

REPORT

Boston Alternative Energy Facility

Technical Note for Navigation Management and
Ornithology

Client: Alternative Use Boston Projects Ltd

Planning Inspectorate
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Reference: PB6934-RHD-ZZ-XX-NT-Z-4099

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Date: 08 February 2022



Note / Memo

HaskoningDHV UK Ltd.
Industry & Buildings

To: National Infrastructure Planning
From: Alternative Use Boston Projects Limited
Date: 08 February 2022
Our reference: PB6934-RHD-ZZ-XX-NT-Z-4099
Reference: 9.70
Planning Inspectorate: EN010095
Reference:
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Checked by: The Port of Boston
Approved by: Paul Salmon

Subject: Boston Alternative Energy Facility: Deadline 6 - Technical Note for Navigation Management and Ornithology

1 Introduction

1.1 Overview

1.1.1 On the 11th January 2022 the Examining Authority (ExA) published their second round of written questions. Q2.10.0.1 stated:

"I note that the [Navigation Management Plan] NMP could contain detailed information that could have implications for the [Habitats Regulations Assessment] HRA. Please advise when a draft of the NMP will be submitted to the Examination for IPs [Interested Parties] to review, as well as informing the [Examining Authority's] ExA's Report on Implications for European Sites due for publication 22 February 2022."

1.1.2 At Deadline 5 the Applicant stated in its response to the ExA's second written questions (document reference 9.57, REP5-004) that:

"The Navigational Management Plan (NMP) is a post-consent document that will be produced once a principal contractor is selected for construction and the detailed design of the facility is progressed to a sufficient level to allow detailed planning of the NMP to be progressed. [...] Both the Applicant and the Port are of the view that an outline NMP would not at this stage contain sufficient detail to provide clarity on potential impacts from an HRA perspective. [...]"

The Applicant therefore proposes [that] a technical note is produced setting out an explanation of the process to be followed (and topics covered) in developing the NMP (and supporting NRA), including ongoing consultation with Interested Parties"

1.2 Purpose of this note

- 1.2.1 The Port of Boston (PoB) (the statutory navigation authority for The Haven and part of the Wash) and the Applicant (Alternative Use Boston Projects Ltd (AUBP)) remain of the view that developing a detailed NMP should wait until detailed design of the scheme is underway and discussions on methodology can be discussed with a contractor. This same approach was adopted for the Environment Agency's Boston Barrier scheme that was the subject of a Transport and Works Act Order. Note that the NMP will be a 'live' document, updated as required on an ongoing and adaptive basis through the construction and operational phases.
- 1.2.2 The Applicant does however recognise that at the consenting stage of this project it would be helpful to describe the NMP development process, guiding principles, and the likely scope. This document is intended to do that, but with a particular emphasis on how the NMP process will look at the potential impact to birds.
- 1.2.3 The PoB is in agreement with the approach set out in this document, thus creating confidence that disturbance effects on birds will be duly taken account of in the NMP, where appropriate. Appendix A provides written confirmation from the PoB on this matter.
- 1.2.4 The Applicant would wish to emphasise that further and ongoing consultation with Natural England as the statutory nature conservation body, is part of the NMP development process thereby ensuring (within reasonable doubt) that No Adverse Effect on Integrity (AEoI) will occur in relation the designated national network sites due to management of vessels within The Haven.
- 1.2.5 This document has been prepared to set out the process to be followed, and topics to be covered, in developing the NMP (and supporting Navigation Risk Assessment (NRA) (document ref. 9.27, REP2-010), in lieu of a draft NMP and with mention of the potential impacts on designated birds and the HRA.
- 1.2.6 This document should be read in conjunction with the Navigational Risk Assessment (document reference 9.27, REP2-010) and the Pilotage Statement submitted at Deadline 6 (document reference 9.73). Both documents set out important points in relation to the navigation of The Haven and the reader is directed to Sections 8 and 9 of the Pilotage Statement in particular, to understand how the PoB manages vessel movements and the ability it has to manage the area under its jurisdiction. Paragraph 9.2 of the Pilotage Statement provides a summary comment from the Harbour Master that he is confident that vessels can, "be managed in a safe and efficient manner with little adverse effect on the fishing fleet or other river traffic."

