraded within the Country Park, as the construction work is carried out. The position of the TJB within the Red Line Boundary (RLB) needs to be agreed with KCC and sited away from the busy crossroads area of the internal path structure. This would not only reduce disruption to walkers, but also reduce the need to reinstate the public walkway. b) Within Option 3 (trenching), if the planned route is centered within the RLB, this will result in the trench and TJB being sited on the busiest section (crossroads) of the Country Park. The OLEMP states that 'where possible, soils will be carefully restored'. Reinstatement	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				of soil and the method of recolonisation of vegetation will need to be agreed with KCC, as set out in OLEMP section 2.1.7 – 2.1.12. It would be sensible to keep the trench line away from the footpaths altogether. c) KCC has no comments on this question. **Thanet District Council** As outlined above, Thanet District Council considers the required submission of an Landscape and Ecological Mitigation plan, to include reinstatement and restoration based on the outlined methods in the outline landscape and ecological management plan, will adequately manage the visual impact, including the relationship between the existing Nemo link to the west of the proposed route in works 4 and 4A. **Dover District Council** DDC are of the view that adequate siting and design mitigation measures have been taken to address the landscape and visual effects of cable alignments in Pegwell Bay Country Park and the National Nature Reserve, especially following the recent decision by the applicant to remove Option 2	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				(the above ground cable alignment and extension of the seawall). a) (Work No.3B) DDC understand that Option (2) has now been removed from the proposals; b) The reinstatement and management of the cable alignment from the landfall location through Pegwell Bay south west to the boundary of the National Nature Reserve (Works Nos.4 and 4A) appears to be a considered approach and route through Pegwell Bay. The development envelope has been more defined in the DCO submission and seeks to minimise the impact of the siting of the cable alignments in view of the features of the park, taking into account public accessibility, footpaths and the existing Nemo link. It should be noted that DDC did not support the originally proposed above ground works for the cable alignment or the principle of an extension to the seawall for this purpose. c) In terms of the landscape and visual relationship between the cable alignment from the landfall location through Pegwell Bay south west to the boundary of the National Nature Reserve and the	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				adjacent existing Nemo Link cable alignment (Works Nos.4 and 4A), due to all works now taking place below ground it is not considered there will be a long term impact on the landscape and visual relationships associated with these works. The key to minimising the impact in this location will be appropriate management of construction works and reinstatement and restoration works. **Kent Wildlife Trust** Kent Wildlife Trust's remit relates to the biodiversity and wildlife impacts of the cable alignments in Pegwell Bay Country Park and the National Nature Reserve therefore our comments on landscape and visual effects are limited. Regarding point a): we believe more details are needed before we can approve of any changes to the seawall. **National Trust** **a)** The National Trust do not agree changes to the sea wall without further consultation and provision of detailed plans and designs of any proposed changes to the sea wall. To date we have no designs or detail as to the structure its location and any construction	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				requirements particular as regards the cable connector against which to assess any impacts, so we are unable to provide a fuller answer. **b)** On the basis of the withdrawal of Option B for the overland cable route we accept the underground route and reinstatement and management of this route to a standard approved and acceptable to Kent CC and Kent Wildlife Trusts as the land managers for the Country Park. **c)** On the basis of the withdrawal of Option B for the overland cable route we accept the underground route and reinstatement and management of this route to a standard approved and acceptable to Kent CC and Kent Wildlife Trusts as the land managers for the Country Park.	
