THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

Sea Link Energy Cable

Appendix D4 to the Natural England Deadline 4 Submission

Natural England's Additional Comments on Marine Physical Environment

For:

The construction and operation of the Sea Link Energy Cable.

Planning Inspectorate Reference EN020026

10th February 2026

Appendix D4 Sea Link Deadline 4 Marine Physical Environment

In formulating these comments, the following documents have been considered:

Sea Link Deadline 1 Submission Documents

- [REP1-054] Late Deadline 1 Submission – 6.2.4.2 (C) Part 4 Marine Chapter 2 Benthic Ecology (Tracked) (Accepted at the Discretion of the Examining Authority)
- [REP1-068] Late Deadline 1 Submission - 6.4.4.2 (B) Environmental Statement Figures Marine Benthic Ecology (Tracked) (Accepted at the discretion of the Examining Authority)

Sea Link Deadline 1A Submission Documents

- [REP1A-004] 6.2.1.4 (D) Part 1 Introduction Chapter 4 Description of the Proposed Project (Tracked)
- [REP1A-012] 6.2.4.11 (B) Part 4 Marine Chapter 11 Inter-Project Cumulative Effects (Tracked Changes)

Sea Link Change Request 1

- [CR1-001] 9.76.1 Change Request Cover Letter
- [CR1-009] 2.5.3 Works Plans - Offshore (Version 2, change request)
- [CR1-014] 2.8.3 Statutory and Non-Statutory Sites of Nature Conservation Geological and Landscape Importance - Offshore (Version 2, change request)
- [CR1-026] 2.14.3 Indicative General Arrangements Plans - Offshore (Version 2, change request)
- [CR1-044] 7.5.3.2 (B) CEMP Appendix B Register of Environmental Actions and Commitments (REAC) (Version 2, change request) (Tracked)
- [CR1-052] 9.76.2 (A) Change Request Report
- [CR1-055] 9.76.5 Change Request: Addendum to Volume 6 Environmental Statement (Version A)
- [CR1-056] 9.76.5.1 Change Request: Appendix A Saltmarsh Technical Note (Version A)

Sea Link Deadline 2 Submission Documents

- [REP2-035] 9.80 Integrated Geophysical and Geotechnical Survey Report
- [REP2-010] 6.6 (D) Habitats Regulations Assessment Report (Tracked)
- [REP2-012] 9.13 (B) Pegwell Bay Construction Method Technical Note (Version B) (Tracked)

Sea Link Deadline 3 Submission Documents

- [REP3-029] 6.6 Habitats Regulations Assessment Report (Tracked)
- [REP3-021] 6.2.4.1 (D) Part 4 Marine Chapter 1 Physical Environment (Tracked)
- [REP3-025] 6.4.4.1 (C) ES Figures Marine Physical Environment (Tracked)
- [REP3-079] 9.84 Register of Environmental Actions and Commitments (REAC) (Tracked)
- [REP3-069] 9.73 Applicant's Responses to First Written Questions
- [REP3-070] 9.73.1 Applicant's Responses to First Written Questions - Appendices

Detailed comments

Table 1: Natural England's Advice On: Marine Physical Environment

Document(s) reviewed: [REP1-054] Late Deadline 1 Submission – 6.2.4.2 (C) Part 4 Marine Chapter 2 Benthic Ecology (Tracked) & [REP1-068] Late Deadline 1 Submission - 6.4.4.2 (B) Environmental Statement Figures Marine Benthic Ecology (Tracked)			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1		We note that [REP1-054] provides updated Maximum Design Scenarios (MDSs) for seabed disturbance due to construction-related activities at the Kent landfall, and an updated total area of seabed disturbance. We also note that the total area of seabed disturbance at the Kent landfall is 0.0721km^2 which is 72,100m^2 (equivalent to 10 Wembley football pitches), which is considerable. This information is largely missing from the Marine Physical Environment [REP3-021] Chapter summary of impacts and MDSs in Table 1.18 and, thus, not included for consideration in the impact assessment. We also note that the suspended sediment modelling did not include a release location in or particle size data from, Pegwell Bay – this would be useful for construction activities below the waterline and/or mobilisation of spoil sediment.	Natural England advises that the MDS for each construction related activity at the Kent landfall, as presented in Table 2.17 [REP1-054] should be carried over to the Marine Physical Environment Chapter, and the impact assessment updated accordingly. Furthermore, considering the large volume of sediment disturbance predicted during construction in Pegwell Bay, we would advise further consideration and assessment of the fate of the dispersed sediments and subsequent deposition is required.

