

REPORT

Boston Alternative Energy Facility

Applicant's Response to Comments Raised by Natural
England and the RSPB

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1 Introduction

1.1.1 This document is submitted in response to the letter issued by the Department for Business, Energy & Industrial Strategy (BEIS) on behalf of the Secretary of State (SoS) dated 10 January 2023 (“the January BEIS letter”) with regards to the Boston Alternative Energy Facility (the Facility). Paragraph 6 of the January BEIS letter invites the Applicant to respond to the comments raised by Natural England and the Royal Society for the Protection of Birds (RSPB) during the second consultation response.

1.1.2 The Applicant’s responses to questions enquired by Natural England and the RSPB are provided separately within **Section 2.1** and **Section 0** respectively.

1.2 Further Engagement with Natural England

1.2.1 Natural England in Appendix A of its response to the second post Examination consultation (EN010095-001401-NE-Updated-Harbour-Seal-Advice-to-SoS-Dec-2022.pdf, published 09/12/2022) stated that “*Natural England advises that there is an LSE that requires avoidance, reduction, mitigation. We do not believe that the mitigation is fully in place. We advise that with appropriate mitigation AEoI can be avoided.*”

1.2.2 Correspondence with Natural England following the issuing of the January BEIS letter has provided further detail on its perspective of the potential for effects on harbour seals. Natural England has stated in an email to the Applicant, dated 13 February 2023, (included below) that “*From Natural England perspective it has always been about strengthening your mitigation measures to avoid an adverse effect on integrity. We therefore did not identify the need for a derogations case for Annex I harbour seals. This position hasn’t changed, therefore in order to help the project progress we have identified the key mitigation measures below that would go a long way to allaying our concerns*”. Following this, Natural England suggested additional mitigation measures.

1.2.3 Within the email correspondence from Natural England on 13 February 2023, Natural England set out suggested additional mitigation measures which have been discussed in **Table 2-2** below. The Applicant responded to Natural England via email on 17 February 2023 and provided a technical report addressing Natural England’s suggested mitigation measures. **Table 2-2** below provides those responses that were included in the report to Natural England and sets out the mitigation measures that were outlined in the previous version of the Outline Marine Mammal Mitigation Protocol (MMMP) (document reference 9.12(2),

REP7-003), and the measures that were subsequently suggested by Natural England as part of their response on 13 February 2023. It then sets out which measures the Applicant has agreed to include as additional mitigation to address Natural England's concerns and these have been included in an updated tracked change and clean version of the Outline MMMP submitted at the same deadline as this report (document reference 9.12(3)). While the Applicant considers these additional measures are not required to reduce impacts to an acceptable level, they have been included on a precautionary basis to address Natural England's concerns.

2 The Applicant's Responses

2.1 Natural England

2.1.1 **Table 2-1** provides responses to Natural England's updated advice on harbour seals dated 8th December 2022, which was prepared in response to the Applicant's response to the Secretary of State's letter of 14th October 2022.

Table 2-1 Responses to Natural England's Updated Advice on Harbour Seals

No.	Section	Comment	The Applicant's Response
Summary			
1.		<p>While Natural England recognises the wider ecological benefits of reducing vessels speeds i.e. reducing vessel wash; this alone is unlikely to provide sufficient mitigation measures for all of the potential impacts to marine mammals to be sufficiently reduced. With concerns also remaining in relation to under water noise. Thereby, Natural England's advice remains unchanged from that provided into examination.</p> <p>Should the Secretary of State be minded to grant consent for the proposal then there need to be assurance that <u>appropriate</u> mitigation measures will can be put in place that will provide sufficient reassurance that impacts to SAC features can be reduced to avoid an AEol.</p>	<p>Noted, further consultation has been carried out with Natural England via E-Mail during February 2023 which has resulted in additional mitigation measures being proposed, which are detailed in Table 2-2. These measures have been included in an updated Outline MMMP (document reference 9.12(3)) submitted at the same deadline as this report.</p>
2.3 Response to Question 3.2 – Clarification on the Harbour Seal Assessment and Requirement for an Updated Assessment			
2.	General	Natural England concerns with the ES remain unchanged.	<p>Noted, however the Applicant has provided additional measures to alleviate Natural England's concerns. These measures are in accordance with further consultation with Natural England as provided in Table 2-2, and as provided in the updated Outline MMMP (document reference 9.12(3)) and the Without Prejudice Compensation Case for The Wash</p>

No.	Section	Comment	The Applicant's Response
			and North Norfolk SAC for Harbour Seals (document reference 9.110).
2.4 Response to Question 3.2 – Without-Prejudice Additional Mitigation Measures and / or Enhancements			
3.	2.4.2	Natural England comments during examination predominantly related to the contents of the Outline Marine Mammal Mitigation Plan and the ability of the proposals to provide effective and sufficient mitigation for uncertain impacts where more precaution is required due to limited supporting evidence. For which the onus is on the Applicant to demonstrate and we are now at a place where we agree to disagree with the Applicant. We also highlight that there is still a risk from underwater noise impact from piling that hasn't been fully addressed.	This is noted and the Applicant has provided additional measures to alleviate Natural England's concerns. These measures are in line with further consultation with Natural England as provided in Table 2-2 , and as provided in the updated Outline MMMP (document reference 9.12(3)).
4.	2.4.5	Natural England emphasises the purpose of the OMMMP as set out above.	Noted. This document has been updated as referenced above.
5.	2.4.6	Natural England understands that the vessel speed reduction to 10 knots for an unknown proportion of the vessels transiting down The Haven, is a suggestion to reduce risks to Harbour seals allowing more leeway with development associated impacts. While this is helpful and would have wider environmental benefits from reduced wash; we advise that there is only limited evidence presented to demonstrate that 10 knots is sufficient to mitigate boat disturbance/collision.	Noted and see response Row 7 below for response on speed of vessels. It is also important to note that the vessels are under the jurisdiction of the Port of Boston from the Anchorage area and within The Haven. The updated vessel speed restrictions are provided within the updated Outline MMMP (document reference 9.12(3)).
2.5 Response to Question 3.3 – Effectiveness of Marine Mammal Observers			
6.	General	Natural England highlights that there are still outstanding concerns in relation to the effective use of MMO to mitigate underwater noise impacts from piling.	Noted. The Applicant's responses to Natural England's suggested mitigation measures are provided in Table 2-2 below.
7.	2.5.2	While Natural England welcomes clarification that <u>piloted</u> vessels will maintain a speed below 10 knots; it remains unclear a) how many of the additional vessel movements associated with the development this mitigation will apply to and b) no evidence has been provided to demonstrate that a 10 knots restriction on some of the vessels will sufficiently reduce the disturbance/impact to seals from ecological perspective.	All vessels from the Facility will be piloted. The vessel speed limit of 10 knots will therefore apply to all vessels (under the provisions as provided in the Applicant's Response to Secretary of State's Letter of 14 th October 2022 document (EN010095), within Section 2.4.)

No.	Section	Comment	The Applicant's Response
			<p>As acknowledged by Natural England in its e-mail correspondence dated 13 February 2023) (Appendix A), <i>'there is no evidence present to determine the most appropriate vessel speeds for any sensitive receptor; for marine mammals best practice would be a speed that enables adult and juvenile seals located within a shallow inlet and bay to move out of the way'</i>. The Applicant has restricted the vessel speeds as far as it is able to do (confirming the precise wording of what can be achieved with the Port of Boston as the Statutory Harbour Authority who manage all vessels in The Haven), and considers that the mitigation and management measures as set out in the Outline MMMP are sufficient to negate any potential collision risk to seals. However, the Applicant acknowledges the existing decrease in the harbour seal population in the area, and Natural England's concern regarding any effect to that population and has proposed additional measures as set out in Table 2-2 below, and the Without Prejudice Compensation Case for The Wash and North Norfolk SAC for Harbour Seals (document reference 9.110).</p>
8.	2.5.2	The Applicant has stated that <i>'Additionally, AUBP vessels will also follow the same vessel collision speed restrictions while transiting through The Wash, to the anchorage area.'</i> However, it would be good to quantify what this means. For Example, how many more vessels with the speed restriction apply too?	See the Applicant's response to Natural England's comment above (Row 7).
9.	2.5.3	The Applicant highlights that they are adopting best practice protocols rather than mitigation measures. However, whilst reducing vessel speeds is	The Applicant has put forward both mitigation and best practice measures, as well as without prejudice compensation / net gain measures to

No.	Section	Comment	The Applicant's Response
		welcomed due to wider ecological benefits, these are not currently recognised as best practice mitigation measures for Harbour Seal.	reduce the potential for effects on harbour seals. These are provided within the updated Outline MMMP (document reference 9.12(3)) and the Without Prejudice Compensation Case for The Wash and North Norfolk SAC for Harbour Seals (document reference 9.110).
10.	2.5.4	Natural England highlights that the OMMMP is yet to be agreed with Natural England.	As provided for in the Schedule 9, Condition 17 of the DML, and noted within the Outline MMMP, the final MMMP will be produced and finalised in consultation with Natural England, the Marine Management Organisation, and Lincolnshire Wildlife Trust, prior to the commencement of any licenced activity. This will be based upon the final piling design, as noted within the updated Outline MMMP (document reference 9.12(3)).
2.7 Response to Question 3.5 – Without-Prejudice Compensation Measures with Regard to Harbour Seals			
11.	2.7.4	While Natural England agrees that the decline in Harbour seal numbers is not likely to be as a result of vessel movements, the cumulative impacts to that ecological receptor from all the different pressures need to be considered and further negative pressures avoided, reduced, and mitigated.	Noted and the Applicant has committed to fund research into the potential reasons for the decline in harbour seals, as outlined within the Without Prejudice Compensation Case for The Wash and North Norfolk SAC for Harbour Seals (document reference 9.110). This funding would be provided as marine net gain should the Secretary of State determine compensation measures are not necessary for harbour seal.
12.	2.7.5	Natural England doesn't agree that a sufficiently precautionary approach has been taken and is in doubt over the effectiveness of the proposals to avoid, reduce and mitigate impacts.	Noted. The Applicant has put forward additional measures in line with what has been discussed through ongoing correspondence with Natural England (see Table 2-2 and Appendix A) and within the Without Prejudice Compensation

No.	Section	Comment	The Applicant's Response
			Case for The Wash and North Norfolk SAC for Harbour Seals (document reference 9.110).
13.	2.7.6	As set out during examination it is difficult for a none-dedicated and trained MMO to observe seals which spend a large proportion of their time under water. We would welcome the Applicant's sharing the results of the questionnaires as we believe that it is unlikely the Pilots who have filled in the questionnaires have been acting as dedicated trained MMOs.	The results of the Pilot's questionnaire are provided in Appendix B . Natural England are correct in that the Pilots are not trained MMOs but they are in charge of moving vessels within the Boston Harbour Authority area safely, and awareness of what is in the water in the path and around a vessel is key to their role. They are therefore ideally placed to identify potential seal and wider marine mammal interactions in the absence of trained MMOs.
14.	2.7.7	As above how would they know there has been no collisions?	Noting that the Pilots are highly experienced and skilled senior seafarers, and as stated above, one of the Pilot's roles is to safely navigate a vessel through the Port of Boston Harbour Authority area, including The Haven. The Pilots must have the ability to recognise dangers in the water and visual acuity is a key part of their skillset. Whilst not trained in identifying marine mammals to species level or in specific marine mammal observer protocols the Pilots will have an excellent overview of any issues relating to objects in the water potentially affecting vessel safety including likely or confirmed marine mammal collisions.
Appendix A Responses with particular regard to concerns raised by Natural England in [REP10-036] and [REP10-038]			
15.	General	The point raised in the main body of the response are also relevant for sections of Annex A and therefore we have not raised them a second time.	Noted.
16.	Applicant's second point	Natural England advises that there is an LSE that requires avoidance, reduction, mitigation. We do not believe that the mitigation is fully in place.	Noted. Further correspondence with NE has provided additional mitigation measures which the applicant has taken on board as far as

No.	Section	Comment	The Applicant's Response
		We advise that with appropriate mitigation AEoI can be avoided. Also see previous points about vessel speeds remain.	possible within the constraints of other measures that have been applied for other sensitive receptors (as discussed within Table 2-2 and Appendix A , and within the Without Prejudice Compensation Case for The Wash and North Norfolk SAC for Harbour Seals (document reference 9.110).
17.	Applicants 4 point	Natural England notes that the approach to the EIA assessment is proposed to align with Offshore Windfarm NSIPs. This matrix approach has been used throughout ESs to date to support the assessment of the magnitude and significance of impacts. Natural England notes numerous instances where significance has been presented as a range (i.e., slight, or moderate, or large) and it is nearly always the lower value that has been taken forward. In the absence of evidence to support the use of the lower value in a range, Natural England's view is that the higher value should always be assessed in order to ensure that impacts on features are not incorrectly screened out of further assessment.	Throughout the EIA process, any predicted effects have been assessed on a worst-case basis. The screening process was consulted on early on in the EIA process and any issues with screening would have been highlighted at this point.
18.	Furthermore at 12 knots mitigation measures as presented by the Applicant couldn't be relied upon to suitably minimise impacts	Natural England advises that the SCANs surveys are undertaken by dedicated and trained MMO and different vessels to the operational activities associated with BAEP and therefore not comparable.	This information was provided as an example to demonstrate that other wide-scale surveys have detected marine mammals at vessel speeds similar to that of the Facility's vessels. It is noted that there are differences in the vessels themselves, though the example was included to respond to the question specifically on detecting marine mammals at similar vessel speeds.
19.		The relevance of the area-based approach and links to mitigation measures remains unclear. Natural England advises that mitigation measures and how that may reduce impacts is the requirement and the assessment of significance should take that into account.	Further mitigation measures have been proposed as discussed in Table 2-2 . The additional measures are discussed in the updated Outline MMMP (document reference 9.12(3)).

2.1.2 **Table 2-2** lists the mitigation measures that were provided within the previous version of the Outline MMMP (document reference 9.12(2), REP7-003), and the measures that were subsequently suggested by Natural England as part of its response on 13 February 2023. **Table 2-2** also provides the Applicant's response to the measures suggested by Natural England, as sent to Natural England on the 17 February, as well as Natural England's response provided to the Applicant on 6 March 2023.

