

REPORT

Boston Alternative Energy Facility

The Applicant's Comments on the Report on the Implications for European Sites

Client: Alternative Use Boston Projects Ltd

Planning Inspectorate Reference: EN010095

Document Reference: 9.93

Pursuant to: APFP Regulation: 5(2)(q)

Reference: PB6934-RHD-ZZ-XX-NT-Z-4110

Status: Final/0.0

Date: 24 March 2022



HASKONINGDHV UK LTD.

Westpoint
Peterborough Business Park
Lynch Wood
Peterborough
PE2 6FZ
United Kingdom
Industry & Buildings
VAT registration number: 792428892

+44 1733 3344 55 **T**
info@uk.rhdhv.com **E**
royalhaskoningdhv.com **W**

Document title: Boston Alternative Energy Facility

Document short title: The Applicant's Comments on the Report on the Implications for European Sites

Reference: PB6934-RHD-ZZ-XX-NT-Z-4110

Status: 0.0/Final

Date: 24 March 2022

Project name: Boston Alternative Energy Facility

Project number: PB6934

Author(s): Chris Adnitt

Drafted by: Chris Adnitt

Checked by: Matthew Simpson and Matthew Hunt

Date: 24/03/22

Approved by: Paul Salmon

Date: 24/03/22

Classification

Project related

Unless otherwise agreed with the Client, no part of this document may be reproduced or made public or used for any purpose other than that for which the document was produced. HaskoningDHV UK Ltd. accepts no responsibility or liability whatsoever for this document other than towards the Client.

Please note: this document contains personal data of employees of HaskoningDHV UK Ltd.. Before publication or any other way of disclosing, consent needs to be obtained or this document needs to be anonymised, unless anonymisation of this document is prohibited by legislation.

Table of Contents

1	Introduction	1
2	General Comments on the RIES Report and the without prejudice HRA derogation case	2
3	Statements of Common Ground and Engagement with Interested Parties	5

Table of Tables

Table 2-1	The Applicant's Comments on the RIES	10
-----------	--------------------------------------	----

1 Introduction

- 1.1.1 On 24 February 2022 the Examining Authority published its Report on the Implications for European Sites (RIES Report) for the proposed Boston Alternative Energy Facility. This was to ensure that Interested Parties including Natural England (NE), the statutory nature conservation body, are formally consulted on Habitats Regulations matters and that the process can be relied upon by the Secretary of State for the purposes of Regulation 63(3) of the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations).
- 1.1.2 The RIES Report records the positions, at the point of publication, of the Applicant and various Interested Parties including NE, on issues which fall within the scope of the Habitats Regulations. Since the RIES Report was published, the Applicant has provided further information as part of its shadow Habitats Regulations derogation case, including:
- Outline Ornithology Compensation Implementation and Monitoring Plan (REP7-013);
 - Summary of Breeding Bird Survey Counts (April to June 2020-2021) (REP7-014);
 - Breeding Bird Survey Monitoring Report (April – June 2021) (REP7-015);
 - Updated Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (REP8-006);
 - Updated Outline Ornithology Compensation Implementation and Monitoring Plan (REP8-013);
 - Without Prejudice ‘In-Principle’ Alternative Locations Case (REP8-015); and
 - Final Waterbird Survey Report Summary of Data (REP8-018).
- 1.1.3 The purpose of this document is to respond to the RIES Report and to set out the representations of the Applicant on those issues which remain unagreed between the Applicant and Interested Parties.
- 1.1.4 The Applicant has had several meetings with NE, both in person where this was allowed and virtually, prior to the application and has sought to have additional meetings on site and virtually within the Examination timescale but, other than one meeting on the 15th November 2021 to discuss potential habitat creation initiatives, these have been declined by NE. The main reason for declining meetings has been that they have been, “prioritising statutory duties”. NE have conveyed their views primarily through written submissions. The Applicant has had various meetings with the Royal Society for the Protection of Birds (RSPB) both virtually and in person, on site at the RSPB reserve of Frampton Marsh prior

to and during the Examination process to discuss the points of disagreement and what has been undertaken to try and achieve agreement.

1.1.5 **Table 3-1** below provides the Applicant's response to the RIES Report.

2 General Comments on the RIES Report and the without prejudice HRA derogation case

2.1.1 It is evident from the RIES Report that the approach of the Applicant to the without prejudice Habitats Regulations Assessment derogation case (**HRA derogation case**) is thorough and robust.

2.1.2 The HRA derogation case has been conducted and collated by appropriately qualified experts whose specialisms match the relevant habitats and species. No statutory consultee has taken any issue with the expertise of the consultants who have prepared the HRA derogation case material and who have provided expert judgments on which the Secretary of State can rely.

2.1.3 In relation to the designated sites, the relevant qualifying features and the potential pathways for effect have been assessed and justified as to why either:

- Any likely significant effect on a designated site can be excluded and has therefore been screened out.
- There is no credible risk (i.e. no risk beyond reasonable scientific doubt) of an adverse effect on the integrity of any designated sites from those impacts which have been screened into the assessment.

2.1.4 The conclusions reached by the Applicant have been made following review of existing literature and site-specific survey work conducted over the appropriate periods when the qualifying features could have been at risk. The Applicant considers that the evidence presented as part of the HRA process constitutes the best available evidence and has enabled the assessment of effects to be undertaken with high degree of certainty regarding the implications for the designated sites.

2.1.5 The Applicant has fully engaged with the comments and responses from the Interested Parties and the Examining Authority (ExA) throughout the Examination and has been able to respond to each point raised.

2.1.6 In many instances the Applicant has undertaken further analysis to support its conclusions and to attempt to alleviate concerns raised by the Interested Parties. The outcome of this work is set out in documents listed at paragraph 1.1.2 above.

- 2.1.7 The Applicant has also committed to undertake a programme of activities to secure Biodiversity Net Gain, despite this not being a statutory requirement at this time for NSIPs. This commitment was made at the start of the EIA process and measures have been sought throughout the process to identify opportunities for improvement or creation of habitat to provide additional resources for the species using the localised area.
- 2.1.8 It remains unclear to the Applicant at the time of writing exactly how many issues remain 'outstanding' between it and Interested Parties as responses are still being submitted through the most recent Deadlines and some of these may have alleviated some of the concerns. However, it is possible that the Secretary of State will need to decide between competing positions in relation to whether the relevant test under Regulation 63(5) of the Habitats Regulations is met. The Secretary of State must be satisfied that the proposals will not adversely affect the integrity of any of designated sites (namely, The Wash Special Protection Area (SPA) and Ramsar site and The Wash and North Norfolk Coast Special Area of Conservation (SAC)).
- 2.1.9 The Secretary of State must be satisfied beyond reasonable scientific doubt. However, that does not mean that generalised points of concern which are unsupported by evidence are enough to prevent the test from being met (see *Boggis v. Natural England* [2009] EWCA Civ 1061 at paragraph 37). Further, the mere fact that uncertainty exists does not mean that the test is not met. Rather, the Secretary of State should be satisfied that any uncertainty has been appropriately addressed through the use of precautionary assumptions (*R(Wyatt) v Fareham Borough Council* [2021] EWHC 1434 (Admin)).
- 2.1.10 The Regulation 63(5) test must be applied with regard to the integrity of the designated site. A minor impact upon a designated site, even an adverse impact, is not sufficient to prevent the test from being met. In this regard it is worth setting out some key parts of the European Commission Guidance on Article 6 of the Habitats Directive (2019) which defines integrity as follows:

“It is clear from the context and from the purpose of the Directive that the ‘integrity of a site’ relates to the site’s conservation objectives. For example, it is possible that a plan or project will adversely affect the site only in a visual sense or only affect habitat types or species other than those listed in Annex I or Annex II for which the site has been designated. In such cases, the effects do not amount to an adverse effect for purposes of Article 6(3).

In other words if none of the habitat types or species for which the site has been designated is significantly affected then the site’s integrity cannot be considered

to be adversely affected. However, if just one of them is significantly affected, taking into account the site's conservation objectives, then the site integrity is necessarily adversely affected.”

