THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES

2010

Sea Link

Natural England's Comments on the Report on the Implications for European Sites (RIES) [PD-022]

For:

The construction and operation of the Sea Link Energy Cable.

Planning Inspectorate Reference: EN020026

13th April 2026

Introduction

Natural England has reviewed the Report on the Implication for European Sites (RIES) [PD-022] for Sea Link. We provided answers to the questions posed within the document in Appendix 1, alongside confirmation of Natural England's positions on likely significant effects (LSE) and adverse effects on site integrity (AEoI).

General Comments

Natural England notes that only submissions up to Deadline 5 (10th March 2026) have been considered in the RIES, therefore the RIES does not take account of updated advice on various aspects since then. Where we can, we have signposted to our updated advice.

Natural England recommends that the REIS is updated before it is included within an ExA report to the Secretary of State (SoS). As previously advised to PINS and DESNZ, Natural England does not consider consultation on the RIES adequately discharges the statutory requirement to consult Natural England on Appropriate Assessments, as the RIES draws no AEoI conclusions. This is magnified in instances such as Sea Link where substantial volumes of Examination submissions are not considered with the RIES.

If it is considered that the conservation objectives for any designated site interest feature will be negatively impacted or there is reasonable scientific doubt regarding this, then an Adverse Effect on Integrity (AEoI) cannot be excluded.

We also highlight that where the conservation objectives of Marine Conservation Zones (MCZs) are likely to occur, we would anticipate similar consultation to that of the RIES for these marine protected areas especially, where there is a requirement for Measures of Equivalent Environmental Benefit (MEEB)/ benthic Compensation.

Table 2.3: Issues raised in the examination to date by the ExA and IPs in relation to the Applicant's screening of LSEs (alone and in-combination)

ID	Potential impact pathway	Details of issue	ExA observation/question	NE Response
METHODOLOGICAL ISSUES				
2.3.2	Benthic receptor sensitivity to direct habitat loss	NE (E27, [RR-3290]) disagreed with the Applicant's statement in [APP-075] that placement of hard substrates on the seabed would have a temporary impact resulting in benthic habitats having a medium sensitivity to direct loss. It advised the Applicant to update the HRA Report with a more appropriate evidenced evaluation. The Applicant [REP2-014] confirmed that the offshore scheme did not pass through any European sites designated for benthic habitats and did not consider changes to the HRA where needed. NE (E27, [REP3A-025] [REP4-197]) and [REP3A-027] recorded this matter as partially resolved but retained outstanding concerns, which primarily related to s41 habitats of principal importance.	The ExA notes the comments of the Applicant and NE, and considers this matter resolved for the HRA.	Natural England notes that all direct habitat loss from the placement of cable protection will be outside of the Sandwich Bay SAC and therefore not a material consideration for the RIES. E27 of our Risk and Issues log relate to avoiding indirect impacts from sandwave levelling for all MPAs and NERC habitats. The mention of cable protection at Deadline 5 point 27 in Tab E is in relation to why sandwave levelling is required i.e. to avoid the use of cable protection.
ANNEX I HABITAT SACs				
2.3.7	**Sandwich Bay SAC** Trenchless landfall techniques	As described above at ID 2.3.5, the Applicant stated that it would only use a trenchless landfall technique for cable installation. It did not assess use of trenchless landfall techniques as a mitigation method and screened out LSE arising from direct habitat loss. The	**RIESQ4 - To NE. Provide any comments you have on the Applicant's approach and LSE conclusion in the HRA Report.**	Natural England has no ecological concerns with the Applicant's screening out of LSE for direct habitat loss as long as cable protection at the HDD exit pits remains buried. Furthermore, if

		Applicant's HRA Report (paragraph 2.2.4, [REP5-036]) stated that case law qualified when measures could be taken into account at screening, including where these were properly characterised as integral features of the project.		trenchless landfall techniques are found not to be viable post consent, then a material change request to the DCO/dML would need to be made to the Secretary of State at that time and impacts to designated site features appropriately assessed as part of that consultation.
ANNEX I HABITAT SACs AND TERRESTRIAL ORNITHOLOGY (SPAs and RAMSAR SITES)				
2.3.11	**THANET COAST SAC and THANET COAST & SANDWICH BAY SPA AND RAMSAR** Changes to marine water quality from release of contaminants and debris at the hoverport site	NE [REP4-189] raised a new issue of release of contaminants and debris from use of the hoverport for access to the intertidal area. It elaborated its concerns in (point 2 [REP4-191]) (J31, [REP4-197]). It stated that evidence from Vattenfall Wind Power's Thanet OWF and Thanet OWF Extension projects indicated a risk of groundwater contamination discharging into coastal waters and affecting qualifying features of the designated sites. NE (2ECOL26, [REP5-199]) [REP5-217] stated that it was unclear how the structural integrity of the hoverpad would be affected by vehicular traffic. It advised that heavy plant and vehicle movement could result in release of contaminants, which required further investigation. It stated that coal contamination could affect water acidity and that there was risk of releasing toxic heavy metal that could affect features of	**RIESQ6 – To NE:** **Does the Applicant's commitment to further assessment and monitoring address your concerns about this impact pathway? If not, advise what further information you consider is needed.**	Natural England notes and welcomes the Applicant's commitment (W37) to prepare a hoverport condition monitoring plan post consent to monitor the condition of the hoverport during construction. Whilst we note the intention is to include measures for identifying and managing any potential contamination risk and will be prepared in consultation with the EA, NE, KWT and TDC for approval by TDC, we are concerned that containment will involve maintaining integrity of hoverport through the use of cement to stop leeching which is impactful in its own right.

