

Ms Louise Treble Marine Directorate License Operations Team (MD-LOT) By Email Only

01 October 2024

Dear Louise,

### **Dredge Licence Application**

Further to recent discussions, EnviroCentre have sent you by file transfer our Ardersier Port dredge licence application form and associated supporting information.

For clarity this will include:

- The Application Form with associated Drawings, Coordinate Information and Outline Method Statement;
- o The Best Practicable Environmental Option (BPEO) Report;
- o Sediment Transport Monitoring Plan July 2024 Revision 5;
- o Ardersier Deeper Dredge Ecological Assessment July 2023 Revision 1;
- Marine Mammal Protection Plan and Marine Mammal Observation Protocol August 2024 and Revision 5; and
- o Construction Environmental Management Document Version 2.2.

Appendix A to this letter contains responses to questions or clarification points raised in the screening opinion of 02 July 2024, and subsequent email correspondence.

Appendix B contains consultation information sent to NatureScot between 25 July and 9 August 2024 relating to Seal Haul-out Areas, a Tern Buffer Zone Information and a Methodology for Spit Reinstatement. It also includes the pre-application response from NatureScot regarding Terns.

Appendix C contains information on the planned active acoustic monitoring system to be deployed at dredge site and disposal ground. This is mitigation designed to address potential concerns around nighttime dredging in the period 1-15 May 2025, nighttime restart to dredging, nighttime disposal at Burghead and replace marine mammal checks in sea states of 4 or greater. By deploying this system, provided no animals are within 500m of the dredge or disposal site these activities should be able to take place without additional restriction.

Best Regards,

Dr. Campbell Fleming

Cc: EnviroCentre, Campbell Stewart

## Appendix A Screening Opinion Query Responses

#### Overview

The screening opinion for this project (SCR-0081) was returned on 2nd July 2024 and confirmed that an EIA would not be required for sea disposal provided that the mitigation detailed in the accompanying reports was implemented.

Several queries or opportunities for clarification were noted by us within the Screening Opinion, the Consultee Responses, and associated correspondence (emails), which this document seeks to address.

### Final paragraph in Characteristics of the Works (Screening Opinion Letter)

Additionally, the Proposed Works include an extension to the restricted period conditioned in the Licensed Works, for dredging the outer channel. It is proposed that the timescale for dredging the outer channel be extended by 15 days to cover the period 1 April to 15 May inclusive. Dredging activities will take place 24 hours a day, with the exception of the period 1 - 15 May inclusive, when activities will be restricted to daylight hours only.

 To clarify, the dates previously discussed and included within the screening request were the last week of March to 15th May inclusive for the Outer Channel works to be complete.

MDLOT – Email 10th July 2024 (RE: SCR-0081 - Ardersier Port Limited (per Envirocentre) - Capital Dredging and Sea Deposit - Ardersier Port)

Could you advise on the size of the area for deposition at Whiteness Sands East?

The area detailed on drawing ArdPhase1-HAV-WP3-ZZ-DR-C-0006 is 92,000 m2

### MDLOT – Email 10th July 2024 (Response to Campbell Fleming Email)

From the screening of the construction, NatureScot are looking for clarity on whether the Coastal Model & Assessment Report replaces the STMP. If this could be provided in the construction documentation it would aid consultee understanding.

o The Coastal Assessment Report and Sediment Transportation management Plan (STMP) serve two distinct purposes and will remain as two standalone documents.

### NatureScot - Consultation response to SCR-0081 (Ref CEA 175541)

The MMPP may require to be updated again, as we note there still seems to be inclusion of 'no night-time dredging' (Section 4.5), which may cause confusion to any 'new' audience.

 Version 5 of the Marine Mammal Risk Assessment (MMRA) Report 13972 (24th April 2024) has been updated (in section 4.5), with point 9 of the MMO protocol detailing night time MMO protocols.

Disposal at/over Whiteness Sands should avoid the early harbour seal pupping period (even at high tide), thus disposal at this location would be best to occur before 1 June (see advice on timings of disposal for other Protected Areas, as below). We would welcome the MMPP being updated to reflect this extra mitigation if these measures can be implemented in a practical context.

• The MMPP has been updated to include these dates in recognition of this request (Section 4.5.2 of MMRA V5).