1.16.4.	Kent County Council, Thanet District Council, Dover District Council, Kent	**Offshore Works** Has the Applicant proposed adequate siting and design, seascape, landscape and visual mitigation measures for offshore works and particular wind turbiun generator (WTG) arrays, taking account of their relationship with the existing Thanet Offshore Wind	In reviewing the Environmental Statement Natural England has no outstanding concerns, and thus no further comment regarding offshore seascape issues within our remit.	**The Applicant** The Applicant notes that this is a question to Kent County Council, Thanet District Council, Dover District Council and local business, residents and Interested Parties, however the following response is put forward by the Applicant to help the ExA	As per our original answer, Natural England has no outstanding concerns and thus no further comments regarding this question and offshore seascape issues within our remit.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
	Wildlife Trust, Natural England, National Trust, local business and resident Interested Parties	Farm and the potential differences of scale between the installed and proposed WTGs? If not, what additional measures should be taken and why?		understand the rationale for the proposals. The siting and design of the Offshore WTG Array has incorporated mitigation to reduce the scale of the project and the resulting landscape and visual effects. This is described in section 12.9 of Chapter 12 of the ES (PINS Ref APP-053/ Application Ref 6.2.12)). The siting of the Offshore WTG Array minimises effects on valued landscapes, entirely avoiding significant effects on any national and local landscape designations. The careful siting of the Offshore WTG Array around the existing TOWF is a mitigating factor, insofar as the apparent changes occur in the presence of an existing offshore wind farm influence. The Offshore WTG Array will be assimilated into views of the existing WTGs, increasing the influence of WTGs that are already present in existing views, without introducing entirely new or uncharacteristic elements. Seascape, landscape and visual mitigation measures have been included to reduce these impacts. In particular, the north-western extent of the Offshore Wind Farm area boundary was modified, which reduced the lateral extent of the Offshore WTG	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				array in this north-western area and mitigated the potential effects relating to the visual merging of TOWF and London Array. These changes also contributed to reducing the partial enclosure of the open aspects of the Sandwich and Pegwell Bay area and created a larger separation between the coast and the Offshore WTG Array. These changes in the Rochdale Envelope WTG layout (Figure 12.1a) assessed in the Environmental Statement, have reduced the scale of the project and helped to mitigate seascape, landscape and visual effects (in accordance with NPS EN-1 and EN-3). It is acknowledged by the Applicant that the proposed WTGs are larger in scale than those of the existing TOWF. However, reducing the scale of the WTGs will would result in a significant reduction in function, in terms of the electricity generation output. The Applicant has sought to find a balance between utilising the most recent technology, cost efficiency and the visual impacts of the Offshore Wind Farm. Larger WTGs are important in that context in terms of costs to consumers, since these larger WTGs are more efficient and can produce much significantly more electricity. Larger than smaller WTGS, which reduces the costs to consumers. This	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				increased efficiency also means that the number of larger WTGs allow less overall number of WTGs required in the Offshore WTG Array is fewer to achieve the same generating capacity., as the larger WTGs are more efficient and are important in terms of reducing costs to consumers. The realistic worst-case layout shown in the photomontages and assessed as the project design envelope for the SLVIA is the 28 x 12 MW optimum space layout (as shown in Figure 12.1a). The larger blade tip height of the 12 MW WTG (250 m blade tip) and larger rotor diameter (220 m) will have the most apparent scale differences when viewed in combination with TOWF (115 m blade tip). This layout was agreed as the 'worst-case' in terms of visual effects with stakeholders as part of the Evidence Plan consultations. It is weighted to have the maximum number of WTGs located in the areas within the site boundary that are closest to the coast. WTGs located in closer proximity to the coast, located on the coastal side of TOWF, will appear larger in scale and have a more marked scale difference, than WTGs located behind TOWF on the seaward side of the operational WTGs.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Consultation responses noted that due to the increase in height of the new WTGs their appearance would have some effect on the skyline beyond Margate in views from the west; however stakeholder responses noted that the significance of these views would be limited and that, as with the existing turbines, they will be assimilated as part of the skyline views. The apparent differences of scale between the installed and proposed WTGs does vary between geographic areas and with distance. **Kent County Council** KCC has no comments on this question. **Thanet District Council** Given the limited options to mitigate the impact through siting and design measures (given the parameters within the works proposed), Thanet District Council does not considered there are additional measures that could be introduced to mitigate the offshore works. Thanet District Council considers that the reduction in site area of the project (from the Preliminary Environmental Impact Report and pre-application consultation) has mitigated some of	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				the seascape impact (through the reduction in horizontal width on the skyline from the coastal viewpoints), and the Council understands that the siting will be dictated by other consenting regimes. Therefore there is no further mitigation that could meaningful and logistically alter the development and its impacts from those outlined in the Environmental Statement. **Dover District Council** The proposed siting and design, seascape, landscape and visual mitigation measures for offshore works and in particular WTG arrays have taken account of their relationship with the existing Thanet Offshore Wind Farm and the potential differences of scale between the installed and proposed WTGs. However, DDC would suggest that the Optimum Space Layout (Fig. 12.1 in ES Volume 6 Annex 12-1 Rev A – Doc Ref 6.6.12.1) to site the array in closer proximity around the existing offshore array may minimise the visual spread across the seascape which could mitigate the visual impact over a wider area. Any reduction in the extent of the array in a southerly direction could remove DDC's concern regarding the	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				visual impact on the seascape from DDC's administrative area. **Kent Wildlife Trust** Kent Wildlife Trusts remit relates to the biodiversity and wildlife impacts of this development. We are not in a position to comment on the landscape/seascape and visual impacts to people, however, we believe the offshore works described will have an impact on seabirds. Although we will primarily defer to the RSPB regarding ornithological concerns, we believe that additional measures should be taken regarding construction and post-construction monitoring. There is currently insufficient information about plans to monitor seabirds during and post-construction. **National Trust** The National Trust has no view on the Offshore Works provisions.	
1.17. Transportation and Traffic					
1.17.1. – 1.17.5.	Various stakeholders.		Natural England consider these questions to be outside of our remit and		Natural England have not commented any further upon these questions as they are outside of our remit.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
			have thus not commented on them further.		
1.18. Water Environment					
1.18.1	The Applicant	**Water Framework Directive Assessment: Water Quality** The Environment Agency's relevant representation [RR-043] states that the water quality elements of the Water Framework Directive (WFD) Assessment [APP-076] lacks sufficient justification for findings of WFD compliance and does not provide justification for scoping out water quality from a more detailed impact assessment. a) Please provide a comprehensive response to the detailed matters raised by the Environment Agency in this regard, specifically at page 8 and the top of page 9 of its representation. b) Please explain to what extent the Environment Agency's guidance 'Clearing the Waters for All' has been applied. **c)** Please comment on the appropriateness of a	Not applicable.	A) The Applicant has provided an extensive response to each of the points raised by the Environment Agency's Relevant Representations (responses to EA-11 to EA-16). This has been discussed with the Environment Agency during meetings held in October 2018, forms part of the Statement of Common Ground, and has also been submitted by the Applicant in writing to the Environment Agency and as part of this Deadline 1 submission. In summary, the Applicant scoped in the disturbance of sediments with contaminants above the Cefas Action Level 1 (AL1) to an impact assessment. This assessment is detailed in section 3.10 of Volume 4, Annex 3-1: Water Framework Directive Assessment (PINS Ref APP-076/ Application Ref 6.4.3.1) and concluded that there would be no significant effects and no deterioration on the status of the WFD water body. The Applicant notes that only one sample exceeded AL1 for one contaminant (arsenic) which was comparable to	Natural England have no further comments regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		requirement within the Development Consent Order allowing for the temporary cessation of works in the event that bathing water quality deteriorates during the construction period?		that of the local area and existing baseline levels. B) It is the Applicants position that this guidance has been applied and this was discussed with the Environment Agency in October 2018. It was agreed that whilst the guidance was applied in line with standard practice there is no assessment guidance which identifies a method for the assessing contaminants and/ or bacteria released from sediment against the WFD standards. This response is also presented in the Applicant's response to the Environment Agency's Relevant Representation (response to EA-11). C) As discussed with the Environment Agency in October 2018 and identified in the Applicant's response to the Environment Agency's Relevant Representation (response to EA-15), given the low risk of the proposed works as identified in the assessment (consideration of similar activities and anecdotal evidence) the Applicant considers having a requirement within the DCO for temporary cessation should the water quality at the Bathing Waters (BWs) deteriorate to be	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				disproportionate. Not only is it considered very unlikely that the BW would deteriorate but it would also be very difficult to attribute any deterioration to the works as could be a result of numerous factors within the catchment which can be temporary in nature. It has been noted with the Environment Agency that nearby works to maintain the approach to Ramsgate Harbour (maintenance dredging) have continued without a cessation order being placed on it and without impact on the BWs. This activity, whilst greater in magnitude, than cable installation is considered a reasonable proxy when considering the proportionality of any cessation order (or associated condition) on Thanet Extension.	