		the Thanet Coast SAC and Thanet Coast & Sandwich Bay SPA and Ramsar site. KWT [REP4-124] echoed these concerns. The Applicant (2ECOL26, [REP5-135]) explained that the Thanet OWF Extension identified the former hoverport as a potential contamination source due to the presence of colliery spoil used to raise site levels, and historic fuel storage. It stated that Kent Onshore Geology and Hydrogeology ES chapter [APP-065] acknowledges the potential contamination source but concludes that it does not represent a LSE as the site would only be used for access and there would be no ground disturbance. It committed to a structural integrity assessment of the hardstanding to ensure suitability for the access, which it proposed to include in a future iteration of the Outline Construction Traffic Management and Travel Plan – Kent [APP-338]. It inserted a commitment to monitor the condition of the hoverport during construction in the Outline Onshore CEMP (oCEMP) (W37, [REP5-068]).		Natural England advises that further investigation of containment options are required as part of the consent to ensure that this is feasible without increasing environmental impacts.
TERRESTRIAL ORNITHOLOGY (SPAs and RAMSAR SITES)				
2.3.15	**STODMARSH SPA AND RAMSAR SITE** Loss of FLL for hen harrier	The RSPB [REP1-158] considered there to be insufficient clarity to exclude potential for impacts to hen harrier due to habitat loss as a result of inconsistencies of the interpretation of species records. It [REP5-092] considered that surveys should have been carried out.	**RIESQ7 – To NE:** **Does NE agree with the Applicant's conclusion of no LSE for loss of FLL for hen harrier from Stodmarsh SPA?**	On the basis of the information provided, including the wintering bird surveys, Natural England agrees with the Applicant's conclusion of no likely significant effect for loss of

		The Applicant (table 2.10, [REP2-034]) considered that given the 6.9km distance between the SPA and the Order Limits and as hen harriers are not purely found in SPAs, there was a low likelihood these birds were from Stodmarsh SPA.		functionally linked land for Stodmarsh SPA hen harrier.
2.3.18	**THANET COAST & SANDWICH BAY SPA/ RAMSAR SITE** Coastal and marine process impacts during operation	The Applicant committed to a target cable depth of lowering (DoL) of 1.5m at Kent landfall (MPE02, [REP4-235]) to allow for potential future lowering of intertidal bed levels. The REAC securing mechanism would be the Outline Offshore Construction Environmental Management Plan (oOCEMP) [REP5-066] and Requirement 6 of the dDCO [REP5-005]. NE [REP3-118] highlighted risks to cable burial from migration of the River Stour channel towards the cable route, coastline erosion, changes to sediment transport and climate change. It sought assurance that landfall activities would not be affected by morphological change or lead to interruption of coastal processes. It confirmed (2PE4, [REP5-199]) that its concerns related primarily to impacts on intertidal /shallow subtidal mudflats and saltmarsh providing supporting habitat to the Thanet Coast & Sandwich Bay SPA and Ramsar. It requested [REP5-217] monitoring of the cable route through Pegwell Bay over the project lifetime. The Environment Agency (EA) [REP4-185] [REP5-088] retained concerns about	**RIESQ8 – To NE: Are the Applicant's commitments to DoL of 1.5m at the Kent landfall and monitoring of the River Stour channel migration and coastal erosion sufficient to address your concerns about this matter?**	Natural England welcomes the Applicant's recognition of the potential for the River Stour low water channel to migrate north towards the Sea Link buried cable alignment during the lifetime of the Proposed Project. However, we remain concerned that the current target Depth of Lowering (DOL) of 1.5m may not be sufficient to avoid being impacted by the migration of the low flow river channel and the requirement for remedial intervention and subsequent additional environmental impacts. We advise that further detailed analysis is needed to increase understanding of firstly the current and future river mouth/channel elevation level relative to cable route and secondly

		cable burial depth not being sufficient to avoid exposure from the northwards migration of the River Stour. It requested the Applicant to further update its commitments in the REAC (MPE02, [REP5-115]) for the depth to be deeper than the mouth of the low flow Stour channel. Alternatively, it stated [REP5-173] that a commitment to ongoing maintenance dredging in combination with the port authority would be a suitably low impact method to control movement of the mouth. The Applicant [REP4-241] provided further interpretation of its Landfall Sediment Modelling Report [PDA-038] to support its position that future variability would not pose a problem to the cable. It stated that remedial action would be carried out if the cable was exposed to avoid wider scale effects. The Applicant (AP75, [REP4-086]) provided details of the proposed remedial measures. It stated that a preliminary inspection, maintenance and repair (IMR) programme for preventative maintenance would involve bathymetric surveys to identify any localised exposed lengths of cable including in Pegwell Bay. The REAC (MPE08, [REP5-115]) included a commitment to analysis of potential coastal erosion in line with the final Offshore CEMP. The oOCEMP [REP5-066] and Outline Cable Specification and Installation Plan (oCSIP) [REP5-117]		the likely depth of the buried cable. Additional mitigation measures also need to be explored such as a deeper burial depth and/or moving the cable route further North.

		included provision for an IMR programme with baseline as-built DoL survey followed by initial monitoring survey after 12 months and regular monitoring every 12 to 24 months, potentially reducing to every 5 years, where DoL hotspots may develop. The Applicant updated the Marine Chapter 1, Physical Environment (paragraph 1.7.65, [REP5-019]) to further explain the uncertainty regarding future migration of the river channel and stated that this could not be reduced by additional modelling or surveys of present-day conditions. In response to the ExA [EV6-033], the Applicant (AP74 [REP4-086]) confirmed that a 3m cable burial depth below the River Stour bed level (to between 6.5m and 3.7m beneath the seabed) (rather than the target 1.5m DoL) would result in an increased magnitude of disturbance that could have implications for the HRA. It stated that for these reasons and given the findings of the Landfall Sediment Modelling Report [PDA-038], a 1.5m cable depth below seabed was reasonable. The ExA (2ECOL25, [PD-021]) asked the Applicant to explain how remedial actions were considered in its HRA work, or if not considered justify why it was not required. The Applicant [REP5-135] confirmed that it had updated the DML in the dDCO [REP5-005] to follow the advice from the MMO and NE, and secure that no cable protection would be deployed within the		

