KEEPING BRITAIN TRADING

IMMINGHAM EASTERN RO-RO TERMINAL

Applicant's Response to Natural England's Deadline 8 Submissions
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Contents

1 Executive Summary

1.1 This document provides the Applicant's response to the information submitted by Natural England ("NE") at Deadline 8. These submissions in turn draw upon information submitted by NE prior to that deadline.

1.2 NE's submissions to which responses are now being provided in this document are the Deadline 8 Submission **[REP8-038]**.

2 Introduction

2.1 This document provides the Applicant's response to the information submitted by Natural England ("NE") at Deadline 8. These submissions in turn draw upon information submitted by NE prior to that deadline.

2.2 NE's submissions to which responses are now being provided in this document are the Deadline 8 Submission **[REP8-038]**.

General Comments

2.3 The Applicant notes that NE has stated that answers to two outstanding EXQ4 questions BNE4.05 and BNE4.12 are to follow at Deadline 9.

3 Natural England's response to EXQ4

Table 1: Natural England response to Examiner's fourth written questions

3.1 The following comments are provided in response to NE's answers in Table 1, identified by reference to the 'ExA question ref' (provided in the first column of Table 1).

BNE4.01

3.2 In its answer to BNE4.01, NE note that it would prefer columns to be added to Tables 3, 4 and 5 for assessment of likely significant effects 'alone' and 'in combination' (separate columns), and that conclusions appear to have been made on the assumption of negligibility, rather than through evidence-based assessment. To clarify, the assessment of LSE in-combination was based on a detailed understanding of potential effects of projects that could cause impacts in-combination and the evidence provided in the 'Justification' column of Tables 3, 4, 5 as well as the application of expert judgement on the scale of effects arising from each impact pathway assessed. NE go on to state that *'we do not consider that this would materially impact conclusions of the Stage 2 assessment on adverse effects on integrity'*. The Applicant notes this point, and on that basis would suggest that the information in Tables 3, 4 and 5 in the HRA is sufficient to inform the conclusions of the HRA.

BNE.4.08

3.3 In BNE.4.08, NE were asked by the ExA to provide a rationale for the use of a precautionary 300 m disturbance distance for the assessment of noise and visual disturbance effects on SPA and Ramsar birds during construction. In its response, NE noted that Shelduck, Curlew and Bar-tailed godwit have all been recorded with flight initiation distances (FID) over 200 m in Table 28 (of the HRA **[REP8-014]**).

3.4 The first point the Applicant would like to highlight is that Curlew and Bar-tailed Godwit typically only occur in very low numbers on the mudflat in the vicinity of the works in the context of estuary wide numbers (<1% of the estuary wide population (based on the WeBS 5-year mean peak)), as noted in Table 29 of the HRA Report **[REP8-014].** Numbers occurring above 1% of the estuary wide population is a threshold commonly applied by NE on the

Humber Estuary, and one which has been specifically requested by NE to be applied for the IERRT project, to determine whether there is the potential to adversely affect individual species. Consequently, these species are not of concern in relation to the potential disturbance effects associated with IERRT, and there is no potential for an adverse effect on integrity (AEOI); the Applicant is confident this remains the case.

3.5 It should also be noted that NE previously acknowledged that a 200 m disturbance distance is an *'acceptable disturbance distance for most construction activities within a port environment where birds will show some habituation to human activity'* but advised that '*a precautionary approach is taken to noise disturbance distances for piling'* [**REP6-048**]. The Applicant has already responded to this (see Table 1 of **REP7-027**) and provided further recent evidence that bird responses to piling activities are also likely to be limited at distances greater than 200 m with mitigation. On this basis, it remains unclear why NE continue to advocate a precautionary approach of 300 m despite the multiple sources of evidence and analysis that supports the use of 200 m as a suitable distance for the IERRT project. It is worth noting that a distance of 200 m is considerable, equating to the lengths of approximately two football pitches combined.

3.6 The assessment in the HRA Report and ES takes into account that disturbance has been recorded at distances of over 200 m in more sensitive species such as Shelduck (as noted in Table 28 of the HRA, which NE highlight in its response to BNE.4.08). However, it is **very important** to recognise that these responses typically occur in more remote areas where individuals are less habituated to human activities. In the context of the Port of Immingham, bird responses at these distances would be expected to be mild and very infrequent given the evidence on the known habituation to existing port related activity and noise.

3.7 This is set out in detail in the HRA Report **[REP8-014]**, responses to relevant representations (Table 3.1, Key Issue 7 **[REP1-013]**), and in, for example, **REP7-027**. A key piece of evidence included in the HRA Report and in the other documents submitted to the examination is the bird surveys conducted during the Ground Investigation (GI) works for the IERRT project. This recorded birds, including Shelduck, Dunlin, Redshank, Turnstone, Black tailed Godwit, Mallard, Herring Gull, Common Gull and Black-headed Gull, actively feeding within 60 m of the jack-up-barge and closer on occasion.