1.18.2	The Applicant	**Water Framework Directive Assessment: Baseline Conditions** The ES does not appear to set out the anticipated trends in baseline conditions for the Water Framework Directive (WFD) Assessment. a) Please provide clarification of the anticipated trends in	Not applicable.	A) The baseline/ current status of all of the relevant receptors for the WFD assessment are presented in Tables 3.4 to 3.7 of WFD assessment (PINS Ref APP-076/ Application Ref 6.4.3.1). Furthermore, a detailed water and sediment quality baseline is provided in Volume 2, Chapter 3: Marine Water Quality and Sediment Quality (PINS Ref APP-044/ Application Ref 6.2.3). As outlined in paragraph 3.2.3 of PINS	Natural England have no further comments regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		baseline conditions for this aspect? b) In the event that this will not be possible until further site investigations have taken place, please confirm when this will be undertaken.		Ref APP-076/ Application Ref 6.4.3.1, the South East River Basin Management Plan encapsulates the area of the proposed development. The anticipated trends, aims, issues and proposed improvements for the WFD water body are presented in the South East RBMP7 As presented in Table 30 of the South East RBMP the percentage of coastal water bodies, in the South East, to achieve Good chemical (91%) and ecological (36%) status is to remain consistent between 2015 and 2021. Similarly, the number of estuarine water bodies achieving Good chemical (91%) status is to remain consistent and an increase of 4% of estuarine water bodies achieving Good ecological (increasing to 26%) status. As identified in the Applicant's response to 1.18.2.a, the baseline has been characterised and the future anticipated trends have been duly considered. The reference to Site Investigations (SI)within the application document(s) relates solely to preconstruction Site Investigations to confirm inter alia detailed design and refinement of mitigation measures.	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				B) The Applicant anticipates that the SI works could be complete by end May 2019, assuming that access is obtained by the end of March 2019. It is recognised that this is likely to be too late to introduce the data acquired into the examination. It is, in part, for the reason that the decision to drop landfall Option 2 has been made at Deadline 1. It is proposed that the Site Investigations be carried out at the earliest opportunity (rather than post-consent as is standard practice) but this is dependent upon access being granted by the managing authority of the intertidal/landfall areas which is Kent Wildlife Trust. At the time of writing (December 24th 2018) KWT have declined access and a the Applicant is therefore pursuing compulsory access.	
1.18.3	The Applicant	**Marine Water Column Effects: Sampling Regime** At paragraph 4.6 of its relevant representation [RR-049], the Marine Management Organisation has set out inconsistencies within [APP-044], and between it and [APP-082] in relation to the number of stations sampled for contaminants.	Not applicable.	As identified in the Applicant's response to the Marine Management Organisation's Relevant Representation (response to MMO-106), Full details of the intertidal contaminants sampling are presented in Volume 4, Annex 5-1: Export Cable Route Intertidal Report (PINS Ref APP-081/ Application Ref 6.4.5.1). The results of sediment contaminants analysis undertaken in the array and	Natural England have no further comments regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		• Could the Applicant please clarify by providing full details of the sampling regime undertaken in this respect?		offshore parts of the OECC are presented in Section 5.6 of Volume 4, Annex 5-2: Benthic Characterisation Report (PINS Ref APP-082/ Application Ref 6.4.5.2;). The Applicant can clarify that there were some inconsistencies between the reporting of the number of samples undertaken between the identified documents (APP-044 and AP-082). The 21 samples referred to in paragraph 3.7.8 and associated figure (Figure 3.6) (PINS Ref APP-044/ Application Ref 6.2.3) refer to the initial grab samples targeted for to characterise the seabed. As presented in Table 5.1 of PINS Ref APP-073/ Application Ref 6.4.5.2, however only seven of these grabs were subsequently analysed in the laboratory for contaminants, with the remainder being analysed for sediment and/or faunal analysis.	
