Ardersier Port (Scotland|) Ltd

Ardersier Port Permitting Support

MD-LOT RFI Response Letter

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Louise Treble
Marine Directorate
Scottish Government,
5 Atlantic Quay,
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Glasgow,
G2 8LU

Dear Louise,

Our ref: 00011871, 00011872 & 00011873 - Ardersier Port Ltd - Ardersier Port Expansion Project - Ardersier Port - Consultation End and Additional Information Request.

Response to Marine Directorate - Ardersier Port Expansion Project

Ardersier Port Ltd (hereafter referred to as 'the Applicant') extends its gratitude to Marine Directorate and their consultees for their response on our application for a Marine Licence to expand and develop the port. The expansion includes the construction of an expanded harbour area to support offshore wind assembly and related port activities.

The information provided within this letter has been submitted in response to the Request for Additional Information (RFI) made by the Marine Directorate and received on the 6th July 2026. More specifically, the letter is in response to the following:

"Following consultation of the EIA Report and supporting documents for the above marine licence applications, the Scottish Ministers request that in order to ensure the completeness and quality of the EIA Report, supplementary information is submitted in relation to your EIA application in line with Regulation 21 of the Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the 2017 EIA Regulations"). The requested additional information is directly relevant to reaching a reasoned conclusion on the significant effects of the works on the environment and without it, we will be unable to make a determination on your application. We have outlined the additional information requested below:

- *Consideration of potential effects from prop-wash scour including details of controls on vessel operation, regular monitoring for developing scour features and remedial action.*

- *Consideration of buffer width required to accommodate uncertainties regarding stability of the dredged side slopes in natural conditions.*

- *Details of the proposed expansion of the tern nesting island and scrub control enhancement work on Whiteness Spit.*

You are directed to the NatureScot response for further details."

Table 1 summarises the Applicant's response to each of the three matters identified in the RFI.

Thank you in advance for consideration of our responses and the supporting information.

Kind regards,

Dr. Jack Poleykett
Principal Environmental Consultant – Xodus

On behalf of

Dr. Campbell Fleming
Head of Consenting – Ardersier Port (Scotland) Ltd.

Enclosed:

- Appendix A: Royal HaskoningDHV. (2026) Scour Assessment: Ardersier Port. Report reference PC9062-HAS-XX-XX-RP-ME-0001, Status S5/P03, 1 October 2026. Prepared for Ardersier Port (Scotland) Ltd.
- Appendix B: Xodus (2026). Potential effects of propeller wash induced dredge slope scour on Whiteness Head.
- Appendix C: Phase 2 Navigation Channel and Dredge Stand-Off Drawings including:
  - Dredge Offset to MLWS
  - Navigation Channel Offset to MHWS and MLWS
  - Phase 2 Offset to MHWS and MLWS Sections

Table 1 MD-LOT further information request and Applicant's responses

COMMENT	WHERE APPLICANT RESPONSE CAN BE FOUND
Consideration of potential effects from prop-wash scour including details of controls on vessel operation, regular monitoring for developing scour features and remedial action.	The Applicant's response to the raised query is provided in Section 1.1 of this letter. Additional information and further technical considerations is provided in Appendix A, Appendix B, and Appendix C attached to this letter.
Consideration of buffer width required to accommodate uncertainties regarding stability of the dredged side slopes in natural conditions.	The Applicant's response to the raised query is provided in Section 1.2 of this letter. Additional information and further technical considerations is provided in Appendix C attached to this letter.
Details of the proposed expansion of the tern nesting island and scrub control enhancement work on Whiteness Spit.	NatureScot welcomed the proposed expansion of the tern nesting island but requested further information to confirm that the works would not adversely affect nearby protected areas. The Applicant confirms that the proposed island expansion was identified as a potential enhancement only and does not form part of the current marine licence applications. The proposal is therefore not being progressed at this stage and, should it be taken forward in the future, it would be subject to further survey, consultation with NatureScot and a separate consenting application.