Table 2-2 Responses to Natural England's Email Correspondence on 13 February 2023

Previously agreed mitigation measures for reducing potential for impact on harbour seals (piling mitigation measures as stated in Section 3.1 and 3.2 and vessel management measures Section 3.3 of the previously submitted Outline MMMP (document reference 9.12(2), REP7-003))	Suggestions from Natural England (letter dated 13 th February 2023)	Responses to suggestions and additional mitigation measures proposed (subsequently added to the Outline MMMP (document reference 9.12(3) where relevant)	Natural England's DAS advice 6th March 2023
<p>Piling would be undertaken between June and September only, to reduce the potential for impact to ecological receptors such as overwintering birds.</p> <p>Piling is only to be undertaken between 7am and 7pm, or 8am and 8pm.</p> <p><u>Pre-piling watch</u> for marine mammals, following the standard JNCC 'Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise' (JNCC Protocol)¹;</p> <ul style="list-style-type: none"> • For a period of at least 30 minutes prior to piling • To be undertaken by fully qualified and experienced Marine Mammal Observer (MMOb) • Pre-piling monitoring zone of 500m adapted due to nature of the site; <ul style="list-style-type: none"> ○ It may not be possible to see the entire monitoring zone from all piling locations (due to the bend in the river to the north), however, the minimum viewable distance would be at least 150m at all times, and the full 500m monitoring zone would be used wherever possible to 	<p>Commitment to pile at low water or if that is not possible undertake non-impact piling methods.</p>	<p><u>Piling at low water</u></p> <p>As stated within the <i>Applicant's Response to the Marine Management Organisation and Natural England's queries regarding Marine Mammals and Fish</i> (document reference 9.49, REP4-014), restricting the piling to around low water (in addition to the existing restrictions around day-time working and sensitive species), would require the piling period to be extended from the currently defined period. This would potentially introduce impacts to ornithological and fish receptors that are currently being avoided and therefore, it is not possible to commit to only piling at low tide.</p> <p>It is considered that the mitigation measures in the Outline MMMP (and set out in column 1) would reduce the risk to marine mammals</p>	<p>Natural England welcomes the piling being undertaken outside of the majority of the Annex I passage and overwintering period. However, we advise that to avoid disturbance to Annex 1 birds then installation work should occur between 15 May to 31 August to be consistent with Offshore windfarm conditions. However, we also note that the works are not directly within the Wash SPA. As the post breeding migratory period has greater number of birds we advise that the works undertaken between 1st May and 31st August.</p> <p>Natural England advises that the proposed 'piling watch' as set out remains unfit for purpose. To avoid and adverse effect on integrity and to be consistent with other sustainable development in other estuarine environments we advise</p>

¹ JNCC, 2010. Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise.

<p>Previously agreed mitigation measures for reducing potential for impact on harbour seals (piling mitigation measures as stated in Section 3.1 and 3.2 and vessel management measures Section 3.3 of the previously submitted Outline MMMP (document reference 9.12(2), REP7-003))</p>	<p>Suggestions from Natural England (letter dated 13th February 2023)</p>	<p>Responses to suggestions and additional mitigation measures proposed (subsequently added to the Outline MMMP (document reference 9.12(3) where relevant)</p>	<p>Natural England's DAS advice 6th March 2023</p>
<p>do so. As noted above, the maximum PTS range is 90m for cumulative exposure.</p> <p>If marine mammals are detected within the monitoring zone, the commencement of piling would be delayed until the marine mammal is outside of the monitoring zone for 20 minutes, and the full 30 minute pre-piling watch has been completed.</p> <p><u>Soft-start protocol</u></p> <p>Each piling event will commence with a hammer energy at as low as is reasonably practical, followed by a gradual ramp-up to full hammer energy.</p> <p>Due to the very short expected piling times of five minutes or 15 minutes per pile (dependent on pile type), the full soft-start procedure as stated within the JNCC Piling Protocol may not be possible. However, the piling, where possible, would commence with hammer energies as low as is reasonably practical, with a ramp-up to full hammer energy for as long a period as is possible.</p> <p>If a marine mammal enters the monitoring zone during the soft-start and ramp-up procedure, then, if possible, the piling energy will not increase until the marine mammal exits the monitoring zone. The soft-start procedure is only required where there has been no piling for the preceding 10 minutes (i.e. if piling continues at a new location within 10 minutes of a pile being installed, as is expected, then this soft-start and ramp-up protocol would not be required).</p> <p><u>Breaks in piling</u></p> <p>If piling activity is stopped for less than 10 minutes, the MMOb will check within the monitoring zone for any marine mammal presence before piling</p>		<p>during piling to an acceptably low level. However, in light of the request from Natural England alternative options are being investigated as outlined below:</p> <p><u>Alternative installation methods</u></p> <p>At present it is not possible to identify the pile installation methods, as further detailed design and site investigation is required. However, alternatives to impact piling will be seriously considered. Options that are currently being investigated include the following, although as noted above, it is currently not possible to identify which of these (if any) can be taken forward during construction;</p> <ul style="list-style-type: none"> • Sheet piles using press piling – often used for urban locations for minimal noise vibration • In detail design for column piles, such as squeeze piling • Hydrohammers <p>It should be noted that the wharf piling duration (4 months) is restricted to occur outside of the overwintering period for birds and is</p>	<p>that only none impact piling including (but not exclusively) vibration piling and or low tide piling as a condition of any permission as it has been demonstrated to be technically feasible for similar projects.</p> <p>If this were to be a condition, we have no objections from an ecological perspective for simultaneous piling being undertaken</p> <p><u>Soft Start</u></p> <p>Natural England's advice remains that soft start will not be effective due to maximum hammer energy being reached with the initial blow</p> <p><u>Break in piling</u></p> <p>As set out above this is not going to be effective mitigation measure.</p>

Previously agreed mitigation measures for reducing potential for impact on harbour seals (piling mitigation measures as stated in Section 3.1 and 3.2 and vessel management measures Section 3.3 of the previously submitted Outline MMMP (document reference 9.12(2), REP7-003))	Suggestions from Natural England (letter dated 13 th February 2023)	Responses to suggestions and additional mitigation measures proposed (subsequently added to the Outline MMMP (document reference 9.12(3) where relevant)	Natural England's DAS advice 6th March 2023
<p>can recommence. If a marine mammal is present within the monitoring zone, the full mitigation procedure should be undertaken prior to piling recommencing.</p> <p>In the event that piling activity is stopped for more than 10 minutes, the pre-piling watch, soft-start and ramp-up procedure (if possible) is conducted prior to piling re-commencing.</p>		<p>predicated on almost continuous impact piling during the allowable construction hours without any simultaneous piling occurring. However, if alternative methods of piling are used (non-impact piling), it is assumed that simultaneous piling would be acceptable. To provide for this possibility, the Applicant proposes to amend condition 13(2)(e) so that the restriction on simultaneous piling only applied to impact piling, so it would read as follows: "<i>provision that no planned simultaneous impact piling will be carried out</i>".</p>	
Vessel management measures			
<p><u>Vessel speeds²</u></p> <p>Subject to the pilotage requirements for navigational safety and efficiency (vessel management) and the application of the principle of 'safe speed' (application of COLREGS), that when reasonably practicable to do so, it will require that all ships that are subject to compulsory pilotage when moving between the Port of Boston designated anchorage in the Wash and the Docks maintain a speed below 10 knots.</p> <p>This will apply to all vessels that are subject to compulsory pilotage (both existing shipping and the additional shipping resulting from the Facility) meaning that all commercial vessels over 30m in length (i.e. all</p>	<p>Commitment for vessels to only use anchors within the Boston Anchorage area or if dynamic position is to be used then the propellers are ducted.</p> <p>Undertake 360 degree checks (including vertical aspects) before moving off from the anchorage area.</p> <p>All vessels including pilot vessels to follow a direct</p>	<p>As stated within the <i>Applicant's Response to the Marine Management Organisation and Natural England's queries regarding Marine Mammals and Fish</i> (document reference 9.49, REP4-014), Dynamic Positioning systems are not generally fitted to cargo vessels, and the harbour master for the Port of Boston has confirmed that no vessels calling at the port have these systems onboard. Therefore, vessels will only be using anchors within the Boston Anchorage area.</p>	<p>Natural England welcomes the commitment to use propellor guards.</p> <p>Natural England previous advice to the SoS remains unchanged.</p>

² As stated within the Applicant's Response to Secretary of State's Letter of 14th October 2022 document (EN010095), Section 2.4

<p>Previously agreed mitigation measures for reducing potential for impact on harbour seals (piling mitigation measures as stated in Section 3.1 and 3.2 and vessel management measures Section 3.3 of the previously submitted Outline MMMP (document reference 9.12(2), REP7-003))</p>	<p>Suggestions from Natural England (letter dated 13th February 2023)</p>	<p>Responses to suggestions and additional mitigation measures proposed (subsequently added to the Outline MMMP (document reference 9.12(3) where relevant)</p>	<p>Natural England's DAS advice 6th March 2023</p>
<p>those being used to deliver waste to the Facility) will be subject to these new operating conditions.</p> <p>The Applicant's vessels will also follow the same vessel collision speed restrictions while transiting through The Wash, to the anchorage area. All vessels travelling to the Facility will abide by a vessel speed limit of 10 knots, subject to the above same conditions regarding COLREGS and navigational safety, as far as is practicable. The Applicant will twice a year issue a tool box note (or similar) to request all shipping agents and vessel masters associated with the Applicant's vessels to issue guidance on this matter.</p> <p><u>Best practice measures</u></p> <ul style="list-style-type: none"> • Vessels will maintain a steady speed, and direction, at all times, to allow any marine mammal to predict where the vessel may be headed, and to move out of the way. Vessels should use the defined anchorage area and shipping channel at all times. • Within 300m of a marine mammal at sea, vessel should maintain speed and direction to ensure the individual can predict the vessel movements, and move out of the area if needed. • Vessels should not approach within 600m of known seal haul-out sites. • Keep a well-maintained engine and propellor to minimise underwater noise. 	<p>route into and out of the Haven avoiding seals hauls at the maximum distance possible.</p>	<p>If vessels using dynamic positioning are ever used in the future in relation to the Proposed Facility there will be a commitment to use propellor guards.</p> <p>A 360-degree visual check of the vessel will be undertaken (including vertically) prior to any vessel within the anchorage area transiting off. This will be included within the tool box talks and notes to all shipping agents and vessel masters associated with the Applicant's vessels (or similar).</p> <p>All vessels into and out of The Haven and The Wash, will follow existing shipping routes, where practicable. Within the jurisdiction of the Port of Boston, the vessels will be transiting from the Boston Anchorage Area up and down The Haven using well established transit routes but at this point vessel movements are at the discretion of the pilots. As discussed in the Habitats Regulations Assessment (document reference 6.4.18 (1)) the shipping channel is 840 m away from the nearest haul-out site, which is greater than the distance that research (Jansen <i>et al</i>, 2010) has shown can cause any discernible effect from vessel</p>	

Previously agreed mitigation measures for reducing potential for impact on harbour seals (piling mitigation measures as stated in Section 3.1 and 3.2 and vessel management measures Section 3.3 of the previously submitted Outline MMMP (document reference 9.12(2), REP7-003))	Suggestions from Natural England (letter dated 13 th February 2023)	Responses to suggestions and additional mitigation measures proposed (subsequently added to the Outline MMMP (document reference 9.12(3) where relevant)	Natural England's DAS advice 6th March 2023
<ul style="list-style-type: none"> Vessels should turn off 'noisy' equipment when close to marine mammals (e.g. engines, propellers (within the anchorage area), and echo sounders) if possible. <p><u>Vessel monitoring</u></p> <p>There are two options for an adaptive monitoring plan to develop information on the interactions between harbour seals and vessel transits;</p> <ol style="list-style-type: none"> Observers on-board all Facility vessels for a specified period, or Observers at set land-based locations for defined monitoring periods. The below sections provide more detail on the potential options for monitoring, and outline the methodologies that may be used under each of the options. <p>Option 1 would include the measure that, for vessels preparing to leave the anchorage area, the MMOB would be undertake a check of the area surrounding the vessel, to ensure there are no seals within close proximity to the vessel, particularly the propellers, prior to the vessel starting the engine for transit.</p> <p>In the post-consent phase of the Project, the preferred monitoring option would be defined and a full monitoring programme provided within the final MMMP. This will be designed in consultation with the MMO, Natural England and The Wildlife Trust.</p>		<p>disturbance, which is 600 m. The Outline MMMP already states that vessels should not approach within 600 m of known seal haul-out sites.</p> <p>The locations of known seal haul-out sites can be provided within the tool box note to all shipping agents and vessel masters associated with the Applicant's vessels (or similar). In addition to being secured through the MMMP, where these measures relate to vessel movements within The Haven, these measures will be incorporated into the Navigation Management Plan which will be agreed with Natural England. This requirement is covered by condition 14 of the Deemed Marine Licence (DML).</p>	

- 2.1.3 Regarding the 'soft start' comment from Natural England in **Table 2-2**, "Natural England's advice remains that soft start will not be effective due to maximum hammer energy being reached with the initial blow" the Applicant does not recognise the inability to ramp up to full hammer energy if percussive piling is used.
- 2.1.4 Within Natural England's response to the Applicant on 6 March 2023, Natural England also provided a response to the without prejudice compensation / marine net gain measures, as provided in the *Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures for Harbour Seal* document. The response on the proposed without prejudice compensation / net gain measures from Natural England was: *'Natural England welcomes the proposals presented by the Applicant and agrees that the measures proposed would offset any losses of Annex II Harbour Seals from the Wash and North Norfolk Coast SAC, thus removing an AEoI. However, we advise that if required as compensation there will need to be a draft in principle condition to be included in the DCO, naming a plan is insufficient in this instance. We would also advise that should the Secretary of State be minded to permit the application, the Applicant would become a statutory undertaker and a S28G body under the Wildlife and Countryside Act 1981 (as amended by CROW) and would therefore have a duty to not only maintain the features of designated sites, but to enhance them. Thus, even before Net Gain becomes a planning requirement later this year there is a duty to provide site enhancement.'*
- 2.1.5 The Applicant notes that its proposals are welcomed and agreed by Natural England. On the new point around section 28G of the Wildlife and Countryside Act 1981, the Secretary of State should consider the basis upon which the Applicant could be a s28G body. Section 28G bodies include statutory undertakers, including those with a licence under s6 of the Electricity Act 1989. However as set out in the Applicant's Other Consents and Licences (APP-033) document, the Applicant intends to rely upon a section 5 exemption under the Electricity Act 1989, which if successfully obtained, avoids the need for a s6 licence. Nevertheless, biodiversity enhancement measures and environmental mitigation measures are included within the scope of the Applicant's works and the draft DCO already includes a requirement on a biodiversity off-setting scheme which will deliver biodiversity enhancements not less than the net biodiversity impact.
- 2.1.6 **Table 2-3** provides responses to Natural England's updated advice on ornithology impacts dated 8th December 2022, which was prepared in response to the Applicant's Without-Prejudice Habitats Regulation Assessment Derogation Case: Compensation Measures November 2022 and the Applicant's response to the

Project related



Secretary of State's letter of 14th October 2022.