1.18.4.	The Applicant	**Marine Water Column Effects: Assumptions** Table 6.7 of the Fish and Shellfish Ecology Chapter of the ES [APP-047] appears to include an inconsistency in the assumptions used for the amount of sediment that would be liquefied, with both 50% and 100% being quoted.	Not applicable.	Annex B, of the Applicants' Response to Relevant Representations (Appendix 1 of the Deadline 1 submission) presents an audit of how the design parameters have been transcribed from PINS Ref APP-042/ Application Ref 6.2.1 into the offshore EIA chapters. Annex B, presents and provides a full explanation of the discrepancy in the volumes of disturbed sediment arising from jetting for cable installation. Annex A, of the	Natural England have no further comments regarding this question.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		• Please could the Applicant clarify the amount of sediment transferred to the water column during jetting and ensure that the assessment properly reflects this assumption?		Applicants' Response to Relevant Representations (Appendix 1) of the Deadline 1 submission, presents the maximum design parameters requested in a tabular format for the amount of sediment to enter suspension for the jetting of both export and inter-array cables. In brief the Applicant can confirm that this was a typographic error but wishes to note that the assessments have been undertaken based on the assumption of 50% of the sediment being ejected from the trench as presented in Volume 2, Chapter 2: Marine Geology, Oceanography and Physical Processes (PINS Ref APP-043/ Application Ref 6.2.2). This is further noted in Table 8 of Annex A of the Applicants' Response to Relevant Representations (Appendix 1) of the Deadline 1 submission.	
1.18.5.	Environment Agency, Thanet District Council, Dover District Council and Kent County Council	**Risks to Controlled Waters** Cable Landfall Options 1 and 3 would involve running underground cables through the historic landfill site at Pegwell Bay. • Are the councils and the Environment Agency satisfied that the proposed design and mitigation measures would	Not applicable.	**The Applicant** Volume 3, Chapter 1: Project Description (Onshore) (PINS Ref APP-057/ Application Ref 6.3.1), Code of Construction Practice (CoCP, PINS Ref APP-133/ Application Ref 8.1), and Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use (PINS Ref APP-062/ Application Ref 6.3.6) provide information regarding the design of the landfall (including	Human health and controlled waters is currently outside of Natural England's remit, and we defer to the Environment Agency's and council's comments.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		avoid a significant risk to public health in terms of contaminated land and potential impacts on controlled waters? If not, why not?		Options 1 and 3). The proposals are such that they would ensure leachate does not escape during construction and/or operation. The detailed design is not currently available, but the Contaminated Land and Groundwater Plan (CLGP) is secured within the DCO at Requirement 19 (PINS Ref APP-022/ Application Ref 3.1), which provides for this information to be submitted for approval to the relevant planning authority before the commencement of any stage of the connection works. Therefore, the Applicant has adequately and appropriately secured all relevant mitigation and mechanisms which may be required to ensure the control of any contaminants disturbed during the proposed activities. **Environment Agency** We are satisfied risks to controlled waters can be managed by further investigations and appropriate engineering controls on construction activity proposed. Public health risk is for TDC. **Thanet District Council** Design and mitigation yet to be fully defined at this stage. Requirement 19 requires submission of contemporary intrusive site investigation data, which	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				will inform appropriate remediation and mitigation measures along the cable route. **Dover District Council** DDC are satisfied from the information submitted that the proposed design and mitigation measures would avoid a significant risk to public health in terms of contaminated land and potential impacts on controlled waters but would support any additional measures that may be identified by the Environment Agency and Thanet District Council. However, it is difficult to comment further until the survey investigation works have been reported. Nevertheless DDC would refer to the Environment Agency and Thanet District Council as the statutory authorities in that location unless the survey results identified a need for DDC's input. **Kent County Council** KCC supports the measures proposed, as they demonstrate an appropriate degree of understanding of the potential engineered difficulties that may be present. At present, KCC is unsure of an agreement that either Thanet District Council, the Environment Agency or KCC might be able to legally provide. This could be in	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				the form of a license or wayleave across KCC land, suitably caveated to deal with any long-term problems associated with the engineering works. 