1.1 Potential Effects from Propeller Wash Scour

The Applicant introduced a 10 m stand-off between the top of the dredge slope and Mean Low Water Springs (MLWS) to accommodate potential unforeseen side-slopes widening. While NatureScot welcomed this precautionary approach, they requested further information on:

- *the potential effects of propeller wash scour on the dredged side-slopes;*
- *details of the proposed controls on vessel operations;*
- *specification of the minimum frequency of bathymetric monitoring for developing scour features;*
- *details of the remedial action that would be implemented where scour is identified; and*
- *either:*
  - *an enforceable vessel operations plan; or*
  - *Identifying any additional minimum buffer width required to accommodate potential slope failure induced by prop-wash, taking account of the largest or most powerful vessel that may operate within the deepened inner harbour.*

In response to these queries, the Applicant commissioned Royal Haskoning to undertake an independent assessment to consider the potential effects of propeller wash on the dredge slopes under a worst case operational scenario, taking into account vessel types and manoeuvres within the deeper (-12.4 m Chart Datum (CD)) and shallower (-6.0 mCD) Inner Harbour areas. This report is attached to this letter as Appendix A.

The report concluded that based on the calculations, some erosion could occur particularly of loose surface deposits, although the magnitude of actual erosion is difficult to assess.

Using the Haskoning work alongside the EIA and historic relevant reports, the technical note by Xodus (attached to this letter as Appendix B) considered briefly the likely spatiotemporal effects of the erosion of these sediments on the Whiteness Head Site of Special Scientific Interest (SSSI) I. The note concluded that the dredge slopes are not anticipated to experience significant erosion in perpetuity, any that any indirect effects on the SSSI are considered unlikely to materially alter the underlying character or overall integrity of the Spit, or materially alter the wider coastal processes responsible for maintaining the features of interest of the SSSI.

A precautionary monitoring programme has been defined to ensure that effects are detected early. Should localised scour take place, mitigating actions would be promptly established to limit downstream effects on the Whiteness Head SSSI. The monitoring programme would flow as follows:

1. On completion of dredging a full bathymetry and topographic survey of the Inner Harbour and the Spit would be undertaken – this would be the baseline against which all subsequent surveys would be assessed;

2. Bathymetry surveys would be carried out each six months for the entire Inner Harbour and results (difference plots) and interpretation sent to NatureScot/MDLOT.

3. Each year the required frequency of monitoring would be reviewed and a decision made as to its suitability (whether an increase or decrease is appropriate).

4. Although considered unlikely, should either (a) any part of the 10 m buffer appear to be in danger of encroachment, or (b) in areas where there is currently > 20 m of a design buffer, where 5 m of retreat of that face is observed, then an action plan will be prepared and potentially problematic operations such as tug use and direction in that area cease until any necessary remedial actions have been implemented.

5. Remedial actions if needed could most appropriately consist of reinstating the eroded area with maintenance dredged sands and gravels, forming a sacrificial layer in the required area, and revised berthing procedures would also be considered. We do not consider that hard scour protection will be needed at this time.

It is also worth noting that vessel movements are not expected to peak for several years. Vessel numbers are anticipated to increase gradually over a period of 5 to 10 years, or potentially longer, allowing effects to be observed and understood during the initial years of operation. This evidence can then be used to inform the most appropriate mitigation or avoidance measures, should these prove necessary.

1.2 Buffer Width and Stability of Dredge Slopes in Natural Conditions

As part of the proposed dredge design, the Applicant introduced a 10 m buffer that was defined as a "stand-off" between the top of the dredged side-slopes and the MLWS, this was introduced to allow for any unforeseen widening of the dredged side-slopes arising from bow waves and propeller wash scour. NatureScot welcomed this inclusion but requested further consideration of whether an additional buffer (on top of the 10 m buffer) is required to account separately for uncertainties regarding the stability of the dredged side-slopes under natural conditions.