- 2.1.11 NE (and others) have raised issues with some of the Applicant's conclusions in its responses to documents submitted throughout the Examination. It is sometimes unclear as to how those concerns could amount to an adverse effect on the integrity of any designated site or even how those concerns could amount to a significant effect upon a qualifying feature. Therefore, even where points of disagreement appear to remain, the point in question may not be relevant when making a determination regarding effect on site integrity, as is apparent from the Applicant's responses to the RIES as set out in this document. The Applicant has set out full justification for its conclusions, supported by survey data undertaken over winter 2019 until March 2022, which it feels supports a position that for Adverse Effect on Integrity (AEoI) can be excluded, beyond reasonable scientific doubt.
- 2.1.12 If, however, the SoS is minded to agree with NE that AEoI cannot be excluded, the Applicants' view is that this is in large part due to the influence of bird disturbance from the existing (baseline) large commercial vessel movements, rather than being an effect of the Facility. Such vessels are only able to transit The Haven during periods around High Water (when the water levels are high enough to allow such vessels to safely navigate this area). This activity has been happening for many years, with vessels entering and leaving the Port of Boston which has been operational since the early 1800's. Recorded annual commercial vessel numbers between 1918 and 1985 were between 702 and 1354 vessels per year, and, in 1996, 800 vessels arrived at the Port of Boston. Numbers then declined to current levels of around 400-500 per year since around 2003, as evidenced in the Chapter 17 Marine and Coastal Ecology and Appendix 17.1 Ornithology Update (document reference 9.59, REP5-006).
- 2.1.13 The Wash was first recognised for its importance for conservation through designation as a Site of Special Scientific Interest (SSSI) in 1984 and, in later years, as a Special Area of Conservation (site name The Wash and North Norfolk Coast), an SPA and a Ramsar site. The implications of the transit of these vessels was not known to NE prior to the survey work undertaken specifically for the Facility which has outlined this behavioural response. The same survey work has also shown that species such as redshank, black-tailed godwit, golden plover, dunlin and knot disperse to alternative roosting locations (on neap tides these include mudflats preferentially used by some species indicating high quality) when large vessels transit The Haven. It is considered that this response is likely to have been recurring since vessels have been using The Haven. The increase in

vessels, as a result of the Facility, is expected to increase this disturbance activity from 75-80% of high tides to 100% of high tides and by increasing vessel numbers by 580 vessels per year. The Applicant considers that this change does not constitute AEoI, for the reasons set out in the shadow HRA.

- 2.1.14 In light of the comments from the Interested Parties, and although the Applicant maintains the position that the Facility will not have an AEoI, the Applicant has produced a without prejudice HRA Derogation Case. This has involved developing potential compensation sites that could be used should a decision be made that an AEoI cannot be ruled out. In this situation, the Applicant believes, that sufficient and appropriate compensatory measures can be delivered to provide additional habitat for waterbirds that may be displaced from their roosting locations during periods of high tide when additional vessels would transit The Haven.

3 Statements of Common Ground and Engagement with Interested Parties

- 3.1.1 Engaging with NE, the RSPB and Lincolnshire Wildlife Trust (LWT) has proved challenging throughout Examination, with extended timescales for responses to questions/emails, etc. regularly occurring. It should be noted that engagement with these parties has been ongoing since the start of the project in 2018.
- 3.1.2 The Applicant developed initial drafts of the SoCGs with NE, RSPB and LWT in the same template as all other SoCGs submitted and issued on 15 October 2021 (RSPB), 22 October 2021 (NE) and 25 October 2021 (LWT), with the intention of submitting draft copies at Deadline 2 (11 November 2021). As with the other SoCGs submitted to the Examination, the Applicant extracted key points from the Interested Party's relevant and written representations in order to show the key outstanding issues.
- 3.1.3 Unfortunately, the Applicant received emails from the Interested Parties (3 November (NE); 5 November (RSPB); and 9 November (LWT)) that they would prefer to change the format of the SoCGs to that used in the East Anglia ONE NORTH and East Anglia TWO offshore wind farm DCO processes. In response to this request, the Applicant issued an updated SoCG template to all three Interested Parties on 7 January 2022, requesting confirmation that it was suitable. Draft copies of the SoCGs were then issued to NE on 2 February 2022 and LWT on 3 February 2022. RSPB had further comments on the template and content and a full copy was provided to them on 11 February 2022. The process of changing the template thereby slowed the process of reaching agreements on the SoCGs. Subsequently agreed copies were submitted for RSPB and LWT at Deadline 7 as requested by the ExA. Although NE provided initial comments on

the SoCG on 17 February 2022, with the Applicant updating the SoCG based on these comments by 23 February 2022, NE was unable to review and agree the SoCG for Deadline 7. The Applicant therefore submitted a “not agreed” copy.

3.1.4 Overall, as noted above, and despite a lack of agreed draft SoCGs throughout, the Applicant has proactively worked to alleviate concerns raised by the Interested Parties and reach agreement. In order to assist NE, the Applicant specifically addressed each point in NE’s Risk and Issues Log, and issued a copy of the log back to NE (i.e. outside of the Examination) on 12 January 2022. This resulted in NE’s Deadline 5 log (REP5-021) including some further clarity on points and some progress on previously unagreed matters. However, the Applicant considered it would be useful to provide a Response to the Risk and Issues Log to the Examination, which was submitted at Deadline 7 (document reference 9.76, REP7-008), in order to clearly show how the Applicant had addressed NE’s comments, and where information was contained that did not seem to have been taken in to account by NE. The Applicant is still of the opinion that not all of the evidence presented to the Examination has been fully reviewed and considered by NE. When combined with the refusal from NE to attend meetings during the Examination period (see paragraph 1.1.4), and their long response times to emails (with no response being received in some instances) this has made the process of ensuring that NE’s points are (i) understood correctly by the Applicant, (ii) that NE is aware of all information submitted to the Examination correctly and (iii) what additional information NE feels is required in order to agree points, difficult.

3.1.5 In addition to NE, RSPB and LWT, there have also been discussions with the Environment Agency and Marine Management Organisation (MMO) on some HRA-related matters, but in both cases these bodies have deferred to NE’s position as the Statutory Nature Conservation Body (SNCB).

Outstanding Issues between AUBP and NE with regard to AEoI

3.1.6 There remain several outstanding issues relating to the conclusion regarding AEoI whereby NE does not feel there is enough information to support the conclusion of no AEoI. Many of the issues have been addressed in responses to the comments raised, but there has been no feedback on the justification for the responses provided by NE. The key outstanding concerns appear to be around the following topics, which are addressed in turn below:

- Insufficient data to support the assessment;
- Key operational impacts not being clearly defined and assessed (vessel movements and speeds); and
- Lack of confidence in the Habitat Mitigation Area (HMA).

Insufficient data to support the assessment

- 3.1.7 NE raised concerns regarding the provision of enough survey data. Two years' worth of survey data has been provided for the overwintering counts, spring passage, breeding season and disturbance behavioural responses and one year of data for autumn passage (document references 6.4.19, APP-112; appendices of 9.13, REP1-026; 9.43, REP3-019; 9.71, REP6-034; 9.82, REP7-014; 9.83, REP7-015; 9.91, REP8-018). Together with the Wetland Bird Survey (WeBS) data, this information provides extensive data for count sectors within the SPA and at Slippery Gowt pits, along The Haven, and the Applicant considers that this represents the best available evidence to support the assessment.
- 3.1.8 The Wash SPA qualifies due to its non-breeding wintering populations of several species and breeding populations of little and common tern. Little tern were not recorded across project-specific surveys of The Haven, including the Principal Application Site and the mouth of The Haven area, and there are no pathways for potential impact on this species. Common tern are known to occur in the RSPB reserves (Frampton Marsh and Freiston Shore) just outside the SPA boundary, but there is not considered to be any likelihood of them being affected due to the colonies' distance from the area where vessels transit The Haven.
- 3.1.9 The survey coverage at an earlier point in the Examination did not include the intervening section of The Haven between the Application Site and the mouth of The Haven area. This is because this area had not been identified as an area that supported high numbers of birds through discussion with local ornithologists and a review of previous NE reports (e.g. Natural England, 2018. Appraisal of possible environmental impacts of proposals for England Coast Path; and Sutton Bridge to Skegness NE's Report to the SoS). If NE thought that the proposed Facility could in any way affect the designated species in these areas, then a request to survey these areas at a much earlier juncture would have been expected.
- 3.1.10 Surveys covering this area have since been undertaken (document reference 9.91, REP8-018) and results are provided with the Deadline 9 submission of Waterbird Surveys (document reference 9.98). Species and respective counts of individuals in this section have shown that although SPA feature birds do use these areas, they are generally in low numbers. While numbers of redshank at both high and low tide were higher than for other waterbirds (typically around 40 birds throughout the site at high water, 20 at low water), the occurrence of a high tide roost, or a count above 1% of The Wash SPA 5-year mean peak WeBS count, was observed on a single occasion across all surveys. Where disturbance due to vessels occurred, this did not affect significant numbers of individuals (up to 25

redshank). No high tide roost sites have been identified to be in repeated or consistent use by waterbirds in this stretch of the shipping channel.

- 3.1.11 The birds using this area are likely to be similar to those at the Principal Application Site, in that they are likely to be more habituated to disturbance than those at the mouth of The Haven due to the proximity to the channel. Other roosting areas also exist along this stretch above the high water mark, with up to 173 dark-bellied brent geese recorded aggregating on saltmarsh beside The Haven in the lower section of the intervening part of The Haven (closest to the SPA), and up to 58 redshank have been recorded on a lagoon set back from The Haven in the upper section (closer to the Principal Application Site) (both at high water). None of the birds in these aggregations were reported to be disturbed by vessels. The area close to the lagoon is where either net gain or compensation habitat would be created to provide additional roosting and foraging habitat for waterbirds.
- 3.1.12 The data for overwintering counts (and breeding and passage numbers) have also been submitted to the Examination within the documents referenced above to ensure completeness of data sets. The data collected has been assessed thoroughly by ornithologists to determine the potential for impact. The data supports a conclusion that AEoI can be excluded, beyond reasonable scientific doubt.