The NatureScot response recognised that the main dredge is a significant distance from the main haul out. However the Whiteness Sands nourishment is closer to the main haul outs. Additional information regarding the method of placement and timing has already been provided by Haventus to NatureScot and is enclosed in Appendix B titled 'Seal Haul Out and Dredging'.

We would welcome a detailed method statement for spit reinstatement of both the western and eastern scallops, encompassing mapping, cross-sections, and methodology (this may match the CEMP proposed in Appendix F of the BPEO (p.436).

A method statement was prepared by Haventus based on discussions with dredging contractors which describes how the reinstatement will be undertaken. This has already submitted directly to NatureScot for their consideration and is contained in Appendix B of this document titled 'Spit Reinstatement Method Statement'.

We have previously provided advice regarding breeding common terns, including an updated non-disturbance buffer zone of 400m.

o Haventus reviewed NatureScot research papers on appropriate buffers and prepared discussion document which was submitted to NatureScot for their consideration at the

- end of July 2024. A copy is included in Appendix B titled 'Terns Island Nest Sites Review of Information'.
- On 21 August Haventus received pre-application advice by email from NatureScot on the matter of nesting terns in particular Common Terns. The advice from NatureScot is also included in Appendix B. The key aspects of this advice we took as: a) the dredge works should be timed to avoid being at the closest point to the tern nesting island at the time Common Terns decide to settle and establish nest sites as this is particularly sensitive time period; and b) Pedestrian activity in line of sight (on the land areas) of the tern colony should be restricted and minimised for the duration of the breeding season.
- o In 2024 terns arrived between 7 June and 4 July. Common Terns arrived on 4 July 2024. It is however noted that nesting season for terns can be from May onwards. We will prioritise dredging the area close to the island early in the campaign, and programme works to avoid dredging in proximity to the island when Common Terns are arriving to nest and monitor for their arrival.
- During breeding bird season we will also maintain a bund between the working platform areas and the island to minimise any line of sight from nesting birds on the island to pedestrians on the site platform area.

We note that two licenced offshore disposal sites are identified, with Burghead being the preferred option to the Sutors. It is possible that some Moray Firth SPA waterbirds may still be present in good numbers between Port of Ardersier and Burghead/Sutors. We know that both disposal areas can be favoured by Seaduck, potentially into April. Therefore, if it was possible for early disposal of material from the outer dredge channel to be redirected to Whiteness Sands and Spit Reinstatement Zones, perhaps during April, then that could help to reduce any disturbance and/or displacement effects to non-breeding SPA waterbirds that may be frequenting within the vicinity of disposal locations.

O It is currently expected that pump ashore to the existing dredge sand storage area, Whiteness sands nourishment and spit reinstatement will all take place early in the dredge programme. Currently we therefore do not anticipate disposal at Burghead in April 2025.

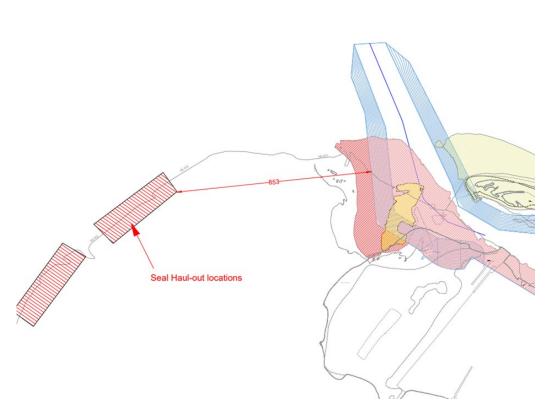




# Seal Haul Out and Dredging

### **Seal Haul Out Locations**

 In August 2023 seal haul out locations were observed as shown in the image below.



- On restarting work at Haventus in early April 2024 I undertook informal observations of the seals hauled out on Whiteness Sands and the locations were consistent in April/May 2024 with those observed in August 2023. We were generally seeing around 100 seals on most days.
- On commencing formal weekly monitoring at the end of June it was evident that seal numbers had reduced to less than 30 (presumably due to pupping) with the number of seals increasing each week through to w/b 30 July 2024 where 131 were observed. The locations of where seals are recorded hauled out are derived from the GPS location of the monitoring point and a sighting compass bearing to the centre of each cluster of seals and shown on the attached drawing.