		SAC after construction has ended. It (2ECOL25, [REP5-135]) stated that a separate marine licence would be sought for any additional rock protection in the SAC if required and that no assessment was required in the HRA as this did not form part of the proposed development. The EA [REP5-088] welcomed MPE08 but asked if this would include survey for erosion where cables make landfall. NE (NE11, [REP5-222]) also welcomed MPE08 but stated that cable exposure risk, including risk associated with climate change, required consideration in shoreline management plans. The Applicant inserted MPE09 in the REAC [REP5-115] to include a commitment to annual monitoring for the first 5 years from installation to detect northerly migration towards the cable. MPE09 would be secured through the oOCEMP [REP5-066].		
MARINE ORNITHOLOGY				
IN-COMBINATION ASSESSMENT				
2.3.20	Approach to LSE in-combination assessment	The HRA Report [APP-290] stated that in-combination LSEs could arise from the LSE pathways identified for the proposed development alone. However, NE (B25, [RR-3920]) advised that only appreciable effects that are not significant alone should be included in the in-combination assessment. The Applicant (B25, [REP2-014]) considered its approach would not	The ExA notes the Applicant's response.	Natural England draws the ExA attention to our Appendix G6 to our Deadline 6 submission where we advise further on the risk of AEoI of the Outer Thames SPA in-combination.

		meaningfully affect the HRA. It explained that it had thought it useful to discuss the other projects that may also lead to losses of FLL, so that the context of the losses is clear.		

3 ADVERSE EFFECTS ON INTEGRITY

ID	Potential impact pathway	Details of issue	ExA observation/question	NE Response
Mitigation for bats				
3.2.25	-	NE (2ECOL27, [REP5-199]) requested mitigation measures to reduce disturbance to bats that may be using coastal areas from lighting of the cofferdams in Pegwell Bay between April and October. It did not specify if this related to bat qualifying features of a European site.	**RIESQ9 - Confirm if your response (2ECOL27. [REP5-199] relates to bat qualifying features of a European site, and if so which site.**	Our advice does not relate to bat features of any European site but recognises that they are EPS which are known to forage in the area.

Table 3.1: Annex I habitat SACs - Issues raised in the examination to date by the ExA and IPs in relation to the Applicant's assessment of effects on integrity (alone and in-combination)

ID	Potential impact pathway	Details of issue	ExA observation/question	NE Response
SOUTHERN NORTH SEA SAC				
3.2.11	In-combination effects	The JNCC [RR-2635] [REP1-210] stated, in respect of the Southern North Sea SAC, that it could not provide advice on in-combination effects as the HRA Report [APP-090] only provided a holistic review of all European sites assessed. It noted [REP3-090] that the assessment considers each project	**RIESQ13 – To NE and the JNCC:** **Comment on the Applicant's updates to the in-combination assessment. Are you satisfied that AEoI of the**	Natural England is not satisfied that AEoI of the Southern North Sea SAC can be excluded from in-combination effects of underwater noise to harbour porpoise. Whilst we welcome the updated

		individually and does not consider the sum total of potential impacts. NE [REP3A-025] similarly advised that for harbour porpoise displacement the Applicant should calculate the total area from which the harbour porpoise would be displaced using the latest EDRs. NE [REP5-219] recommended that the Applicant provide a table listing each project with the worst-case percentage disturbance (daily and seasonally) from respective HRAs, which should be added with the proposed development to give a total. The Applicant (2MM8, [REP5-135]) stated that it had updated the HRA Report (section 8.3, [REP5-036]) to consider updated JNCC guidance for SBP and 2024 NMFS underwater sound thresholds. It stated that the area of the Southern North Sea SAC that could be affected by the proposed development is 1.14% of the total SAC and the number of harbour porpoise affected by disturbance is 0.4% of the UK portion of the North Sea Management Unit (MU), equating to 2.18% of the SAC population. The Applicant reviewed other projects including Five Estuaries and North Falls OWFs. It noted that proposed measures such as noise mitigation systems (NMS) would ensure that the daily 20% and seasonal 10% JNCC noise disturbance thresholds would not be exceeded by these projects. As the area of disturbance	**Southern North Sea SAC can be excluded from in-combination effects of underwater noise to harbour porpoise.**	figures for this project, and LionLink, and agree that OWF's will make up the majority of the in-combination impact we do not agree that plans/projects can be disregarded. HRAs require that all plans/projects, which include noise generating activities that could overlap, regardless of scale are included in the in-combination assessment. A full assessment is still required to demonstrate The Applicant's conclusion that Sea Link's contribution to the in-combination assessment is minimal.

		was not specified for Five Estuaries, the Applicant stated it was not possible to undertake a summation. It did sum the disturbance areas for the proposed development, Gridlink and Lionlink, stating a total area of 2.6% would be affected, which is below the JNCC thresholds. The Applicant considered it would be disproportionate to undertake the requested calculations for an interconnector as underwater sound (from SBP as the worst element) is minor compared to OWF (such as piling) and provided precedent where this had not been requested on other DCO projects (Eastern Green Link 1 and 2). The Applicant (AP107, [REP5-126]) and (appendix C, [REP5-127]) carried out a review of its in-combination assessment for the Southern North Sea SAC following publication of the LionLink interconnector project PEIR. It confirmed that there was no change to the assessment conclusions.		
MINSMERE-WALBERSWICK SPA AND RAMSAR SITE				
3.3.8	Impacts on marsh harrier	The RSPB [REP1-158] raised concerns regarding marsh harriers utilising the north of the RSPB North Warren Reserve; specifically, the impacts of construction noise on auditory cues used to detect prey. This matter was not specifically addressed in the draft SoCG with RSPB at DL5 [REP5-092].	**RIESQ18 – To NE: What is NE's view on the RSPB's comment that construction noise could affect auditory cues of marsh harrier? Is NE content that the Applicant's assessment**	Natural England agrees that marsh harriers use auditory cues for hunting and so could be susceptible to noise disturbance. From the information provided, Natural England does not consider that noise disturbance to marsh