2 Navigation and birds

- 2.1.1 The baseline data for birds is provided within the following submissions:
- ES Chapter 17 Marine and Coastal Ecology (document reference 6.2.17, APP-055);
 - ES Appendix 17.1 Habitats Regulations Assessment (document reference 6.4.18, APP-111);
 - ES Chapter 17 Marine and Coastal Ecology and Appendix 17.1 Habitats Regulations Assessment - Ornithology Addendum submitted at Examination deadline 1 (document

reference 9.13, REP1-026), hereafter referred to as ‘the HRA Ornithology Addendum’ for two complete winter seasons and bird breeding seasons (plus British Trust for Ornithology (BTO) Wetland Bird Survey (WeBS) Core Counts data for 2013/14 to 2018/19).

- ‘Autumn Surveys of Waterbirds at the Principal Application Site’ submitted at Examination deadline 3 (document reference 9.43, REP3-019) and ‘Changes in Water Bird Behavior (sic) Due to River Traffic at the Mouth of The Haven and Haven River, Boston Lincolnshire, January 2021 to November 2021’ submitted at Examination Deadline 6 (document reference 9.71) for one autumn waterbird passage season.

2.1.2 Key concerns relating to navigation and birds on The Haven predominantly relate to the non-breeding waterbird populations, in particular in months with more inclement weather conditions and when birds are migrating or overwintering, and in the geographic section of The Haven which lies within the boundary of The Wash SPA/Ramsar/SSSI.

2.1.3 Potential impacts of navigation on birds are, as identified in the ES Chapter 17 Marine and Coastal Ecology, ES Appendix 17.1 - Habitats Regulations Assessment, and the HRA Ornithology Addendum:

- Construction impact 3 - Disturbance due to human activity/increased human presence (excluding underwater noise but including airborne noise), including vessel movements; and
- Operation impact 2 - Changes in vessel traffic and movement leading to increased ship wash, underwater noise, disturbance, collision risk, and risk from invasive species.

2.1.4 The observational surveys of bird responses to vessel movements suggested that visual disturbance from vessels during construction (impact 3) and operation (impact 2) is a key potential impact, with disturbance responses being overwhelmingly attributed to a vessel’s visual proximity or intrusiveness rather than waves produced in its wake. However, the successive assessments of the ES Chapter 17 Marine and Coastal Ecology, ES Appendix 17.1 - Habitats Regulations Assessment, the HRA Ornithology Addendum and the HRA Update have concluded that visual disturbance from navigation will not have an AEoI on designated sites by impact on birds.

2.1.5 Evidence of collision risk was also observed in the surveys with cases wherein birds in The Haven or The Wash moved to exit the direct path of a vessel and these could equally be included within visual disturbance. Disturbance from noise was examined in the note ‘Noise Modelling and Mapping Relating to Bird Disturbance at the Principal Application Site’ (document reference 9.50, REP4-015) submitted at Examination deadline 4, and was not indicated to be a key impact of concern.

3 Vessel management considerations

3.1.1 Aspects of vessel management that would be considered in the development of the NMP to reduce the risk of impacts on birds include:

- Opportunities for encouraging vessel movements in close proximity (as a group), since this can reduce the number of disturbance flights in species prone to repeat disturbance. Noting that the key user group most likely to travel in groups are the fishing vessels.
- Opportunities for managing vessel movements so as to reduce vessel speed where appropriate and beneficial to do so.

- Opportunities for minimising vessels being held on-station at or near the MOTH. Measures outlined in the PoB's Pilotage Statement (document reference 9.73), paragraphs 8.6 and 8.7 describe how vessels are managed in this regard and is applicable for minimising this kind of disturbance.

4 The process and management of risk

4.1 Overview

- 4.1.1 As stated in the Applicant's response to the Examining Authority's second written question Q2.10.0.1 (document reference 9.57, REP5-004), the NMP is a post-consent document that will be produced in conjunction with the PoB once a principal contractor is selected for construction and the detailed design of the facility is progressed to a sufficient level to allow detailed planning of the NMP to be drafted. Therefore, at this stage of the consenting process it is too early to accurately determine the management measures and have them agreed with the relevant stakeholders. However, the Applicant will ensure, in liaison with Interested Parties, that the process set out in Section 4.3 will be implemented to mitigate disturbance impacts on birds.

4.2 Key documents informing the NMP

The draft Navigation Risk Assessment (NRA)

- 4.2.1 The NMP will be informed by the NRA, a first draft of which was submitted to the Examination at Deadline 2 (document ref 9.27 - REP2-010) by the Applicant. Both the NRA and NMP will remain as live documents throughout the construction and operation of the proposed development and will be updated as needed to manage the vessel movement requirements within the Haven. As stated above, the primary purpose of the NRA and NMP is the establishment of vessel management measures to ensure the safety and efficiency of navigation within the Haven for all users is maintained.