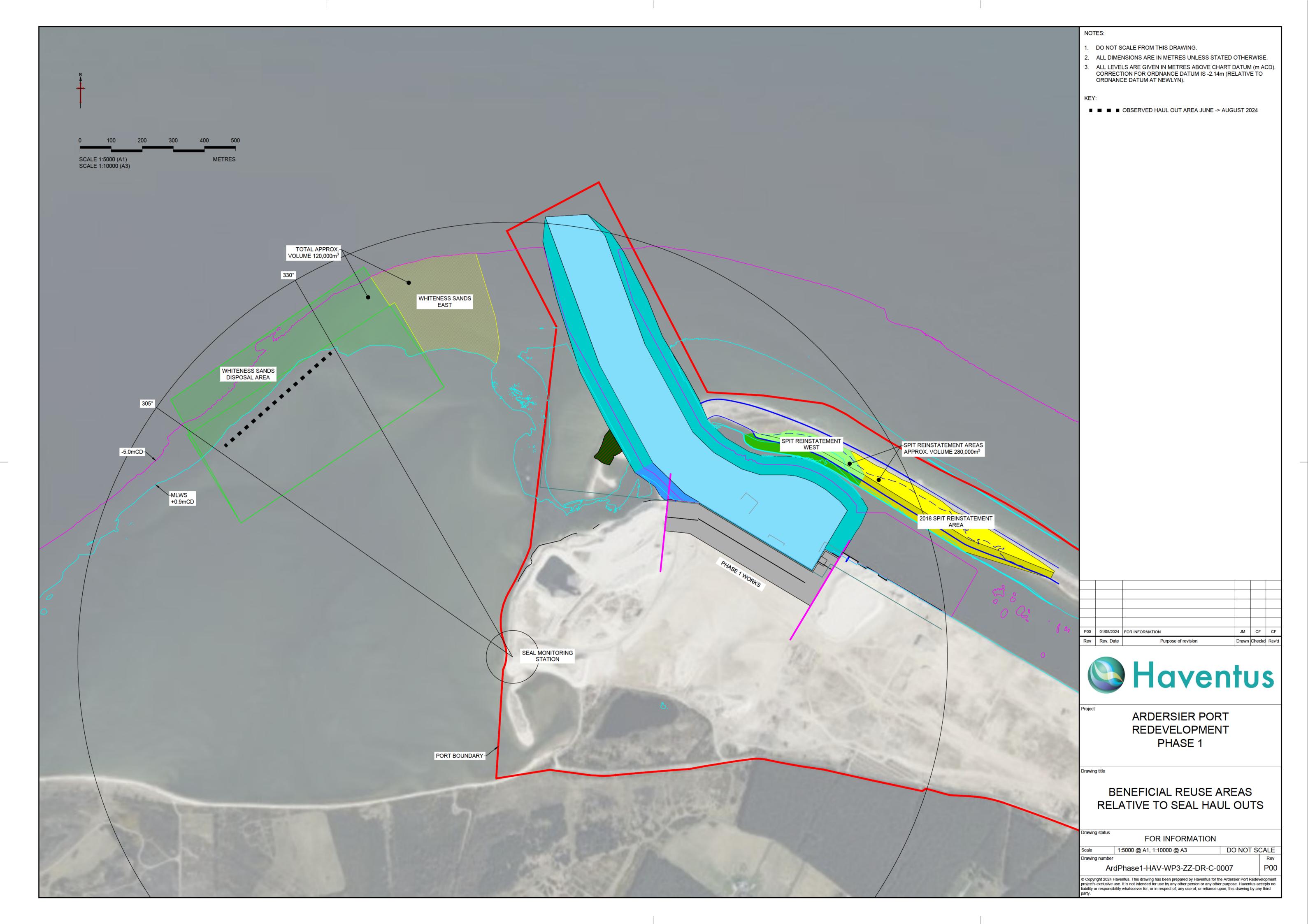


### **Dredging Works**

- The nourishment of Whiteness Sands is planned to take place well before 1 June 2025. It is expected to be in April 2025.
- The placement method is expected to be by spreader pontoon, with attendant multicat (to move it around).
- A floating pipeline will run from the dredger to the spreader pontoon where it will discharge down to the seabed until the desired level is reached in that location.
- The multicat then will move the spreader pontoon to its next location (small movements and only very slow speeds of 4knots or less less than walking pace).
- A spreader pontoon and multicat arrangement is shown in the image below.



