TECHNICAL NOTE

Project title:	Bremore Ireland Port		
Subject:	Response to Request for Additional Information for MUL240011		
To:	MARA		
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1 INTRODUCTION

Bremore Ireland Port Designated Activity Company (BIPDAC) proposes to undertake marine surveys to investigate the feasibility of developing port infrastructure at Bremore in the nearshore area of counties Dublin and Meath. The project encapsulates Ireland's commitment to sustainable development and would position Bremore Port as a cornerstone of the nation's green economic future.

A Maritime Usage Licence application was prepared by GDG on behalf of Bremore Ireland Port for the proposed marine surveys and was received by the Maritime Area Regulatory Authority on 26 July 2024. The MUL application (reference: MUL240011) included the following documentation:

- Application Form
- Site Location Map
- AIMU Report
- RAAIVS Report
- SISAA Report
- NIS Report

MARA issued a request for additional information in relation to MUL240011 on 28th November 2025.

BIPDAC welcomes the opportunity to provide this submission in response to the request for additional information issued on 28th November 2025.

2 RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

1) **Confirm the legal name of the applicant as the Application Form states it is Bremore Port/Bremore Ireland Port Designated Activity Company however the associated application documentation refers to Bremore Ireland Port Designated Activity Company. The name on the Application is the name which will be attached to any MUL granted.**

The legal name of the applicant is Bremore Ireland Port Designated Activity Company.

2) With reference to the strict protection of species listed under Annex IV of the Habitats Directive (92/43/EEC), confirm whether you are required to obtain a derogation under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended. If yes, provide details of the application submitted to the National Parks and Wildlife Service (NPWS), including the NPWS application reference number.

A derogation under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended, is not required. This is based on the findings in the RAAIVS which concluded that the proposed activities will be short in duration and of a temporary nature and that the mitigation measures outlined in the RAAIVS will ensure that the proposed site investigation activities will not have a significant effect on the species considered in this report. The approach set out in Stage 3 of '*Strict Protection of Animal Species – Guidance for Public Authorities' (NPWS, 2021)* states that "*If mitigation is capable of reducing those impacts to the point where there will be no harmful effect, then a derogation will not be necessary*."

The protection measures outlined in the RAAIVS which accompanies this application are in line with current Irish best practice guidelines 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters' (DAHG, 2014) and will be incorporated into the standard operating procedures of the proposed survey activities to prevent injury and disturbance to Annex IV species during all noise emitting site investigation activities which may cause disturbance to marine mammals. This includes engaging a marine mammal observer, performing pre-commencement monitoring using the appropriate exclusion zones and using an appropriately designed ramp up procedure for noise emitting devices where appropriate. These measures will ensure that the activities carried out pose no significant risk to Annex IV species.

GDG is experienced in the management of geophysical surveys including the provision of marine mammal observers for surveys and provision of the required monitoring reports and records to NPWS including in this area of the Irish Sea. The RAAIVS concluded the proposed site investigation activities will not result in the committing of any offence under Article 12 of the Habitats Directive towards any of the species listed in Annex IV of the Habitats Directive that are likely to occur within the site and that have been considered in the report. Therefore, a derogation under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended, is not required.

3) **With regard to the scale of the MUL application area, provide full details on the necessity for each of the site investigation activities proposed outside of the 'proposed development area', and where feasible, review and revise the level of surveys required.**

We have reviewed and revised the level of surveys required across the MUL application area and have provided details below on the necessity of each of the site investigation activities proposed within the wider MUL application area.

The extent of the MUL application area has been identified to ensure the baseline hydrographical and metocean conditions are understood at the scale required for the proposed development. This includes the collection of data to inform the development of future coastal processes modelling such as the sediment transport processes relevant to the proposed development. Understanding the coastal processes, wave, tide and currents in the wider area is important to allow us establish the potential impacts of a new port facility at Bremore. Provision is also made for deployment of Static Acoustic Monitoring equipment for marine mammals, and for boat-based visual line transect surveys for marine mammals and seabirds within the wider

MUL application area. These will inform the relevant chapters of the EIAR and feed into the identification of suitable mitigation measures, and the design of the proposed development.

To facilitate revision to a more spatially proportionate sampling, we have extended the 'proposed development area' using a 2 km buffer to ensure the site investigation activities relevant to design and development of the proposed development, including relevant environmental surveys, are focused within this area (see 'Proposed Development Sampling Area' in Figure 2-1 below).

It is proposed that the geophysical surveys (Side Scan Sonar (SSS), Magnetometer, Sub bottom Profiler), fisheries and archaeological surveys will be conducted within the Proposed Development Sampling Area.