Pilotage Statement

- 4.2.2 For the purposes of assisting the Examination, the PoB has produced a Pilotage Statement (submitted at Deadline 6; document reference 9.73) which includes information relevant to navigation and the management of vessels serving the Facility. This statement contains further information (*inter alia*) on how the Port manages existing vessel traffic, and how it would manage the additional vessel traffic arising from the Facility.
- 4.2.3 The Port has included measures for managing vessel movements on the Haven in Section 7 and 8 of the Pilotage Statement. The Pilotage Statement concludes that:

"The introduction of an additional 580 ships from our current number of 450 / 460 is a large increase and worthy of looking closely at how this will affect the daily movement of river traffic, but as similar numbers have been experienced in the past, the Harbour Authority are confident this can be managed in a safe and efficient manner with little adverse effect on the fishing fleet or other river traffic."

HRA

4.2.4 The following documents set out the ornithological aspects of the HRA:

- Chapter 17 Marine and Coastal Ecology and Appendix 17.1 - Habitats Regulations Assessment - Ornithology Addendum (document reference 9.13, REP1-025); and
- Chapter 17 Marine and Coastal Ecology and Appendix 17.1 Habitats Regulations Assessment Update (document reference 9.59, REP5-006).

4.2.5 The NMP will take account of the mitigation recommended in the finalised HRA documents at the end of the Examination, and also take in to account any decision by the Secretary of State on compliance with the regulations and the likelihood of AEol.

Outline Marine Mammal Management Plan (OMMMP)

4.2.6 The purpose of the OMMMP submitted at Deadline 6 (document reference 9.12) is to define the measures to be put in place to mitigate the potential impacts of any physical injury or permanent auditory injury to marine mammals associated with the construction and operation of the proposed Facility. The Outline MMMP is secured by Condition 17 of the draft Deemed Marine Licence (DML) contained within Schedule 9 to the draft DCO (document reference 2.1(3)) which requires a final MMMP to be approved by the MMO following consultation with the statutory nature conservation body and Lincolnshire Wildlife Trust. The final MMMP submitted for approval must be in accordance with this Outline MMMP. The NMP (approved under Condition 14 of the DML) will be informed by the approved MMMP, including the measures outlined in Section 3.3 of the OMMMP, relating to vessel measures.

Navigation Management Planning Process: Risk to Birds

4.2.7 This technical note sets out the process to be followed during the production of the NMP and it will form a fundamental part of the NMP planning process. As set out in Section 4.3.2 the process contained in this report will be secured by the DCO to generate agreed, practicable and appropriate navigation management to ensure that AEol is not triggered beyond reasonable doubt.

4.3 The NMP process

Overview and legal requirement

4.3.1 The NMP will be a live document which can be updated throughout the lifetime of the Facility. Any updates will need to be agreed by the PoB and thereafter submitted for approval by the MMO.

4.3.2 The primary objective of the NMP will be to ensure safety of navigation on The Haven for all users is maintained, however a secondary objective is to ensure the efficiency of vessel movements so as to limit (where practicable) disturbance to existing river users. Further considerations, as set out in the DCO include the management of potential biosecurity risks and managing potential risks to marine mammals in accordance with the marine mammal mitigation protocol. Due to this requirement marine mammals are mentioned in the following sections alongside birds.

4.3.3 As stated in Article 14(1) of the draft DML:

“The undertaker must submit a navigation management plan in writing to the MMO for written approval in accordance with the procedure in Part 5, following consultation with the harbour authority and the Environment Agency to the extent that it relates to matters relevant to its functions, at least 13 weeks prior to the commencement of any licenced activity.”

Potential risk to birds and marine mammals

4.3.4 It is proposed that to ensure the relevant bodies are consulted during the development of the NMP with respect to birds and marine mammals, Natural England (NE) has been added to Article 14(1) of the draft DML as a consultee alongside the Environment Agency (EA), with respect to the extent that it relates to matters relevant to its functions.