Table 2-3 Responses to Natural England's Updated Advice on Ornithology Impacts

No.	Section	Comment	The Applicant's Response
Summary			
1.		<p>Natural England notes that the only real developments have been the naming/confirming of the proposed mitigation sites and a proposed new mitigation measure at the docking area. In principle the new mitigation measure could be taken forward, but there is a level of detail missing about the site and potential pressures on it to allow a conclusion to be reached at the current time.</p> <p>As such, Natural England advises that there is no certainty within the information provided by the Applicant to Secretary of State in November 2022 to material change our previous advice. Natural England advice remains that there is Adverse Effect on Integrity (AEoI). And whilst the potential is there the compensation package remains insufficiently worked up at the current time to provide any assurances that the impacts can be fully offset.</p> <p>Should the Secretary of State be minded to grant consent for the proposal then there will need to be assurance that <u>appropriate</u> conditions can be put in place that will provide sufficient reassurance that SPA interests are secure and the delivery of appropriate extent and quality of compensatory habitat quality is guaranteed.</p>	<p>The Applicant notes this summarising statement and responds to individual points below and within the newly submitted Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112).</p>
2.2 Response to Question 3.1 - Without Prejudice Additional Mitigation / Enhancement to Reduce Bird Disturbance			
2.	General	<p>Overall, Natural England advises that no new information has been provided to change our advice and notes that the Applicant has only chosen to respond on selective points we have previously raised. We continue to advise, that an Adverse Effect on Integrity (AEoI) on The Wash SPA cannot be excluded for the reasons set out in our written representations during examination. Some of the amendments/commitments are considered by Natural England to be adequate in principle. But as currently set out these</p>	<p>Noted by the Applicant and responses are provided to individual points below.</p>

No.	Section	Comment	The Applicant's Response
		are not currently considered enforceable, and/or will not realistically sufficiently mitigate/compensate impacts. With many areas of concern remaining.	
3.	2.2.3	Natural England is content that no further mitigation measures are required for construction noise disturbance, but this is dependent on the requirement to undertake real time monitoring and any issues reported to LPA and NE within 24hr to agree adaptive management measures in consultation with LPA and NE should impacts be greater than predicted.	These conditions can be met by the Applicant via inclusion of real-time monitoring and adaptive management, based on the results and following discussion with the Local Planning Authority (LPA) and Natural England. The Applicant therefore provides an undertaking to include the real time monitoring, reporting and adaptive management provisions requested by Natural England. This is included within an updated OLEMS submitted alongside this document (document reference 7.4(4)).
4.	2.2.9	Natural England agrees that Palisade fencing on the landwards side could mitigate human disturbance, but this doesn't address concerns we raised in relation to (a) long term habitat management and (b) water bourn disturbance	<p>a) The Applicant has already agreed within the OLEMS document (document reference 7.4(4)) to undertake ongoing monitoring and maintenance of the Habitat Mitigation Area (HMA), for as long as the wharf structure is present.</p> <p>(b) the works to enhance the HMA were designed to be far enough from the working areas of the Facility to have a significant effect. It is acknowledged by the Applicant that there will be more vessels using The Haven adjacent to the Facility but the birds that currently use the facility are already adapted to the presence of vessels in this area. Monitoring is proposed within the above document to ensure that the objectives were being met. The OLEMS also states that should the proposed measures not be effective at</p>

No.	Section	Comment	The Applicant's Response
			providing habitat for the same number of birds as displaced then additional measures would be undertaken.
5.	2.2.13	Natural England remains unconvinced that raised awareness of protected species is sufficient to reduce disturbance when there is no alternative sailing route, unlikely to be able to change course in The Haven and its approaches and slowing vessels is unlikely to sufficiently reduce disturbance responses. Thereby, we do not consider this to be mitigation.	<p>Noted by the Applicant. The Applicant has sought to explore all avenues for mitigation, of which the measure of toolbox talks is just one measure.</p> <p>Vessel speed has previously been reported to be a factor in bird response to a vessel when approach distance is low (Ronconi & St Clair, 2002). The Applicant therefore clarifies that it considers disturbance and displacement effects from vessels on birds may be mitigated by vessel operator behaviour in the form of slower initial speed, or deceleration, rather than change in course.</p>
6.	2.2.14	<p>For avoidance of doubt and for audit trial purposes Natural England doesn't support the inclusion of this condition as mitigation as set out above. We also highlight practical implementation issues with this condition with the Port being in control of operations.</p> <p>We highlight that legally securable measures need to be reliable, measurable and enforceable. We are unconvinced that latitude is there to be Habitat Regulations compliant.</p>	Noted by the Applicant. The Applicant refers the reader to the response to 2.2.13 (Row 5) above.
7.	2.2.16 and 2.2.17	Natural England doesn't agree with the Applicant's position re disturbance from subsequent vessels at the mouth of The Haven and our advice remains unchanged to that set out in the examination i.e. AEoI from vessel disturbance at the mouth of The Haven can't be excluded.	Noted by the Applicant. However, the Applicant maintains its position in Chapter 17 Marine and Coastal Ecology of the Environmental Statement (ES) (document reference 6.2.17(1), REP9-011), Appendix 17.1 HRA (document reference 6.4.18(1), AS-006), Chapter 17 Marine and Coastal Ecology and Appendix 17.1 – HRA Ornithology

No.	Section	Comment	The Applicant's Response
			Addendum (document reference 9.13, REP1-026) and technical notes throughout Examination that the availability of alternative roosting and foraging sites, and frequent baseline movement of birds between these sites, means that the Project scenario will not differ from the baseline scenario: i.e., the designated site's integrity is unchanged.
8.	2.2.18	Natural England advises that if no mitigation is possible at the mouth of The Haven then compensation measures are required.	The Applicant stands by assessments made that there is no need for mitigation at the mouth of The Haven. However, Without Prejudice Compensation measures are provided. This now includes for provision of a roost site at the mouth of the Witham or in The Wash close to The Haven, which replicates the key roosting location (rock revetments) at the mouth of The Haven, which would readily compensate the disturbance effects (see the Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112)). This measure was previously discussed with Natural England but discounted due to potential for effect in The Wash and North Norfolk Coast SAC. However, the Applicant welcomes revisit to this concept by Natural England.
9.	2.2.26	Natural England advises that there is currently no guarantee that a Habs Regs compliant (i.e. no impact) version of a Navigational Management Plan can be developed, so we cannot be reassured that it is a suitable tool to sufficiently reduce the impacts to remove an Adverse Effect on Integrity.	Noted by the Applicant. The Applicant in summary, disagrees and is confident the Navigational Management Plan (NMP) can be HRA compliant. Responses to specific points are provided below.

No.	Section	Comment	The Applicant's Response
10.	2.2.29	Natural England understands that the vessel speed reduction to 10 knots for an unknown proportion of the vessels transiting down The Haven, is a suggestion to reduce existing background disturbance allowing more leeway with development associated impacts. While this is helpful and would have wider environmental benefits from reduced wash; we advise that it is unlikely to be sufficient as the proposal is to (more than?) double the existing vessel number/impacts and there no evidence presented to demonstrate that slow moving boats are less disturbing to birds.	As previously highlighted by the Applicant, speed was a factor in disturbance response of birds when approach distance was low in a study of alcid birds (Ronconi & St Clair 2002) which are relatively sensitive bird species in context of vessel disturbance (Fließbach <i>et al.</i> 2019). Close approach being cited as unavoidable within The Haven shipping channel, the Applicant considers it is a viable mitigation measure, in particular when set alongside other mitigating measures.
11.	2.2.29	The inclusion of '...where practicable to do so' from an operational perspective is not Habitats Regulations compliant in relation to adoption of mitigation measures. Natural England queries what is the alternative/adaptive management measure if it can't be implemented?	The inclusion of 'where practicable to do so' is often required due to health and safety aspects, noting that navigational safety is paramount. It is added to ensure that where health and safety must override other measures, it is possible to do so without breaching the condition.
12.	2.2.33	Whilst Natural England has a regulator responsibility under the Wildlife and Countryside Act 1981 (As amended by CROW) for impacts relating to Sites of Special Scientific Interest in this instance we are not the regulator in relation to discharging conditions relating to the NMP. That would either be the Secretary of State (SoS) relating to compensation measures and the Local Planning Authority (LPA) and/or the Marine Management Organisation (MMO). Natural England also highlights that 'consulted' does not mean that our advice will be respected. Thus, consulting Natural England does not rule out the risk of an AEoI.	Noted by the Applicant. Consultation with Natural England would be undertaken and as far as is practicable advice would be taken on board.
13.	2.2.35	Natural England notes that the intension of the NMP is ' <i>...the NMP is intended to address nature conservation concerns, where this does not conflict with safe operation of the vessels, and, along with additional plans, will enable mitigation of impacts and adaptation of management measures if necessary, during the ongoing project development and operation...</i> '	This is a health and safety compliance requirement so that safe navigation is prioritised when there is a potential for an incident to occur, and the Pilot/Master has to ensure the safe operation of a vessel. The

No.	Section	Comment	The Applicant's Response
		<p>Because of the inclusion of the highlighted text, <u>we are unable to advise that the inclusion of this post consent commitment to develop an NMP will exclude an AEoI from occurring.</u></p>	<p>Applicant stresses that adherence to vessel safety requirements does not compromise the mitigation measures proposed as is inserted to ensure the Port of Boston's requirements to manage vessels safely within their jurisdiction is not compromised.</p>
<p>2.8 Response to Question 3.6 – Further information regarding the without-prejudice proposed compensation sites for The Wash SPA</p>			
14.	General	<p>Natural England's position remains that the proposed compensation locations should, in principle, be able to compensate for most SPA impacts, but we can't advise with certainty until the required surveys and compensation design are complete so we can see what the art of the possible actually is.</p> <p>We advise that the SoS would need to be reassured that conditioning can provide a secure mechanism to ensure that SPA requirements are met and that there are safeguards to protect against the lack of current certainty.</p>	<p>Further information on the proposed compensation locations and their function is provided by the Applicant within subsequent sections of this table and within Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112).</p> <p>Proposed without prejudice Schedule 11 to the draft DCO (document reference 2.1(7)) provides an effective mechanism to secure the compensation should it be determined to be necessary. In particular, paragraph 5 of Schedule 11 requires the submission of an Ornithology Compensation Implementation and Monitoring Plan to the Secretary of State for approval and the plan must set out the details of location(s) where compensation measures will be delivered and the suitability of the site(s) to deliver the measures (including why the location is appropriate ecologically and likely to support successful compensation)</p>

No.	Section	Comment	The Applicant's Response
			and details of the design of the compensation measures.
15.	2.8.3	Having not seen the October 2022 bird surveys Natural England is unable to support the Applicant's statements in relation to the acceptability of compensation locations.	The Applicant directs Natural England to the latest surveys provided in Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA), Appendix B (document reference 9.112).
16.	2.8.7	Natural England highlights that all of our previous comments included in REP9-058 remain outstanding, with only a plan for (a) offered. We advise that a proposed site design and management plan is required.	The Applicant directs to Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112) for development to site network design and further detail on individual sites.
17.	2.8.10	Natural England advises that the Ornithology Compensation and Implementation monitoring plan proposed alternative roosts is likely to be optimal for at least some of the Wash SPA features. However, as set out in our advice during examination the SAC/priority habitat impacts would need to be additionally dealt with.	Noted by the Applicant, and it is welcomed that Natural England are now open to investigation of placing additional roosting rocks within the SAC. The Applicant is aware of the requirements for assessment of Likely Significant Effect (LSE) and potentially Appropriate Assessment. It does not seem likely that the placement of rocks in the intertidal zone would have an Adverse Effect on Integrity of the SAC as it would be a very small area affected (0.35 ha out of 18,312 ha of mudflats and sandflats not covered by seawater at all times) and there are already roosting rocks placed in the intertidal zone in this area. This is further discussed in the Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112).

No.	Section	Comment	The Applicant's Response
			The additional roosting revetments measure would also compensate for some of the baseline impacts on the SPA, and as such the expectation is that this would be a joint measure with Natural England.
18.	2.8.12	Natural England is unable to advise further on the Fields at Wyberton Road, without the inclusion of a map.	The Applicant directs to Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112) where maps are provided.
19.	2.8.13	Natural England advises that without a field survey there is no certainty that <i>'Standing water was found to already be present on site where ruts and hollows occurred, indicating the potential for creation of shallow water areas.'</i> The pooling could be a result of compaction and heavy rain prior to the walkover	The Applicant's desk-based landscape engineering study of LiDAR data confirms presence of suitable hydrology and topography for creation of shallow water areas. Details of this study are provided in Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) within Appendix A (document reference 9.112).
20.	2.8.35	Natural England is supportive of the exploration of the dock level roosting site especially if it will be less disturbed than the mitigation area.	Noted by the Applicant. More details are provided in Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112).
21.	2.8.39	<i>Heysham Heliport wader roost, Lancashire</i> – Natural England's ornithologist is familiar with this site. We agree that when people are kept well back it works for the birds. However, we are not clear how comparable the standoff distance is for the proposed Boston site. We require critical information on the boat/recreational disturbance at the Boston site – the Heysham site is periodically emptied at high tide by windsurfers and kayaks. The Heysham	The Applicant's site plan includes palisade fencing on the landward sides of the dock-level roosting site, not simply the water-facing edge. This will leave a consistent distance of more than 20 m between the landward border with the Right of Way and the waterward edge of the site, for the birds to set back from

No.	Section	Comment	The Applicant's Response
		<p>site also has space for the birds to retreat over the wall top on big tides while still being separated from people. How will be this be replicated at BAEP?</p>	<p>pedestrians and from the water during high tides. The Applicant notes that required standoff distance from the edge is not likely to be as large as that required at Heysham which faces exposed marine foreshore and not a shipping channel.</p> <p>Boat and recreational disturbance is also subject to a standoff distance due to presence of saltmarsh directly below the raised dock, extending 14 m from the sheet pile wall at typical high tide. At lower tides the mudflat extends this standoff distance.</p> <p>The approach distance from water recreation is also distinct from and greater than that noted at Heysham as, whereas the seaward roost at Heysham slopes down to the foreshore, the proposed dock roost stands at consistent sheer height.</p>
22.	2.8.40	<p><i>Seaham Harbour and Marina, County Durham</i> – Natural England doesn't know this site, but are aware of comparable ones. Thereby, we can agree the principle presented, but much greater detail is required in relation to BAEP, but we could advise with certainty that the impacts would be offset by the proposals.</p>	<p>Noted by the Applicant, see information in previous row.</p>
23.	2.8.43	<p><i>Rocks placed in the intertidal zone or shallow subtidal zone within the SPA</i> – Natural England agrees that this option is only viable if there is no Likely Significant Effect on the Special Area of Conservation or that the impacts can be compensated for. In addition, we agree that turnstone and oystercatchers are the key beneficiaries as less likely to adopt an inland site.</p>	<p>Noted by the Applicant, and in agreement regarding assessment requirements and ecological benefits, as shown in Row 17.</p>

2.2 The Royal Society for the Protection of Birds (RSPB)

2.2.1 **Table 2-4** provides responses to RSPB's comments on responses to the 14th October 2022 additional information request dated 9th December 2022.