Therefore, the survey activities proposed inside the MUL application area and outside of the 'Proposed Development Sampling Area' consist of:

- Multibeam Echosounder
    - Will be undertaken across the Licence Application Area to a suitable percentage coverage
- Metocean device deployment
    - Acoustic Doppler Current Profiler (ADCP) (up to 5 no.)
    - Wave buoy (up to 2 no.)
    - Sediment trap (up to 10 no.)
- Seabed imagery and grab sampling for sediment classification.
    - Up to 120 no. stations for seabed imagery collection and, if suitable for grabbing, grab sampling

We have updated the 'Proposed Programme of Site Investigations' table from the AIMU accordingly; please see Table 2-1.

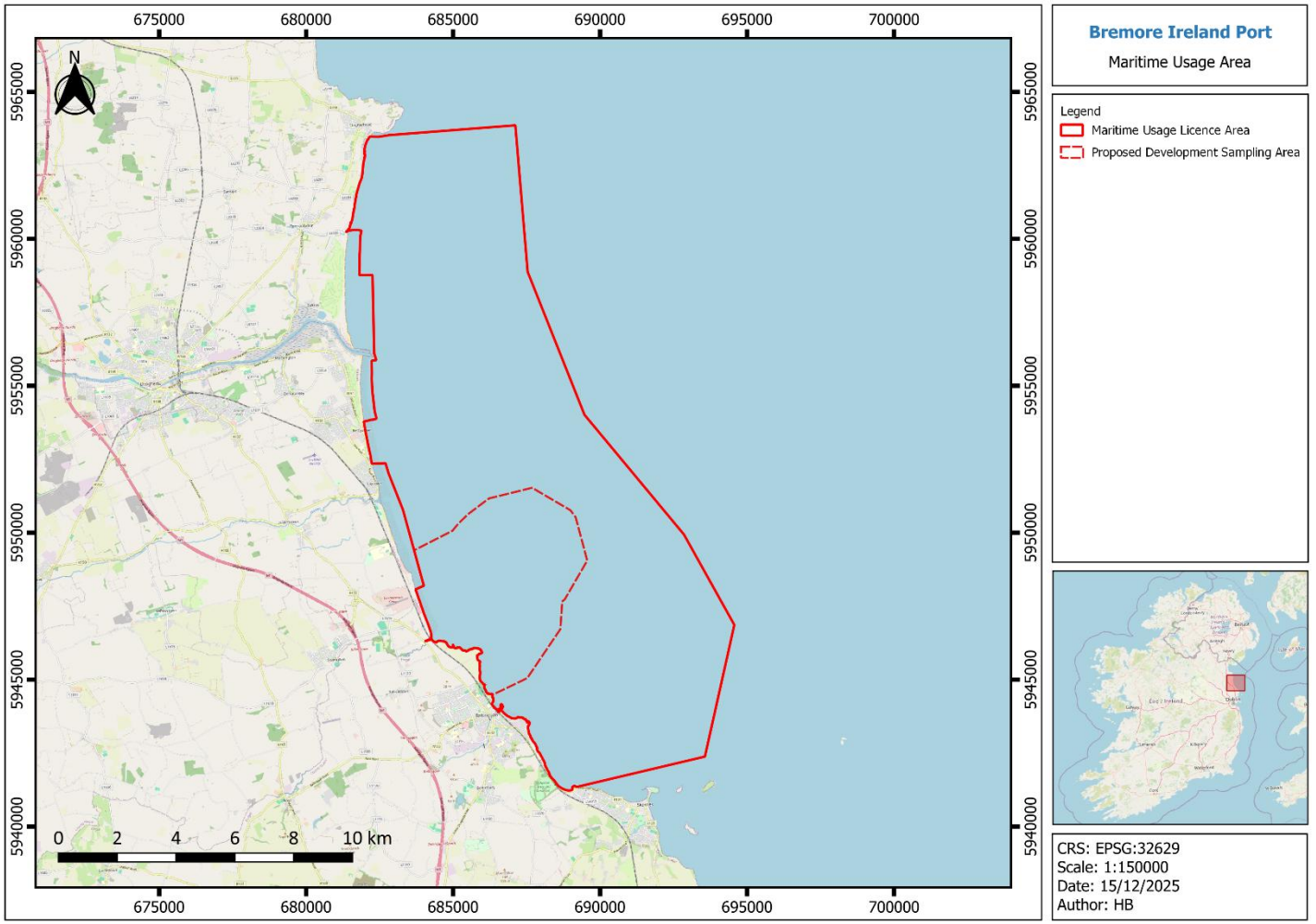

Figure 2-1: Maritime Usage Licence Application area and Proposed Development Sampling Area

