The Great Grid Upgrade

Sea Link

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Volume 9: Examination Submissions

Document 9.148: Hoverport Construction Access Noise Modelling - Technical Note

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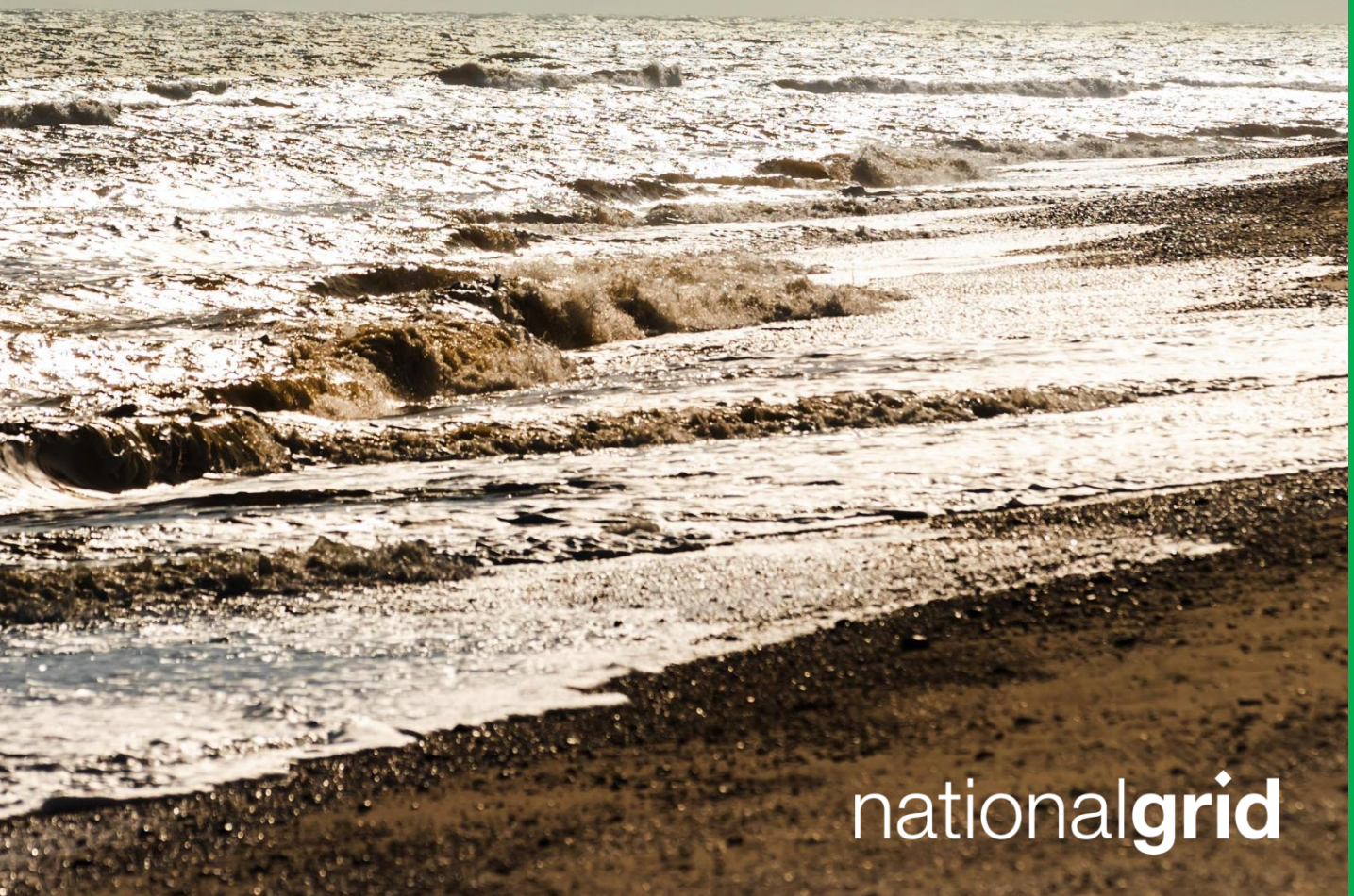

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1. Introduction

1.1.1 Action Point 56 arising from Issue Specific Hearing 3 (ISH3) on environmental issues held on Thursday 26 March 2026 for noise and vibration requested:

"a technical note outlining the effect of 24-hour construction vehicle noise from the hoverport area for residential repeaters and any necessary mitigation. The technical note should include noise contour mapping based on the marine ornithology maps [REP5-032]. The modeling should apply a hardground assumption to the hoverport."