Table 2-4 Responses to RSPB's comments

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
1. Introduction			
1.	1.1	The RSPB has reviewed the submissions provided by the Applicant, Natural England and the Environment Agency to the request for further information made on 14 October 2022. Below we set out some additional comments that we hope will be helpful and provide a summary of our position at the end of this submission. All references to the need for compensation measures to address adverse effects on the integrity of The Wash SPA/Ramsar site are subject to the BAEF proposal meeting the earlier derogation tests of no alternative solutions and imperative reasons of overriding public interest.	Noted by the Applicant, responses are given to individual points below.
2. Comments on the Applicant's Response to Secretary of State Letter of 14th October 2022			
2.	2.1	<p>a) Construction Noise at the Application Site</p> <p>The RSPB's position on the impact of noise on features of The Wash SPA/Ramsar site remain as set out in Written Representation (Section 7c, pp. 48-60; REP1-060), the Summary of the RSPB's position January 2022 (REP5-018) and our Response to Third Written Questions (Question Q3.3.1.34, pp.5-12; REP7-031). We remain particularly concerned that no survey effort has been undertaken to assess impacts of the proposed development on waterbirds using The Haven at night.</p>	The Applicant acknowledges its survey programme did not include targeted field surveys of waterbird use of the area at night. However, the waterbird species present have ecology which ties their behaviour to tide more than to light cycles, and the Applicant considers it sound to assume that foraging and roosting at night is similar to during the equivalent tidal stage during the day. Coupled to this, the loudest construction noise will be limited to daytime hours, see document Chapter 5 Project Description of the ES (document reference 6.2.5, APP-043) "Construction activities would take place six days a week (Monday to Saturday) between 8am and 8pm (with

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		<p>This remains a significant data gap given the operation of the facility will necessitate night working.</p>	<p>an option of 7am to 7pm), with no bank holiday or public holiday working. There may be short periods of 24 hour working where concrete is being poured.". Operation of the facility will include night time operation but will be lower-level than during construction (see Noise Modelling and Mapping Relating to Bird Disturbance at the Principal Application Site (document reference 9.50, REP4-015)) and will not feature spontaneous or intermittent loud noise emission.</p>
3.	2.2	<p>a) Construction Noise at the Application Site</p> <p>The Applicant states that there are no established high tide roosts of waterbirds occurring within the area where caution should be applied. Our position remains as set out in our comments on the Ornithology Addendum (REP4-026), our Summary of the RSPB's position January 2022 (REP5-018) and the RIES (REP9-065). As highlighted, it is not simply the impact of noise on roosting waterbirds, but also foraging SPA/Ramsar waterbirds during the day and night.</p>	<p>The Applicant maintains their position made in Chapter 17 Marine and Coastal Ecology of the ES (document reference 6.2.17(1), REP9-011), Appendix 17.1 HRA (document reference 6.4.18(1), AS-006), Chapter 17 Marine and Coastal Ecology and Appendix 17.1 – HRA Ornithology Addendum (document reference 9.13, REP1-026) and technical note Noise Modelling and Mapping Relating to Bird Disturbance at the Principal Application Site (document reference 9.50, REP4-015) that the number of The Wash SPA/Ramsar birds disturbed during the day or night by construction noise will be limited, due to</p> <ul style="list-style-type: none"> a) the seasonal restriction of piling (high pressure and impulsive noise associated with greatest disturbance to birds (Wright et al. 2010) to summer months when non-breeding waterbird numbers will be at their lowest; and b) construction noise levels on The Haven (during non-piling activities, i.e., during main non-breeding months) being modelled not to reach levels associated with shorebird disturbance.

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
			<p>The distancing of extant high tide roosts from high-noise contours around the Principal Application Site as modelled during winter months is of additional encouragement, as high tide roosting is suggested by authors such as Navedo & Herrera (2012) to be a priority element of the shorebird daily cycle for which disturbance should be avoided for maintaining conservation of local populations.</p>
4.	2.3	<p>a) Construction Noise at the Application Site</p> <p>It particularly remains unclear that the Applicant has provided sufficient evidence on the impact of noise on ruff and redshank to demonstrate that a 250m buffer zone around the application site with respect to construction, notably pile driving, is acceptable. Our answer to Question Q3.3.1.34 in Response to Third Written Questions (pp.5-12; REP7-031) and our comments on the RIES (Section 'The Wash SPA and Ramsar site – Disturbance to birds at the Application site', pp.12-15; REP9-065) continue to set out our position on this point.</p>	<p>The Applicant confirms the 250 m zone size was proposed following the standoff distance recommended by the Environment Agency for monitoring their geophysical investigations in The Haven (Environment Agency 2019 - Boston Haven Ground Investigations - Bird Disturbance Monitoring 2019 Final 12th June 2019).</p> <p>In their most recent response to Applicant documents (Secretary of State Additional Information Request Natural England's updated advice on Ornithology impacts, 08 Dec 2022, response to Applicant paragraph 2.2.3), states that "Natural England is content that no further mitigation measures are required for construction noise disturbance, but this is dependent on the requirement to undertake real time monitoring and any issues reported to LPA and Natural England within 24hr to agree adaptive management measures in consultation with LPA and Natural England should impacts be greater than predicted."</p> <p>An update to the OLEMS (document reference 7.4(4)) has been submitted alongside this document which includes (in paragraph A1.4.2) for the real time monitoring and adaptive monitoring and management</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
			with consultation and agreement with the LPA and Natural England within 24 hours.
5.	2.4	<p>b) Vessel Disturbance at the Application Site, along The Haven and at the mouth of The Haven</p> <p>The RSPB accepts the summary provided by the Applicant regarding the location of high tide roosts impacted by vessel movements. However, it should be clear that numbers foraging on exposed mud during the higher states of tide can be significant. Many of the species affected are features of The Wash SPA/Ramsar site and are impacted along the whole length of The Haven, with the Application Site functionally linked to The Wash SPA/Ramsar site. The peak count of waterbirds recorded at the mouth of The Haven represents over 1% of The Wash SPA/Ramsar site waterbird population and is therefore highly significant. As a consequence, an adverse effect on the integrity of The Wash SPA/Ramsar site cannot be ruled out beyond reasonable scientific doubt. The RSPB position remains our comments on the Ornithology Addendum (REP4-026), our Summary of the RSPB's position January 2022 (REP5-018) and the RIES (REP9-065).. submission at the close of the Examination.</p>	<p>The Applicant notes the RSPB position but maintains its position at Chapter 17 Marine and Coastal Ecology of the ES (document reference 6.2.17(1), REP9-011), Appendix 17.1 HRA (document reference 6.4.18(1), AS-006), Chapter 17 Marine and Coastal Ecology and Appendix 17.1 – HRA Ornithology Addendum (document reference 9.13, REP1-026) and technical notes throughout examination that the availability of alternative roosting and foraging sites, and frequent baseline movement of birds between these sites, means that the Project scenario will not differ from the baseline scenario: i.e., the designated site's integrity is unchanged.</p> <p>The Applicant maintains its position in Section 4.2 of the Chapter 17 Marine and Coastal Ecology and Appendix 17.1 Habitats Regulations Assessment Update (document reference 9.59, REP5-006) that the Application Site does not qualify as functionally linked land.</p> <p>The Applicant also has every confidence that the without prejudice compensation package which has been prepared would be appropriate for the area and size of loss should the SoS conclude AEoI on The Wash SPA and Ramsar at point of DCO decision.</p>
6.	2.5	<p>c) Vessel Disturbance at the Application Site</p> <p>The Applicant states that "no further mitigation measures for disturbance to birds at the Principal Application Site</p>	<p>The Applicant maintains their position that the Habitat Mitigation Area secures habitat that would support the number of birds that use this area for roosting.</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		<p>are considered...necessary" (Paragraph 2.2.8, p.6). The RSPB has outlined concerns about the effectiveness of the proposed alternative roost site (as set out in our response to Third Written Questions (Q3.3.1.34, pp.5-12; REP7-031). We outlined that sufficient management measures must be put in place to provide confidence that the alternative roost would be effective.</p>	<p>However, following concerns raised by stakeholders during DCO Examination, the Applicant has considered an additional dock roosting site to provide further habitat availability for redshank and other waterbirds if the Secretary of State considers of there is an Adverse Effect on Integrity particularly due to disturbance at the Principal Application Site (as set out in the Applicant's Response to Secretary of State's Letter of 14th October 2022 (document reference 9.107) at para 2.8.35).</p> <p>The Applicant maintains its view that this additional measure is not necessary to mitigate any impacts of the habitat loss and disturbance and displacement as a result of Project activities but could be provided as a net gain measure.</p>
7.	2.6	<p>c) Vessel Disturbance at the Application Site</p> <p>Whilst alternative roosting might be provided close to the Application site, this would not address the loss of foraging habitat. Given the relative importance of this area of The Haven for foraging and roosting birds, it would appear that birds will be displaced into less optimal foraging areas. This has not been addressed by the Applicant. We therefore maintain our position that replacement foraging habitat would be necessary. This cannot be mitigated as set out in our response to Third Written Questions (Q3.3.1.34, pp.5-12; REP7-031) and must form part of the Applicant's compensation package.</p>	<p>Habitat within the mitigation measure referred to as the Habitat Mitigation Area, includes habitat suitable for foraging by redshank, as it includes tidal creeks and saltmarsh. There are also large areas of mudflat in the area which provide foraging habitat at and around low tide.</p> <p>While written accounts on the Habitat Mitigation Area refer to roosting habitat, it is by definition mitigating for loss of habitat known to be used for both roosting and foraging – but the number of birds present during roosting in the lost area of habitat is higher than that present for foraging.</p> <p>The without prejudice compensation package outlined includes foraging habitat. The Applicant recognises the value of all secured compensation sites offering foraging</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
			as well as roosting habitat. One basis for this is that proximity of foraging habitat is likely to be a factor in attracting waterbirds to use alternative roosting sites after their completion.
8.	2.7	<p>d) Vessel Disturbance along The Haven</p> <p>The Applicant states that “Vessel disturbance to designated feature waterbirds of the protected sites is limited along The Haven interior...”. Vessels can transit The Haven, however, whilst exposed mud remains and waterbirds remain to feed. The Applicant’s surveys have been limited in scope, notably the number of visits and lack of assessments at night, and have failed to address the objective concerns that disturbance along The Haven is more significant than suggested by the Applicant. Disturbance along The Haven must be considered in its entirety. Our position remains set out in our comments on the Ornithology Addendum (REP4-026) and as summarised in January 2022 (REP5-018).</p>	<p>During the design of the surveys, existing information on roost sites was discussed with a number of organisations and local ornithologists, none of whom recognised any roosting sites along the remainder of The Haven. The area between the Application site and the mouth of The Haven provides good foraging habitat at low tide but this would be unaffected by the proposed transit of vessels around high water. Surveys were undertaken regularly during the overwintering period and the requirement to undertake surveys at night was not considered necessary due to the reasons given in above responses. Night-time surveys are not a general requirement of survey work for bird usage of an area.</p>
9.	2.8	<p>d) Vessel Disturbance along The Haven</p> <p>The RSPB's position regarding disturbance along The Haven remains the same as at the end of the Examination. The proposed increase in vessel movements would be significant and no evidence has been presented by the Applicant to show the cumulative impact of all vessels along The Haven: cargo ships, fishing vessels and recreational craft. It is also disingenuous of the Applicant to suggest mitigation measures were not considered necessary (Paragraph 2.2.12, p.9) - no mitigation measures proposed could be enforced (e.g. speed limit) or deemed effective to address</p>	<p>The Applicant notes the RSPB position but maintains its position in the Chapter 17 Marine and Coastal Ecology of the ES (document reference 6.2.17(1), REP9-011), Appendix 17.1 HRA (document reference 6.4.18(1), AS-006), Chapter 17 Marine and Coastal Ecology and Appendix 17.1 – HRA Ornithology Addendum (document reference 9.13, REP1-026) and technical notes throughout examination that the availability of alternative roosting and foraging sites, and frequent baseline movement of birds between these sites, means that the Project scenario will not differ from the baseline scenario: i.e., the designated site’s integrity is unchanged.</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		<p>the visual and noise impacts of vessels. As such it cannot be concluded that an Adverse Effect On Integrity of The Wash SPA/Ramsar site will be avoided, beyond reasonable scientific doubt, and compensation will be required to address disturbance impacts to roosting and foraging features of The Wash SPA/Ramsar site.</p>	
10.	2.9	<p>d) Vessel Disturbance along The Haven</p> <p>Whilst we support information sharing to highlight the impact of disturbance on survival and breeding success of birds that use The Haven, 'toolbox talks' will not reduce disturbance impacts given that the visual presence of vessels, as well as their wash and noise, are all factors that result in responses by the different bird species using The Haven, as set out in in our comments on the Ornithology Addendum (REP4-026) and as summarised in January 2022 (REP5-018). This is not something that can be mitigated and certainly not an issue that can be addressed simply through 'toolbox talks'.</p>	<p>Noted by the Applicant. The Applicant has sought to explore all avenues for mitigation of which this measure is but one.</p> <p>Vessel speed is previously reported to be a factor in bird response to a vessel when approach distance is low (Ronconi & St Clair 2002). The Applicant therefore clarifies that it considers disturbance and displacement effects from vessels on birds may be mitigated by vessel operator behaviour in the form of slower initial speed, or deceleration, rather than change in course.</p>
11.	2.10	<p>e) Vessel Disturbance at the mouth of The Haven</p> <p>No mitigation measures were deemed possible given the vessels would have to pass through the area. The RSPB's position remains the same as at the close of the Examination. It cannot be concluded beyond reasonable scientific doubt that an adverse effect on the integrity of The Wash SPA/Ramsar site will not occur and therefore an appropriately robust package of compensation measures is required. These must be secured and sufficiently detailed to ensure the criteria set out in Table 12 of our Written Representation (Section 10, pp.103-106; REP1-060) can be demonstrated to be addressed. We do</p>	<p>The Applicant has continued to develop the 'without prejudice' ornithological compensation package during the post-Examination period and the Applicant directs RSPB to 9.112 Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) as the latest of these.</p> <p>Should the Secretary of State determine compensation is necessary, 'without prejudice' Schedule 11 included in the draft DCO (document reference 2.1(7)) provides an effective mechanism to secure the compensation measures.</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		not consider the Applicant's compensation package meets these requirements.	
12.	2.11	<p>f) The Applicant's response to the request to include, but not be limited to, consideration of concerns raised by Natural England [REP8-024], regarding the Technical Note for Navigation Management and Ornithology [REP6-033] and evidence that adaptation of vessel movement parameters would mitigate impacts and/or can be secured [REP9-063].</p> <p>It remains unclear how the different potential mitigation options have been evaluated to determine their overall impact. For example, grouping vessel movements together may cause disturbance to take place in one event, but if this event is over a longer time frame there is no evidence presented to demonstrated how birds would respond. It is possible that the longer duration of the event could put birds off returning back to the location. Such trade-offs do not appear to have been detailed to enable conclusions to be drawn on the appropriateness of options should they be considered enforceable and effective.</p>	<p>The Applicant has explored the concept of 'pulsing' Port of Boston piloted vessels in close succession along The Haven in correspondence with the Port of Boston. The safety requirement of an intervening distance/period between vessels transiting The Haven together, limits the potential to combine multiple vessels into a single passage. This time elapsed between vessels (>120 seconds) means any birds remaining airborne until both vessels had passed would be in flight longer than typical disturbance flight times measured in the field (approx. 60-90 seconds). As a result, this measure is no longer being considered as part of the package of mitigation measures. The Applicant also reiterates that birds will continue to use the alternative roosting sites that they already use as part of the baseline level of disturbance by existing vessels.</p>
13.	2.12	<p>f) The Applicant's response to the request to include, but not be limited to, consideration of concerns raised by Natural England [REP8-024], regarding the Technical Note for Navigation Management and Ornithology [REP6-033] and evidence that adaptation of vessel movement parameters would mitigate impacts and/or can be secured [REP9-063].</p> <p>It is not clear that any speed limit will meaningfully address the impacts on foraging and roosting birds, given</p>	<p>As previously highlighted by the Applicant, speed was a factor in disturbance response of birds when approach distance was low in a study of alcids (Ronconi & St Clair 2002) which are relatively sensitive bird species in context of vessel disturbance (Fließbach <i>et al.</i> 2019). Close approach being cited as unavoidable within The Haven shipping channel, the Applicant considers it is an appropriate mitigation measure.</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		the size of the vessels and associated noise; speed alone is not the factor causing disturbance, as set out in in our comments on the Ornithology Addendum (REP4-026) and as summarised in January 2022 (REP5-018), and our response on the fifth report on outstanding responses (para 6, pp.11-12; REP10-045).	
14.	2.13	<p>g) The Applicant's response to Question 3.6 - Further Information regarding the without-prejudice proposed compensation sites for The Wash SPA</p> <p>The Applicant has largely reiterated the information on the proposed compensation sites, as set out at the end of the Examination. Our position on what is required to give certainty that compensation measures will be delivered is set out in our comments at Deadline 7, 8 and 9 and those set out below against the summary and No. 1 in our Comments on the Fifth Report on outstanding submissions (pp.4-9; REP10-045). The RSPB's position as set out in our Detailed Comments on the Compensation Measures (REP10-043). response therefore remains. However for clarity we note the following:</p> <ul style="list-style-type: none"> • Placement of rocks to create a roosting feature in The Wash, may provide benefits, but would need to be far enough away from the navigation channel to not be impacted by incoming vessels. However, we remain unconvinced that this would be appropriate given the impact that this would have on supporting habitat for features of The Wash SPA/Ramsar site and The Wash & North Norfolk Coast SAC. This would create the need to compensate for implementation of a 	The Applicant directs RSPB to Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112).