Table 2-1 Proposed programme of Site Investigations

Survey	Methods	Purpose	Sampling Effort	Response to RFI Justification of Proposed SI
Hydrographical	Multibeam Echosounder (MBES)	MBES is a system for collecting detailed topographical data of the seabed. Typical equipment includes the Kongsberg EM3002D multi-beam system with mounting system including AML SV Smart Probe, Kongsberg EM 2040 or similar. For these surveys the equipment will operate at a typical central frequency of 200 - 400kHz (700kHz optional) with sound pressure levels in the range of 200-228dB re1µPa @1m.	MBES may be undertaken across the Licence Application Area to a suitable percentage coverage.	Hydrographic data required at Licence Application area scale to inform the development of future coastal processes modelling.
Geophysical	Side Scan Sonar (SSS)	SSS surveys are used to determine sediment characteristics and seabed features. The EdgeTech 4200 may be taken as an indicate example of an SSS device and for these surveys will have a potential operating frequency range of approximately 230/540kHz in the offshore area and 540/850kHz in the shallower nearshore area with sound pressure levels of 228dB re1µPa @1m.	SSS may be undertaken across the Proposed Development Sampling Area to a suitable percentage coverage.	Geophysical survey data required at Proposed Development Sampling Area scale to inform design and development of the proposed development, including relevant environmental baseline information (e.g. marine archaeology, benthic ecology).
	Magnetometer	A magnetometer is used to identify magnetic anomalies and hazard mapping for metal obstructions, shipwrecks and unexploded ordnance on the surface and in the shallow sub-surface. The Geometrics G-882 can be taken as an indicative	Magnetometer survey may be undertaken across the Proposed Development Sampling Area.	

Survey	Methods	Purpose	Sampling Effort	Response to RFI Justification of Proposed SI
		equipment example, it is a passive device (i.e. it does not emit any sound waves into the marine environment).		
	Sub-bottom Profiling (SBP)	SBP is used to develop an image of the subsurface, identifying different strata encountered in the shallow sediments. The Innomar SES-2000 Medium is an indicative example of a parametric system with a primary and secondary frequency range of 85-115kHz and 2-22kHz, respectively, and sound pressure levels of up to 247 dB (typically operated at <200dB) re1µPa @ 1m, which would be used in both nearshore and offshore areas. The Applied Acoustics AA301 is an indicative example of a boomer, with sound pressure levels in the range of 208-215dB re1µPa @ 1m which would be used in the nearshore shallower area. The applied Acoustics Duraspark 400 is an indicative example of a sparker system used in sub-bottom profiling, with sound pressures in the range of 204-216dB re1µPa @1m.	SBP may be undertaken across the Proposed Development Sampling Area to a suitable percentage coverage.	
Geotechnical	Boreholes	Boreholes will typically be a maximum of 40 m deep. All drilling equipment used will follow the ISO and API technical specifications for drilling equipment. Marine rotary drilling is a technique used to bore holes into the seabed. The drilling process involves rotating a drill bit attached to a drill string and applying downward pressure to cut through the	Up to 60 no. boreholes will be required within the Proposed Development Sampling Area to a suitable percentage coverage.	Geotechnical survey data required at Proposed Development Sampling Area scale to inform design and development of the proposed development, including relevant environmental baseline information (e.g. marine geology, marine archaeology, sediment contamination).

Survey	Methods	Purpose	Sampling Effort	Response to RFI Justification of Proposed SI
		rock formations. Geotechnical sampling tools, including push and piston samples, can then be deployed into the ground to recover intact material. The typical frequencies emitted from rotary drilling are between 0.001-0.120kHZz and a recorded sound pressure of approximately 145dB re1µPa @1m.		
	Cone Penetration Tests (CPT)	CPTs are a method for testing in situ soil parameters. CPTs can be performed as either Seabed CPTs or downhole in boreholes.	Up to 60 no. CPTs will be required within Proposed Development Sampling Area. The spacing interval will be determined by the variability and level of understanding of the shallow geology.	
	Vibrocore / Gravity Corer	Vibrocore and Gravity Corer are methods of collecting un-consolidated seabed samples.	Up to 60 no. sample locations will be required for either vibrocore or gravity sampling within Proposed Development Sampling Area. The spacing interval will be determined by the variability and level of understanding of the shallow geology.	