Key operational impacts not being clearly defined and assessed (vessel movements and speeds)

- 3.1.13 The potential for operational impacts has been assessed in detail relating to the proposed increase in vessel numbers over the baseline levels. This has included for birds at the mouth of The Haven and at the Principal Application Site, and for marine mammals within The Wash. Worst case scenarios have been used for all assessments.
- 3.1.14 The operational use of the Facility is detailed within several documents (in particular in the Environmental Statement (ES) Chapter 5 – Project Description (document reference 6.2.5, APP-043) and is again summarised with respect to the potential for impacts on marine ecology in Chapter 17 Marine and Coastal Ecology (document reference 6.2.17, APP-055) and specifically on birds in Chapter 17 Marine and Coastal Ecology and Appendix 17.1 HRA update: Ornithology Addendum (document reference 9.13, REP1-026) and marine mammals in the Outline Marine Mammal Mitigation Protocol (document reference 9.12(2), REP7-003). The Applicant is confident that the assessment presented in these documents is reasonable, robust and complete, concluding no AEoI.

Lack of confidence in the Habitat Mitigation Area (HMA)

- 3.1.15 NE has also “expressed concern” about the potential for the HMA to provide adequate mitigation. As discussed in the various documents and responses provided, the design of the HMA is such that it takes into account disturbance distances for redshank (the species of most concern in this area, although mitigation for redshank is also applicable to ruff) developed through peer-reviewed research which is available as a Waterbird Disturbance Mitigation Toolkit (IECS, 2013).
- 3.1.16 Specific comments raised within the RIES, that the Applicant is commenting on further, are addressed in **Table 3-1** .

Table 3-1 The Applicant's Comments on the RIES

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
2.1 European Sites Considered	2.1.4	Baseline information for the three European sites is provided in [Habitats Regulations Assessment Report] HRAR Section A17.3. The features of The Wash SPA and The Wash and North Norfolk Coast SAC identified in the HRAR are consistent with those listed within the Conservation Objectives documents on NE's website. The features identified for The Wash Ramsar are consistent with those listed on the Ramsar Information Sheet (RIS) (as updated in May 2005), with the exception of those starred (*), which the RIS identifies as species/populations identified subsequent to designation for possible future consideration under Criterion 6.	<p>Species identified subsequent to designation for possible future consideration under Criterion 6 in The Wash Ramsar site citation are ringed plover, black-tailed godwit, golden plover and lapwing.</p> <p>Black-tailed godwit, golden plover and lapwing were included in the assessment. The surveys have not identified any ringed plover in the area and the habitats are not suited to ringed plover as they generally prefer coarser sediment beaches.</p>
3 Likely Significant Effects	3.0.5	<p>The scope of the in-combination assessment was disputed by NE. They raised a number of concerns in Appendix C of their RR/WR [RR-021]. They considered that it was:</p> <ul style="list-style-type: none"> incomplete, particularly in relation to baseline disturbance (such as arising from changes to the route of the England Coast Path (ECP)); limited, as it only considered sites and features where "project alone" impacts were identified so did not account for plans or projects that could have small effects alone but that become significant when combined; and failed to take into account projects in the full foraging range of the European site interest features, eg in relation to marine mammals, Norfolk Vanguard, Boreas, Great Yarmouth 	<p>The Applicant has responded to the points raised in relation to the in-combination assessment in the Comments on Relevant Representations (document reference 9.2, REP1-035).</p> <p>The assessment of in-combination effects does not include the assessment of baseline effects as such effects are considered to be accepted as part of the site characteristics. In-combination effects should include existing and planned development with existing development referring to what is currently being developed. The assessment undertaken by the Applicant did include all projects known to be planned or proposed within an area that could be affected in combination both temporally and spatially, even those with small effects when considered alone.</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		<p>Port and Lowestoft Port and Operations and Maintenance for operational windfarms.</p> <p>Further commentary on [in combination effects] ICE is provided in Section 4 of this Report.</p>	<p>There was not predicted to be any likely cause for effect outside of the localised environment around the mouth of The Haven. Vessel numbers were so low relative to the numbers using the main areas of The Wash that there were not considered to be any drivers for impact resulting from offshore wind farms and Great Yarmouth and Lowestoft Ports. These are considerable distances from the application site and The Wash.</p>
	3.0.6	<p>It was considered in the HRAR that the pathway for an effect on European sites (or functionally linked land) during the construction phase could be the delivery of materials to the application site using vessels via The Wash and The Haven. The following potential effects were identified for the construction phase for bird populations that are a feature of The Wash SPA and Ramsar site:</p> <ul style="list-style-type: none"> • noise effects from piling and dredging activities impacting on designated species using the land adjacent to the Proposed Development; • effects arising from a loss of habitat (mudflat and saltmarsh habitat, which are functionally linked to the SPA and Ramsar site) in the area of the Proposed Development site; and • disturbance effects from an increase in vessel numbers. 	<p>The Applicant has assessed the potential for the Principal Application Site to be functionally linked in detail in Section 4 of Chapter 17 Marine and Coastal Ecology and Appendix 17.1 HRA Ornithology Update (document reference 9.59, REP5-006) where it was shown beyond reasonable scientific doubt that the Principal Application Site was not considered to be functionally linked land. Nevertheless, measures have been put in place to mitigate habitat loss in this area and disturbance impacts from construction and vessel movements.</p>
	3.0.8	<p>For the operational phase, the following were considered as having the potential to have an effect on the qualifying features (and/or the supporting habitats of qualifying species) of all three of the European sites:</p>	<p>Vessel movements would not change from the existing route. Vessel numbers would increase, and this has been fully assessed in relation to collision risk and air quality in the HRA and various updates (ES Chapter 14 Air Quality update (document reference 6.2.14, REP1-006) and (Addendum to Environmental Statement</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		<ul style="list-style-type: none"> changes in vessel traffic and movements leading to increased collision risk and above ground and underwater noise and visual disturbance to birds, seals and otter; and nitrogen oxides (NO_x), sulphur dioxide (SO₂), nitrogen, acid and ammonia deposition within the boundaries of the European sites as a result of the emissions from the Proposed Development. 	Chapter 17 and Appendix 17.1 - Marine Mammals (document reference 9.14, REP1-027).
	3.0.9	HRAR paragraphs A17.4.17-A17.4.19 provided justification for concluding that there would be no adverse effects on otters and confirm that they were not considered further in the HRA. NE, in their RR/WR [RR- 021], acknowledged that no evidence of otters was found in the surveys and advised that pre-construction surveys would need to be carried out to verify their presence or absence.	There is a commitment in the Outline Landscape and Ecological Mitigation Strategy, the latest version was submitted at Deadline 7 (document reference 7.4(2), REP7-037) to undertake pre-construction surveys for species including otters.
3.1 Summary of HRA Screening Outcomes during the Examination	3.1.1	The Applicant's conclusion of potential likely significant effects on the three European sites and their qualifying features were not disputed by any IPs during the Examination. However, IPs considered that some additional features of the SPA and Ramsar site should be included and taken forward for further assessment. Commentary on this is provided in Section 4 of this report.	Additional features were assessed following the review of further information. This related to common tern which were only identified as present near the site during the Examination process when RSPB mentioned their presence within the RSPB reserve (this was later confirmed through purchase of RSPB bird count data). This feature was therefore assessed in relation to potential for likely significant effects (LSE) within the ES Chapter 17 Marine and Coastal Ecology and Appendix 17.1 HRA Ornithology Update (document reference 9.59, REP5-006) where it was concluded that this species was not at risk of disturbance from vessels using The Haven.