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		<p>compensation measure, which points to the unsustainable nature of this measure.</p> <ul style="list-style-type: none"> • Fields at Wyberton Road have been discussed in our comments set out in our Response to Rule 17 Questions at Deadline 10 (pp.2-13; REP10-046), with respect to meeting the compensation measures criteria set out in Table 12 of our Written Representation (Section 10, pp.103-106; REP1-060). • The 22ha field at Corporation Point requires more detail to be presented to determine its appropriateness. In principle having multiple locations along The Haven provides greater certainty that suitable habitat could be created. 22ha is a good size site to enable habitat to be created. As with the fields at Wyberton Road, however, substantive detail needs to be provided to demonstrate they can be secured and suitable measures able to be implemented to support the creation and maintenance of roosting habitat. Critically, this habitat must be of a quality to be incorporated as part of The Wash SPA/Ramsar site and maintained in perpetuity. We set this out in our comments at Deadline 7 (see REP7-032, Section 4 (Critique of draft Schedule 11), with particular reference to comments on paragraphs 7 and 8). • The alternative roost site to the north of the application site could in principle provide a suitable habitat for waders displaced from the Application Site. Having more than one location provided as an alternative roost location gives 	

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		<p>greater certainty that suitable habitat will be created for roosting birds. We agree that the area would need to be built up to enable birds to roost at the top of the bank and ensure they had good visibility to feel safe from predators. However, more details are needed to determine that this site could be secured and the habitat delivered. For example, it is not clear if changes to the bank from a flood defence perspective have been discussed with the Environment Agency or the implications of obtaining planning permission on the project timeline.</p>	
15.	2.14	<p>h) An updated Proposed Development construction timetable which allows for the design, delivery and implementation of fully ecologically functional compensation measures before the predicted adverse effects occur</p> <p>The updated construction timetable is welcomed. However, we continue to have concerns that it remains unrealistic.</p>	<p>The Applicant directs RSPB to Section 4.8 of Without Prejudice HRA Derogation Case - Compensation Measures (document reference 9.30(4)) submitted 10th March 2023 where an updated construction timetable is provided. The revised programme allows for considerable implementation programme, including over two years of adaptive management before any displacement effects from operation (should they be considered likely to occur) would occur.</p>
16.	2.15	<p>h) An updated Proposed Development construction timetable which allows for the design, delivery and implementation of fully ecologically functional compensation measures before the predicted adverse effects occur</p> <p>As set out in our comments on the DCO Schedule 11 (REP7-031 and REP7-032), consistent with Government guidance, it is the RSPB's position that compensation measures should be in place prior to adverse effects on</p>	<p>The Applicant notes this position but maintains its position that there is no scope for AEol or compensation requirements as a result of construction phase Project Activities due to the effective package of mitigation measures.</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		<p>integrity occurring i.e. construction taking place. We set out our concerns that DML clause 18(1) requiring the provision of the Outline Landscape and Ecological Mitigation Strategy only 13-weeks prior to construction starting in our comments on the final DCO (REP10-042). Our concerns remain and it is not clear how they are addressed in the updated timetable.</p>	
17.	2.16	<p>h) An updated Proposed Development construction timetable which allows for the design, delivery and implementation of fully ecologically functional compensation measures before the predicted adverse effects occur</p> <p>We have highlighted that our experience is that planning permission (for a well-prepared proposal) can take between 6-12 months, with substantive work preceding the application, as set out in our Detailed Comments on the Compensation Measures (para 4.8.4-4.8.7, pp.15-16; REP10-043) and RSPB comments on the Fifth Report on outstanding submissions. Specifically, the sub-section entitled "Paragraphs 4.6.3-4.6.7: timeline to secure, develop and implement compensation" on pages 6-8 (REP10-045). Baseline surveys are scheduled to last only 9-months and planning is given 5-months. We question whether this is sufficient time and assumes no delays due to unforeseen issues arising, or lodging of local objections (as has been recently experienced with other DCO compensation proposals).</p>	<p>The Applicant directs RSPB to Section 4.8 of Without Prejudice HRA Derogation Case - Compensation Measures (document reference 9.30(4)) submitted 10th March 2023 where an updated construction timetable is provided. The revised programme allows for considerable implementation programme, including over two years of adaptive management before any displacement effects from operation (should they be considered likely to occur) would occur.</p> <p>The Applicant has 17 months from DCO decision (July 2023) to commencing construction to ensure the proposals are adequately designed, planning takes place and contractors procured and mobilised. This is good lead-in time and given that the measures proposed have the objective of nature conservation, and that there have already been positive discussions with the landowners, it is expected that the consenting process is likely to be more straight forward than for a proposal for construction.</p>
18.	2.17	<p>h) An updated Proposed Development construction timetable which allows for the design, delivery and implementation of fully ecologically functional</p>	<p>In Natural England's document Appendix B7 to Natural England's Deadline 9 Submission Natural England's Comments on Without Prejudice Habitats Regulations</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		<p>compensation measures before the predicted adverse effects occur</p> <p>We also highlighted in our Detailed Comments on the Compensation Measures that it can take up to five years for habitats to be created and ecologically functioning (para 1.2.3, pp.3-5; REP10-043). The Applicant is assuming the facility would become operational based on compensation measures being ecologically functioning in a minimum of two years. The RSPB's considerable experience of habitat creation and management does not support the Applicant's optimistic assumptions (as set out in sections 3(d) and 3(c) of REP7-032).</p>	<p>Assessment Derogation Case: Compensation Measures [REP8-006] there is reference to 2 years, "<i>Natural England concurs with the view that two years should be allowed between site establishment and its need to provide compensation. Sites undergoing this type of restoration take time to establish and often require follow-up work after initial site establishment.</i>"</p> <p>The key compensation sites are already used by a small assemblage of waterbirds such as curlew, while still managed for agricultural production. Habitat work on these sites may be considered improvement more than creation from scratch. Securement and improvement of these sites for waterbirds, during off-peak periods when the birds are largely absent from the area, it is expected will attract increasing numbers and diversity of birds relatively rapidly in the two following non-breeding seasons.</p>
19.	2.18	<p>h) An updated Proposed Development construction timetable which allows for the design, delivery and implementation of fully ecologically functional compensation measures before the predicted adverse effects occur</p> <p>We also remain concerned that the Applicant continues to assert that the Application Site is not functionally linked to The Wash SPA/Ramsar site. The RSPB strongly disagrees and maintain our position as set out in our comments on responses to Third written Questions (Q3.3.1.31, pp.16-23; REP8-029).</p>	<p>Noted by the Applicant. However, the Applicant maintains its position that they do not agree that the proposed Facility is within an area that is functionally linked to the SPA/Ramsar site following EIA and HRA and subsequent addenda. This position is clearly stated within Section 4.2 of the Chapter 17 Marine and Coastal Ecology and Appendix 17.1 Habitats Regulations Assessment Update (document reference 9.59, REP5-006).</p>
20.	2.19	<p>i) The Applicant's response to Question 4.2 to Natural England</p>	<p>Noted by the Applicant. See response to comment above.</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
		<p>The RSPB's position on the appropriateness of the 'Habitat Mitigation Area' remains as set out in our answer to Question Q3.3.1.34 in our Response to Third Written Questions (pp.5-12; REP7-031). Our position remains that the Application Site is functionally linked to The Wash SPA, as set out in our comments on responses to Third written Questions (Q3.3.1.31, pp.16-23; REP8-029).</p>	
21.	2.20	<p>j) The Applicant's response to Question 5.1 to the Environment Agency</p> <p>Whilst the Applicant is looking to work with the Environment Agency to "potentially achieve a permissible status" (para 3.4.4, p.52) this does not equate to the certainty expected of a DCO application to demonstrate that it will ultimately have a license to operate. We also consider this to be at odds with the Environment Agency's statement that no further conversations have taken place with the Applicant since the end of the Examination. We remain concerned by the approach the Applicant has chosen to adopt with the DCO application and Environmental Permitting process, as set out in para 12.12 of our Written Representation.</p>	<p>There is no legal, policy or guidance requirement for an environmental permit to be approved prior to the grant of a DCO.</p> <p>The Applicant considers it key that it is a matter of fact that the Proposed Development cannot operate without the approval of the Environment Agency and the adherence to the eventual EPs. There is no danger to interested parties, or the public, that the Proposed Development would not be adequately regulated when operating.</p> <p>The planning and EP regimes are two separate regulatory regimes and the Environment Agency can be relied upon to satisfactorily control relevant impacts within the scope of the environmental permitting regime. Guidance makes clear that if impacts will be considered in the permitting regime, then the examining authority need not also consider them in the examination. The Overarching National Policy Statement for Energy (NPS EN-1), at paragraphs 4.10.2 and 4.10.3, states that the "planning and pollution control systems are separate but complementary", and that, when considering an application for development consent, the Planning Inspectorate should "work on the assumption</p>

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
			<i>that the relevant pollution control regime ... will be properly applied and enforced by the relevant regulator. It should act to complement but not seek to duplicate them".</i>
3. Comments on the Environment Agency's submissions			
22.	3.1	The RSPB notes that the Environment Agency has confirmed that no further conversations have taken place with the Applicant regarding the DCO Application or additional Environmental Permitting. There clearly remains significant uncertainty about the Applicant's ability to demonstrate that the environmental impacts of the proposed development would be acceptable from a permitting perspective. We therefore support the Environment Agency's position that an adverse effect on integrity on The Wash SPA and The Wash & North Norfolk Coast SAC cannot be ruled out beyond reasonable scientific doubt.	Please see response in the row above. Additionally, the Applicant notes the Environment Agency's position is not that "an adverse effect on integrity on The Wash SPA and The Wash & North Norfolk Coast SAC cannot be ruled out beyond reasonable scientific doubt" as stated by RSPB but that "We maintain our OBJECTION to the loss of habitat from the development until such a time as Natural England confirm that the proposed scheme of mitigation/compensation is suitable." (REP10-034). As set out in the Statement of Common Ground with the Environment Agency (REP10-031) this concern primarily relates to the loss of saltmarsh and mudflat habitat. This loss is addressed within the OLEMS (document reference 7.4(3)) in terms of the mitigation and Biodiversity Net Gain measures proposed for this.
4. Comments on Natural England's submissions			
23.	4.1	We note that Natural England have confirmed that they have seen no new evidence from the Applicant and they are therefore maintaining their position, that is, an adverse effect on integrity on The Wash SPA and The Wash & North Norfolk Coast SAC cannot be ruled out beyond reasonable scientific doubt. We support Natural England's position.	Noted by the Applicant.
5. The RSPB's position			

No.	Paragraph No. in RSPB Response	Comment	The Applicant's Response
24.	5.1	<p>We have not seen any new information presented by the Applicant that alters our position set out at the end of the Examination. We consider that an adverse effect on the integrity of The Wash SPA/Ramsar site cannot be ruled out beyond reasonable scientific doubt. A robust compensation package that can be shown to be ecologically viable and legally and financially securable must be in place. We support the principle of securing suitable sites close to both the Witham mouth and the application site to provide alternative roosting and foraging. However, we continue to have serious concerns with the Applicant's compensation package, do not consider it meets the criteria set out in in Table 12 of our Written Representation (Section 10, pp.103-106; REP1-060), as discussed in our Response to Rule 17 Questions at Deadline 10 (pp.2-13; REP10-046), and consider substantive detail is missing to provide the Secretary of State with the necessary confidence that the coherence of the National Site Network would be protected. Therefore, consent should be refused.</p>	<p>The Applicant has continued to develop the 'without prejudice' compensation package following the close of the examination and additional details are set out in the Addendum to Without Prejudice Habitats Regulations Assessment Derogation Case: Compensation Measures (for The Wash SPA) (document reference 9.112) and is confident that the measures proposed would protect the coherence of the National Site Network should the Secretary of State determine that compensation is necessary.</p>

References

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Navedo, J. G., & Herrera, A. G. (2012). Effects of recreational disturbance on tidal wetlands: supporting the importance of undisturbed roosting sites for waterbird conservation. *Journal of Coastal Conservation*, 16, 373-381.

Ronconi, R. A., & St Clair, C. C. (2002). Management options to reduce boat disturbance on foraging black guillemots (*Cepphus grylle*) in the Bay of Fundy. *Biological conservation*, 108(3), 265-271.



Appendix A – Relevant Correspondence with Natural England

From:



[Redacted sender information]

Subject: RE: Boston Alternative Energy Facility

Date: 13 February 2023 15:21:07

Attachments: [image001.png](#)
[image002.jpg](#)

Importance: High

Some people who received this message don't often get email from andrew.stubbs@naturalengland.org.uk.
[Learn why this is important](#)

Good afternoon Matthew,

I have been engaging with relevant colleagues over the past fortnight, both with regards to providing our formal response to the Secretary of State and also with regards to our ability to engage with yourselves through our DAS service.