Survey	Methods	Purpose	Sampling Effort	Response to RFI Justification of Proposed SI
Metocean & geomorphology	Acoustic Doppler Current Profiler (ADCP)	This equipment is installed on the seabed and anchored with a suitable mooring structure. It is generally a short-term deployment used to gather seasonal data (e.g. winter storm data) however may be deployed for longer.	Up to 5 ADCPs may be used to examine wave and current conditions in the Licence Application Area.	ADCP (5 no.), Wave buoys (2 no.) and sediment traps (10 no.) are located within the wider Licence Application Area to understand the coastal processes of the wider area. Although the location of these metocean devices are within the wider area the individual foot print of the devices is small. At this stage the applicant requires an option to locate these within a wider area.
	Wave Buoy	Wave rider buoys may be deployed to measure wave heights and direction to feed into the detailed design of the project within the Licence Application area. They will be moored to the seabed by a suitably sized mooring structure.	Up to 2 Waverider buoys may be deployed within the Licence Application area.	
	Sediment traps	Sediment traps are containers that are used to collect particles falling toward the sea floor. Particle size and accumulation rates will be used to inform sediment transport modelling.	Up to 10 nr. sediment traps may be placed in in the Licence Application area for an approximate duration of 60 days.	
Ecology	Bird and Marine Mammal Survey	Identify bird and marine mammal species distribution and behaviour within the Licence Application Area.	Bird and marine mammal surveys may be undertaken across the Licence Application Area	There may be no requirement for boat-based surveys as aerial based survey methods may be used. If boat-based surveys are required, they will be undertaken from a boat across the Licence Application Area. Boat based bird and marine mammal surveys will follow industry standard survey methodology (i.e. ESAS standardised survey method). The surveys would typically take one day per month for a minimum period of 24 consecutive months. However a further period of surveys may be required depending on survey results and timeline

Survey	Methods	Purpose	Sampling Effort	Response to RFI Justification of Proposed SI
				for the grant of development permission. A vessel for boat-based surveys is typically 15m to 40m in length incorporating an elevated viewing platform.
	Fisheries Survey	Identify fish species distribution and fishing activity within the Licence Application Area. Exact details of monitoring required will be determined through engagement with the relevant authorities such as SFPA, the Marine Institute and through local knowledge where appropriate.	Fisheries surveys may be undertaken across the Proposed Development Sampling Area using Baited Remote Underwater Video.	Fisheries survey data may be required at Proposed Development Sampling Area scale to inform environmental baseline information.
	Benthic Ecology (subtidal benthic survey, intertidal habitat walkover survey)	This survey is designed to identify the expected benthic communities and habitats at the site. In the intertidal area features of conservation importance will be identified by means of intertidal habitat mapping with core/quadrat sampling and hard substrate quadrat sampling where appropriate. This may consist of the intertidal Phase I walkover survey of the area with identification of the main habitats present (in the form of biotope mapping). Subtidal sample locations may be subject to drop down video in advance of grab sampling. Samples of water may be taken at the same time for analysis.	There will be up to 200 no. subtidal grab sampling locations within the Licence Application Area. Multiple samples/replicates may be taken at each location.	Although the sampling will be undertaken across the Licence Application Area, the density of sampling is higher within the Proposed Development Sampling Area to inform environmental baseline information.

Survey	Methods	Purpose	Sampling Effort	Response to RFI Justification of Proposed SI
	Marine Mammal Static Acoustic Monitoring (CPODs/Soundtraps)	Marine mammal acoustic monitoring using CPODs deployed on the seabed. SoundTrap hydrophones may be deployed alongside the CPODs for periods throughout the monitoring campaign.	Either 4 permanent sites will be selected, or the 4 sites will be relocated every 3 months during battery change across the Licence Application Area. The CPOD locations are subject to archaeological survey results.	Static Acoustic Monitoring information is required at Licence Application area scale to inform environmental baseline information for highly mobile marine mammal species.
Archaeological	Underwater Archaeology	Identification and assessment of metallic and other targets recorded during the marine geophysical surveys.	Underwater Archaeology survey may be undertaken across the Proposed Development Sampling Area	Underwater Archaeology dive survey may be required at Proposed Development Sampling Area scale to identify objects of archaeological interest, within the development area, approach channel and surrounding area within the wider area following assessment of geophysical survey data.

4) With regard to proposed programme of works given in Table 2.2 of the AIMU Report the following additional information is required:

- **Confirmation of borehole depths as there are contradictions in the AIMU Report (i.e. pg24 (Max 40m) and pg33 (Range 15-80m)). Provide the diameter of the drill proposed and spacing between boreholes.**

We confirm maximum borehole depth is 40m. The range given of 15-80m was an error.

The diameter of the drill proposed will depend on the marine sediment & rock conditions however the maximum diameter is 250mm.