- Deposition is expected to take place in both Whiteness Sands East and Whiteness Sands Disposal Areas. However the majority would be preferred in Whiteness Sands East, with remainder as far east within Whiteness Sands Disposal Area as possible as this we expect has the best likelihood of migration onto Whiteness Sands.
- The anticipated duration of these works is 2-3 days, so very short indeed, and we would make sure we had an MMO on board to check for any evidence of disturbance of the seals during this operation.
- We will endeavour to move the spreader pontoon at higher states of tide where possible.





#### Spit Reinstatement Method Statement

The objective is to place 280,000m<sup>3</sup> of dredged material on the inside of the Spit (south side) broadly in the locations shown on the attached drawing.

The exact outline of the reinstatement area will be defined in early 2025 as the shape may have changed following winter storm season.

We can however show the principles of the method to be used, the type of plant, access route and arrangements for conventional plant, example cross sections, and mitigation/supervision arrangements (locational controls) that would be in place for the Works.

All photos used in this document are from low tide on 07 August 2024)

### **Prior to Deposition of Material**

- Updated topographic survey will be taken at a low spring tide in early 2025;
- An experienced geologist/geomorphologist will walk the line of the deposition area and mark out (by non-intrusive means) the northern limit of the controlled deposition area (CDA);
- NatureScot will be invited to attend and/or inspect the final planned CDA limit;
- Height of CDA locally will be confirmed (this will generally be controlled by the tie in height (existing topography);
- Updated layout, tie-in line and confirmation of method will be prepared within a Construction Environmental Management Plan (CEMP) for these Works. This will be submitted to NatureScot for approval no later than one month before the Works.
- Prior to dredging the dredging personnel will be briefed by the appointed supervising person on the sensitivities of the Spit and importance of working within intertidal areas only and how the deposition should tie in to the CDA;

### **Defining the Limit of Infill**

The nature of the tie in to the existing topography is different along the spit, we have provided examples below of how this is intended to be defined.

### Eroding bank

For this type of tie in, we would simply fill directly to match the level of the bank as shown in Photo 084 below (approximate tie-in in green).

### Gravel Bank/Storm Deposits

For the areas where vegetation is absent we would tie in at a level equivalent to Highest Astronomical Tide as long as that was below the level of any observed storm overwash deposits. In the situation shown in Photo 080 below we would suggest a tie-in around the level of the green line shown.







Haventus Limited, Ardersier Port Approach, Ardersier, Inverness, Scotland, IV2 7QX <u>www.haventus.com</u>



Other Examples
Suggested approximate tie-in shown in green.





 $Have ntus\ Limited,\ Ardersier\ Port\ Approach,\ Ardersier,\ Inverness,\ Scotland,\ IV2\ 7QX\ \underline{www.have ntus.com}$ 



#### Method

- Dredge material is planned to be piped ashore and discharged onto the intertidal area by pipe (floating into steel)in a similar manner to the pump ashore for the sand stockpile areas;
- Bulldozers, excavator and any plant to move the sand around in the reinstatement area would access the spit at low tide across the intertidal area on the south of the spit as shown approximately in orange in the photo below (exact corridor would be defined immediately before the Works);
- The plant will under no circumstances be allowed to track above MHWS (NB this
  plant is used to working in salt water and therefore does not have to move above
  MHWS on spring tides)



- A sand stockpile would be built up between small bunds on the intertidal parts of the reinstatement area. The intertidal area is quite large at present particularly on the western end of the reinstatement areas as shown in the photo below;
- As the stockpile grew material would be moved (bulldozed) towards the established limits of CDA;
- As the tie in location is approached the final infill to the tie in material will be placed by backactor excavator and will be directly supervised to ensure no overspill of infill beyond the defined limits;