Table 2: Natural England's Advice On: Marine Physical Environment

Document reviewed: [REP1A-004] 6.2.1.4 (D) Part 1 Introduction Chapter 4 Description of the Proposed Project (Tracked)			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1	Table 4.11/Page 61	We note that no cofferdams will be required for cable installation at the Suffolk landfall. However, it is unclear where this has been secured.	We advise that the Applicant should confirm if/where this commitment has been secured as a condition.
2	Table 4.17 & 4.6.242	We note that the total area of rock backfill in High-Risk trench areas has been increased from 17,100m^2 to 45,600m^2. It is stated that in these high-risk areas Target Depth of Lowering cannot be achieved and hence rock backfill may be required. It is also stated that an overview of the expected areas of rock backfill is presented in Application Document 6.4.1.4.3 Areas of Rock Backfill. However, this document does not seem to be included.	We advise that this document should be provided and/or a map that identifies the high-risk trench areas where rock backfill may be required. Sensitive areas of seabed and designated sites should be overlain on the map to inform the EIA/HRA.MCZA.

Table 3: Natural England's Advice On: Marine Physical Environment

Document reviewed: [REP1A-012] 6.2.4.11 (B) Part 4 Marine Chapter 11 Inter-Project Cumulative Effects (Tracked Changes)			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1	Table 11.2	North Falls will comprise only array with an area of 95km^2. Five Estuaries was granted development consent on 17 December 2025.	To note.
2	Tables 11.14 & 11.15/Row 1	Physical Environment – Nemo Link & Thanet OWF. We are concerned that there is a potential risk of cumulative/in-combination impacts on the intertidal and shallow subtidal at the Kent landfall due to the Proposed Project and other nearby plans/projects, coupled with uncertainty regarding future coastal morphological change. For example, there may be cumulative/in-combination effects on nearshore hydrodynamics, sediments, sediment transport, morphology due to the placement of HDD exit or other cable protection measures in the nearshore.	We advise that cumulative/in-combination effects on the intertidal and shallow subtidal seabed/qualifying features at the Kent landfall should be taken forward in the Cumulative Effects Assessment (CEA). The Nemo Link Project, for example, has had a long-lasting impact on designated habitats which have not yet recovered or been reinstated.
3	11.4	Natural England notes that, the CEA does not consider potential changes to the Goodwin Sands MCZ and Cross Ledge Sandbanks/sandbanks at the entrance to Pegwell Bay due to adjacent or overlapping cable protection acting cumulatively with other nearby plans or projects (e.g. Nemo Link, aggregates etc.).	We advise that the CEA should consider the potential risk for cumulative impacts on sediment transport pathways and the morphology of Goodwin Sands MCZ and Cross Ledge Sandbanks/sandbanks at the entrance to Pegwell Bay.