			accounts for such impacts?	harriers associated with Minsmere-Walberswick SPA would be adversely affected.
SANDLINGS SPA				
3.3.10	Surveys	SEAS [RR-5210] [REP4-154] noted that limitations of breeding bird surveys had been acknowledged by the Applicant. Whilst not specifically referring to the HRA, it considered the woodlark surveys were inadequate to inform a proper assessment as a large proportion of cable route was unsurveyed. It also considered that the Applicant's survey effort to determine the foraging areas of nightjars from the Sandlings SPA was not adequate as there had not been any use of automated acoustic detectors. It noted that nightjar routinely forage over the draft Order limits. The Applicant did not respond to the suggestion of the use of automated acoustic detectors. However, it was confident it had good survey coverage and noted that NE did not raise any concerns in its relevant representation (tables 2.31 and 2.5.2, [REP1A-043]).	**RIESQ19 – To NE: Provide any observations you have on the concerns raised by SEAS about the Applicant's survey coverage for woodlark and nightjar.**	Natural England's comments regarding nightjar and woodlark relate to impacts of the project on the Sandlings SPA itself and any impacts to FLL. Regarding this we have advised that the area and quantity of affected FLL remains inconsistently reported in the HRA and that mitigation for impacts to FLL remains unclear. Please note that ID 3.1.11 regarding extent of FLL lost reads 3.5Ha however it is Natural England's understanding that this figure is 7.5 Ha.
3.3.13	Visual impacts	NE [REP1-154] requested an assessment of light spill from the Suffolk construction compound on the Sandling SPA and surrounding areas used by nightjar and woodlark, noting that the compounds would be in operation during the breeding season. The RSPB [REP1-158]	**RIESQ22 – To NE: What further evidence do you consider is needed in the assessment to demonstrate that the committed mitigation would be sufficient to**	Natural England notes the proposed mitigation is to install a 3m fence to mitigate light and noise reaching the Sandlings SPA itself. However, it remains unclear how impacts to FLL

		considered that the acoustic and visual screening around the compound could have limited effects on light spill and would not screen activities taking place at night, nor would it screen activities taking place at height. It sought mapping of areas affected by visual disturbance. The Applicant (tables 2.8 and 2.10, [REP2-034]) responded that the noise fence would also act as a visual screen. It explained that the use of cranes for the HDD landfall would typically be for up to a total of 8 days. It noted that equipment that could be visible above site fencing or screening would normally be the tops of the HDD rig, the recycling system and excavator boom. Lighting on the booms would be directed at the working area in front of the excavator. The Applicant did not consider mapping necessary given the existing treeline and the former railway embankment separating the Sandlings SPA from the HDD compound, as well as the commitment to visually screen the works. The Applicant (1ECOL57, [REP3-069]) noted the close board fencing is expected to be 3m in height. It stated that illumination above the height of the fencing would be controlled through cowling and other appropriate measures (REAC B38 and GG21). Lighting would be monitored and modified if required by the Ecological Clerk of Works.	**exclude AEoI? What specific concerns do you have that the proposed mitigation would not be sufficient?**	have been considered and inconsistencies remain in the HRA regarding location, impact and mitigation. Natural England cannot comment on any specific mitigation that may be required as we are not yet satisfied that the assessment of impacts on functionally linked land is adequate.

		The RSPB [REP4-142] agreed that committing to a 3m high close-board acoustic fence around the HDD compound would reduce noise and light spill and visual disturbance more generally. The Applicant updated B23 of the REAC [REP4-235] to commit to fencing of a minimum height of 3m at the trenchless compound. NE [REP5-215] acknowledged that an assessment of construction lighting from the compound was provided but did not consider it to be robust and requested more evidence to demonstrate the mitigation would be sufficient.		

Table 3.2: Marine mammal SACs - Issues raised in the examination to date by the ExA and IPs in relation to the Applicant's assessment of effects on integrity (alone and in-combination)

ID	Potential impact pathway	Details of issue	ExA observation/question	NE Response
ALL IDENTIFIED SITES WITH MARINE MAMMAL QUALIFYING FEATURES				
3.2.1	Underwater noise modelling methodology	NE (F15, [RR-3920) [REP4-197] noted an absence of information on the underwater noise modelling and requested further details as the outputs inform the predicted impact ranges. The Applicant (F15, [REP2-014]) confirmed that modelling used the standard National Marine Fisheries Service (NMFS) acoustic tools, as detailed in [APP-077] [AS-049]. It considered [REP5-132] its approach proportionate to the nature of the	The ExA understands that NE's outstanding concerns relate to the modelling methodology used in the Marine Mammals ES chapter and that it is satisfied with the EDR approach used in the HRA Report.	Natural England agrees the ExA understanding is correct that we are satisfied with the EDR approach. In addition to this, on review of further submissions by the Applicant at Deadline 5, R&I F15 has been reduced to a yellow risk issue. This reflects the stage of the examination and a case

		proposed development and its likely underwater effects. It stated that an interconnector would generate underwater sound, but that it would be significantly less intense than an OWF. NE (2MM4, [REP5-199]) stated that use of the NMFS Use Spreadsheet Tool was not a robust substitute for empirical modelling but advised that the effective deterrent range (EDR) approach used in the HRA Report [REP5-036] is the most appropriate method for designated sites. However, NE was not clear which activities had been assessed.		specific risk review and does not represent a change in Natural England's view on importance of empirical noise modelling. Our advice has taken into consideration that further assessment will be required for the UXO works after consent and advise the empirical underwater noise modelling should be undertaken to inform that future assessment.