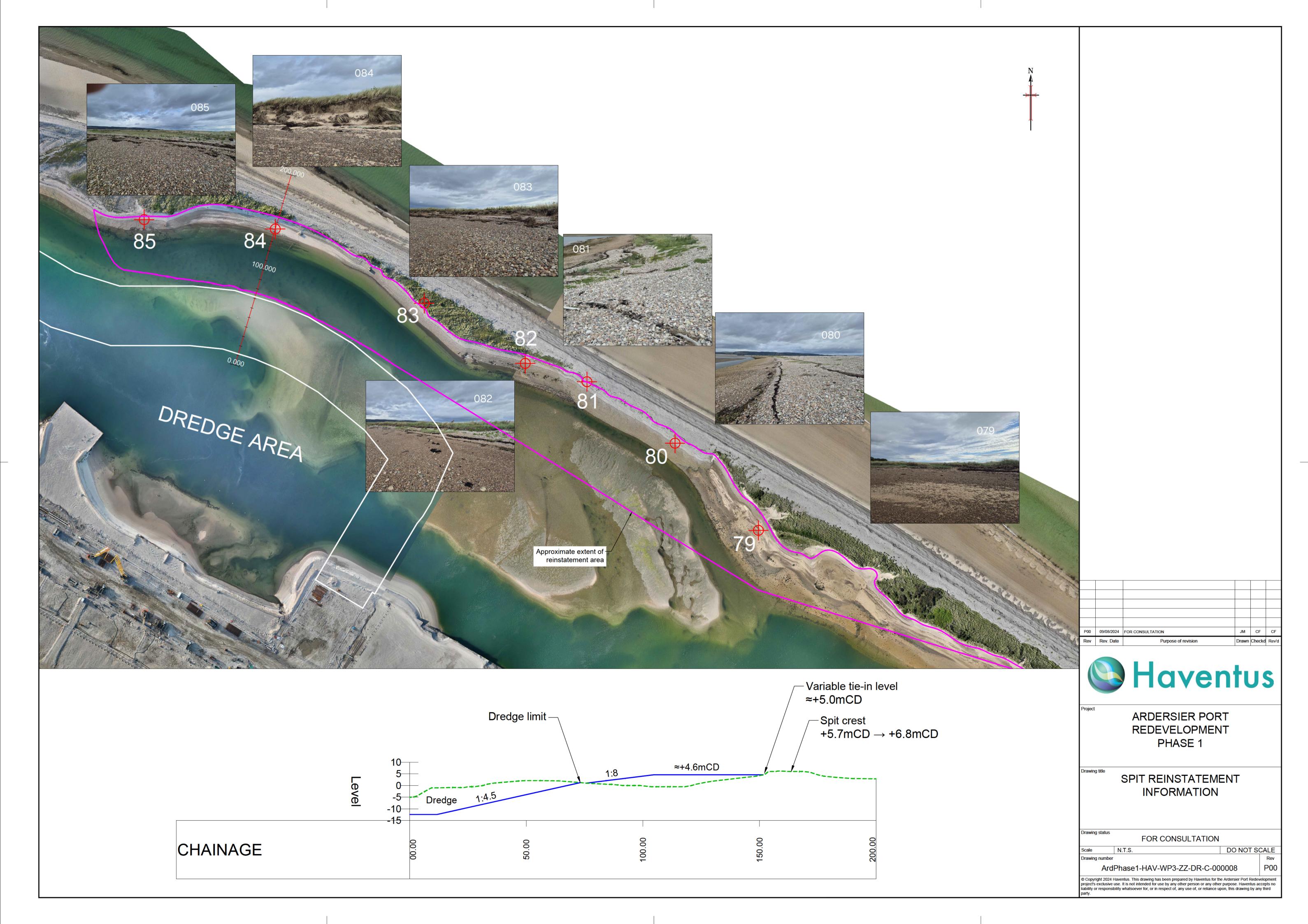


### **Representative Section**

- The attached drawing shows a representative section through the location of Photo 084 above and photos from various locations, approximate extent of reinstatement area and Phase 1 dredge;
- The heights and shape of the profile within the representative section is consistent with that shown in the 2017 Harbour Revision Order Drawings;

### **Activities to Follow Placement**

- Detailed topographic survey of reinstatement areas and bathymetry of sub tidal areas to be carried out on completion of Works (as built drawings);
- Repeat topographic surveys following any major easterly or north easterly storm events, and/or one survey annually to monitor evolution of reinstatement area.





## Terns - Island Nest Sites Review of Information

### **Nesting 2024 (see Drawing)**

#### Redacted

20 pairs Arctic Terns – Arrived circa 20 June 2024 – now 33 pairs 7 Common Terns – Arrived around 4 July 2024

## **Guidance - Headline Buffers and Sensitivity**

Arctic Terns ≥200m (200m) Medium

Redacted

Common Terns 200-400m (400m) Medium/High

The above maximum standard buffers are shown on the attached drawing with distances taken from observed nesting locations.