3.8 This evidence, which specifically studied birds using the same area of mudflat as the IERRT project, provides very high confidence that construction activities will cause limited disturbance to birds at distances greater than 200 m. This is only one of many key references that is used to inform the assessment with others including ABPmer, 2002; IECS, 2009a; Wilson, 2009; IECS, 2009b; Dwyer, 2010; Ross and Liley, 2014; Goodship and Furness, 2022; Collop *et al*., 2016; Goodship and Furness, 2019; ABPmer, 2013; Gill *et al*., 2001; Burton *et al*., 2002 as summarised in paragraph 4.10.15 of the HRA. The suitability of a 200 m buffer has also been confirmed by the ornithologists who have undertaken the survey work in the Port of Immingham area which was used to inform the assessment. Their observations suggest

that disturbance responses to human activity (including workers/plant on or near the foreshore, vehicles, vessels or port related noise) rarely occur when the source of disturbance is greater than 200 m from waterbirds. This includes species known to be more sensitive to disturbance such as Shelduck and Curlew.

3.9 These findings are also consistent with data and observations by ABPmer ornithologists within other port environments including Southampton where waterbirds are regularly recorded within 200 m of human activity and continue feeding without eliciting any disturbance response (either dispersive or sub-dispersive) with disturbance responses typically occurring at distances of <100 m of stimuli including species considered more sensitive to disturbance such as Shelduck and Curlew.

3.10 NE also suggest that '*immediately outside the 200m buffer the noise levels could be very slightly lower than 70dB (LAmax), which means that birds in this area could be subject to noise levels approaching 70dB (LAmax)*'. This point is already specifically responded to in paragraphs 3.9 to 3.11 of **[REP7-027]**. In summary, the assessment of piling effects for the IERRT project was specifically undertaken in the context of background noise levels in the Port as required by NE. As stated in paragraph 4.10.22 of the HRA Report **[REP8-014]**, background noise levels of between 48 to 84 dB Lmax were recorded during noise monitoring on the foreshore around the Port of Immingham. Noise levels in these ranges regularly occur on a daily basis. Waterbirds are therefore subjected to noise levels of between 55 and 70 dB repeatedly with observations from ongoing ornithology surveys in the area suggesting that birds show limited responses and continue to feed in important numbers on the mudflats, suggesting they are habituated to noise at these levels.

3.11 As explained in Table 30, Table 40 and in Appendix E of the HRA Report **[REP8-014]**, the winter marine construction restrictions, based on a 200 m disturbance distance, are considered effective at preventing waterbirds utilising mudflat habitat in this area from being exposed to close range visual stimuli and loud noise above typical port background levels (which are the types of stimuli which evidence suggests are most likely to cause regular, repeated disturbance and larger responses such as dispersive flights out of the local area which have largest energetic consequences). Whilst it is recognised some disturbance may still occur, birds would be expected to be able to continue to feed on mudflat in the footprint of the Project during the winter months with only very limited responses anticipated (involving infrequent and mild responses i.e., at worst, very localised flight responses with birds resuming feeding quickly in the local area).

3.12 In its response to BNE.4.08, NE also note that disturbance is likely to occur before flight takes place and that birds can experience increased stress / alertness resulting in less effective foraging. However, in areas such as Immingham where birds are relatively habituated to human activity, waterbirds perceive less risk associated with potential noise and visual disturbance stimuli so responses where birds stop feeding and increased stress levels are likely to be low compared to if new sources of human activity are introduced into more remote areas of coast (where birds are less

habituated). It is also worth noting that sub-dispersive responses (such as increased alertness) typically have less energetic consequences per disturbance event than dispersive response (such as where birds stop feeding and take flight to another location). However, research also suggests that even when frequent dispersive flight response occur, energetic consequences and effects on overall foraging time can be limited. For example, as stated in **[REP1-013]** and paragraph 4.10.12 of the HRA Report **[REP8-014]**, Collop *et al.* (2016) examined the likely consequences of different frequencies of disturbance on various wading birds including Curlew and Bar-tailed Godwit, using their data on mean flight time and mean total time lost. The authors found that a 5% reduction in birds' daily available feeding time would be expected to result from responding to between 38 and 162 separate disturbance events (depending on species and tidal stage). The mean cost per individual flight response represented less than a tenth of a percent of each species' daily energy requirements. The study concluded that the energetic costs of individual disturbance events were low relative to daily requirements and unlikely to be frequent enough to seriously limit foraging time.

3.13 On the basis of all of the evidence provided in the HRA and reinforced in the evidence submitted during examination, disturbance during construction of IERRT, with the proposed mitigation in place, is not considered to be of a level that will cause an AEOI in context of the sites' conservation objectives.