Table 3.3: Terrestrial ornithology (SPAs and Ramsar sites) - Issues raised in the examination to date by the ExA and IPs in relation to the Applicant's assessment of effects on integrity (alone and in-combination)

ID	Potential impact pathway	Details of issue	ExA observation/question	NE Response
THANET COAST & SANDWICH BAY SPA AND RAMSAR SITE				
3.3.20	HDD activities - stuck drilling equipment	NE (B1 and B28, [RR-3920]) advised that the likely impacts of equipment becoming stuck and requiring excavation needed to be considered and detailed in a contingency plan. The RSPB [REP1-158] was not clear how the Applicant's estimate of a small risk of excavating the intertidal area for stuck equipment was derived, or if other projects were comparable. ESC [REP1-128] queried that measures would be employed to	**RIESQ23 – To NE:** **NE has confirmed it was satisfied with the Applicant's response on the basis that no excavations would be carried out beneath saltmarsh or shallow lagoon. Noting the Applicant's update to the REAC [REP5-115] that**	At the time of writing [REP3A-35] Natural England was content with the Applicant's proposal to us a second drilling string or to leave in situ. However, B22 and B43 in [REP5-115] now undermines this position opening back up the option to excavate something that we would not support and have reflected in our Risk and Issue log at Deadline 6.

		avoid equipment getting stuck, noting the REAC does not include any details. The Applicant updated paragraph 7.4.4 of the HRA Report [REP5-036] with a common method for retrieving equipment, comprising a second drilling string pulled out by the HDD rig. Alternatively, it would be left in situ. NE (B1 and B28, [REP3A-025]) confirmed it was satisfied with the Applicant's response, noting that no excavations would be carried out beneath saltmarsh or shallow lagoon. The Applicant updated B22 and B43 of the REAC [REP5-115] to confirm in general, no excavation would be undertaken to remove stuck drilling equipment. This matter remained under discussion as reported in the draft SoCG with the RSPB [REP5-092].	**no excavations would take place 'in general', are you satisfied this matter can be resolved?**	
3.3.25	Disturbance – vehicle movements	NE (table 2, [REP3A-028]) noted that no consideration had been given to disturbance to SPA birds from vehicle movements within the intertidal area. The PBCMTN [REP4-229] stated that there may up to 40 vehicle movements across the mudflats per day at peak times. It provided noise contours in figures 6.4.4.5.7 and 6.4.4.5.8 [REP4-051] depicting predicted maximum noise levels along an illustrative access route corridor.	**RIESQ26 - To NE:** **Is NE satisfied that disturbance from vehicle movements within the intertidal area has been sufficiently assessed and that a conclusion of no AEoI can be reached?**	Natural England position remains that AEoI from disturbance to SPA and Ramsar birds from vehicle movements in the intertidal can't be excluded. Please see R&I log Tab J RI-J18 where at Deadline 5 we highlight the following '*Natural England advises that further assessment of the potential for disturbance of intertidal mud/sand flats due to the movement of*

		The Applicant (table 3.6, [REP4-241]) confirmed that amendments had been made to the HRA Report (version D) [REP2-009], providing clarification on such effects. In response to the ExA [PD-021], the Applicant (2ECOL28, [REP5-135]) confirmed that vehicle movements, including noise generated, are considered as part of the airborne sounds and visual disturbance assessment in paragraphs 7.3.41 to 7.3.48 of the HRA Report [REP5-036].		*heavy construction vehicles/plant across the access route from the former hoverport to the HDD working area (see Appendix D5 point 6 for detailed advice). And also, ExQ2 GEN3, ExQ2 MO5 and ExQ2 PE4 in our Appendix K5 to our Deadline 5 submission'*.
3.3.27	Disturbance – lighting of the cofferdams	NE (table 6, [REP3A-028]) noted that lighting of the cofferdams in the intertidal area was proposed. It requested further assessment of disturbance impacts to Annex I birds. The Applicant (table 3.1, [REP4-082]) responded that lighting would be required during construction of the cofferdams which would be directed inwards to the 21,600m2 working area, with no impacts to birds in the intertidal area and no light spill to terrestrial habitats.	**RIESQ28 - To NE:** **Is NE satisfied that disturbance to qualifying features of Thanet Coast & Sandwich Bay SPA and Ramsar site from lighting of the cofferdams has been sufficiently assessed and that a conclusion of no AEoI can be reached?**	Natural England highlights that our concerns have not been addressed as 21,600m^2 is a considerable area. But with the expectation that works will be occurring, within this area disturbance impacts to SPA birds can't be excluded. Where intertidal works have occurred with other SPA the works have been undertaken outside of the sensitive period and therefore this issue has been avoided.