Table 4: Natural England's Advice On: Marine Physical Environment

Document reviewed: [CR1-052] 9.76.2 (A) Change Request Report			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1	2.2.3	We note the Applicant's proposed change to extend the Order Limits to includes the Hoverport and eastern ramp which will provide the flexibility for the access route to the intertidal area at Pegwell Bay. This new access route aims to avoid saltmarsh habitat, which is welcomed. The Applicant has also made a commitment to undertake a pre-construction saltmarsh survey, which are both welcomed. However, until full consideration is given to the baseline conditions of the new Order Limits area and impact assessment carried out, we are unable to agree that there will be no change to the reported environmental effects.	Whilst we welcome the Applicant's efforts to avoid impacts on saltmarsh habitat at the Kent landfall, and to undertake a pre-construction saltmarsh survey, we advise that sufficient evidence and supporting information is needed to inform the impact assessment. This should be a full assessment of the realistic worst-case scenario (WCS) in relation to potential environmental impacts of the Project on the marine physical processes and environment. Cumulative and in-combination effects (inter-project and intra-project) should also be fully considered and assessed. Please also see our earlier comments on [REP1-108] and [REP2-012] below.
2	2.2.8	We are concerned that the inclusion of the hoverport area within the Order Limits, whilst not removing the saltmarsh area which the Applicant is seeking to avoid, has increased the landfall area that may be impacted and thus the Project's Zone of Influence (ZoI) on the marine physical environment.	Following on from our advice above, whilst we welcome the Applicant's efforts to avoid direct impacts to saltmarsh habitat, they should make all efforts to reduce impacts to the marine physical environment as much as possible and adhere to the Mitigation Hierarchy. For example, consider removing the saltmarsh habitat, which they aim to avoid, from the Order Limits.

Table 5: Natural England's Advice On: Marine Physical Environment

Document reviewed: [CR1-055] 9.76.5 Change Request: Addendum to Volume 6 Environmental Statement (Version A)			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1	Table 3.1/Page 19/Row 4	Natural England notes that it is stated that no update is required to the assessment [for Marine Physical Environment] and there are no new or different likely significant effects as a result of the proposed change to the Order Limits at the Kent landfall. However, for the reasons stated in our comments on [CR1-052] above, we do not agree with this conclusion.	We advise that a full assessment is required of the realistic WCS in relation to potential environmental impacts of the Project on the marine physical processes and environment. In-combination issues with other impacts and activities should also be considered and assessed.

Table 6: Natural England's Advice On: Marine Physical Environment

Document reviewed: [CR1-056] 9.76.5.1 Change Request: Appendix A Saltmarsh Technical Note (Version A)			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1	Section 4	We welcome the Applicant's assessment of saltmarsh development in Pegwell Bay, which focuses on the Change Request area at/around the former Hoverport. The report highlights the instability of the sediment surface immediately seaward of the hoverport ramp and considers that this is maintained by wave action and migration of low amplitude	We advise that the Applicant should consider the implications of a mobile intertidal seabed interacting with project infrastructure and associated construction, operation, decommissioning activities. The vulnerability of Pegwell Bay and the Proposed Project to coastal change, taking account of climate change,

		sandwaves. There is also evidence that development of low elevation sandbars/banks has occurred in the past, and it is considered possible that changes in the topography of the upper intertidal flats could induce changes in local wave energy conditions and saltmarsh extent. Consequently, this raises concerns regarding the potential for project infrastructure and construction, operation, decommissioning associated activities to interact with a mobile intertidal seabed. In addition, as advised in our previous comments [REP3-118], we are also concerned about the vulnerability of Pegwell Bay and the Proposed Project to coastal change, taking account of climate change.	also needs further consideration. This will help inform the impact assessment and buried asset risk assessment.

Table 7: Natural England's Advice On: Marine Physical Environment

Document reviewed: [REP2-012] 9.13 (B) Pegwell Bay Construction Method Technical Note (Version B) (Tracked)			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1	Table 2.1	Natural England notes that the updated MDS cofferdam dimensions presented in the Pegwell Bay Method Technical Note [REP2-012] are considerably greater than those assessed in the ES Marine Physical Environment Chapter [REP1-052]. For example, in [REP2-012], the moonpool barge	We advise that the worst-case scenario (WCS) seabed disturbance area and volume, should be provided for the updated dimensions. The greater potential for blockage and, thus, changes to the hydrodynamic and sediment transport regime at Pegwell Bay should also be considered and assessed.