In particular, NatureScot requests:

- *a revision (or addendum) to the 2025 Stability Assessment, stipulating the minimum buffer width required to account for uncertainties in slope stability under natural conditions. This should include a "margin of safety" similar to that identified in the spit 2024 Stability Assessments;*
- *confirmation that any buffer required for natural slope instability would be additional to any buffer required to address propeller wash-induced scour; and*
- *detailed drawings showing the dredge area, side-slopes, up-to-date post-reinstatement position of MLWS and the SSSI boundary.*

Furthermore, NatureScot requested clarification on an apparent inconsistency within the addendum to the Whiteness Head Stability Assessment concerning the reinstatement sands. The Addendum stated that the proposed dredged side-slopes gradient adjoining the reinstatement sands was increased from 1:8 to 1:6 because "this area will perform comparably to the wider spit". However, the parameters presented in Table 3.1 remain valid, including the significantly lower reinstatement sands friction angle. Clarification was therefore requested particularly given that the reinstatement sands may be placed on an inclined surface, which is likely to increase the likelihood of slope failure. This clarification was previously submitted to MD-LOT.

To address these matters, the Applicant has prepared a suite of supporting technical documents and clarification notes. The following sections respond to each element of NatureScot's request and, where appropriate, refer to the relevant supporting document in which the detailed assessment is presented.

1.2.1 Clarification Regarding the Stability of Reinstatement Sands

With regard to the inconsistency raised by NatureScot on the proposed dredged side-slopes gradient adjoining the reinstatement sands increasing from 1:8 to 1:6, the Applicant notes that the previously determined 1:8 side-slopes were based on conservative assumptions made before the completion of the detailed marine ground investigation (GI) campaign which has now been completed. The campaign and subsequent testing confirmed that the reinstatement sands have properties that are similar to the natural sands found on the wider Spit. Table 3.1 was therefore updated to reflect the tested properties, including a friction angle of 35°, providing the technical basis for adopting the proposed 1:6 side-slopes gradient. With regard to the potential for slope failure also raised by NatureScot, ongoing inspections have found no evidence of instability, and the reinstated area has remained stable and performed satisfactorily. The Applicant will continue to monitor the side-slopes in order to ensure structural stability of the Spit restoration area.

1.2.2 Minimum Buffer Width and Margin of Safety

As noted in Section 1.2.1, With regard to the potential for slope failure also raised by NatureScot, ongoing inspections have found no evidence of instability due to natural conditions, and that the reinstated area has remained stable. On this basis, it is concluded that the 10 m stand-off buffer is sufficient to accommodate any unforeseen side-slopes widening due to both natural conditions and/or propeller wash scour (as further discussed in Section 1.1).

In addition, as demonstrated by the drawings attached to this letter in Appendix C, the stand-off 10 m buffer is the minimum between the MLWS and the top of the dredge slope. The dredge slope only approaches the 10 m buffer over a very short section as shown in drawing: "Dredge Offset To MLWS" presented in Appendix C. The actual buffer width varies along the dredge slope and is mostly much greater than 10 m, typically ranging from approximately 24 m to more than 50 m. The monitoring programme (discussed in Section 1.1) will also ensure that this 10 m buffer is not encroached upon, and remedial actions will immediately be undertaken to rectify and reinstate the buffer if localised erosion is detected.

1.2.3 Updated Design Drawings

In response to the detailed drawings request above, the Applicant has prepared updated plan and section drawings showing the proposed dredge area and side-slopes showing the post-reinstatement position of MLWS, Mean High Water Springs (MHWS) and the Whiteness Head SSSI boundary. The drawings also identify the proposed 10 m "stand-off" buffer and the separation distances between the top and bottom of the dredge slopes and the relevant tidal boundaries. These drawings are provided as Appendix C of this letter.