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
4.2 The Integrity Test - Overview	4.2.4	HRAR paragraph A17.6.9 stated that piling works, likely to be the noisiest construction activity, should be undertaken between May to September to avoid effects on overwintering birds, as winter is the time when the numbers of feeding waterbirds peak. Condition 14 of the DML in dDCO Schedule 9 [REP6-003] relates to piling and provides that a method statement must be submitted to the MMO for approval that includes details of timing of piling activities.	Condition 13 of the Deemed Marine Licence (DML) provides that the piling method statement must include "provision that piling activities must only be undertaken between 1 June and 30 September and details on the timing of piling activities throughout those months;". The drafting of this provision is agreed with both the MMO and NE.
4.2 The Integrity Test - Overview	4.2.6	HRAR paras A17.6.115 and A17.6.135 stated that best practice measures would be put in place to minimise disturbance to marine mammals from the presence of and noise from vessel traffic serving the Proposed Development during construction and operation, which would mainly consist of a non-dedicated observer on board each vessel looking out for marine mammals. It was explained that these measures are secured by dDCO R14, which requires that a Navigation Management Plan (NMP) must be approved prior to construction which must include measures for managing potential risks to marine mammals. An outline version of the NMP was not provided with the application. It was concluded that, as the assessment indicated that (based on a worst case scenario (WCS)) 1% of the SAC population of harbour seals could be disturbed as a result of vessel noise during construction and operation (HRAR paras A17.6.116 and A17.6.136), there would be no significant disturbance and no AEol of the SAC in relation to harbour seals.	<p>The Addendum to ES Chapter 17 and Appendix 17.1 - Marine Mammals (document reference 9.14, REP1-027) provides updated assessments in relation to the proportion of the reference population that may be affected. Under the updated population estimates as presented within the marine mammal HRA addendum, up to 1.2% of the SAC population may be disturbed as a result of vessel noise during construction and operation.</p> <p>The mitigation measures to reduce disturbance to harbour seal are presented within the Outline Marine Mammal Mitigation Protocol (OMMMP) (document reference 9.12(2), REP7-003). These measures are secured in the DML, in Schedule 9, Conditions 17 and 14.</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
4.2 The Integrity Test - Overview	4.2.7	<p>It was concluded in HRAR para A17.6.105 that harbour seal that are a feature of the SAC would not experience an adverse effect as a result of piling and dredging activities. Notwithstanding, para A17.6.106 explained that a precautionary approach had been adopted and in relation to piling noise a pre-piling watch for marine mammals and soft-start and ramp-up procedures would be undertaken when piling activities were undertaken during high tides. This would be secured by Condition 14 of the Deemed Marine Licence (DML) in Schedule 9 of the dDCO [REP6-003]. No mitigation was proposed for collision risk for seals during construction and operation. It was concluded in the HRAR that there would be no AEol of the SAC in relation to the conservation objectives for harbour seal considering the "small relative increase" in the number of vessels in the area, their slow speed (6 knots or less) and restricted area of the shipping channel and anchorage site, the likelihood that seals would be able to detect and avoid any vessels in order to avoid collision, and the small number of seals that could be at risk (0.04 % of the SAC population).</p>	<p>The Addendum to Environmental Statement Chapter 17 and Appendix 17.1 - Marine Mammals (document reference 9.14, REP1-027) provides updated assessments in relation to the proportion of the reference population that may be affected. Under the updated population estimates as presented within the marine mammal HRA addendum, up to 0.06% of the SAC population may be at increased risk of collision.</p> <p>Mitigation measures have been put forward within the Outline Marine Mammal Mitigation Protocol (OMMMP) (document reference 9.12(2), REP7-003) in order to reduce the risk of any collision taking place. These include best practice measures for vessels to avoid collisions with seals, with a reduced speed encouraged when possible. Monitoring is proposed with two options identified for discussion and agreement in the final MMMP.</p>
4.2 The Integrity Test - Overview	4.2.9	<p>In their RR/WR [RR-021] NE stated that, on the basis of the information submitted, it was not satisfied beyond reasonable scientific doubt that the Proposed Development would not have an adverse effect alone or in combination on the integrity of The Wash SPA in relation to redshank, and on The Wash and North Norfolk Coast SAC in relation to harbour seal arising from additional vessel movements and anchorage. NE considered that the Proposed Development would result in an AEol on the European sites and advised that compensation</p>	<p>The Applicant questions the wording that states that "NE considered that the Proposed Development would result in an AEol on the European sites and advised that compensation measures would need to be considered" It is not clear that NE considered that the Proposed Development would result in an AEol. The Relevant Responses from NE in RR-021 say that they "cannot conclude beyond all reasonable scientific doubt no Adverse effect on Integrity for the Wash SPA" and elsewhere that there is "potential for AEol" rather</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		measures would need to be considered as part of a derogation case once the alternatives and imperative reasons of overriding public interest (IROPI) tests had been met. NE's RR focused on the SPA and SAC but also referred to effects on the Ramsar site and SPA bird assemblages using the feeding/roosting area at the Mouth of The Haven (MOTH) arising from increased vessel movements.	<p>than that they consider that the Proposed Development would result in an AEol.</p> <p>The NE document also talks about impact on Annex I redshank. Redshank is not an Annex I species.</p> <p>Compensation measures have been considered in detail and proposed compensation sites put forward in the Compensation Measures Report (latest update is document reference 9.30(2), REP8-006).</p>
4.2 The Integrity Test - Overview	4.2.10	In respect of The Wash SPA, NE considered in their RR/WR that the location of the Proposed Development would potentially result in an AEol on redshank through the following risk pathways: loss of foraging habitat on site through modification; loss of roosts on site through modification or disturbance; and loss of foraging habitat along The Haven which may be degraded through boat wash along the channel.	The loss of foraging habitat is very minor and comprises a change from soft sediment seabed to hard areas of coarse sediment that would support the vessels whilst at berth. The loss of roosting area at the Principal Application Site is considered fully mitigated through enhancement of adjacent roosting area and the measures are to be undertaken outside of the potential area of disturbance to key species, including redshank. Along The Haven, there is no anticipated impact due to boat wash from the increased vessel numbers.
4.2 The Integrity Test - Overview	4.2.12	LWT agreed [RR-011] with NE and considered that the information and data provided in the application was insufficient to demonstrate no AEol of the SPA and SAC. They raised the same concerns as NE that worst case scenarios (WCSs) had not been considered within the HRAR and highlighted the potential for significant effects on breeding and wintering redshank and breeding harbour seal.	<p>The Applicant re-confirms that worst case scenarios have been considered for all aspects (for example consideration of vessel disturbance even for night time high tides even though the disturbance may not be so significant at night time as visual disturbance is likely to be lower).</p> <p>Breeding redshank are a feature of the SSSI but not the SPA. Mitigation has been provided for wintering redshank and harbour seal as detailed in the relevant HRA documents (ES Chapter 17 Marine and Coastal Ecology (document reference 6.2.17, APP-055) and specifically on birds in ES Chapter 17 Marine and</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
			Coastal Ecology and Appendix 17.1 HRA update: Ornithology Addendum (document reference 9.13, REP1-026) and marine mammals in the Outline Marine Mammal Mitigation Protocol (document reference 9.12(2), REP7-003).
4.2 The Integrity Test - Overview	4.2.13	LWT reiterated their position in their WR [REP1-055] and stated that WCSs should be clearly defined. They considered that necessary compensation or mitigation should be proposed for potential impacts on harbour seals of piling, ship movements and anchorage, and for the loss of priority habitat (saltmarsh and mudflat) and the effect of that on protected species. They stated that any areas chosen as compensation sites should be assessed for potential disturbance impacts during construction and operation on the SPA and SAC features. They also stated that they welcomed the Applicant's decision to submit an in principle derogation case and that the necessary compensatory measures should be secured in the application. They acknowledged that the Applicant was aware of recently available information about a serious and rapid decline in the east coast harbour seal population and requested in relation to this that the Applicant provide noise modelling information on the piling required for the Proposed Development.	<p>As set out in REP2-006 (row 1.2.1) worst case scenarios (WCSs) are detailed in the relevant chapters of the ES (including Chapter 16 Estuarine Processes (document reference 6.2.16, APP-054) and Chapter 17 Marine and Coastal Ecology (document reference 6.2.17, APP-055)) /HRA (Appendix 17.1 (document reference 6.4.18, APP-111)). Section 4 of the Ornithology addendum to the ES/HRA (document reference 9.13, REP1-026) includes specific WCSs including those for wharf construction and operation and includes an additional WCS regarding vessel passage at the mouth of The Haven.</p> <p>If required, within the final MMMP, underwater noise modelling would be presented to outline site-specific impact ranges, and to ensure that mitigation is in line with actual modelled impact ranges. In addition, the potential for alternative pile installation techniques (e.g. the use of vibro-piles) will be considered once final pile design is completed . In addition to the above, updated assessments were undertaken and presented within the Addendum to ES Chapter 17 and Appendix 17.1 - Marine Mammals (document reference 9.14, REP1-027), to take account of the decline in the local harbour seal population.</p>
4.2 The Integrity Test - Overview	4.2.21	In response to the Applicant's response to ExQ3.1.18, the RSPB reiterated [REP3-033] their view at D3 that common tern should be considered	Common tern were raised as a concern during the Examination process when RSPB mentioned their presence within the RSPB reserve (this was later