3.14 The Applicant would also like to reiterate a final point relating to other constraints on the construction programme, as set out in Appendix E of the HRA Report **[REP8-014].** It is important to understand that the proposed restrictions and mitigation for overwintering coastal waterbirds (noted above) sit within a much wider package of mitigation measures for other receptors, including migratory fish and marine mammals that are sensitive to underwater noise and vibration. To address this issue, the Applicant has committed to a range of restrictions relating to the timing and duration of percussive piling. Together with the restrictions that are currently proposed for birds, the construction of IERRT is already highly constrained (see Table E.2 of HRA Report). Any further restrictions, in this case an additional spatial restriction on works within 300 m of exposed mudflat (as opposed to 200 m as currently proposed), would disproportionately extend the overall construction period for the project. Given the complex and comprehensive nature of the overall mitigation measures, the addition of further restrictions is likely to have a disproportionate effect on the overall construction programme therefore creating a greater exposure for birds as well as other receptors.

3.15 A summary of the Applicant's case is as follows:

- Only one species (Shelduck) mentioned by NE in their response to BNE.4.08 is above the 1% threshold which is used by NE as an indicator of potential for adverse effects on bird species on the Humber Estuary.
- There is considerable evidence that Shelduck is tolerant of disturbance events within 200 m. This is supported by scientific papers, grey literature

and field observations on the Humber Estuary and elsewhere. Furthermore, this has been evidenced by local ornithologists that routinely monitor the mudflats along the Immingham frontage in the immediate vicinity of the proposed project.

- Natural England themselves indicate that 200 m is an '*acceptable disturbance distance for most construction activities within a port environment where birds will show some habituation to human activity*'. There is no requirement to be over-precautionary in this context particularly where noise monitoring and modelling has been applied to demonstrate, with confidence, that noise levels will not exceed background levels in this location at a distance of 200 m.

- Finally, the restrictions and mitigation for overwintering coastal waterbirds sit within a much wider package of mitigation measures for other ecological receptors. These have all been carefully negotiated with stakeholders using an evidence and precautionary based approach. Any further spatial restriction on works would disproportionately extend the overall construction programme for the project thereby creating an overall greater exposure period for birds and other receptors.

BNE.4.09

3.16 BNE.4.09 asks whether the HRA Report **[REP8-014]** adequately considers airborne noise and visual disturbance impacts from construction on birds roosting on structures in the intertidal zone. The Applicant notes that NE is satisfied with the information provided in relation to potential disturbance to roosting SPA birds using structures in the intertidal zone. It should also be noted that this information in contained in the HRA Report **[REP8-014]** at paragraph 4.3.35.

References

ABPmer. (2002). ABP Teignmouth Quay Development Environmental Statement. ABP Marine Environmental Research Ltd, Report No. R.984a.

ABPmer. (2013). Bury Marsh Bird Monitoring 2012-2014: Interim Report. ABP Marine Environmental Research Ltd, Report No. R.2123.

Burton, N. H., Armitage, M. J., Musgrove, A. J., & Rehfisch, M. M. (2002). Impacts of man-made landscape features on numbers of estuarine waterbirds at low tide. Environmental Management, 30(6), 0857-0864.

Collop, C., Stillman, R.A., Garbutt, A., Yates, M.G., Rispin, E., and Yates, T. (2016). Variability in the area, energy and time costs of wintering waders responding to disturbance. Ibis, 158(4), pp.711-725.

Dwyer, R.G. (2010). Ecological and anthropogenic constraints on waterbirds of the Forth Estuary: population and behavioural responses to disturbance. Thesis submitted as candidature for the degree of Doctor of Philosophy Centre for Ecology and Conservation.

Gill, J.A., Norris, K. and Sutherland, W.J. (2001). The effects of disturbance on habitat use by black-tailed godwits *Limosa limosa*. Journal of Applied Ecology 38: 846-856.

Goodship, N. & Furness, R.W. (2019). Seaweed hand-harvesting: literature review of disturbance distances and vulnerabilities of marine and coastal birds. Scottish Natural Heritage Research Report No. 1096.

Goodship, N.M. and Furness, R.W. (2022). Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 128.

Institute of Estuarine and Coastal Studies (IECS). (2009a). Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance. Institute of Estuarine and Coastal Studies Report to Humber INCA.

Institute of Estuarine and Coastal Studies (IECS). (2009b). Ornithological Monitoring, Saltend: Summary Trend Report #33 January 2007 to March 2007 Late Winter. Report to ABP Port of Hull. IECS, University of Hull.

Ross, K and Liley, D, (2014). Humber Winter Bird Disturbance Study. Unpublished report for the Humber Management Scheme by Footprint Ecology.

Wilson, S. (2009). Estuarine Bird Monitoring (05 Dec 2008-19 Jan 2009) – TERRC Facility. Prepared for Hartlepool Borough Council.