With regards to your particular request to discuss with Natural England your without prejudice compensation measures for Harbour seals, we would like to provide the following:

1. *The Applicant's requirement to provide a without prejudice compensation measures for Harbour Seals*

From Natural England perspective it has always been about strengthening your mitigation measures to avoid an adverse effect on integrity. We therefore did not identify the need for a derogations case for Annex I harbour seals. This position hasn't changed, therefore in order to help the project progress we have identified the key mitigation measures below that would go a long way to allaying our concerns

If you (the applicant) could provide the following mitigation measures then impacts on marine mammals from construction would be adequately mitigated for

- Commitment to pile at low water or if that is not possible undertake none impact piling methods

Rationale - Avoids underwater noise impacts

If you (the Applicant) could provide the following mitigation measures which are proven to be effective then impacts on marine mammals from operational activities would be significantly reduced. However, issues with vessel speeds and interactions is still unknown

- Commitment for vessels to only use anchors within the Boston Anchorage area or if dynamic position is to be used then the propellers are ducted; And
- undertake 360 degree checks (including vertical aspects) before moving off from the anchorage area.

Rationale - avoid endangering seals in close proximity when engines start or whilst waiting to transit into The Haven

- All vessels including pilot vessels to follow a direct route into and out of the Haven

avoiding seals hauls at the maximum distance possible

Rationale – reduce the likelihood of interactions

Whilst there is no evidence present to determine the most appropriate vessel speeds for any sensitive receptor; for marine mammals best practice would be a speed that enables adult and juvenile seals located within a shallow inlet and bay to move out of the way. However, we recognise that this doesn't meet the MMO 5 criteria to make this an enforceable condition. Therefore we would advise that further option/s included (but not exclusively) in the list below that could either be taken forward as marine Net Gain (i.e. enhancement) or compensation by the Applicant to address the residual impact: -

1. Supporting National Trust in reducing disturbance to harbour seals at Blakeney Point by funding site management measures
2. Undertaking an awareness campaign with key stakeholders to target sources of disturbance within the Wash and North Norfolk Coast SAC such as recreational craft and cockle fishermen
3. Help fund ongoing evidence gathering into causes of the decline in The Wash Harbour seal population which will in turn help determine management measures to help restore the population.

At this stage we do not have the capacity for a meeting with yourselves, however, we would be happy to review any documents via email. Please note though, we would require a minimum **two weeks** to look at any information submitted prior to the 10th March deadline.

Further, for the 2nd question asked by the Secretary of State to Natural England:

2. ***Natural England is invited to comment on the Applicant's response (paragraph 2.2) to the first consultation regarding the proposed changes to the conservation objectives for the harbour seal features of the Wash and North Norfolk Coast Special Area of Conservation. In particular, Natural England is asked whether it agrees with the Applicant that there would be no adverse effect on integrity of the site if the assessment was made under the proposed "restore" objective, and that no information on how to achieve a restore objective is currently available.***

Natural England's draft response will be as follows:

Natural England advises that when considering an AEoI from a project alone the favourable condition status of the feature should provide the context for considering the ongoing carry capacity of the site/features for additional projects/impacts. From Natural England perspective this emphasises the requirement for Applicant's to make every effort to mitigate the impacts, even if a derogations case is required. As highlighted in our response relating to possible compensation measures there is already evidence gathering underway to identify site management measures/steps necessarily to facilitate restoration.

I hope this makes sense, please do let me know if you require any points clarifying,

Kind regards

Andy

Andy Stubbs
Senior Planning Adviser
East Midlands Area Team
Natural England
Apex Court
City Link
Nottingham
NG2 4LA
Tel **02080261978**

[REDACTED]

[REDACTED] [k](#)

We are here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

Natural England offers two chargeable services – The Discretionary Advice Service [REDACTED] provides pre-application, pre-determination and post-consent advice on proposals to developers and consultants as well as pre-licensing species advice and pre-assent and consent advice. The Pre-submission Screening Service [REDACTED] provides advice for European Protected Species mitigation licence applications.

We now offer free and chargeable advice to land owners and managers planning works on Sites of Special Scientific Interest through the [REDACTED]



From: Matthew Hunt [REDACTED]@rhdhv.com>

Sent: 10 February 2023 18:19

To: Stubbs, Andy [REDACTED]s@naturalengland.org.uk>

Cc: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] >

Subject: RE: Boston Alternative Energy Facility

Andy – apologies for the late Friday message, but Paul has been away for a few days and if you have responded on the messages below I've not seen it – could you please pass it on if you have?

If not, we would be very grateful if you could provide any further certainty on your future engagement, or otherwise, as we prepare responses to the latest SoS request (of 10 January). That submission is due in a month (10 March), and we are very much hoping that there will be an opportunity to discuss your views on the measures we are looking to propose in a without prejudice compensation package for harbour seals. Noting the very limited impact of the project assessed on this species, and also the uncertainty regarding causes of the population decline underpinning NE intention to amend the site Conservation Objective, your thoughts on the appropriateness and proportionality of any and all measures proposed would be valuable. We are also seeking to avoid, if possible, a situation where the Applicant and Natural England are in effect communicating with each other via submissions to the SoS. We hope you agree direct communication, if at all possible, will be beneficial to all parties.

Have a good weekend and we hope to hear from you shortly
Matthew

Dr Matthew Hunt

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Previously agreed mitigation measures for reducing potential for impact on harbour seals	Suggestions from Natural England (letter dated 13 th February 2023)	Additional mitigation measures proposed to increase mitigation	Natural England's DAS advice 6 th March 2023
Piling mitigation measures (as stated in Section 3.2 of the Outline MMMP)			
<p>Piling would be undertaken between June and September only, to reduce the potential for impact to ecological receptors such as overwintering birds.</p> <p>Piling is only to be undertaken between 7am and 7pm, or 8am and 8pm.</p> <p><u>Pre-piling watch</u> for marine mammals, following the standard JNCC 'Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise' (JNCC Protocol)¹;</p> <ul style="list-style-type: none"> - For a period of at least 30 minutes prior to piling - To be undertaken by fully qualified and experienced Marine Mammal Observer (MMOb) - Pre-piling monitoring zone of 500m adapted due to nature of the site; <ul style="list-style-type: none"> o It may not be possible to see the entire monitoring zone from all piling locations (due to the bend in the river to the north), however, the minimum viewable distance would be at least 150m at all times, and the full 500m monitoring zone would be used wherever possible to do so. As noted above, the maximum PTS range is 90m for cumulative exposure. 	<p>Commitment to pile at low water or if that is not possible undertake non-impact piling methods.</p>	<p><u>Piling at low water</u></p> <p>As stated within the <i>Applicants Response to the Marine Management Organisation and Natural England's queries regarding Marine Mammals and Fish</i>², restricting the piling to around low water (in addition to the existing restrictions around day-time working and sensitive species), would require the piling period to be extended from the currently defined period. This would potentially introduce impacts to ornithological and fish receptors that are currently being avoided and therefore, it is not possible to commit to only piling at low tide.</p> <p>It is considered that the mitigation measures in the Outline MMMP (and set out in column 1) would reduce the risk to marine mammals during piling to an acceptably low level. However, in light of the request from Natural England alternative options are being investigated as outlined below:</p>	<p><u>Natural England welcomes the piling being undertaken outside of the majority of the Annex I passage and overwintering period. However, we advise that to avoid disturbance to Annex 1 birds then installation work should occur between 15 May to 31 August to be consistent with Offshore windfarm conditions. However, we also note that the works are not directly within the Wash SPA. As the post breeding migratory period has greater number of birds we advise that the works undertaken between 1st May and 31st August.</u></p> <p><u>Natural England advises that the proposed 'piling watch' as set out remains unfit for purpose. To avoid and adverse effect on integrity and to be consistent with other sustainable development in other estuarine environments we advise that only none impact piling including (but not exclusively) vibration piling and or low tide piling as a condition of any permission as it has been</u></p>

¹ Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise, 2010 <https://data.jncc.gov.uk/data/31662b6a-19ed-4918-9fab-8fbcff752046/JNCC-CNCB-Piling-protocol-August2010-Web.pdf>

² Document reference 9.49, REP4-014

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<p>- If marine mammals are detected within the monitoring zone, the commencement of piling would be delayed until the marine mammal is outside of the monitoring zone for 20 minutes, and the full 30 minute pre-piling watch has been completed.</p> <p><u>Soft-start protocol</u></p> <p>Each piling event will commence with a hammer energy at as low as is reasonably practical, followed by a gradual ramp-up to full hammer energy.</p> <p>- Due to the very short expected piling times of five minutes or 15 minutes per pile (dependent on pile type), the full soft-start procedure as stated within the JNCC Piling Protocol may not be possible. However, the piling, where possible, would commence with hammer energies as low as is reasonably practical, with a ramp-up to full hammer energy for as long a period as is possible.</p> <p>If a marine mammal enters the monitoring zone during the soft-start and ramp-up procedure, then, if possible, the piling energy will not increase until the marine mammal exits the monitoring zone. The soft-start procedure is only required where there has been no piling for the preceding 10 minutes (i.e. if piling continues at a new location within 10 minutes of a pile being installed, as is expected, then this soft-start and ramp-up protocol would not be required).</p> <p><u>Breaks in piling</u></p> <p>If piling activity is stopped for less than 10 minutes, the MMOb will check within the monitoring zone for any marine mammal presence before piling can recommence. If a marine mammal is present within</p>		<p><u>Alternative installation methods</u></p> <p>At present it is not possible to identify the pile installation methods, as further detailed design and site investigation is required. However, alternatives to impact piling will be seriously considered. Options that are currently being investigated include the following, although as noted above, it is currently not possible to identify which of these (if any) can be taken forward during construction;</p> <ul style="list-style-type: none"> - Sheet piles using <u>press piling</u> – often used for urban locations for minimal noise vibration - In detail design for column piles, such as <u>squeeze piling</u> - <u>Hydrohammers</u> <p>If alternative methods were used (i.e. non-impact piling) there may be a need for simultaneous piling to be undertaken in order to ensure that the other timing restrictions could be met to safeguard other sensitive receptors (bird, fish and people). As such condition 13(2)(e) would need to be amended as follows: “provision that no planned simultaneous <u>impact piling</u> will be carried out;”</p>	<p><u>demonstrated to be technically feasible for similar projects.</u></p> <p><u>If this were to be a condition, we have no have no objections from an ecological perspective for simultaneous piling being undertaken</u></p> <p><u>Soft Start</u></p> <p><u>Natural England's advice remains that soft start will not be effective due to maximum hammer energy being reached with the initial blow</u></p> <p><u>Break in piling</u></p> <p><u>As set out above this is not going to be effective mitigation measure.</u></p>

Previously agreed mitigation measures for reducing potential for impact on harbour seals	Suggestions from Natural England (letter dated 13 th February 2023)	Additional mitigation measures proposed to increase mitigation	Natural England's DAS advice 6 th March 2023
<p>the monitoring zone, the full mitigation procedure should be undertaken prior to piling recommencing.</p> <p>In the event that piling activity is stopped for more than 10 minutes, the pre-piling watch, soft-start and ramp-up procedure (if possible) is conducted prior to piling re-commencing.</p>			
Vessel management measures (as stated in Section 3.3 of the Outline MMMP)			
<p><u>Vessel speeds³</u></p> <ul style="list-style-type: none"> – Subject to the pilotage requirements for navigational safety and efficiency (vessel management) and the application of the principle of 'safe speed' (application of COLREGS), that when reasonably practicable to do so, it will require that all ships that are subject to compulsory pilotage when moving between the Port of Boston designated anchorage in the Wash and the Docks maintain a speed below 10 knots. <ul style="list-style-type: none"> ○ This will apply to all vessels that are subject to compulsory pilotage (both existing shipping and the additional shipping resulting from the Facility) meaning that all commercial vessels over 30m in length (i.e. all those being used to deliver waste to the Facility) will be subject to these new operating conditions. <p>The Applicant's vessels will also follow the same vessel collision speed restrictions while transiting through The Wash, to the anchorage area. All vessels travelling to the Facility will abide by a vessel speed limit of 10 knots, subject to the above same conditions regarding COLREGS and navigational safety, as far as is</p>	<p>Commitment for vessels to only use anchors within the Boston Anchorage area or if dynamic position is to be used then the propellers are ducted.</p> <p>Undertake 360 degree checks (including vertical aspects) before moving off from the anchorage area.</p> <p>All vessels including pilot vessels to follow a direct route into and out of the Haven avoiding seals hauls at the maximum distance possible.</p>	<p>As stated within the <i>Applicants Response to the Marine Management Organisation and Natural England's queries regarding Marine Mammals and Fish⁴</i>, Dynamic Positioning systems are not generally fitted to cargo vessels, and the harbour master for the Port of Boston has confirmed that no vessels calling at the port have these systems onboard. Therefore, vessels will only be using anchors within the Boston Anchorage area.</p> <p>If vessels using dynamic positioning are ever used in the future in relation to the Proposed Facility there will be a commitment to use propellor guards.</p> <p>A 360-degree visual check of the vessel will be undertaken (including vertically) prior to any vessel within the anchorage area transiting off. This will be included within the tool</p>	<p>Natural England welcomes the commitment of use propellor guards.</p> <p>Natural England previous advice to the SoS remains unchanged.</p>

³ As stated within the Applicant's Response to Secretary of State's Letter of 14th October 2022 document (EN010095), Section 2.4

⁴ Document reference 9.49, REP4-014

Previously agreed mitigation measures for reducing potential for impact on harbour seals	Suggestions from Natural England (letter dated 13 th February 2023)	Additional mitigation measures proposed to increase mitigation	Natural England's DAS advice 6 th March 2023
<p>practicable. The Applicant will twice a year issue a tool box note (or similar) to request all shipping agents and vessel masters associated with the Applicant's vessels to issue guidance on this matter.</p> <p><u>Best practice measures</u></p> <ul style="list-style-type: none"> - Vessels will maintain a steady speed, and direction, at all times, to allow any marine mammal to predict where the vessel may be headed, and to move out of the way. Vessels should use the defined anchorage area and shipping channel at all times. - Within 300m of a marine mammal at sea, vessel should maintain speed and direction to ensure the individual can predict the vessel movements, and move out of the area if needed. - Vessels should not approach within 600m of known seal haul-out sites. - Keep a well-maintained engine and propellor to minimise underwater noise. - Vessels should turn off 'noisy' equipment when close to marine mammals (e.g. engines, propellers (within the anchorage area), and echo sounders) if possible. <p><u>Vessel monitoring</u></p> <p>There are two options for an adaptive monitoring plan to develop information on the interactions between harbour seals and vessel transits;</p>		<p>box talks and notes to all shipping agents and vessel masters associated with the Applicant's vessels (or similar).</p> <p>All vessels into and out of The Haven and The Wash, will follow existing shipping routes, where practicable. Within the jurisdiction of the Port of Boston, the vessels will be transiting from the Boston Anchorage Area up and down The Haven using well established transit routes but at this point vessel movements are at the discretion of the pilots. As discussed in the Habitats Regulations Assessment (Document Reference 6.4.18 (1)) the shipping channel is 840m away from the nearest haul-out site, which is greater than the distance that research (Jansen <i>et al</i>, 2010) has shown can cause any discernible effect from vessel disturbance, which is 600m. The outline MMMP already states that vessels should not approach within 600m of known seal haul-out sites. The locations of known seal haul-out sites can be provided within the tool box note to all shipping agents and vessel masters associated with the Applicant's vessels (or similar). In addition to being secured through the MMMP, where these measures relate to vessel movements within The Haven, these measures will be incorporated into the Navigation Management Plan which will be</p>	