		cofferdam option would be 35m length x 7.5m width x 3m height above seabed x 2m depth below seabed. However, the MDS cofferdam dimensions (in ES Marine Physical Environment chapter [REP1-052]), would be: 10-15 m length x 3-5 m width x 2 m depth. We are concerned, therefore, that the increased MDS cofferdam size represents an increase in intertidal sediment disturbance and blockage potential, which could have an indirect effect on SPA/Ramsar features.	We draw the ExA's attention to the fact that impacts to coastal processes are also highlighted in Appendix J3A of our Deadline 3A submission in relation to implications for intertidal habitats.
2		Natural England draws the ExA attention to the potential risk of groundwater contamination discharging into coastal waters from the former hoverport site (Vattenfall Wind Power Ltd., 2018a). We also note that the proposed Thanet Extension development boundary was specifically kept south of the disused hoverport to prevent any interactions with this known source of contamination (Vattenfall Wind Power Ltd., 2018b). Furthermore, in the Geotechnical Risk Register, the risk level for potential contaminated ground at the former hoverport was rated 'substantial' (Vattenfall Wind Power Ltd, 2017). We are, therefore, concerned that the use of the disused hoverport site for access during the Project lifetime could lead to groundwater contamination discharging into the coastal waters, affecting the marine environment, and qualifying features of the designated sites.	Natural England advises that the risk of ground contamination at the former hoverport (and wider Pegwell Bay intertidal zone) discharging into coastal waters needs to be fully considered and assessed in the relevant documents/plans.
3	1.2.6	We note that, based on the findings of the 2023 feasibility study [Appendix A, APP-321], the Applicant	We advise that it would be prudent for the Applicant to include contingency assessment for failure of the proposed non-

		has not considered an alternative to the proposed non-trenchless techniques in the assessment documents or Development Consent Order (DCO) (for the cable route between the mudflats in Pegwell Bay and onshore Transition Joint Bay). Whilst we welcome avoidance of direct impacts to the saltmarsh through use of trenchless methods, based on the HDD difficulties experienced by Nemo Link, we are concerned that omitting alternative methods poses an environmental risk which will need further consideration and assessment to ensure that impact parameters are not exceeded.	trenchless methods in Pegwell Bay and potential construction delays.

Table 8: Natural England's Advice On: Marine Physical Environment

Document reviewed: [REP3-029] 6.6 Habitats Regulations Assessment Report (Tracked)			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1	7.3.1-7.3.14	We note that the temporary increases in Suspended Sediment Concentration (SSC) and sediment deposition impact have only been considered for Thanet Coast SAC and Margate and Long Sands SAC. It has not been considered for Thanet Coast & Sandwich Bay SPA/Ramsar Site. The intertidal reef, mudflats and sandflats provide valuable feeding grounds and roosting areas at low water for wintering waders, and we are concerned that changes to	We advise that increases in SSC and sediment deposition should also be considered for the Thanet Coast & Sandwich Bay SPA/Ramsar site.

		supporting processes could, in turn, hinder the conservation objectives to maintain or restore supporting habitats in which the features rely.	

Table 9: Natural England's Advice On: Marine Physical Environment

Document reviewed: [REP3-021] 6.2.4.1 (D) Part 4 Marine Chapter 1 Physical Environment (Tracked) & [REP3-025] 6.4.4.1 (C) ES Figures Marine Physical Environment (Tracked)			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1	1.7.1-1.7.6 & 1.7.19 & 1.7.41	We understand [REP3-001] that updates have been made to Marine Physical Environment Chapter to align with response to East Suffolk Council's (ESC's) submission at Deadline 2 [REP2-048]. Whilst we welcome the updates made to the ES chapter, we note that the implications of these updates to the impact assessment for the proposed project are not discussed. We also note and agree with the concerns raised by ESC in [REP2-048] regarding the adequacy of the coastal geomorphology baseline for the Suffolk landfall, and a reliance on out-of-date data/information.	We advise that the ES updates on the Suffolk landfall need to be considered in the context of the impact assessment. We also advise that it is vital that the baseline coastal geomorphology at the Suffolk landfall is adequately characterised ahead of cable installation and operation, using data/information representative of the present-day conditions as possible, to establish trends in morphological change, inform the impact assessment and siting of landfall infrastructure and cable burial. This is necessary to ensure that appropriate mitigation measures can be secured and implemented to adequately address significant impacts on the wider nature conservation interests.