1.17.5 Management of Operational Traffic Effects From your standpoint as a Highway Authority and LPA, are you content that any operational traffic effects that might arise within your area of responsibility are adequately managed? 1.18.5 Risks to Controlled Waters Cable Landfall Options 1 and 3 would involve running underground cables through the historic landfill site at Pegwell Bay. Are the councils and the Environment Agency satisfied that the proposed design and mitigation measures would avoid a significant risk to public health in terms of contaminated land and potential impacts on controlled waters? If not, why not? 7 The former landfill site is monitored on a regular basis for ground and surface water and landfill gas. Assessments on site performance are continually undertaken and the current Environmental Assessment Report dates from 2016. These reports are routinely prepared on a two to three-year cycle and contain a wealth of baseline data, narrative and conclusion.	
1.18.6.	Thanet District	**Controlled Waters: Cumulative Effects Assessment**	Not applicable.	**The Applicant**	Human health and controlled waters is currently outside of

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
	Council, Environment Agency, Natural England, Kent Wildlife Trust and Kent County Council	Table 6.14 of [APP-062] outlines various potential cumulative impacts that could arise from the projects identified in Table 6.13, in combination with the Proposed Development, and provides an assessment of the potential significance of such impacts. Minor beneficial effects are identified on the impacts to human health and controlled waters, and to changes in watercourse conveyance and floodplain storage. • Do Thanet District Council, the Environment Agency, Natural England and Kent Wildlife Trust agree that a "minor beneficial" cumulative effect alongside the Nemo link is a reasonable conclusion as to the residual effect in terms of potential impacts to human health and controlled waters, taking into account ground investigation, remediation and groundwater protection measures as secured within the DCO? If not, why not?		To provide further context, the Applicant summarises the cumulative impact assessment approach as follows. The cumulative assessment assumes that embedded mitigation would be incorporated into the project design and successfully implemented in accordance with the conditions of the DCO, namely Requirements 15, 16, 18, 19 and 26 (PINS Ref APP-022/ Application Ref 3.1). The embedded mitigation measures are outlined in Table 6.12 of Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use (PINS Ref APP062/ Application Ref 6.3.6) and in the Code of Construction Practice (CoCP, PINS Ref APP-133/ Application Ref 8.1). In relation to the cumulative assessment on human health and controlled waters presented in Table 6.14 of Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use (PINS Ref APP-062/ Application Ref 6.3.6), there would be site investigation, remediation and groundwater protection undertaken to avoid the creation of 'pollution pathways', both at the proposed development and cumulatively with other related developments in the area (e.g. Nemo link). For instance, in paragraph 6.10.2 of Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use (PINS Ref APP-062/ Application Ref 6.3.6) relating to human health, it is	Natural England's remit, and we defer to the Environment Agency's comments.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				stated that at the proposed development any landfill leachate and contaminated water encountered would be pumped, tankered and disposed of elsewhere, whilst a site investigation would also be undertaken at Richborough Port and Power Station to determine if there was any evidence of contamination, and to identify a process to prevent mobilisation of potential contaminants. As noted in Table 6.14 of Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use (PINS Ref APP-062/ Application Ref 6.3.6), such approaches would be carried out in compliance with the Draft Thanet Local Plan 2031 and statutory processes for managing decontamination of land. Following the combined implementation of these ground remediation processes, it is concluded that the overall cumulative effect on human health and controlled waters would be 'minor beneficial', and not significant in EIA terms, the rationale being that collectively the cumulative scheme would lead to a reduced level of contamination risk compared to that presently associated with the current land use and the other projects. The assessment is based on the highest