Previously agreed mitigation measures for reducing potential for impact on harbour seals	Suggestions from Natural England (letter dated 13 th February 2023)	Additional mitigation measures proposed to increase mitigation	Natural England's DAS advice 6 th March 2023
<p>1. Observers on-board all Facility vessels for a specified period, or</p> <p>2. Observers at set land-based locations for defined monitoring periods. The below sections provide more detail on the potential options for monitoring, and outline the methodologies that may be used under each of the options.</p> <p>Option 1 would include the measure that, for vessels preparing to leave the anchorage area, the MMOB would be undertake a check of the area surrounding the vessel, to ensure there are no seals within close proximity to the vessel, particularly the propellers, prior to the vessel starting the engine for transit.</p> <p>In the post-consent phase of the Project, the preferred monitoring option would be defined and a full monitoring programme provided within the final MMMP. This will be designed in consultation with the MMO, Natural England and The Wildlife Trust.</p>		<p>agreed with Natural England. This requirement is covered by condition 14 of the Deemed Marine Licence (DML).</p>	

Compensation/Net Gain

Natural England welcomes the proposals presented by the Applicant and agrees that the measures proposed would offset any losses of Annex II Harbour Seals from the Wash and North Norfolk Coast SAC, thus removing an AEoI. However, we advise that if required as compensation there will need to be a draft in principle condition to be included in the DCO, naming a plan is insufficient in this instance. We would also advise that should the Secretary of State be minded to permit the application, the Applicant would become a statutory undertaker and a S28G body under the Wildlife and Countryside Act 1981 (as amended by CROW) and would therefore have a duty to not only maintain the features of designated sites, but to enhance them. Thus, even before Net Gain becomes a planning requirement later this year there is a duty to provide site enhancement.



Appendix B – Pilot’s Questionnaire Responses

Project: **Boston Alternative Energy Facility (BAEF)**

Date: 1.11.22

**Questionnaire - HM and Pilots Opinion and Experience
on the Risk of Vessel Collision with Seals**

Ref: Rev C for issue

There are currently in the region of 450 ships per annum arriving at Boston Dock leading to 900 piloted voyages and approximately 1100 pilot boat movements to and from the Wash. The BAEF project will lead to an increase in annual shipping numbers, and the Examination of the planning consent has led to concern that this could lead to an increase in the risk of vessel collision with seals.

The following questions are intended to gain a better understanding of the risk posed to seals and disturbance to birds from the passage of commercial shipping and pilot vessels.

1. Length of time acting as an Authorised Pilot and Identification of seals.

Question: how many years have you operated at Boston as an Authorised Pilot? **Since August 2020**

Question: How many pilot passages do you on average undertake per month or year? **15- 20 Acts per Month**

Question: Can you identify the difference between a Harbour Seal and a Grey Seal; Yes, or No? **From the bridge of a ship with just its head above the water- No. If they were on a sand bank then yes.**

Question: Would you be able to confidently identify common species of birds seen in the river; Yes, or No?
Vaguely- Gull, Cormorant, Geese Etc. but not specific species within the wider group.

2. Frequency and Location of Sighting Seals

Question: Can you say how often you have sighted a seal whilst on a commercial ship between the Wash and the Docks; is it:

- a) several times a month
- b) **several times a year**
- c) perhaps once or twice a year
- d) less often than once a year
- e) never

Do you have any other comments on this question?

Question: Can you say how often you have sighted a seal whilst on a pilot boat between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year
- c) perhaps once or twice a year
- d) less often than once a year
- e) never

Do you have any other comments on this question?

When on the pilot boat I am not usually paying attention to the boats passage and so am not able to comment on this question.

Question: If you see a seal, is it:

- a) Always in the Wash
- b) **more likely to be in the Wash?**
- c) Always whilst transiting the river?
- d) more likely to be whilst transiting the river?
- e) just as likely to be in the Wash as whilst transiting the river?
- f) In the Dock basin?

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Question: If you see a seal whilst transiting the river, is it:

- a) more likely to be on the riverbank
- b) **more likely to be in the water**
- c) just as likely to be on the riverbank as in the water

Question: If you see a seal whilst transiting the river, is it:

- a) **more likely to be an individual**
- b) more likely to be in a group
- c) just as likely to be an individual or in a group

Question: If you see a seal whilst transiting the river and you can identify the species, would it be:

- a) more likely a Grey Seal
- b) more likely a Harbour Seal

Please see Question 1

3. Risk of Harm to seals from Vessels

Question: have you ever experienced a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston?

If Yes, please give details? **I have not experienced a collision with a seal either during my time at the port or during my previous 15 year career working on coastal vessels.**

Question: have you ever heard about a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston?

If Yes, please say from what source? **I have not heard of any other reports of collisions with seals during my time as working as a pilot at the port.**

Question: Have you ever seen a dead seal in the river? If Yes, please give details? **No**

Question: have you ever seen a dead seal in the Wash? If Yes, please give details? **No**

Question: have you ever seen a seal in the direct path of the ship you were on? If Yes, please give details? **No**

Question: have you ever seen a seal in the direct path of a pilot vessel you were on? If Yes, please give details? **No**

Question: have you ever experienced a seal getting out of the way of an approaching ship? If Yes, please give details? **Not obviously**

Question: have you ever experienced a seal getting out of the way of an approaching pilot boat? If Yes, please give details? **Unable to comment as per question 2**

4. Risk of Disturbance to Birds from Vessels

Question: Have you ever observed birds taking flight because of the passage of vessels? If yes, please state whether this is common or rare occurrence? **Rarely there may be a flock of birds in the river which as the vessel approaches re-locate to either land again on the river behind the vessel or to the river bank/adjacent marshland**

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) more likely with a commercial ship
- b) more likely on a pilot cutter
- c) no difference

I can only comment on commercial vessels.

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) because of the presence of the vessel
- b) because of wash from the vessel
- c) **cannot tell whether the disturbance was due to the presence of the vessel or from wash**

Question: If you can confidently identify common species of birds in the river and Wash, can you say whether any specific species is more impacted by vessels?

If so, which are the most effected?

- a) shorebirds and waders
- b) gulls
- c) herons/egrets
- d) Cormorant
- e) **Geese**

From my time at the port I have once had a flock of geese close to the river's end which have taken flight as the vessel approached and then landed again astern of the vessel once we have passed.

Question: Can you say anything more about the risk of disturbance to birds from vessels?

My position as a pilot is to ensure that the vessel is navigated safely from the pilot boarding area to the port and visa versa. My concentration is therefore focused on this and not on the identification and effect of the vessel on bird species as the vessel transits the Haven. I am therefore not really in a position to comment on the effect that a vessel would have on bird populations.

Project: **Boston Alternative Energy Facility (BAEF)**

Date: 1.11.22

**Questionnaire - HM and Pilots Opinion and Experience
on the Risk of Vessel Collision with Seals**

Ref: Rev C for issue

There are currently in the region of 450 ships per annum arriving at Boston Dock leading to 900 piloted voyages and approximately 1100 pilot boat movements to and from the Wash. The BAEF project will lead to an increase in annual shipping numbers, and the Examination of the planning consent has led to concern that this could lead to an increase in the risk of vessel collision with seals.

The following questions are intended to gain a better understanding of the risk posed to seals and disturbance to birds from the passage of commercial shipping and pilot vessels.

1. Length of time acting as an Authorised Pilot and Identification of seals.

Question: how many years have you operated at Boston as an Authorised Pilot? 11

Question: How many pilot passages do you on average undertake per month or year? 18/220

Question: Can you identify the difference between a Harbour Seal and a Grey Seal; Yes, or No? No and even less likely when observing from a ship when all that would be visible is a head.

Question: Would you be able to confidently identify common species of birds seen in the river; Yes, or No? No – Only very few common species.

2. Frequency and Location of Sighting Seals

Question: Can you say how often you have sighted a seal whilst on a commercial ship between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year
- c) perhaps once or twice a year
- d) less often than once a year
- e) never

I would say several times a year, certainly not a daily occurrence. At the most once a month.

Do you have any other comments on this question?

The most pertinent comment to make is that the Job of the pilot is the safe conduct of the navigation of the ship, not wildlife observations. Seals only catch the eye when its daylight, clear and the surface of the water is like a mirror.

Question: Can you say how often you have sighted a seal whilst on a pilot boat between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year
- c) perhaps once or twice a year
- d) less often than once a year
- e) never

d) Less than once a year, and this will only have been when carrying out hydrographic surveys.

Do you have any other comments on this question?

The seating arrangements for passengers/pilots on the Pilot Cutters do not generally allow for a view by Pilots outside of the cutters.

Question: If you see a seal, is it:

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- a) Always in the Wash
- b) more likely to be in the Wash?
- c) Always whilst transiting the river?
- d) more likely to be whilst transiting the river?
- e) just as likely to be in the Wash as whilst transiting the river?
- f) In the Dock basin?

By far more likely to be in the Wash than anywhere else on the passage. Very occasionally one will be sighted In the river. I have possibly seen a maximum of 2 seals in the dock basin in 11 years. It is well known that there are much larger populations of seals in the river Welland.

Question: If you see a seal whilst transiting the river, is it:

- a) more likely to be on the riverbank
- b) more likely to be in the water
- c) just as likely to be on the riverbank as in the water

I have never seen one on the river bank, so more likely to be in the water.

Question: If you see a seal whilst transiting the river, is it:

- a) more likely to be an individual
- b) more likely to be in a group
- c) just as likely to be an individual or in a group

Always an individual.

Question: If you see a seal whilst transiting the river and you can identify the species, would it be:

- a) more likely a Grey Seal
- b) more likely a Harbour Seal

Can't honestly say that I can tell the difference. However, I have received interesting information via email recently with a flyer attached, explaining that the SMRU are investigating grey seal predation and have been asked to assist with their project. The scheme has identified that grey seals have been seen attacking and killing other Grey & Harbour seals.

3. Risk of Harm to seals from Vessels

Question: have you ever experienced a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston?

If Yes, please give details? **No.**

Question: have you ever heard about a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston?

If Yes, please say from what source? **No.**

Question: Have you ever seen a dead seal in the river? If Yes, please give details? **No. I think one would be very difficult to see.**

Question: have you ever seen a dead seal in the Wash? If Yes, please give details? **No. Again, very difficult to see and identify.**

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Question: have you ever seen a seal in the direct path of the ship you were on? If Yes, please give details? **Not in the direct path.**

Question: have you ever seen a seal in the direct path of a pilot vessel you were on? If Yes, please give details?
No

Question: have you ever experienced a seal getting out of the way of an approaching ship? If Yes, please give details? **Yes. The occasions when a seal is spotted and the nature of their movement, they're literally there one minute and gone the next. It is expected that the seal always gets out of the way.**

Question: have you ever experienced a seal getting out of the way of an approaching pilot boat? If Yes, please give details? **Yes. Again when surveying. Seals are inquisitive and agile.**

4. Risk of Disturbance to Birds from Vessels

Question: Have you ever observed birds taking flight because of the passage of vessels? If yes, please state whether this is common or rare occurrence? **Yes. Some birds take flight which are usually the gulls, but also some birds do not which are usually the duck and geese.**

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) more likely with a commercial ship
- b) more likely on a pilot cutter
- c) no difference

c) No difference

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) because of the presence of the vessel
- b) because of wash from the vessel
- c) cannot tell whether the disturbance was due to the presence of the vessel or from wash

Cannot tell. In some cases birds will even choose to follow both the ships and the pilot boat, in the exact same way that the seagull follows the trawler.

Question: If you can confidently identify common species of birds in the river and Wash, can you say whether any specific species is more impacted by vessels?

If so, which are the most effected?

- a) shorebirds and waders
- b) gulls
- c) herons/egrets
- d) Cormorant
- e) Geese

Gulls – going on volume of numbers

Question: Can you say anything more about the risk of disturbance to birds from vessels?

I would say that the volume and frequency of other factors such as ramblers, dog walkers & dogs on the riverbanks and passing fishing vessels have a greater impact on bird disturbance overall. Any proposed reduction in the safe speed of the passing ships and the pilot boat will have an impact on the length of time each

act of pilotage takes compared to what it does now and always has historically. This will have an accumulative increase in time spent onboard, for no additional pay. Time is money. How will this be compensated?

Project: **Boston Alternative Energy Facility (BAEF)** Date: 1.11.22
Questionnaire - HM and Pilots Opinion and Experience on the Risk of Vessel Collision with Seals Ref: Rev C for issue

1.

There are currently in the region of 450 ships per annum arriving at Boston Dock leading to 900 piloted voyages and approximately 1100 pilot boat movements to and from the Wash. The BAEF project will lead to an increase in annual shipping numbers, and the Examination of the planning consent has led to concern that this could lead to an increase in the risk of vessel collision with seals.

The following questions are intended to gain a better understanding of the risk posed to seals and disturbance to birds from the passage of commercial shipping and pilot vessels.

1. Length of time acting as an Authorised Pilot and Identification of seals.

Question: how many years have you operated at Boston as an Authorised Pilot? N/A

Question: How many pilot passages do you on average undertake per month or year? N/A

Question: Can you identify the difference between a Harbour Seal and a Grey Seal; Yes, or No?
... **Yes**.....

Question: Would you be able to confidently identify common species of birds seen in the river; Yes, or No?... **Yes**.....

2. Frequency and Location of Sighting Seals

Question: Can you say how often you have sighted a seal whilst on a commercial ship between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year
- c) perhaps once or twice a year
- d) less often than once a year
- e) never

N/A

Do you have any other comments on this question?

Question: Can you say how often you have sighted a seal whilst on a pilot boat between the Wash and the Docks; is it:

- a) several times a month ✓
- b) several times a year
- c) perhaps once or twice a year
- d) less often than once a year
- e) never

Do you have any other comments on this question?

Question: If you see a seal, is it:

- a) Always in the Wash
- b) more likely to be in the Wash? ✓

- c) Always whilst transiting the river?
- d) more likely to be whilst transiting the river?
- e) just as likely to be in the Wash as whilst transiting the river?
- f) In the Dock basin?