### NatureScot Research Report 1283 - Observations

- It is noted that common tern has medium evidence rating in the research report whilst the Arctic and Little terns have limited evidence for setting the buffers;
- Arctic Terns (one FID pedestrian record) and Little Terns (no AD/FID records) are acknowledged as being data gap species that would benefit from further research;
- It is clear from the research document that the buffer zones suggested relate primarily to pedestrian approach, as opposed to vehicle/vessel movements;
- Buffer zone of 300m suggested for Little Tern is specifically for protection from pedestrian approach.
- Common Tern buffer for pedestrian approach is suggested at up to 400m although FID distances recorded (Flight Initiation Distance) range for pedestrians from 7.3m to a mean of 142m in other studies. It is also interesting to note that suggested buffers in referenced publications for motorised watercraft and jetskis are both 100m. For Common Terns buffers for pedestrian disturbance of between 200-400m are proposed along with 100m for motorised watercraft disturbance.
- Like the Little Terns, quantitative data is also limited for Arctic Terns. Buffer zones have been suggested of between 100-200m for pedestrian approach with a ≥200m buffer for pedestrians suggested in the research report.



### **Other Observations**



- Vessel speeds for dredging will be of the order of 4knots or less on approach to the dredge area;
- The dredger will essentially be stationary whilst dredging;
- The dredger is not actually a noisy vessel even when operating, it
  makes no more noise than any other large vessel, with noise
  principally from the engines which are well insulated within the hull. It
  certainly make much less noise than a jetski or fast RIB. It is more of
  a low frequency hum rather than any high pitch noise.

### **Further Thoughts**

- Pedestrian presence (on the construction platform and sand storage area) Redacted
- Redacted

- Vessels will be moving at around 4knots or less;
- Dredger and attendant craft will mostly be focused on the base of the dredge zone (dark blue on the attached drawing) although some cutting will occur on the side slopes (but with the vessel perpendicular to the channel line).
- Redacted

Our Ref: CLC 176527

Hi Campbell,

Just getting back to you with some pre-application advice on nesting terns in context to the deep dredge variation. My apologies in advance if this comes too late for you, but worth a go I thought, just in case we are in time. Please let me know where you are at in terms of submission – thank you.

Summary Redacted

> Background Redacted

Appraisal of impacts and our advice Redacted

Inner Moray Firth SPA – common tern only Redacted

#### Concluding comments

Please get back in touch if you need any further assistance from us during this pre-application period. Unfortunately, it seems that I may be unable to provide you with such prompt advice

on your other pre-application requests. Therefore, you may prefer to submit your deep-dredge licence variation to MD-LOT ahead of us getting advice to you on this issue.

Please give me a call if you require a catch-up.

Kind regards,

David.

David Patterson | Operations Officer - North

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# <u>Active Acoustic Monitoring – Dredge and Disposal Site</u>

### Marine Mammal Concerns and Potential Restrictions

NatureScot have advised that outer channel dredging should be restricted to daytime only in the first two weeks of May.

Other potential restrictions (based on the Marine Mammal Risk Assessment and Protection Plan v5, August 2024) are as follows:

- No effective MMO in sea states greater than 4;
- Limited range of visual monitoring for night time disposal; and
- Inability to restart at night time following breakdown or unplanned maintenance.

In order to address all of the above (including lifting the no night time dredging in the first two weeks of May) it is our intention to install an active acoustic monitoring system. One device would be deployed close to the dredge site and one device in the centre of the Burghead disposal ground. The details of the planned system are provided below and attached.

By using this system, we consider that all of the above potential situations where dredging or disposal might not be able to take place would be mitigated. Clearly, if the system indicated that marine mammals were within 500m of the dredge site when attempting to restart (for example) or 200m of the disposal location the activities would be paused until the mammals had moved away.

# **Acoustic Monitoring Mitigation System**

### **Devices**

2 No. SMRU CAB Guardian (or equivalent) – data sheet attached;

### Locations

- Opposite Ardersier Port;
- Centre of Burghead Disposal Ground;

# Timing

- Deployed before dredging commences;
- Retrieved when dredging completes; and

## **Monitoring**

• Dedicated staff to monitor in situations where standard MMO is not effective (system will record 24/7 in any case for research purposes, and all data will be provided to University of Aberdeen).