receptor sensitivity of 'high' in Table 6.10 of Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				(PINS Ref APP-062/ Application Ref 6.3.6) (e.g. human health and controlled waters), and there being in the worst case a 'negligible beneficial' magnitude of impact. Following the matrix set out in Table 6.6 of Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use (PINS Ref APP-062/ Application Ref 6.3.6), this amounts to the overall cumulative significance of effects of 'minor beneficial'. The need for ground investigation, remediation and groundwater protection measures are mentioned extensively in Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use (PINS Ref APP-062/ Application Ref 6.3.6) and in the CoCP (PINS Ref APP-133/ Application Ref 8.1), which is secured within the DCO at Requirement 16 (PINS Ref APP-022/ Application Ref 3.1). Subject-specific managements plans, including the Onshore Substation Surface Water and Drainage Management Plan (SWDMP) and the Contaminated Land and Groundwater Plan (CLGP), are also secured within the draft DCO, at Requirements 18 and 19 respectively (PINS Ref APP-022/ Application Ref 3.1). The Applicant therefore considers that the DCO as drafted is a suitable	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				means of implementing these measures. **Thanet District Council** There is the potential for a minor beneficial cumulative effect but this will depend on detailed mitigation yet to be determined and up-to-date intrusive investigation data to be submitted, including groundwater monitoring. **Environment Agency** We agree that we are not concerned about cumulative residual effects being adverse, whether they have a minor beneficial cumulative effect is perhaps moot, we guess this is based on adding additional cap to part of the landfill where works will be undertaken, so this could be true for that aspect. **Kent Wildlife Trust** We are not in a position to comment on this aspect. KWT would like to defer to the Environment Agency and other interested parties regarding the impacts of the development on human health. **Kent County Council**	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				KCC has no comments on this question.	
1.18.7.	Kent County Council, Thanet District Council and Environment Agency	**Mitigation Measures as a Result of Site Investigation Works** Table 6.15 of [APP-062] summarises the post-mitigation residual effects of the proposed development from a ground conditions, flood risk and land use perspective. As no significant effects are identified due to the presence of embedded mitigation, this table concludes that no further mitigation measures are necessary. However, both Table 6.12 and section 6.15 of [APP-062] recognise that site investigation works will be undertaken prior to construction in order to inform the final design of the proposed development, and any associated mitigation works. This suggests a lack of baseline information, particularly in relation to the landfill engineering, leaching potential of contaminants and groundwater levels. Section 6.15 states that the scope and design of the site investigation is to be agreed with Kent County Council, Thanet District Council and the Environment Agency,	Not applicable.	Of relevance to the potential leakage of contaminants, Condition 10 of Schedule 12, Part 4 of the draft Order (PINS Ref APP-022/ Application Ref 3.1) requires that a contamination prevention plan is submitted with the suite of pre-construction plans and documentation. That plan "must contain details of necessary measures in order to ensure that construction works undertaken with Work No. 3B will not release any contaminants into the marine environment". This condition has been specifically drafted in order to ensure that any landfill engineering will not result in the release of any contaminants into the marine environment. In addition, the requirements contained within Part 3 of Schedule 2 of the draft Order (PINS Ref APP-022/ Application Ref 3.1) include a number of control mechanisms. This includes, at Requirement 15, the production of a Construction Environmental Management Plan (CEMP), which must accord with the Code of Construction Practice (CoCP, PINS Ref APP-133/ Application Ref 8.1) and which must contain details of flood risk management, soil management and	Although option 2 has been removed, there is still either option 1 or 3 being considered. Currently, and as outlined by KCC, there is a currently a lack of information regarding SI works and which option will be finalised. However, we have been told by the applicant that there is a possibility of both options being chosen, therefore the quicker either option is chosen the more certain mitigation measures and impacts can be determined. Natural England however have been reassured by the Environment Agency's position on this question and Natural England would also like view of the CoCP.