Question: If you see a seal whilst transiting the river, is it:

- a) more likely to be on the riverbank
- b) more likely to be in the water ✓
- c) just as likely to be on the riverbank as in the water

Question: If you see a seal whilst transiting the river, is it:

- a) more likely to be an individual ✓
- b) more likely to be in a group
- c) just as likely to be an individual or in a group

Question: If you see a seal whilst transiting the river and you can identify the species, would it be:

- a) more likely a Grey Seal
- b) more likely a Harbour Seal ✓

3. Risk of Harm to seals from Vessels

Question: have you ever experienced a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston?

If Yes, please give details? **No**

Question: have you ever heard about a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston?

If Yes, please say from what source? **No**

Question: Have you ever seen a dead seal in the river? If Yes, please give details?

Yes, once on the river bank.

Question: have you ever seen a dead seal in the Wash? If Yes, please give details?

No

Question: have you ever seen a seal in the direct path of the ship you were on? If Yes, please give details?

N/A

Question: have you ever seen a seal in the direct path of a pilot vessel you were on? If Yes, please give details?

No

Question: have you ever experienced a seal getting out of the way of an approaching ship? If Yes, please give details?

No

Question: have you ever experienced a seal getting out of the way of an approaching pilot boat? If Yes, please give details?

No

4. Risk of Disturbance to Birds from Vessels

Question: Have you ever observed birds taking flight because of the passage of vessels? If yes, please state whether this is common or rare occurrence?

Common for gulls to take flight from the water when the pilot vessel approaches.

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) more likely with a commercial ship
- b) more likely on a pilot cutter
- c) no difference ✓

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) because of the presence of the vessel
- b) because of wash from the vessel
- c) cannot tell whether the disturbance was due to the presence of the vessel or from wash ✓

Question: If you can confidently identify common species of birds in the river and Wash, can you say whether any specific species is more impacted by vessels?

If so, which are the most effected?

- a) shorebirds and waders
- b) gulls ✓
- c) herons/egrets
- d) Cormorant
- e) Geese

Question: Can you say anything more about the risk of disturbance to birds from vessels?

2.

Project: **Boston Alternative Energy Facility (BAEF)**

Date: 1.11.22

**Questionnaire - HM and Pilots Opinion and Experience
on the Risk of Vessel Collision with Seals**

Ref: Rev C for issue

There are currently in the region of 450 ships per annum arriving at Boston Dock leading to 900 piloted voyages and approximately 1100 pilot boat movements to and from the Wash. The BAEF project will lead to an increase in annual shipping numbers, and the Examination of the planning consent has led to concern that this could lead to an increase in the risk of vessel collision with seals.

The following questions are intended to gain a better understanding of the risk posed to seals and disturbance to birds from the passage of commercial shipping and pilot vessels.

1. Length of time acting as an Authorised Pilot and Identification of seals.

Question: how many years have you operated at Boston as an Authorised Pilot?7.....

Question: How many pilot passages do you on average undertake per month or year?20.....

Question: Can you identify the difference between a Harbour Seal and a Grey Seal; Yes, or No? ..No.....

Question: Would you be able to confidently identify common species of birds seen in the river; Yes, or No?...Yes.....

2. Frequency and Location of Sighting Seals

Question: Can you say how often you have sighted a seal whilst on a commercial ship between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year**
- c) perhaps once or twice a year
- d) less often than once a year
- e) never

Do you have any other comments on this question?

Vary rarely have I sighted them inland of Foreman's Cottage.

Question: Can you say how often you have sighted a seal whilst on a pilot boat between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year
- c) perhaps once or twice a year**
- d) less often than once a year
- e) never

Do you have any other comments on this question?

Question: If you see a seal, is it:

- a) Always in the Wash
- b) more likely to be in the Wash?**
- c) Always whilst transiting the river?
- d) more likely to be whilst transiting the river?
- e) just as likely to be in the Wash as whilst transiting the river?
- f) In the Dock basin?

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Question: If you see a seal whilst transiting the river, is it:

- a) more likely to be on the riverbank
- b) more likely to be in the water
- c) just as likely to be on the riverbank as in the water

I've never sighted one on the river bank.

Question: If you see a seal whilst transiting the river, is it:

- a) more likely to be an individual
- b) more likely to be in a group
- c) just as likely to be an individual or in a group

I don't recall ever seeing more than one at a time.

Question: If you see a seal whilst transiting the river and you can identify the species, would it be:

- a) more likely a Grey Seal
- b) more likely a Harbour Seal

I would not know.

3. Risk of Harm to seals from Vessels

Question: have you ever experienced a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston?

If Yes, please give details?

No

Question: have you ever heard about a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston?

If Yes, please say from what source?

No

Question: Have you ever seen a dead seal in the river? If Yes, please give details?

I have seen what I believed to be was a dead seal in the river within the last 12 months. (It may have been another animal though)

Question: have you ever seen a dead seal in the Wash? If Yes, please give details?

No

Question: have you ever seen a seal in the direct path of the ship you were on? If Yes, please give details?

In my experience they always seem inquisitive but never in the direct path.

Question: have you ever seen a seal in the direct path of a pilot vessel you were on? If Yes, please give details?

No

Question: have you ever experienced a seal getting out of the way of an approaching ship? If Yes, please give details?

They always appear to be situationally aware and just keep out of the way.

Question: have you ever experienced a seal getting out of the way of an approaching pilot boat? If Yes, please give details?

N/A

4. Risk of Disturbance to Birds from Vessels

Question: Have you ever observed birds taking flight because of the passage of vessels? If yes, please state whether this is common or rare occurrence?

I regularly see birds taking off when passing on a ship, however I cannot directly contribute this to the 'ship'.

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) more likely with a commercial ship
- b) more likely on a pilot cutter
- c) no difference

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) because of the presence of the vessel
- b) because of wash from the vessel
- c) cannot tell whether the disturbance was due to the presence of the vessel or from wash

Question: If you can confidently identify common species of birds in the river and Wash, can you say whether any specific species is more impacted by vessels?

No

If so, which are the most effected?

- a) shorebirds and waders
- b) gulls
- c) herons/egrets
- d) Cormorant
- e) Geese

Question: Can you say anything more about the risk of disturbance to birds from vessels?

Project: **Boston Alternative Energy Facility (BAEF)** Date: 1.11.22
Questionnaire - HM and Pilots Opinion and Experience on the Risk of Vessel Collision with Seals Ref: Rev C for issue

There are currently in the region of 450 ships per annum arriving at Boston Dock leading to 900 piloted voyages and approximately 1100 pilot boat movements to and from the Wash. The BAEF project will lead to an increase in annual shipping numbers, and the Examination of the planning consent has led to concern that this could lead to an increase in the risk of vessel collision with seals.

The following questions are intended to gain a better understanding of the risk posed to seals and disturbance to birds from the passage of commercial shipping and pilot vessels.

1. Length of time acting as an Authorised Pilot and Identification of seals.

Question: how many years have you operated at Boston as an Authorised Pilot? **29 years**

Question: How many pilot passages do you on average undertake per month or year? **5 per month in 2022, previously 200+ acts per annum**

Question: Can you identify the difference between a Harbour Seal and a Grey Seal; Yes, or No? **Not if they are in the water, but yes if they were hauled out**

Question: Would you be able to confidently identify common species of birds seen in the river; Yes, or No? **Yes**

2. Frequency and Location of Sighting Seals

Question: Can you say how often you have sighted a seal whilst on a commercial ship between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year
- c) perhaps once or twice a year **Yes**
- d) less often than once a year
- e) never

Do you have any other comments on this question?

Question: Can you say how often you have sighted a seal whilst on a pilot boat between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year
- c) perhaps once or twice a year
- d) less often than once a year
- e) never

Do you have any other comments on this question? **N/A, Pilots are not generally in a position to act as a look out when getting transferred from shore to ship or vica versa**

Question: If you see a seal, is it:

- a) Always in the Wash
- b) more likely to be in the Wash? **Yes**
- c) Always whilst transiting the river?
- d) more likely to be whilst transiting the river?
- e) just as likely to be in the Wash as whilst transiting the river?
- f) In the Dock basin?

I have seen seals in the river and on very rare occasions in the dock basin (in 29 years, perhaps 5 sightings in the dock). Predominantly sightings have been in The Wash

Question: If you see a seal whilst transiting the river, is it:

- a) more likely to be on the riverbank
- b) more likely to be in the water **Most definitely in the water**
- c) just as likely to be on the riverbank as in the water

Question: If you see a seal whilst transiting the river, is it:

- a) more likely to be an individual **Yes**
- b) more likely to be in a group
- c) just as likely to be an individual or in a group

Question: If you see a seal whilst transiting the river and you can identify the species, would it be:

- a) more likely a Grey Seal
- b) more likely a Harbour Seal

N/A The opportunity to study a seal to identify it as a harbour seal or grey seal whilst transiting the river is unlikely to occur

3. Risk of Harm to seals from Vessels

Question: have you ever experienced a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston? **No**
If Yes, please give details?

Question: have you ever heard about a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston? **No**
If Yes, please say from what source?

Question: Have you ever seen a dead seal in the river? If Yes, please give details? **No**

Question: have you ever seen a dead seal in the Wash? If Yes, please give details? **No**

Question: have you ever seen a seal in the direct path of the ship you were on? If Yes, please give details? **When seals are sighted, they will pop their snout out of the water for a limited time only before diving again. I can't recall an event when I have seen a seal in the direct path of a vessel.
Unknown, see separate response from Pilot cutter skipper**

Question: have you ever experienced a seal getting out of the way of an approaching ship? If Yes, please give details? to get further away from the vessel
As above, seals will come to the surface, take a look around and then dive, I can't comment if the diving is due to the presence of the vessel or just natural seal activity

Question: have you ever experienced a seal getting out of the way of an approaching pilot boat? If Yes, please give details?

Unknown, see separate response from Pilot cutter skipper

4. Risk of Disturbance to Birds from Vessels

General comment is that whilst piloting a vessel especially in the confines of the river, the pilot has little time to spend watching birds and what is happening with them. The answers below as therefore somewhat scanty.

Question: Have you ever observed birds taking flight because of the passage of vessels? If yes, please state whether this is common or rare occurrence?

Yes, this is a fairly common occurrence

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) more likely with a commercial ship
- b) more likely on a pilot cutter
- c) no difference

Not recorded this fact but consider it would be similar for commercial ships and pilot cutter

Question: If you have observed birds being disturbed by a vessel, can you say if this is:

- a) because of the presence of the vessel
- b) because of wash from the vessel
- c) cannot tell whether the disturbance was due to the presence of the vessel or from wash

Question: If you can confidently identify common species of birds in the river and Wash, can you say whether any specific species is more impacted by vessels?

I can't comment on which species are most affected

If so, which are the most effected?

- a) shorebirds and waders
- b) gulls
- c) herons/egrets
- d) Cormorant
- e) Geese

Unknown

Question: Can you say anything more about the risk of disturbance to birds from vessels?

I have noted that birds that take flight following a vessel passing them appear to return to a similar position or one close by after the vessel has passed.

Project: **Boston Alternative Energy Facility (BAEF)** Date: 1.11.22
Questionnaire - HM and Pilots Opinion and Experience on the Risk of Vessel Collision with Seals Ref: Rev C for issue

1.

There are currently in the region of 450 ships per annum arriving at Boston Dock leading to 900 piloted voyages and approximately 1100 pilot boat movements to and from the Wash. The BAEF project will lead to an increase in annual shipping numbers, and the Examination of the planning consent has led to concern that this could lead to an increase in the risk of vessel collision with seals.

The following questions are intended to gain a better understanding of the risk posed to seals and disturbance to birds from the passage of commercial shipping and pilot vessels.

1. Length of time acting as an Authorised Pilot and Identification of seals.

Question: how many years have you operated at Boston as an Authorised Pilot?0.5.....

Question: How many pilot passages do you on average undertake per month or year?20.....

Question: Can you identify the difference between a Harbour Seal and a Grey Seal; Yes, or No?No.....

Question: Would you be able to confidently identify common species of birds seen in the river; Yes, or No?...No.....

2. Frequency and Location of Sighting Seals

Question: Can you say how often you have sighted a seal whilst on a commercial ship between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year
- c) perhaps once or twice a year
- d) less often than once a year
- e) **never**

Do you have any other comments on this question?

Question: Can you say how often you have sighted a seal whilst on a pilot boat between the Wash and the Docks; is it:

- a) several times a month
- b) several times a year
- c) perhaps once or twice a year
- d) less often than once a year
- e) **never**

Do you have any other comments on this question?

Question: If you see a seal, is it: **Unable to answer**

- a) Always in the Wash
- b) more likely to be in the Wash?
- c) Always whilst transiting the river?
- d) more likely to be whilst transiting the river?

- e) just as likely to be in the Wash as whilst transiting the river?
- f) In the Dock basin?

Question: If you see a seal whilst transiting the river, is it: Unable to answer

- a) more likely to be on the riverbank
- b) more likely to be in the water
- c) just as likely to be on the riverbank as in the water

Question: If you see a seal whilst transiting the river, is it: Unable to answer

- a) more likely to be an individual
- b) more likely to be in a group
- c) just as likely to be an individual or in a group

Question: If you see a seal whilst transiting the river and you can identify the species, would it be: Unable to answer

- a) more likely a Grey Seal
- b) more likely a Harbour Seal

3. Risk of Harm to seals from Vessels

Question: have you ever experienced a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston? No
If Yes, please give details?

Question: have you ever heard about a vessel collision with a seal whilst piloting a commercial ship or transiting on the pilot vessel to or from the Port of Boston? No
If Yes, please say from what source?

Question: Have you ever seen a dead seal in the river? If Yes, please give details? No

Question: have you ever seen a dead seal in the Wash? If Yes, please give details? No

Question: have you ever seen a seal in the direct path of the ship you were on? If Yes, please give details? No

Question: have you ever seen a seal in the direct path of a pilot vessel you were on? If Yes, please give details? No

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Question: have you ever experienced a seal getting out of the way of an approaching ship? If Yes, please give details?No

Question: have you ever experienced a seal getting out of the way of an approaching pilot boat? If Yes, please give details?No

4. Risk of Disturbance to Birds from Vessels

Question: Have you ever observed birds taking flight because of the passage of vessels? No
If yes, please state whether this is common or rare occurrence?

Question: If you have observed birds being disturbed by a vessel, can you say if this is:N/A

- a) more likely with a commercial ship
- b) more likely on a pilot cutter
- c) no difference

Question: If you have observed birds being disturbed by a vessel, can you say if this is:N/A

- a) because of the presence of the vessel
- b) because of wash from the vessel
- c) cannot tell whether the disturbance was due to the presence of the vessel or from wash

Question: If you can confidently identify common species of birds in the river and Wash, can you say whether any specific species is more impacted by vessels?Unable to answer

If so, which are the most effected?

- a) shorebirds and waders
- b) gulls
- c) herons/egrets
- d) Cormorant
- e) Geese

Question: Can you say anything more about the risk of disturbance to birds from vessels?Unable to answer

2.