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		<p>in the assessment. This was on the basis that 30-40% of the SPA population of common tern breed at RSPB Freiston Shore and RSPB Frampton Marsh, and that ringing recaptures had shown that the birds moved between these two sites and would be foraging within The Wash and along The Haven. They commented that WeBS data had recorded large numbers of common terns congregating at the MOTH post-breeding.</p>	<p>confirmed through purchase of RSPB bird count data). This feature was therefore assessed in relation to potential for LSE within the ES Chapter 17 Marine and Coastal Ecology and Appendix 17.1 HRA Ornithology Update (document reference 9.59, REP5-006) where it was concluded that this species was not at risk of disturbance from vessels using The Haven.</p>
4.2 The Integrity Test - Overview	4.2.24	<p>In relation to a request from the ExA at ISH2 for NE and the Applicant to expand on their positions in respect of disturbance to birds at high tide, NE responded [REP3-030] that the information on the assessment of impacts remained insufficient and that their concerns therefore remained unchanged to those set out in their WR and D1 and D2 submissions.</p>	<p>Further survey data and assessment was subsequently undertaken to further inform the assessment of impacts. This data was presented in the various updates to the HRA, principally the Chapter 17 Marine and Coastal Ecology and Appendix 17.1 HRA Update (document reference 9.59, REP5-006).</p>
4.2 The Integrity Test - Overview	4.2.25	<p>LWT stated at D4 that they supported the views of NE and the RSPB and remained of the opinion that insufficient information had been presented to demonstrate no AEoI on the features of the SPA, Ramsar site and SAC, specifically harbour seal [REP4-021]. They considered that the concerns raised in their WR (REP1-055), ie impacts to harbour seal resulting from piling, ship movements and anchorage, had not been addressed in the OMMMP and HRA Marine Mammals Addendum submitted by the Applicant at D1. They set out their view that an AEoI could not be ruled out for redshank at the application site and for the SPA assemblage at the MOTH.</p>	<p>Further information to the points raised by LWT were responded to at Deadline 4 (Response to the Marine Management Organisation (MMO) and NE's queries regarding Marine Mammals and Fish (document reference 9.49, REP4-014)). The Outline Marine Mammal Mitigation Protocol (OMMMP) (document reference 9.12(2), REP7-003), has since been updated. The Applicant is confident that these measures will be sufficient to address concern over the potential for effects on marine mammals.</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
4.2 The Integrity Test – Survey Data	4.2.28	NE considered [RR-021] that insufficient bird data had been provided with the application, however they acknowledged that additional bird counts were due to be undertaken. The RSPB raised the same concern [RR-024].	Two years' worth of data has been collated for the bird usage of the localised areas. The assessments also draw on longer term data available for Wetland Bird Survey count sectors around the mouth of The Haven and along The Haven. The data that has been collated during the examination phase has this survey effort has confirmed the assessments made in early documents. The Applicant considers that, combined with the data available for the Wetland Bird Survey data, the site-specific data provides a robust basis for assessment of impacts.
4.2 The Integrity Test – Survey Data	4.2.34	In NE's response [AS-001] to ISH2 Question 4.d, about whether they agreed that the Applicant had identified all of the relevant European sites and features in the HRA, they highlighted that the additional survey data and assessment only related to The Wash SPA over-wintering birds and didn't recognise that the SPA is also designated for passage birds. The RSPB supported this comment [REP3-033]. NE advised that The Wash passage periods were between March and May and August and October.	Although the SPA citation mentions the importance of the site, in a British context, for early autumn moulting waders and wintering passerines, the qualifying numbers of birds from an SPA perspective are the breeding little tern and common tern and wintering populations of waterbirds. The SPA citation does not list any qualifying numbers of passage birds. Notwithstanding this, the Applicant has undertaken surveys for, and assessed the potential for impact to passage birds.
4.2 The Integrity Test – Survey Data	4.2.35	The Applicant stated in its written summary of its case at ISH2 [REP3-023] that spring passage birds had been included within the survey work and the assessments already undertaken, and that additional survey data had been collected for autumn passage birds (in the area of the application site). This was submitted at D3 [REP3-019]. 12 surveys of Sections A and B (the area of the application site and the area adjacent to it, respectively) at high and low tides were undertaken in August, September and October 2021. The	Although these numbers were significant the numbers of ruff visiting the site were not consistent with generally much lower numbers and it is acknowledged that ruff are not site faithful. It is also recognised (as outlined in comment number 4.2.36 in the ExA's RIES report (document reference PD-014) that the mitigation measures in place for redshank would equally provide mitigation for ruff. Ruff are not a qualifying feature in their own right for the SPA but will form part of the waterbird assemblage.

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		<p>surveyed areas are depicted on Figure 1. The number of individual bird species recorded in each survey is presented in Tables 1 – 5 and their locations are depicted in Appendix 1 Figures 5 - 16. It was considered that most birds did not occur in significant numbers, however Ruff were highlighted. They were observed on seven visits, with a peak count of 32 in Section A, equating to 40% of The Wash population; and 51 across both Section A and Section B, equating to 63.75% of The Wash population, based on the current 5-year means. It was concluded in the survey report that these count numbers were significant.</p>	
<p>4.2 The Integrity Test – The Wash SPA and Ramsar site - Disturbance effects on bird species - general</p>	<p>4.2.38</p>	<p>NE disagreed with the Applicant's characterisation of the period of disturbance being limited to 1-3.5 hours around high tide as minimising risk, and conversely considered that this period is when alternate sites will be most limited and therefore the most critical for roosting birds. They also considered that increased disturbance by a minimum of 20-25% due to a move to daily boat traffic, including an increase of 34% of days in the key winter period, was not insignificant and therefore should not be dismissed. NE and the RSPB [RR-024] also raised concerns that the effects of pilot boat movements had not been fully considered in the assessment.</p>	<p>The disturbance due to movement of large vessels will only occur around high-water periods as the vessels are too big to access The Haven at other states of the tide. This does therefore reduce the period of time when disturbance can occur to the birds at the MOTH. Alternate sites have provided a roosting area for birds that are currently disturbed due to baseline levels of vessel movement which occur on approximately 75-80% of existing tides. The disturbance issue has never been dismissed, it has been investigated through survey work and drawing on other research for disturbance issues with detailed assessments undertaken for each sensitive species. The increase of 20-25% of all tides is a worst case as it assumes that disturbance by large vessels also occurs at night when visual disturbance would be much lower.</p> <p>There is not anticipated to be a significant increase in the number of pilot boats as the pilot boat would be taking out more pilots to the waiting vessels rather than more pilot vessels. There may be infrequent times</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
			<p>when more pilots are needed for vessels awaiting passage up The Haven than can fit onto one pilot vessel, but this is not expected to happen very often (Port of Boston, <i>pers. comm.</i>) and therefore is not included in the increase in vessel numbers.</p>
<p>4.2 The Integrity Test – The Wash SPA and Ramsar site - Disturbance effects on bird species - general</p>	<p>4.2.40</p>	<p>NE considered [RR-021] that the Applicant's assumption that when redshank, oystercatcher, black-tailed godwit and shelduck leave the roost they are no longer disturbed was unsupported as there had been no monitoring of receiver roosts to understand disturbance risks and it could not be assumed that birds are able to occupy nearby alternate roosts or that they are not subject to additional energy depletion as a consequence of relocation. NE also considered that the characterisation by the Applicant of the anticipated increase in energy expenditure (from movement as a result of disturbance) as trivial for lapwing, golden plover and black-tailed godwit was an unsupported conclusion without supporting evidence that birds are easily able to compensate for the additional energy needed. The RSPB also raised concerns about the potential effects of energy depletion [RR-024].</p>	<p>The surveys noted how far the birds flew from their original roosting sites, many of which were only 150-250m away. Some species flew up to 800m to other roost sites within the wider 'mouth of The Haven' area, in particular to areas of mudflat that remained exposed on neap high tides which afforded birds greater distance and visibly less disturbance from vessels (A. Bentley (bird surveyor), <i>pers comm.</i>).</p> <p>These alternative sites were of visible primary preference to redshank, curlew, black-tailed godwit and golden plover which would naturally settle at these locations in retreat from the rising tide while foraging. In summary, most roost sites to which birds flew were in continuous view of the Tabbs Head hide vantage point.</p> <p>A relatively few groups of birds flew further from The Haven and were not possible to continue monitoring. The surveys would have in most cases detected if the birds had been re-disturbed from the closer roosts and it appeared that once birds had been disturbed initially, they were not re-disturbed from the alternative roosts. The fact that the birds currently utilise these alternative sites for the 75-80% of current tides when they are disturbed by the baseline vessel traffic would strongly imply that the alternative roost sites are providing adequate alternatives.</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
			<p>Additionally, the large commercial vessels (which have historically used The Haven at much greater volumes than now) have been using The Haven, with the birds, since before the designation of the SPA.</p> <p>The energy usage for lapwing and ringed plover has never been described by the Applicant as 'trivial'. Energy usage due to additional flights was particularly important for the two species (lapwing and golden plover, neither being qualifying features in their own right but forming part of the overall waterbird assemblage) that return to the same roost site following disturbance. The additional energy usage was calculated to be approximately 0.39% to 0.51% of their daily energy intake requirements per additional disturbance flight. Further investigation on energy usage was provided in the Marine and Coastal Ecology and Appendix 17.1 HRA update (document reference 9.59, REP5-006).</p>
<p>4.2 The Integrity Test – The Wash SPA and Ramsar site - Disturbance effects on bird species - general</p>	<p>4.2.45</p>	<p>In their initial comments on the Ornithology Addendum [REP2-053], the RSPB considered that waterbirds could be disturbed and displaced by vessel movements along the whole of The Haven and along the navigation channel out to the Port of Boston anchorage area, in addition to the application site and the MOTH. They noted that no site-specific survey data had been collected for these areas and considered it was required to inform the assessment of effects on the qualifying features of the SPA and Ramsar site. They considered that 2 years minimum of survey work was needed in order to cover all seasons and to account for annual variations. They were of the view that insufficient data had been presented to provide</p>	<p>The SPA's qualifying interests (according to the site citation) are the wintering numbers of birds. Two years' worth of data has been provided for overwintering, breeding and spring passage bird numbers and for disturbance responses at the mouth of The Haven.</p> <p>As expected, numbers were highest during the overwintering period which is therefore considered to be the worst-case scenario for disturbance impacts.</p> <p>The impact of baseline levels of recreational activities is not relevant to the assessment but is considered in the selection of potential compensation sites. The recreational activities are not expected to change as a result of the proposed facility and there were no known</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		<p>an understanding of the abundance and distribution of, and impact of recreational activities and other plans and projects, on the SPA and Ramsar site qualifying features that use the area along the whole of the navigation channel throughout the year.</p>	<p>proposed plans or projects that were considered to result in a significant in-combination effect that would affect recreational activity. The England Coastal Path for the area has been assessed in terms of potential for significant effect on features of the SPA by NE (Natural England, 2018. Appraisal of possible environmental impacts of proposals for England Coast Path; and Sutton Bridge to Skegness NE's Report to the SoS) and there were no sensitive areas identified for birds along the stretch of The Haven.</p> <p>Data submitted at Deadline 8 provides a summary of data collected for the areas along The Haven between the Principal Application Site and the mouth of The Haven (document reference 9.91, REP8-018).</p>
<p>4.2 The Integrity Test - The Wash SPA and Ramsar site - Disturbance to birds at the MOTH</p>	<p>4.2.56</p>	<p>NE stated at D2 [REP2-045] that it was agreed that the risk at the MOTH was to roosting birds subject to disturbance by increased vessel traffic, and that this could result in species being displaced from roosts to alternative sites and individuals of some species being subject to repeated disturbance because they do not relocate. They noted that Appendix A1 Table 2 of the Ornithology Addendum indicated that, of the SPA waterfowl assemblage, some 29,395 birds of at least 22 species are at risk of exposure to disturbance, with 20,208 birds of 22 species in the most sensitive area. Disturbance at high tide would increase from approximately 75-80% to 100% for those species that relocate in response to large vessel disturbance events, and for those species that return to the roosts and are subject to repeated disturbance the number of events per annum would rise from the current baseline of 840 to approximately 1160. NE noted</p>	<p>Table 2 in Appendix A1 of the ornithology update (REP1-026) details bird counts of different species and provides a maximum count for each species. This is not suggesting that these maximums would ever occur at the same time just that over time the roost site has supported this number of individuals.</p> <p>The response of the birds to the disturbance events is that the majority of species (excepting lapwing and golden plover) fly off to alternative roost locations due to baseline conditions. It is expected that this behavioural response would continue to occur with the increase of 1.6 vessels a day (on average).</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		that the majority of disturbed individuals abandon the roosts in response to vessel passage and do not return for the rest of the high tide period. They considered therefore that the site's conservation objectives could be affected in respect of birds' individual fitness as a consequence of increased energy expenditure, and in relation to the distribution objective as a consequence of the loss (as a result of disturbance events occurring on 100% of tides) of a significant roost (at the MOTH).	
4.2 The Integrity Test - The Wash SPA and Ramsar site - Disturbance to birds at the MOTH	4.2.58	NE considered [REP2-045] that the risk of an AEoI was considered without reference to the objectives (maintain vs restore) of individual species, or their individual energy balances, and that the permanent loss of the MOTH roost area was not considered. They also noted that while consideration had been given to impacts on a number of individual species which are SPA site features no assessment had been made of the non-breeding waterfowl assemblage as a feature in its own right.	The Applicant is of the opinion that there would not be permanent loss of the roost at the Mouth of the Estuary (MOTH) as there are alternative roost locations that the birds use on a regular basis already whilst also returning to the original roost with 75-80% of the tides affected already by large commercial vessels. However, the compensation site selection has assumed loss of the roost site as a worst case scenario (albeit this is not considered to be a likely scenario). The waterbird assemblage has been considered further in the ES Chapter 17 Marine and Coastal Ecology and Appendix 17.1 HRA Ornithology Update (document reference 9.59, REP5-006).
4.2 The Integrity Test - The Wash SPA and Ramsar site - Disturbance to birds at the MOTH	4.2.64	The Applicant submitted an additional survey report [REP6-032] at D6 in respect of changes in waterbird behaviour due to vessel movements at the MOTH (although it includes information on bird movements at the wharf site). Five surveys were undertaken between January and November 2021, so included the Autumn migratory period. The survey area is depicted on Figure 1. The survey recorded the	The report submitted at Deadline 6 was the 'Change in Waterbird Behaviour Due to River Traffic at the Mouth of The Haven and Haven River, Boston, Lincolnshire' (document reference 9.71, REP6-034). There were 16 surveys in total for this study between January and November 2021, including the surveys in the autumn passage period.