4.3.5 As stated in Article 14(3) of the draft DML:

“The navigation management plan must include details of—

- (a) the construction timelines;*
- (b) the potential risks to navigation;*
- (c) communication measures;*
- (d) measures for managing potential risks to marine mammals in accordance with the marine mammal mitigation protocol approved under paragraph 17;*
- (e) measures for managing potential biosecurity risks; and*
- (f) how each stage of the construction process and the operation of the authorised development will be managed to ensure a minimal impact on the safety of navigation in The Haven and ensure that any delay or interference that may be caused to vessels which may be using The Haven is minimised as far as reasonably practicable.”*

4.3.6 It is proposed that wording is added to Article 14(3) of the draft DML to include “measures for managing disturbance to designated bird species developed in accordance with the process in the Navigation Management Planning Process: Risk to Birds”. It is also proposed to add a definition of “designated bird species” as follows: “ Any species which is a constituent named part of The Wash SPA/Ramsar/SSSI non-breeding waterbird assemblage feature, or any species constituting a site feature in its own right, on The Haven above Hobhole Drain; expanded to include any wader, gull, duck, goose, swan, or other waterbird species when monitoring downstream of Hobhole Drain confluence and into The Wash (i.e., inside protected sites boundaries)”. This document will then be added as a certified document in Schedule 10 to the DCO.

NMP development process

4.3.7 The NMP will be produced in a structured and consultative manner following the generation of appropriately detailed design for the marine aspects of the facility (notably the wharf) and selection of a principal contractor for the construction phase.

4.3.8 The key bodies that will be involved in developing the NMP are:

- AUBP as the project’s promoter;
- Principle Contractor;

- The Facility’s operator; and,
- The PoB as the Statutory Harbour Authority (and approver of the document prior to submission and acceptance by the MMO).

4.3.9 Other statutory bodies that will be consulted in the development of the NMP are:

- Environment Agency; and
- Natural England.

4.3.10 Additionally, AUBP may seek the views of the Boston and Fosdyke Fishing Society (BFFS) and the Royal Society for the Protection of Birds (RSPB) along with other interested parties, e.g. boating association, Boston Belle, etc.

4.3.11 The process to be followed in developing the NMP will be as per Figure 1.

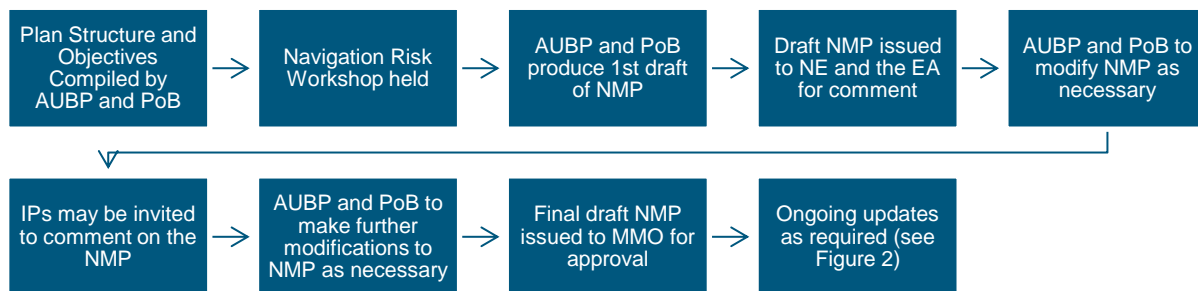


Figure 1 NMP Development Process (Note that the last task ‘ongoing updates’ creates a situation of improvement via adaptive management).

4.3.12 The process to develop the NMP will be as follows:

- Step 1** An initial structure of the NMP and the proposed objectives will be compiled by AUBP in conjunction with PoB.
- Step 2** A Navigation Risk Workshop will take place to determine risk and appropriate responses, this includes a review and update of the NRA. At the Navigation Risk Workshop the Applicant and the PoB will set out the principles and measures contained within the NMP to ensure safety of navigation is maintained on The Haven and disturbance to other river users is minimised (as far as reasonably practical) and will clearly identify where measures are also designed to limit disturbance to birds and marine mammals, as set out in Article 14 of the draft DML.
- Step 3** AUBP will produce the first draft of the NMP in conjunction with PoB.
- Step 4** The draft NMP will be issued to the EA and NE for comment.
- Step 5** The draft NMP will be further modified as required by AUBP in conjunction with PoB.
- Step 6** Interested parties may be invited to comment on the NMP.
- Step 7** The draft NMP will be further modified as necessary by AUBP in conjunction with the PoB.
- Further iterations of Steps 4-7 will be undertaken, as appropriate and necessary.*
- Step 8** The final NMP will be submitted to the MMO for approval as per Article 14(1) of the draft DML.

Step 9 The NMP will be a live document updated as required (this may include monitoring of impacts) to respond to change (during construction and operation of the BAEF). See Section 4.3.5 for further information.

Adaptive management process

4.3.13 Throughout the construction and eventual operational life of the proposed development the NMP will be updated as required as part of an adaptive management process to ensure changes in vessel activities are captured and measures are updated appropriately to maintain navigational safety on the Haven.