2	1.8.4	We welcome control and management measure MPE08 which commits to undertake further analysis to consider the potential for coastal erosion over the lifetime of the Proposed Project. It is stated that this information will be used to inform detailed design, to ensure that the risk of future exposure of the offshore burial cables is as reduced as far as practicable. However, it is not stated what further analysis will be undertaken.	We advise that the Applicant should use the most up-to-date information available at the time of consent on coastal morphological change, vulnerability of the landfall, taking account of climate change during the lifetime of the cable. In addition to our comments above, we also refer to our advice at Deadline 3 [REP3-118] on uncertainties and risks for Kent landfall infrastructure/buried cable and coastal morphology/sensitive benthic habitats. Furthermore, given the risk posed to nature conservation we advised that this is revisited prior to construction to ensure it remains fit for purpose.
3	1.9 & 11.7.62	We note that the Applicant has identified the nature conservation sites associated with the Pegwell Bay and Sandwich Bay mudflats and marshes, which we welcome. However, coastal and marine processes impacts on these designated sites have not been fully identified or quantified. Although the assessment of impacts on these designated sites may be provided in the HRA, it is first necessary to clearly set out the impacts of the proposed project on marine physical processes and the marine physical environment (including taking account of climate change effects). This will in turn inform the assessment of impacts to ecological receptors, and the HRA/MCZA.	We advise that all potential construction impacts and MDSs relevant to the Kent landfall should be clearly laid out. For example: • Seabed disturbance due to (all activities associated with) cable installation • Dispersion and settling of disturbed sediment due to cable installation (including estimates of disturbed material volumes, SSCs, and deposited sediment thickness and extent, taken from site specific plume dispersion modelling) • Changes to sediment type (spatial extent and persistence) • Changes to hydrodynamics, sediment transport and morphology (e.g. due to HDD exit pits, cofferdams, spoil berms, cable protection, nearshore vessels, construction vehicles/plant etc).

			(For comparison, we draw the Applicant's attention to the identification and quantification of impacts presented in Table 2.17 of the benthic ecology chapter [REP1-054]).
4	Table 1.18, Pages 80-82	We note that Table 1.18 lists impacts to designated coastal feature receptors (due to construction activities). However, MDS for impacts to designated coastal features from changes to coastal and/marine processes have not been identified separately/specifically.	We advise that the Applicant should clarify the MDS for construction impacts to designated coastal features in Table 1.18. We also advise that impacts to designated coastal features due to changes in marine physical processes or the marine physical environment should be quantified in this chapter, even if their implications are considered in the relevant topic chapters.
5	Table 1.18, Page 80	We note that not all construction impacts relevant to inshore seabed morphology and designated coastal feature receptors have been identified in Table 1.18. For example, it includes nearshore vessels/equipment, HDD exit pit excavation, cofferdams, but not activities such as seabed preparation activities, trenching, etc. It is also unclear whether there may be a requirement for sandwave lowering within or adjacent to Pegwell Bay.	We advise that not all construction-related impacts on inshore seabed morphology and designated coastal feature receptors have been identified in Table 1.18. As a comparison, we signpost to the updated benthic ES chapter [REP1-054] which provides the MDS for each construction activity. These construction-related disturbance footprints should be included in the Marine Physical Environment Chapter. We also seek clarification on sandwave lowering requirement within/adjacent to Pegwell Bay. Please see further advice in Appendix J3A of Natural England's Deadline 3A response [REP3A-028] and Point 11 of Appendix J4 of Natural England's Deadline 4 response.
6	Table 1.18, Pages 80-81	We note that for the construction impact '*Increases in SSC, water column turbidity, and deposition of disturbed sediments to the seabed due to dredging for seabed preparation*' only seems to consider drilling fluid discharged within the intertidal area	We advise that MDS for increases in SSCs, water column turbidity, and associated deposition of disturbed sediments should include not only MDS width, length, area, but also volume and duration of activity. Landfall MDS values and offshore MDS values should be presented separately. The MDS option for trenching should be identified for landfall and