Table 3.4: Marine ornithology (SPAs) - Issues raised in the examination to date by the ExA and IPs in relation to the Applicant's assessment of effects on integrity (alone and in-combination)

ID	Potential impact pathway	Details of issue	ExA observation/question	NE Response
Outer Thames Estuary SPA				

3.4.2	Disturbance and displacement effects to red-throated diver – seasonal restriction	The Applicant (1ECOL54, [REP3-069]) confirmed its objective was to install sections of the cable route passing through the Outer Thames Estuary SPA within a single season (April to October). To mitigate the potential for disturbance effects on red-throated diver, the Applicant proposed a seasonal restriction for offshore cable burial activities (excluding pre-lay grapnel run activities) in the Outer Thames Estuary SPA from 1 November to 31 March. This is secured in the Red-Throated Diver Protocol [REP5-080]. **Buffer zone** Natural England (G2, G3 and G10, [RR-3920]) considered that red-throated diver displacement occurs out to 2km in all directions from vessels and vessel movements. Natural England [REP4-189] [REP4-193] advised the seasonal restriction should be applied to the SPA plus a 2km buffer from its seaward boundary. It provided evidence in annex 1 of [REP5-199], including studies showing displacement can occur at different rates within 2km and potentially extending to 5km. It stated that 100% displacement at 2km represents a pragmatic approach to uncertainty for displacement gradients for OWF. It advised that in the absence of a 2km buffer zone around the SPA it would, in all likelihood, not be able to rule out an AEoI in-combination.	**RIESQ29 – To NE: Studies referenced in annex 1 to (2MO3, [REP5-199]) refer to displacement gradients for OWF. Explain why these are also applicable to subsea cables.**	**RIESQ29** - The studies referenced in REP5-199, Annex 1 (2MO3) refer to displacement by shipping, vessels and in some cases also OWF. They are relevant to subsea cables as the laying of subsea cables during their construction involves vessel activity at sea that can be a significant source of disturbance depending on its location and duration. Various studies have suggested different displacement distances for red-throated divers in response to vessels at sea. Several suggest displacement can occur at different rates within 2 km (Percival 2009; Schwemmer et al. 2011; Fleissbach et al. 2019; Burt et al. 2022), one suggests displacement effects can extend out to 3 km (Burger et al. 2019), and one suggests they may extend to 5 km (Mendel et al. 2019). But it is not yet possible to determine different rates of displacement at different

		The RSPB [REP1-158] [REP5-092] advised the assessment should be based on a 5km buffer around vessel routes and related activity. The Applicant [REP5-132] stated it was continuing to engage with Natural England on this matter. **Exclusions from the seasonal restriction** The HRA Report [APP-290] stated that pre-lay grapnel activities were not included within the seasonal restriction as they have a lower disturbance profile than installation work. Paragraph 5.9.72 of Marine Chapter 5, Ornithology [REP2-003] also stated that maintenance and surveying activities during operation would be avoided between January and March 'where practicable'. The application version of the Red-Throated Diver Protocol [APP-361] noted that if essential emergency work is required between January and March, consultation would be undertaken with the MMO and NE to ensure timely repair whilst minimising disturbance to red-throated diver as far as practicable. Natural England (G2, [RR-3920]) advised that this was not a sufficient commitment to avoid disturbance/displacement effects during the winter period, which is sensitive for red-throated diver. It recommended that the proposed seasonal restriction be widened to include the pre-lay grapnel run,	**RIESQ30 – To NE:** **The Applicant has stated that there are high levels of existing vessel traffic present along most of the cable corridor and the studies referenced in annex 1 to (2MO3, [REP5-199]) suggest that frequency/ number of movements is a factor in the displacement of Red-Throated Diver. Can NE provide evidence that displacement could occur from the small number of vessels which would arise from pre-lay grapnel movements to such an extent that would result in AEoI?**	distances from vessel sources of disturbance, 100% displacement at 2 km represents a pragmatic approach to uncertainty aligned with the approach taken to displacement gradients for offshore wind farms. **RIESQ30** – Natural England regards the single vessel used for the PLGR to be large enough to cause a visual disturbance alone and likely more so when aggregated with a support vessel. This is because disturbance caused by vessels can be scaled according to the size, speed and frequency of passage (Burt et al. 2022). For example, Burt et al. 2022 found 'length of the nearest ship' indicated a significant negative relationship with red-throated diver and common scoter numbers and the predicted average number of birds per observed segment decreased as

		operation and maintenance activities (including surveying), and decommissioning phases of the development. It also sought more information about the activities (including frequency, duration and extent as detailed in G9) to inform a more detailed assessment and determine the level of mitigation. Natural England (table 1, [REP4-193]) considered that these activities would remain unmitigated during the first half of winter and their impacts in-combination with other projects have the potential to contribute to an in-combination AEoI on the Outer Thames Estuary SPA. The JNCC [REP1-210] considered it unclear whether other pre-laying activities were excluded from the restriction. The Applicant (table 2.23, [REP2-034]) responded that pre-construction activities such as geophysical surveys would be avoided between January and March where practicable. <u>Pre-construction activities</u> The Applicant (table 2.23, [REP2-034]) (1ECOL54, [REP3-069]) (AP22, [REP4-086]) stated that cable installation activities would need to commence promptly at the start of the unrestricted period and that pre-lay grapnel runs would need to be conducted immediately prior to cable installation. It explained that the duration of the pre-lay grapnel run within	**RIESQ31 – To the JNCC and NE:**	length of nearest ship increased. Furthermore, although studies on the effects of vessels typically record the response of birds to individual ships or shipping density and have not differentiated impacts from aggregations of vessels e.g. Bellebaum et al. 2006, Burger et al 2019, Jarrett et al 2022 and Mendel et al 2019, can clearly still state single vessels cause disturbance and fairly presume aggregations (creating a larger visual impact) likely cause more disturbance (as disturbance scales with size of vessel). Consequently, we cannot discount disturbance from the PLGR just because it comprises one or two vessels. Please see Appendix G6 to our Deadline 6 submission where the risk of an AEoI are discussed further. and any likely AEoSI.