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		<p>vessel types, all bird species that changed their behaviour due to the presence and or wash of river traffic, flight distances where birds were displaced, and flight time of birds that returned to their original location.</p>	<p>The comment made in paragraph 4.2.65 of the RIES Report states that “100% of the birds present were disturbed by the large cargo ships” has been taken out of context. The report is summarising the survey data over the 11-month survey period and was saying that “During the surveys of the Wharf site in May, June and July few birds were present at the location, from what I witnessed high percentages of birds located at the site showed changes in behaviour when interacting with large cargo ships (see account on 30th June, page 10) where 100% of birds present at the site showed changes in behaviour. Other boats weren't causing changes in behaviour to a high percentage of birds present on the site.” During the summer season the overwintering birds are not present and there were a lot of gulls present in the area. The account on the 30th of June involved a large cargo ship travelling up The Haven. Changes in behaviour occurred in the following species; 12 black-headed gull, 2 cormorant and 1 little egret. These were all of the birds present on this specific occasion and is the reason why there is reference here to 100% of the birds present showing changes in behaviour.</p> <p>Where the RIES Report states that (paragraph 4.2.65) “The report recommended that the main focus on mitigation should be for disturbance to wading birds, dark-bellied brent goose and ruff.” the Change in Waterbird Behaviour report's recommendation was actually that “If any mitigation should go ahead, the main focus should be on wading birds and Dark-bellied Brent Geese. For Dark-bellied Brent Geese, freshwater habitat would be ideal for bathing and drinking. The waders will benefit from any freshwater habitat creation</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
			<p><i>too. With reference to wading species, the focus should be on roosting habitat with the opportunity for feeding too. With changes in Ruff behaviour equating to 65.22% of The Wash population at the proposed wharf site, any mitigation should factor in some Ruff roosting/feeding habitat.” (document reference 9.71, REP6-034).</i></p>
<p>4.2 The Integrity Test - The Wash SPA and Ramsar site - Disturbance to birds at the application site</p>	<p>4.2.84</p>	<p>It was concluded that the additional vessel disturbance resulting from the Proposed Development would not compromise The Wash SPA conservation objectives for redshank. This was based on a number of premises. Redshank are absent from the application site area in spring and summer, and it was considered that those likely to show a disturbance response in winter form only a small proportion (on average 1.1%, largest event witnessed 2.8%) of the SPA population. It was thought that they were habituated to vessel disturbance. They would have access to additional alternative local roost locations created through the habitat loss offset measures by the time of the increase in vessel numbers resulting from construction and operation. The number of redshank at risk of disturbance from the predicted additional vessel movements was anticipated to be the same as that under baseline conditions. The great majority of the birds affected were thought to be roosting birds as vessel movements are restricted to high water; therefore the additional disturbance was not anticipated to materially affect foraging time and energy intake and expenditure rates. The birds affected by additional vessel disturbance were not likely to be exposed to a materially higher predation risk, as the range and</p>	<p>In addition, subsequent analysis of data in ES Chapter 17 Marine and Coastal Ecology and Appendix 17.1 HRA Update (document reference 9.59, REP5-006) has shown that the Application Area does not meet the criteria to qualify as functionally linked land. Notwithstanding this, the Applicant stands by the provision of the Habitat Mitigation Area and the Biodiversity Net Gain measures that would provide benefit for habitat and species in the local area, despite Biodiversity Net Gain not being a statutory requirement.</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		density of potential predators at the alternative roost locations within 1km of the roost site adjacent to the application site were unlikely to be materially different, and the additional time spent in flight (when individuals may be more vulnerable to birds of prey) was anticipated to be very small.	
4.2 The Integrity Test - The Wash SPA and Ramsar site - Disturbance to birds along The Haven	4.2.96	<p>The Wash SPA and Ramsar site - Disturbance to birds along The Haven</p> <p>NE stated (post-D4) that the data collected for the assessment of the wider Haven area was insufficient to provide certainty of the potential effectiveness of any mitigation measures proposed along The Haven, for either land or water-based disturbance from existing activities and/or potential for indirect changes from increased erosion due to the presence of the wharf and/or increased boat traffic [AS-002]. They considered that the suitability of ornithological mitigation would need to be resolved, including the long-term management of mitigation areas, before any construction activities could commence. They advised that, in the event that the DCO was granted, a full set of pre-construction survey data covering a minimum of 12 months would be required to inform the discharge of any mitigation plan prior to the commencement of construction to ensure it remained fit for purpose for the lifetime of the Proposed Development.</p>	It is unclear to what the requirement for 12 months pre-construction survey data refers. For the Habitat Mitigation Area, the bird surveys have already been undertaken and have informed the development of the Habitat Mitigation Area. Surveys for vegetation interest prior to construction are included within the Outline Landscape and Ecological Mitigation Strategy (document reference 7.4(2), REP7-037). Further surveys of birds would be undertaken once the mitigation is in place in this area to ensure that it is delivering the expected benefit but the justification and rationale for any further surveys prior to the works being undertaken, if alluding to this area, is not clear. Further pre-construction surveys in the areas where the proposed 'without prejudice' compensation sites are located is understood and the objective is clear for these areas.
4.2 The Integrity Test - The Wash SPA and Ramsar site -	4.2.99	The Applicant addressed the concerns about impacts on birds using The Haven between the application site and the MOTH, 'the central part' of The Haven, at D5 [REP5-006]. It explained that as data for this stretch of The Haven was not available	The intermediate area of The Haven comprises very narrow intertidal habitats adjacent to the area where vessels would traverse. Previous assessments of potentially sensitive areas in this area, for example, for the England Coast Path (Natural England, 2018