		during HDD excavation (although this MDS has not been quantified).	offshore, for example, representing the largest disturbed volume and highest trenching rate. Furthermore, MDS drilling fluid discharged within the intertidal area during HDD excavation process needs to be quantified.
7	Table 1.18, Page 83	We welcome the Applicant's commitment to evaluate decommissioning options to minimise environmental short- and long-term effects on the environment. However, the baseline is likely to evolve through the lifetime of the project, the value of receptors may also change and consequently, the EIA will need to be updated at the time of decommissioning.	We advise that the Applicant need to consider how the baseline and the value of receptors at decommissioning, and consequently the EIA will be re-evaluated and updated where required.
8	1.9.24	We note that sensitivity of the Kent landfall nearshore seabed to the presence of cofferdams has been upgraded from low to high (due to its designated status), which we welcome. It is, however, stated that "*the bed is expected to naturally recover via natural sediment transport processes driven by the wave and current action in shallow waters after one or two tidal cycles, which gives it a lower sensitivity from a physical processes point of view*." The evidence to support this predicted rate of recovery has not been included. Furthermore, it is stated that the impacts to the seabed due to the presence of cofferdams will be localised and temporary, and any scour will be limited in extent. Again, we note a lack of evidence to support these predictions.	We advise that the Applicant should provide evidence to support conclusions regarding seabed impacts due to the presence of cofferdams in the intertidal at Pegwell Bay. Evidence may be available from the installation of the Thanet OWF and Nemolink cables. We draw the ExA's attention to the fact that impacts to coastal processes are also highlighted in Appendix J3A of our Deadline 3A submission in relation to implications for intertidal habitats.

9	1.9.34 & Figure 6.4.4.1.15	The Applicant has confirmed that "*due to the sensitivity of the Coralline Crag, the HDD exit point will be located to the east of a continual section of outcrop…Cable protection will not therefore be required on the surface of the Coralline Crag outcrop; as such, there will be no operational impact of putting cable protection material on the Coralline Crag."* We welcome this confirmation and commitment. However, it is unclear if there remains the potential for other operational impacts (e.g. repairs) and/or installation related impacts on the Coralline Crag.	Natural England seeks clarification on other potential impacts to sub-surface or non-continual sections of Coralline Crag through the lifetime of the proposed project and where appropriate assessments updated.
10	1.10.1, Page 104	We note the addition of mitigation measure MPE03 which states that "*Cable protection features…will be installed only where considered necessary for the safe operation of the Proposed Project. This includes repairs of cables due to accidental damage*." While we welcome the Applicant's commitment to only install cable protection where necessary for the safety of their cable, this mitigation measure does not specify if it relates to construction and operational phases.	Natural England considers that any new/additional cable protection to be laid during the operational lifetime of the windfarm is not permitted within designated sites under the DML and requires a separate marine licence. But we also flag that the same is also true where there is potential for cable protection outside of designated sites to have an indirect impact on site features.
11	1.7.113-1.7.114	We note that the Applicant has now included Thanet Coast & Sandwich Bay SPA/Ramsar Site in the list of designated sites within this Marine Physical Environment, which is welcomed. However, as per our comment NE Ref 5 (in Table 9) and NE Ref 1 (in Tables 7 and 8), the MDSs for impacts to these, and	Natural England notes that this issue is progressed. However, we advise that impacts (and MDSs) on designated coastal sites/features due to changes in marine physical processes need to be clarified and quantified (regardless of them being assessed in other ecological chapters).