4.3.14 The updating process could result from (*inter alia*):

- Observations from, or new statutory requirements imposed on the PoB to improve navigational safety and efficiency;
- any review and recommendations from accidents or near misses the PoB wish to incorporate in to the NMP;
- changes to operations by 3rd parties (e.g. BFFS or other commercial operators) that may change the navigational environment in The Haven which needs to be taken account of;
- yearly reviews of ornithological monitoring data and any subsequent recommendations;
- changes to the statutory conservation designations affecting birds in The Haven including, but not limited to, changes in site boundaries and changes to the citations of each site;
- changes to the Habitats Regulations or any replacement regulations (if applicable); and
- proposals put forward by the Environment Agency, Natural England, BFFS or the RSPB;
- Any written submission by each of these organisations will be considered.

4.3.15 Any updates to the NMP follow a similar process as outlined in Section 4.3.3 above.

4.3.16 As such, once the initial draft of the NMP is issued and approved by the MMO, each following update will be consulted on, as per the feedback loop below.

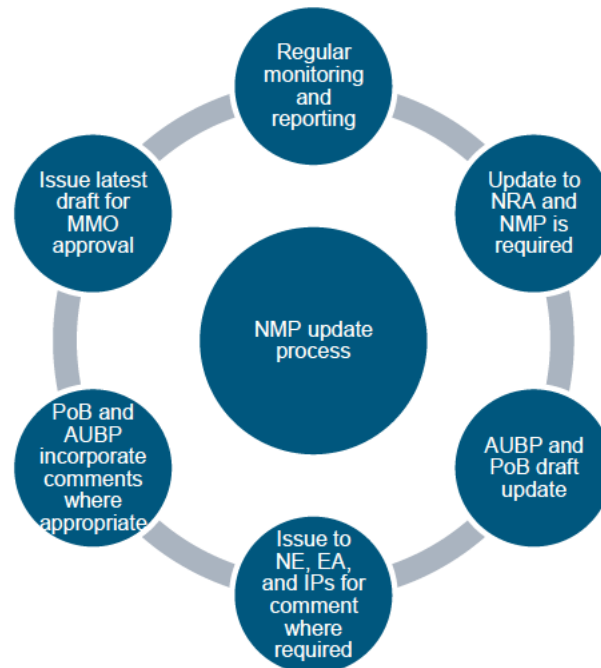


Figure 2 Updating of the NMP

Bird monitoring and reporting

- 4.3.17 A commitment will be made to regular monitoring and reporting (e.g. yearly) on the effects of the NMP's mitigation measures on birds using The Haven through the construction phase and until stable effects (e.g. 3-years of similar effects are recorded) are recorded during the operational phase. The pre-Facility baseline is recorded in the various documents outlined in Section 2 to provide a robust basis for any interpretation of change. The monitoring will feed into the adaptive management that will be applied to the NMP as set out in Section 4.3.4.

5 Conclusion

- 5.1.1 The process set out above to compile and continually improve and adapt the NMP gives confidence that the potential impacts on protected species will be fully taken into account throughout the drafting and implementation of the NMP. This process will ensure that adverse effects on SPA populations are avoided and will not, in all reasonableness, give rise to AEoI.
- 5.1.2 The process outlined above ensures that each iteration of the NMP would include consultation with ornithological stakeholders (i.e. Natural England and the RSPB) and also gives the opportunity for ornithological data to be collected and reported to inform any potential adaptations of the plan. The monitoring and reporting will also ensure adaptive management is effective.
- 5.1.3 This note, and the approach contained within has been produced in consultation with, and is therefore endorsed by, the PoB (as evidenced in Appendix A).

6 References

Gillings, S., Austin, G.E., Fuller, R. J., & Sutherland, W. J. (2006). Distribution shifts in wintering Golden Plover *Pluvialis apricaria* and Lapwing *Vanellus vanellus* in Britain. *Bird Study*, 53(3), 274-284. Available at: [REDACTED]

Appendix A – Port of Boston Endorsement

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: BAEF - NMP Technical Note
Date: 08 February 2022 17:17:51

Hello Sarah,

On behalf of the Port of Boston, I confirm the Port's endorsement to the Technical Note '**Navigation Management Planning Process: Risk to Birds**' document ref: **PB6934-RHD-ZZ-XX-NT-Z-4099, dated 8th February 2022**) that you have finalised today, and intend to submit for Deadline 6, and which will inform the Navigation Management Plan planning process.

Kind regards,

Neil
Authorised Representative of the Port of Boston

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[REDACTED]
[REDACTED]