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
Disturbance to birds along The Haven		it was undertaking Winter 2021/2022 counts of SPA and assemblage waterbirds. It stated that in the absence of information on whether SPA populations would be impacted it had assumed that this stretch of The Haven qualified as SPA functionally linked land. It concluded that the proposed biodiversity BNG/compensation measures would provide alternative habitat for any birds that were displaced by any additional disturbance. It confirmed that the winter bird abundance and distribution surveys were being undertaken from December 2021 to March 2022 and the data would be made available during late March 2022. It acknowledged in REP5-008 that there was a lack of data for this area and highlighted that it was not included in the WeBS counts.	Appraisal of Possible Environmental Impacts of Proposals for England Coast Path) have not identified any specific sensitive areas for birds away from the main designated sites and RSPB reserves, other than arable fields which are far enough away from the potential area of disturbance by vessels. There are also no WeBS count sectors in this area which also indicates that it is not a key area for birds.
4.2 The Integrity Test – Habitat Mitigation Area	4.2.101 and 4.2.102	NE raised [RR-021] a number of other concerns, including that the area proposed as mitigation for effects on redshank which are part of the SPA population (the HMA), involving the addition of coastal lagoons to existing areas of saltmarsh, would constitute a compensation rather than a mitigation measure. In addition, as they considered that the Proposed Development would result in an AEoI of the European sites, they advised that compensation measures would need to be considered as part of a derogation case once the alternatives and imperative reasons of overriding public interest (IROPI) tests had been met. They advised, in Appendix G of their RR, that the Court of Justice of the European Union (CJEU) had held that the loss of SPA habitat cannot be mitigated for by “not reducing the total SPA habitat or enhancing it” and that instead compensatory measures should be considered. They considered that the required BNG	The mitigation proposed as part of the project works is to re-use the existing rocks that provide roosting habitat and move them along the intertidal area out of Area A and into Area B which is adjacent. This reduces the level of impact. NE comments, as summarised in the RIES Report in paragraph 4.2.101, describe the measure as compensation but in the RIES Report paragraph 4.2.102 it states, “ <i>they also expressed concerns about the effectiveness of the proposed HMA for providing sufficient mitigation for effects on qualifying features of the European sites, and also about the assessment of effects arising from its construction and existence.</i> ” Throughout the process both terms have been used interchangeably by NE respondents. The Applicant considers that the works represent mitigation as they are relocating existing artificial structures into the same overall roosting area to continue their use as roosting habitat and enhancing existing habitat in the roosting area.

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		<p>proposals that had been proposed would address the loss of priority saltmarsh habitat but may not provide the required compensatory habitat for roosting and foraging redshank, and conversely that the proposed redshank compensation measures may result in further loss of saltmarsh habitat depending on their location.</p> <p>NE expressed concern that the required works for the Habitat Mitigation Area, such as reprofiling of some low banks and flattening/removal of an "old bank", could also affect the surrounding saltmarsh, which is functionally linked to The Wash SPA habitat, and therefore could affect the SPA species. They raised concerns about the resulting loss of saltmarsh in the HMA from the creation of the pools/scrapes in addition to the 1ha lost due to construction of the wharf and berth. They also expressed concerns about the effectiveness of the proposed HMA for providing sufficient mitigation for effects on qualifying features of the European sites, and also about the assessment of effects arising from its construction and existence. They considered that the description in the HRAR of the proposed works to compensate for loss of habitat important to redshank was insufficient to provide confidence that it would deliver the necessary compensation at the scale required.</p>	<p>In addition, within NE's Appendix B5 – Comments on Without Prejudice HRA Derogation Case – Compensation Measures Document (REP8-023), in row 7 of the detailed comments, reference number 2.1.4, they have a comment relating to the compensation net gain works. Within the comment it states, "No Net Gain has been proposed and the identified Site B works would be <u>mitigation not compensation</u>."</p> <p>Net gain has been proposed as is detailed in the OLEMS document (document reference 7.4(2), REP7-037) but the comment underlines that the identified Site B works would be mitigation not compensation.</p>
<p>4.2 The Integrity Test – Habitat Mitigation Area</p>	<p>4.2.109</p>	<p>NE noted [RR-021] that the loss of feeding grounds for 14-27 redshank has not been compensated for, and as a species that is site loyal in winter there was no evidence to support the assumption that they would relocate to adjacent areas. They noted that it was unclear whether The Haven is at capacity</p>	<p>The loss of foraging habitat is a very small area of intertidal mudflat. The same habitat exists all along The Haven and provides enough habitat for the 14 to 27 redshank that were referenced in paragraph 4.2.109 of the RIES Report. The habitat mitigation also provides additional foraging habitat through habitat</p>

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		for its redshank population, and that as a functionally linked population this impact would have a bearing on the Wash population, albeit a relatively small part of the wider population and relatively distant from the SPA. They considered that it may, or may not be, of low risk to integrity and that the Proposed Development should aim to compensate for this loss to mitigate impacts on the SPA.	enhancement of the saltmarsh ponds that are overgrown. Again, the terminology in NE's Relevant Representation (RR-021), which is referenced in paragraph 4.2.109 of the RIES Report is confusing by saying that the " <i>Proposed Development should aim to compensate for this loss to mitigate impacts on the SPA</i> ".
4.2 The Integrity Test – Habitat Mitigation Area	4.2.111	The Applicant also stated that recent analysis of the Ornithology Addendum had raised questions about whether the redshank at the application site were all part of the SPA assemblage and that although there was likely to be some mixing of populations the extent was unknown. It agreed that the distance between The Wash SPA boundary and the application site, combined with individual redshanks' winter site fidelity once a successful daily and seasonal strategy has been established, meant that redshanks present at the application site during high tide roosting could include individuals which foraged within the SPA, and conversely that redshanks foraging at the application site when mudflats are exposed could include individuals which roosted within the SPA. The Applicant stated that on this basis it had assumed in the HRA and the Ornithology Addendum that redshanks present at the application site have connectivity with the SPA.	Further analysis of the areas along The Haven with reference to the SPA and criteria for definition of functional connectivity (as reported in the ES Chapter 17 Marine and Coastal Ecology and Appendix 17.1 HRA Ornithology Update (document reference 9.59, REP5-006)) showed that the areas were not considered to be connected habitat according to the definitions provided within the above document.
4.2 The Integrity Test – Habitat	4.2.117	In their comments [REP5-017] on the updated OLEMS, NE raised concerns in relation to the HMA works that the proposals to decrease the gradient of one bank and flatten/remove the old bank could	The concerns raised by NE regarding the proposals for decreasing the gradient of the bank and removing the old bank have been addressed. The detailed design for these areas is not yet finalised and, as discussed in the

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
Mitigation Area		increase visual and noise disturbance arising from the footpath and The Haven to the birds using the saltmarsh in the HMA. They requested that further details of the works were provided, including on the methods to be used and the volume of material to be removed. They also noted that the frequency of the proposed post-construction surveys was unclear.	updated OLEMS document (document reference 7.4, REP7-037) " <i>The plans for the works would be developed to provide optimal benefits for biodiversity, in discussion with NE, the Environment Agency and the RSPB.</i> " This is to ensure that any works are undertaken with the objective of improving the area for birds and other wildlife and to ensure that no works would be undertaken that would have an adverse effect.
4.2 The Integrity Test – Habitat Mitigation Area	4.2.118	The RSPB remained concerned at D5 that the HMA [REP5-019] was described as mitigation rather than compensation. They stated that they would be unable to agree the SoCG if this did not change.	Throughout the process both terms (mitigation and compensation) have been used by NE to describe this area. The Applicant considers that the works should be mitigation as they are relocating existing artificial structures into the same overall roosting area to continue their use as roosting habitat and enhancing existing habitat in the roosting area.
4.2 The Integrity Test – The Wash SAC - Harbour seals – collision risk	4.2.134	The Applicant reiterated its arguments at D4 in respect of vessel speed as set out at ISH2 and in REP3-023 [REP4-014]. It explained at D5 [REP5-004] that the Port of Boston had stated that they would not agree to a speed limit within The Haven that compromised vessel safety. Therefore, vessels associated with the Proposed Development would have to conform to current practice in the Haven and adhere to a maximum speed limit of 6 knots.	Following consultation with the Port of Boston, additional information has been received on vessel speed limits within The Haven. While there is currently a general advisory speed limit of 6 knots along The Haven, it is not subject to enforcement by any party. An enforced speed limit is inconsistent with current safe practice and could restrict the number of vessels able to transit to the Port each tide (i.e. it could increase the transit time, reducing the number of vessels able to transit each tide, and significantly increase the number of vessels within the anchorage area). The implications of this change to harbour seal are provided within the updated OMMMP at Deadline 7 (Outline Marine Mammal Mitigation Protocol (OMMMP) (document reference 9.12 (2), REP7-003)).