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
		along with the final design of mitigation measures. a) Please can Kent County Council, Thanet District Council and the Environment Agency confirm that they are satisfied that the site investigation works can be appropriately delivered in the context of the DCO as drafted? b) Section 7 of the Code of Construction Practice explains that "potential mitigation measures" are to be "based on the investigation results": to what extent is this array of measures known at this stage?		relevant health, safety and environmental legislation and compliance. That plan must be approved by the relevant local planning authority. In addition, Requirement 19 requires the production of a Contaminated Land and Groundwater Plan (CLGP), which will be submitted for approval by the relevant planning authority. To provide further context, the Applicant summarises the status of the current understanding of baseline conditions and environmental effects, the need for further site investigation and the adequacy of the DCO (PINS Ref APP-022/ Application Ref 3.1) to implement it below. The Applicant considers that there is sufficient understanding of baseline conditions, including those pertaining to the historic Cliffsend Landfill, to both identify appropriate forms of mitigation and inform an appropriate assessment of 'residual' environmental effects related to the proposed development. The Geo-environmental Phase 1 Desk Study (PINS Ref APP-112/ Application Ref 6.5.6.1) in particular presents an extended account of environmental information, including details regarding the landfill kindly provided by the Environment Agency, Thanet District Council, Dover District Council and	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Kent County Council by way of reports and meetings. **Kent County Council** a) KCC recognises there is a lack of baseline information for the site investigation works. The site investigation works have not been carried out prior to the DCO and this gives considerable cause for concern, as the definitive engineering method is not yet confirmed (option 1 or 3). As there are two current options for cabling, the mitigation measures and impact of the route are unknown at present. b) KCC can confirm that the array of mitigation measures are unknown at this stage. KCC looks forward to working with the applicant and Planning Inspectorate as the project progresses through the Examination process and will welcome the opportunity to comment on matters of detail further, as may be required throughout the Examination **Thanet District Council** a) Providing that the site investigation and subsequent remediation works are conditioned as per	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				Requirement 19, the Council are satisfied the works can be delivered. b) Limited information has been presented within the CoCP. Detailed mitigation measures are required, based upon site specific conditions and results of the further planned intrusive investigation works. Previous historic intrusive investigations at the site, dating to 2000 and earlier, only relate to surface soils testing and do not include groundwater or leachate monitoring. Whether this is sufficient is a matter for the Environment Agency. **Environment Agency** The extent as to which this development is likely to "impact" the environment, based on any disturbance of the landfill materials is considered manageable based on; what we already know of the landfill materials, the extent of proposed activity and the previous experience of Nemo link, so we are satisfied that the SI and the scale of any proposed mitigation measures will be deliverable without significant problems. In relation to the Code of Construction Practice – mitigation measures must be agreed	

Reference	Question to*1	Questions	Natural England's Original Answers*2	Applicants or other stakeholders answers *3	Natural England Comments on other stakeholder answers.
				with the Environment Agency prior to works commencing.	

*1Focus on the questions posed to NE first that we answered in our first round of written Q's then move onto over stakeholders if time.

*2 these can be found at the following TRIM link: http://trim/HPRMWebClientClassic/?uri=6438681&t=record&lang=ln_english&mbd=false just simply copy and paste them in.

*3 These can be found by following the colour coding in the document library which should take you to the individual documents that stakeholders submitted as part of ExQs1. As stated please focus on the questions that were posed to Natural England first.