		the Outer Thames Estuary SPA would be approximately seven days with one vessel towing a 'grapnel' and potentially a support vessel/guard vessel (working as a single cluster) continuously moving at approximately 1 to 1.5 knots. It likened the activities to commercial fisheries activities which occur within the SPA. The Applicant considered that including pre-lay grapnel activities in the seasonal restriction would restrict the time available outside of the restriction to complete cable installation. Natural England (table 1, [REP4-193]) advised that pre-lay grapnel run vessels are not small (range 40 to 70m length) and may still cause sufficient audio/visual disturbance to displace red-throated divers. It highlighted a comparatively higher diver density along and within 2km of the cable corridor. It sought further analysis from Applicant to evidence that pre-lay grapnel run would not cause (or materially contribute to) significant levels of disturbance. The Applicant (AP22, [REP4-086]) highlighted existing high levels of vessel traffic present along most of the cable corridor (hundreds of vessels per day including large cargo ships). It maintained that the additional one-off, short duration or pre-lay grapnel runs and geophysical activities which involve one, slow moving, operation vessel and support or guard	**The Applicant has extended the seasonal restriction to include non-emergency operation and maintenance activities and secured this in the Red-Throated Diver Protocol. Subject to discussion on extending the restriction to the 2km buffer, does this address your concerns on this matter. If not, explain what further measures you consider are needed.**	**RIESQ31** – Please see Appendix G6 to our Deadline 6 submission where we confirm that adoption of the 2km buffer addresses our concerns.

		vessel would not result in AEoI either alone or in-combination with other plans or projects. <u>Operation and maintenance activities (including surveying)</u> The JNCC [REP1-210] sought clarity on the expected vessel movements required for regular monitoring surveys during operation. The Applicant (table 2.3, G2, [REP2-014]) (1MO7, [REP4-08]) (AP23, [REP4-086]) noted that the cables are designed for minimal maintenance such that a regular regime is not required and that repairs would only be required in the event of unforeseen damage or remedial works to maintain depth of burial. It identified the potential for five repairs over the 40-to-60-year lifespan of the proposed development. Some cable repairs could require immediate action which would typically take two months but could take up to six months with both a guard vessel and a cable lay vessel. It considered (table 2.3, G10, [REP2-014]) (table 2.23, [REP2-034]) that maintenance activities would not result in significant increases of vessel traffic or disturbance to red-throated diver. The Applicant explained (table 2.3, G2 [REP2-014]) that monitoring surveys could be carried out by autonomous surface vehicles and/ or autonomous underwater vehicles, and potentially remotely		

		operated vehicles with smaller support vessel and manning levels. It stated the frequency of surveys could not be stated now and that maintenance requirements would be based on survey results. The Applicant (1ECOL55, [REP3-069]) noted that January to March coincides with periods of highest risk for completing offshore surveys and it would generally aim to complete surveys during optimum weather conditions. However, it subsequently stated (1MO7, [REP4-083]) (AP23, [REP4-086]) that there would not be a requirement for offshore vessel to undertake regular monitoring, with a focus on the reliance of land based Digital Temperature and Acoustic Sensing (DTAS) monitoring. The JNCC [REP3-090] noted no certainty autonomous vessels would be used, no details of support vessels required and what the resultant reduction in disturbance would be. It sought information on the frequency of maintenance for similar transmission assets. Furthermore, it noted that maintenance could occur for two-thirds of the most sensitive period identified by the Applicant if for two months (January to March), or for two-thirds of an entire non-breeding season if for six months (October to May). It noted the Applicant's assessment was not qualitative (as it had requested) and had been made relative to the impacts of		

		construction activities. It did not consider that the Applicant had taken account of the conservation objectives. Natural England (table 1, [REP4-193]) acknowledged the essential need for a rapid response time for emergency repairs precludes the possibility of applying a seasonal restriction. It advised the Applicant to provide an Outline Operations and Maintenance Plan (OOMP) to make clear which activities are covered by the DCO and which would require a new consent. It (2MO2, [REP5-199]) responded to ExQ2 [PD-021] stating it assumed non-emergency operational and maintenance activities would be subject to the full seasonal restriction unless otherwise agreed with the MMO in consultation with the SNCB. It requested the Red-Throated Diver Protocol be clarified to cover the full restriction period. The MMO (2MO2, [REP5-175]) agreed that the restriction should apply but considered it could be caveated to "unless otherwise agreed in writing by the MMO (in consultation with the SNCB)." The Applicant (2MO2 and 2MO4, [REP5-135]) accepted the restriction to non-emergency operational and maintenance activities during 1 November to 31 March and updated the Red-Throated Diver Protocol [REP5-080] accordingly. Quantification exercise		

		The Applicant (table 3.1, [REP4-085]) confirmed that a quantification exercise is underway to assess the implications of vessel movements on red-throated diver of the Outer Thames Estuary SPA. It aimed (2MO1, [REP5-135]) to provide an updated HRA Report incorporating the exercise at DL6 as by DL5 it had not been able to source the method requested by Natural England. **Decommissioning** The Applicant (table 2.3, G2, [REP2-014]) explained the predicted operational life of the cables is between 40 and 60 years, during which regulatory requirements and industry best practice could change. It did not know whether the cable would be decommissioned or if options for extending the life would be explored. The Applicant confirmed a decommissioning plan would be prepared post-consent and a programme submitted to the MMO for approval at least six months prior to decommissioning works. It confirmed that all phases of work would adhere to NE's best practice protocol, as noted in the Red-Throated Diver Protocol [REP5-080]. This was welcomed by Natural England (table 1, [REP4-193]) who agreed the WCS for decommissioning could be like construction and requested the Red-Throated Diver Protocol be updated to confirm mitigation for these works.		