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
4.2 The Integrity Test – The Wash SAC - Harbour seals – collision risk	4.2.135	The RSPB considered that this reinforced the need for compensation measures to address the impacts of vessel speeds as it was not possible for them to be adjusted to provide mitigation [REP6-041].	Applicant consultation with RSPB 08 Feb 2021, reported within the HRA (document reference 6.4.18, APP-111), noted that “the proximity of larger vessels [exerts] the impact rather than ship wash. Therefore slowing vessels down might not be a useful measure and may not be possible due to minimum speeds required.” The Applicant recognises the prevalence of visual impact in bird disturbance data compared to wave wash and concludes that in-principle compensation measures that provide refuge from visual disturbance are likely to be most effective.
4.2 The Integrity Test – The Wash SAC - Harbour seals – impacts within the anchorage area	4.2.145	In response the Applicant stated [REP4-014] that an extensive review of the literature on harbour seal and vessel co-existence had not found any evidence to support seals being attracted to vessels specifically within The Wash and asked NE to provide any such reports/papers to inform any further response. It noted that it was plausible that the seals could be attracted to vessels with the potential to provide a food source but explained that this would not apply to cargo vessels.	In addition, as discussed in the Comments on Interested Parties Responses to the Examiners Questions (response in Table 1-9 regarding anchoring (document reference 9.85, REP8-014)) the need for anchoring with vessels using the Facility is reduced compared with other large vessels. This stated that “ <i>Ships anchor in The Wash on arrival when their time of arrival does not coincide with the tidal window to allow transit to a berth. Similarly, vessels may wait at anchor on departure when their time of departure may not suit arrival at their next port, or weather necessitates this for safety and navigation reasons. Given the nature of the operation of the BAEF vessels (which will be steady state operations at loading and unloading) the vessel movements will comprise a more predictable service which should require significantly less time at anchor than shipments that arrive on a spot basis. It is in the interest of BAEF to not have vessels at anchor so this will be managed to keep anchoring at a minimum by routinely matching arrival times with tidal windows (by adjustments of transit speed from the port of departure or adjustments of departure time from that port).</i> ”

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
			<i>Weather would also be a factor in this, but it is likely that the frequency of BAEF vessels anchoring would be less than current commercial shipping."</i>
The Wash SAC - The Wash SAC - Harbour seals - disturbance	4.2.163	The Applicant stated [REP4-014] that piling (from June to September) would only take place in the daytime, from 7am – 7pm or 8am – 8pm, for up to 83.5 days in total. It explained that the limitations of using PAM, especially for seals, had been considered and that it had been included in the OMMMP on a precautionary basis and was unlikely to be relied upon. Where possible, piling would not be undertaken during periods of poor visibility or at night, when MMOBs are unable to monitor the area. In the updated OMMMP [REP6-021] the unsuitability of PAM had been acknowledged and the reference to its use had been removed.	While there is the potential for a small number of seals to be present within The Haven, the core haul-out sites are located within The Wash only, and only the sites within The Wash are used for breeding, pupping, and rearing pups. The closest haul-out site to the Facility (where piling will take place) is at least 8km from the Facility.
The Wash SAC - Worst case scenarios and in combination effects	4.2.176	The Applicant acknowledged that night-time observations on baseline vessel disturbance were desirable but pointed to the practical difficulties of observing birds during the hours of darkness [REP2-006]. It confirmed that the assessment assumed that night-time disturbance was similar to that during the daytime.	Inclusion of night time disturbance is a worst-case scenario that was included for the assessment. There is potential that the birds are not so disturbed during hours of darkness, but this has not been factored in to the assessment as it was not confirmed.
5. Alternatives, IROPI and Compensation - Overview	5.0.4	At the ISH on 24 November 2021 NE expressed an initial view that the information provided on alternatives and compensation appeared to be high level and did not provide enough detail or certainty to give confidence that an AEoI could be offset [REP3-030]. NE acknowledged that the Applicant was continuing to investigate and explore options to refine the compensation measures and assumed	The Applicant considers that the context of the comment from NE was in relation to the compensation measures rather than alternatives as noted in REP3-030. NE's comments on alternatives are noted within REP3-031.

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
		that the Applicant was aware that more detail was required.	
5. Alternatives, IROPI and Compensation – Assessment of Alternatives	5.0.14	The RSPB questioned whether the long list of alternatives captured all potential alternative options and took the view that the Applicant should consider national alternative locations [REP4-028]. They considered that a more detailed evaluation of potential sites and solutions should be provided that clearly identified why there were no other locations or solutions that could meet the objectives for the Proposed Development as set out in Table 5-1 of the Applicant's assessment of alternatives [REP2-011]. They confirmed that the comments made in their WR and their initial comments on the Ornithology Addendum set out their concerns with the Applicant's assessment, data gaps and the reasons why they considered that an AEoI of the SPA and Ramsar site could not be ruled out beyond reasonable scientific doubt.	In order to address RSPB's comments within REP4-028, the Applicant provided a Without Prejudice 'In-Principle' Alternative Locations Case at Deadline 8 (document reference 9.86, REP8-015). Within this report it is explained at paragraph 1.1.6 that <i>"the Applicant presents a without prejudice 'in-principle' case that concurs that objectives 4 and 5 (skills benefits and employment opportunities) are potentially deliverable nationwide and therefore, the option of alternative locations is screened in at Step 3 for meeting the project need and objectives"</i> . This report provides an assessment of potential alternative locations throughout the East Midlands, East of England, London and the South East, in proximity to available national grid connection locations. Four short listed potentially feasible sites are presented; however, it is considered that they would not have a lesser effect on the national site network (and/or Ramsar sites) compared to the development of the Facility. Therefore, the option of alternative locations is ruled out as a potential alternative solution to the proposed Facility.
5. Alternatives, IROPI and Compensation – Assessment of Alternatives	5.0.15	The Applicant stated [REP6-029] at D6 that its position on alternatives remained unchanged from that set out in REP2-011 but that it would provide an update at D7 to address the RSPB's concerns.	
5. Alternatives, IROPI and Compensation -	5.0.35	NE stated post-D4 [AS-002] that their position that an AEoI of the SPA could not be ruled out was unlikely to change. This was because of the proposed additional number of vessel movements which would be adjacent to known roost sites for birds which are known to: either be disturbed and	When birds are being displaced following disturbance, their movements are not necessarily affecting the distribution other than in a highly localised area. Most of the movements were only small distances (below 250m). The birds are likely to have been undertaking such movements (and also those that remain on site

Section within RIES	Paragraph	The Examining Authority's Comments	Applicant's Comments
Compensation measures		leave but not return (therefore not maintaining the distribution of species within the SPA as required by the conservation objectives); or be repeatedly disturbed and return, resulting in potential impacts to energy budgets (which could affect abundance within the SPA in the long term). They also considered that although the focus of the compensation discussion had been on redshank, there were potentially 24 SPA species/assemblage features exposed to the same risk at the MOTH, which would be likely to require similar compensation.	following disturbance) since large vessels began using The Haven.
5. Alternatives, IROPI and Compensation - Compensation measures	5.0.37	NE advised that as there were uncertainties about the scale of impacts and deliverability of compensation, a higher ratio of compensation was required [AS-002]. They advised that options for like for like roost creation within the SPA should be the first consideration within the compensation hierarchy, however they noted that this was likely to be to the detriment of features of the SAC, the boundary of which overlaps with the SPA, and that therefore, further compensation may be required.	<p>Like for like compensation was considered but it was not possible to provide an intertidal site that would not be within the SPA and SAC and also not within a disturbance distance of the vessels. The Applicant has therefore sought compensation sites adjacent to The Haven, but behind the seawall and therefore outside of the disturbance area to provide compensatory habitat should it be needed. The compensation has been planned to provide a greater scale of habitat to ensure that the compensatory measures are sufficient.</p> <p>Should a decision be made that AEoI cannot be excluded, it would be necessary to understand the existing contribution of baseline vessel movements to the overall disturbance effect and consequently the nature, scale and apportionment of compensatory measures.</p>