1.1.2 This document serves to provide a response to Action Point 56.

1.1.3 It should be noted that the figures mentioned in the Action Point, specifically Figures 7 and 8 of **6.4.4.5 Environmental Statement Figures Marine Ornithology** show maximum noise levels from construction activities in relation to their impact on ecological receptors and show predicted maximum sound levels. This technical note relates to impacts on residential receptors. Figure 1 presents average noise levels compared to applicable assessment criteria.

2. Assessment

2.1 Assessment Criteria

2.1.1 Construction noise impacts have been assessed in accordance with BS 5228-1 (BSI, 2014) and with the guidance of DMRB LA 111 (Highways England et al., 2020). Note that although DMRB LA 111 was primarily developed for the assessment of highways schemes, it is generally recognised as suitable for the assessment of a wide range of infrastructure development.

2.1.2 Construction noise levels have been calculated at NSR for the various construction activities in accordance with the methodology described in Annex F of BS 5228-1 and compared against the assessment thresholds. The thresholds are set relative to the lower noise thresholds (Category A) as detailed in Section E.3.2 of BS 5228-1 (the 'ABC' method). The Category A construction noise thresholds represent the lowest assessment criteria (typically used to assess impacts in rural areas) and are proposed to be used throughout the EIA as a worst-case.

Table 2.1 Construction Noise LOAEL and SOAEL

Time period	LOAEL	SOAEL
Weekdays 7:00am to 7:00pm, and Saturdays 7:00am to 1:00pm	50 dB $L_{Aeq,T}$	65 dB $L_{Aeq,T}$
Weekdays 7:00pm to 11:00pm, Saturdays 1:00pm to 11:00pm, and Sundays 7:00am to 11:00pm	50 dB $L_{Aeq,T}$	55 dB $L_{Aeq,T}$
Night-time 11:00pm to 7:00am	40 dB $L_{Aeq,T}$	45 dB $L_{Aeq,T}$

2.1.3 The magnitude of impact of construction noise would be determined against the criteria specified by DMRB LA 111, as detailed in Table 2.2.

Table 2.2 Magnitude of impact from construction noise

Magnitude	Construction noise level
Large	Above or equal to SOAEL +5 dB
Medium	Above or equal to SOAEL and below SOAEL +5 dB
Small	Above or equal to LOAEL and below SOAEL
Negligible	Below LOAEL

2.2 Construction Traffic Noise Modelling

2.2.1 Traffic data suggests approximately 43 daily vehicle movements on the hoverport access road, with approximately 30% being heavy good vehicles. It is assumed that most of these movements would be during daytime periods. For the purposes of this assessment, it assumed that night-time movements would be relative to the proportion of the night-time period (23:00 to 07:00) (i.e. one third) and this is expected to represent a worst-case.

2.2.2 Predicted night-time noise levels from construction traffic movements on the hoverport access track are shown in Figure 1. The assessment includes a hard ground assumption for the hoverport.

2.2.3 The predicted average façade noise level at the worst-case receptor is 44 dB $L_{Aeq,1h}$. This is below the lower night-time construction noise SOAEL threshold of 45 dB $L_{Aeq,1h}$ (which has been assumed as a worst-case despite existing traffic noise on Sandwich Road) and therefore constitutes a small magnitude impact. Significant adverse effects are therefore not expected from construction traffic on the hoverport assess road during night-time periods.

2.2.4 Average construction traffic levels may be higher during day-time periods by up to approximately 3 to 5 dB. However, this is comfortably below the relevant SOAEL thresholds for both evening/weekend and daytime periods, and therefore not significant.

2.2.5 Although significant adverse effects are not expected, the contractor will manage and mitigate adverse effects from noise in line with the various commitments for noise in **9.84 Register of Environmental Actions and Commitments**, including NV01, NV02, NV03, NV06, and NV10. Additionally, works will be conducted in accordance with 7.5.8.2 **Outline Construction Noise and Vibration Management Plan - Kent** and will have oversight by Thanet District Council through the agreed Section 61 process (agreed at Deadline 6).

References

Highways England et al. (2020). *Design Manual for Roads and Bridges LA 111 Noise and Vibration*. London: Highways England et al.

Appendix A Figures

N

Legend

Order Limits

Nighttime Construction Traffic Noise - Access Track (dB)

- 10 - 15
- 15 - 20
- 20 - 25
- 25- 30
- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- > 55

0 0.1 0.2 0.3 0.4 km

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Rev	Date	Description	GIS	Chk	App
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Scheme: SEA LINK

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