		other coastal designated sites/features at landfall are unclear.	
12	Table 1.18/Page 82	We note in Table 1.18 that sandwave lowering parameters are quoted per cable trench whereas in Table 4.13 of [REP1A-004] sandwave lowering parameters are not quoted per trench.	Natural England advises that the MDS sandwave lowering parameters needs to be clarified within the Marine Processes Chapter of the ES.
13	1.9.6 & 1.9.36	We note that the Applicant has provided a potential sandwave recovery rate of < 1 year for water depths < 30m which is considered applicable to the majority of the offshore scheme. Whilst this is welcomed; we remain concerned that cable installation activities (including pre-sweeping) of sandwaves in/adjacent to designated sites or sensitive areas may change the water flow regimes, wave climate and sediment supply to nearby sensitive areas if the morphological changes are significant and/or persistent.	We advise that where construction-related activities may affect bedforms that are in/adjacent to designated or sensitives areas (e.g. Goodwin Sands MCZ, approaches to Pegwell Bay, Aldeburgh Napes, Suffolk coastline etc), then the Applicant should apply the mitigation hierarchy as best practice to ensure cable burial success and reduce environmental impacts and update application documents accordingly. Noting that this should be repeated prior to construction to ensure nothing has changed. This should also be secured as a commitment . For example, making all possible efforts to avoid areas of sandwaves/minimise the need for clearance by micro-routing the cable, considering the angle at which sandwaves are crossed, installing cables as soon as possible after levelling, returned cleared material to the same system etc. It is also important that during survey campaigns, in areas with mobile bedforms, the survey corridor should be wide enough to enable identification of areas with deeper troughs that have the potential to migrate across the asset over its lifetime. This will allow definition of the Vertical Reference Level (VRL), which is the level that the seabed is likely to drop to during the lifetime of the project due to the movement of mobile sediments. This VRL should be established prior to installation by estimating sandwave migration rates. We

			advise that requirements of survey campaigns should be secured in the Offshore IPMP We note in [PDA-039] 9.21 CBRA, that ABPmer is undertaking a detailed sediment movement study. We advise that, if available, this study should be submitted into Examination to increase understanding of seabed mobility and potential impacts on important bedforms. Finally, we advise that sandwave recovery should be assessed through monitoring post construction to verify ES predictions and to check there are no unanticipated changes to seabed morphology.
14	General comment	We note, and are concerned, that the ES chapter still does not consider cumulative or in-combination effects.	Natural England advises that there are several potential overlapping activities due to nearby plans/projects which need to be considered in a cumulative effects assessment (e.g. North Falls, Five Estuaries, Nemo Link, Thanet OWF etc).

Table 10: Natural England's Advice On: Marine Physical Environment

Document reviewed: [REP3-079] 9.84 Register of Environmental Actions and Commitments (REAC) (Tracked)			
NE Ref	**Section**	**Key Concern and/or Update**	**Natural England's Advice to Resolve Issue**
1	Table 1.4/MPE08	We note, and welcome, the addition of commitment MPE08 to the REAC, to undertake further analysis of coastal erosion at both landfalls over the lifetime of the project. Currently, this commitment lacks detail.	We advise that it is of vital importance that the Applicant establishes a more robust baseline characterisation of the coastal geomorphology at both landfalls and the likely evolution of that baseline prior to implementation of the

		We consider that, given the limitations of the current evidence base for understanding coastal change at both landfalls, more specific details should be provided on the proposed methodology (see also our comment above, NE Ref 2, in table 9 above).	proposed project - as far as natural changes from the baseline scenario can be assessed on the basis of the availability of environmental information and scientific knowledge. This is necessary to ensure that appropriate mitigation measures can be secured and implemented to adequately address significant impacts on the wider nature conservation interest.
2	Table 2.2/GH14	Natural England notes the commitment which has been added to the REAC, whereby HDDs at the Suffolk landfall will exit east of the continual Coralline Crag outcrop. This is welcome. However, our concerns remain regarding other construction and operational impacts on the Coralline Crag.	Please see our advice in NE Ref 9 in Table 9above regarding concerns related to construction related impacts on the Coralline Crag.

REFERENCES

Vattenfall Wind Power Ltd., 2017. Thanet Offshore Windfarm. Appendix H. Geotechnical Risk Register, 11 April 2017, 2pp.

Vattenfall Wind Power Ltd., 2018a. Thanet Extension Offshore Wind Farm. Phase 1 Geo-environmental Desk Study. 84pp.

Vattenfall Wind Power Ltd., 2018b. Thanet Extension Offshore Wind Farm. 6.2.3 Environmental Statement Volume 2. Chapter 3 Marine Water and Sediment Quality. June 2018. (Version A).