		The Applicant (2MO2 [REP5-135]) confirmed that the approach to decommissioning would be detailed within the final Offshore Decommissioning Plan submitted to the Secretary of State for approval approximately 2 years prior to decommissioning commencing. **Extended restriction** The RSPB [REP1-158] welcomed the proposed seasonal cable laying restriction. However, referencing NE's Advice on Seasonality for the Outer Thames Estuary SPA, it noted that red-throated divers are likely to be present in significant numbers from October to May and considered that any project-related vessel movements avoid this period. It considered that should any project-related vessel movements be required between October and May, they should be subject to clearly detailed and practical bird avoidance measures to be set out in a detailed vessel management plan. It did not agree an AEoI could be excluded from the proposed development in-combination with other plans or projects. The Applicant (table 2.10, [REP2-034]) acknowledged red-throated diver may be present in the months outside of its proposed seasonal restriction, however it considered November to March to be the core period when numbers are greatest and environmental conditions the toughest and therefore the period when disturbance		

		would have a greater effect on individuals. It confirmed that a vessel management plan would be developed post-consent, in consultation with NE in accordance with requirements of the DML. The draft SoCG with the RSPB [REP5-092] recorded that this matter remained under discussion. **In-combination effects** Paragraph 5.9.10 of the application version of the ES Chapter 5 Marine Ornithology [APP-078] proposed that the restriction may not be necessary if the projects assessed for in-combination effects did not take place. NE (G1 and G7, [RR-3920]) advised that the timing restriction on cable construction works is required irrespective of whether in-combination projects proceed. The Applicant (table 2.3, G1, [REP2-014]) subsequently accepted it was highly unlikely the other developments would not proceed and confirmed that the seasonal restriction would be adhered to regardless of other projects. It amended the ES Chapter [REP2-003] to remove paragraph 5.9.10.		
3.4.3	Emergency operation and maintenance activities between November and March	NE (G3, [RR-3920]) (ECOL62, [REP4-196]) advised that if operation and maintenance activities were required between November and March in the SPA and the 2km buffer, a report to quantify potential impacts and for assessment of future in-combination	**RIESQ32 – To NE: Confirm if your advice is that AEoI of the SPA arising from vessel disturbance undertaking emergency operation and maintenance activities**	**RIESQ32 –** Natural England confirm our advice is that AEoI of the SPA arising from vessel disturbance undertaking emergency operation and maintenance activities during the

		effects from similar projects assessing these (including potential in-combination effects) may be required by NE. It noted that the application version of the Red-Throated Diver Protocol [APP-361] only proposed reporting between 1 January to 31 March. The Applicant (table 2.3, G10, [REP2-014]) confirmed it could provide NE with a report on the event (i.e. an operation and maintenance activity taking place between November and March) to inform future consenting of similar projects and updated the Red-Throated Diver Protocol [REP5-080] accordingly for activities taking place within the SPA. It stated [REP5-132] that the measures that might be addressed in an outline operations and maintenance plan are described in the oCSIP [REP5-117]. NE (G3 and G10, [REP5-222]) suggested that emergency works during the sensitive season would be subject to a separate permission and that the Applicant's commitment to reporting may be sufficient to address its concerns.	**during the wintering period can be excluded based on the Applicant's commitments to reporting.** **RIESQ33 – To NE: The Applicant has updated paragraph 1.5.9 of the Red-Throated Diver Protocol [REP5-080] to provide a report to NE regarding emergency operation and maintenance activities within the Outer Thames Estuary SPA. Should this commitment be extended to a 2km buffer of the SPA?**	wintering period may not be excluded but could be appropriately assessed based on the Applicant's commitments to mitigation, reporting and consultation with the MMO and Natural England. We note the outcomes from our meeting with the Applicant of 1st April regarding emergency works. Please see our Appendix G6 for further detail. **RIESQ33** – Natural England confirms that it should be extended to the 2km buffer of the SPA as activity in this area could still impact the RTD within the SPA.

ANNEX 1: EXA'S UNDERSTANDING OF POSITIONS AT POINT OF RIES PUBLICATION

RIESQ35. The Applicant, NE and the JNCC are requested to confirm whether the ExA's understanding of their positions is correct and to provide clarifications where requested with a question mark ('?').

European site / qualifying feature	Potential impact (C, O, D unless otherwise stated)	LSE?		AEoI?	
		Applicant's conclusion (alone or in combination)	Agreement with NE?	Applicant's conclusion (alone or in combination)	Agreement with NE?
DESIGNATED SITE (LIST)					
Alde-Ore & Butley Estuaries SAC	Pollution (terrestrial - changes in water quality) (C, O, D)	N/A – not assessed by Applicant in HRA Report.	No [REP5-215] (appendix A5) See section 2.6 of RIES.	n/a	Natural England is unable to rule out AEoI without further information, as the assessment of impacts has not yet been included in the HRA report by the Applicant.
Alde-Ore Estuary SPA	Pollution (terrestrial - changes in water quality) (C, O, D)	✕ (paras 4.2.36, 4.2.38, 4.2.49 and 4.2.50)	No See ID 2.3.14 of RIES	n/a	Natural England is unable to rule out AEoI without further information, as the assessment of impacts has not yet been included in the HRA report by the Applicant.

Alde-Ore Estuary Ramsar	Pollution (terrestrial - changes in water quality) (C, O, D)	✕ (paras 4.2.36, 4.2.38, 4.2.49 and 4.2.50)	No See ID 2.3.14 of RIES	n/a	Natural England is unable to rule out AEoI without further information, as the assessment of impacts has not yet been included in the HRA report by the Applicant.
Sandlings SPA Nightjar (Caprimulgus europaeus) Woodlark (Lullula arborea	Loss of FLL (C, D)	✓ (paras 4.2.5 and 4.2.50)		✕ (paras 7.2.8 and 7.2.20)	Natural England agrees with the ExAs summary. We wish to clarify that 3.1.11 states that The HRA Report [APP-090] acknowledged temporary loss of 3.5ha of acid grassland adjacent to Sandlings SPA due to the trenchless crossing construction compound and an associated section of cable trench. The figure of FLL loss in the HRA is inconsistently reported but it is our understanding that this should be 7.5 ha This reflects the remaining uncertainty regarding impacts to FLL as stated in our response to D6

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