Exact locations and spacing between boreholes will be determined following the interpretation of the geophysical survey results. It is anticipated that a typical minimum spacing of 50m will be applied and that boreholes will be generally located 100-150 m apart.

- **Indicative operating frequency and SPLs for CPT and Vibrocore equipment as well as the proposed depths to be reached and diameters of such equipment.**

Cone Penetration Test (CPT) and Vibrocores are considered low-intensity sources of underwater noise.

Downhole or standalone CPTs may be used.

The diameter of the downhole CPT will be equal to the diameter of the borehole up to 150mm (Geobore S as described above). The depth of a CPT test will be maximum 40m, also equal to the borehole maximum depth. The standalone CPT will be 10 cm^2 and up to 15 m deep.

The Vibrocore diameter will be up to 120mm. The depth of the Vibrocore will be up to 6m.

Vibro-coring & CPT are anticipated to have an operating frequency of 50-16,000 Hz and an SPL of 189 dB (Reiser, et al., 2010).

- **Confirmation as to whether trial pits are proposed, indicative trial pit locations, equipment, access, impacts and mitigation(s) if required.**

No trial pits are proposed.

- **For inshore and intertidal surveys, where appropriate provide details of core samplers to be used (diameter/depth), the timeframe of assessments and proposed access to sites.**

Inshore/intertidal cores may be collected by borehole (250mm diameter, 15m depth) and CPT (10 cm^2 and up to 15 m deep).

Boreholes will take 24 - 36 hours in any one location.

Up to 225 days in total hours are anticipated for boreholes across all campaigns. Boreholes will be split between campaigns with a preliminary campaign typically taking up to 10 weeks and an interim campaign typically taking up to 20 weeks or undertaken in full in one campaign.

Sampling will be conducted by Jack-Up barge where possible. In the intertidal areas, if access is required from land, vehicles traversing the intertidal zone will be limited to accesses to/from investigation locations via publicly accessible access points to Gormanstown Beach. Walkover environmental surveys will be undertaken at low tide in advance of intrusive inshore and intertidal surveys to identify any environmental constraints on site including sensitive habitats and species (e.g. breeding birds) and avoid impacts to these, if present.

Intertidal hand cores may be collected as part of the intertidal benthic ecology survey. Typical surface area sampled is 0.010m^2, with a typical penetration depth of 10cm. As above access to/from investigation locations will be via publicly accessible access points to Gormanstown Beach. Walkover environmental surveys will be undertaken at low tide in advance of intrusive inshore and intertidal surveys to identify any environmental constraints on site including sensitive habitats and species (e.g. breeding birds) and avoid impacts to these, if present.

• Details on the methods, impacts, indicative locations, durations and mitigations if required, of the proposed fish, shellfish and bird surveys as referenced in the SISSA Report (pgs 29 and 34)

Fish and Shellfish

A fisheries survey may be carried out to determine the species and distribution of fish and, where possible, shellfish. Information on fish and shellfish will also be collected by the benthic ecology survey. The Sea Fisheries Protection Authority will be consulted regarding the exact nature of the survey, survey design and survey methods to be applied however if required it is anticipated up to 5 no. Baited Remote Underwater Video (BRUV) stations within the 'Proposed Development Sampling Area' will be surveyed. There is no mitigation required for these surveys. Typical deployment duration is up to 3 hours per deployment. The survey will likely be incorporated into the benthic survey campaign.

On review trawl and potting surveys are not considered necessary.

Birds & Mammals

Boat-based bird and marine mammal visual observational surveys may be undertaken over the MUL application area.

These are vessel-based marine surveys, documenting abundance and location of marine mammals and birds through observational methods (i.e. European Seabirds at Sea methodology).

An Intertidal Bird Survey consists of a visual count of waterbird species at coastal sites at low tide by fieldworkers or teams of fieldworkers. Other activities that occur on site may be recorded.

Waterbird counts should be conducted on the 'look-see' basis (Bibby et al. 2000) which involves scanning across the survey area and counting all birds seen. Birds are recorded and listed on the count form.

A site visit is also necessary to confirm site/subsite boundaries; this is generally undertaken during the low tide period when all broad habitats can be viewed.

• Details on the indicative number and types of vessels to be used and their potential noise impacts.

Up to three vessels are likely to be required:

- One geotechnical survey vessel (typically 55-90 m in length with an endurance of up to 28 days and Dynamic Positioning Capability) and/or one jack-up barge will be required for geotechnical sampling.
- One nearshore geophysical survey vessel (typically between 15 m and 40 m in length with an endurance of 1- 14 days) will be required for geophysical survey.
- One nearshore survey vessel (typically between 15 m and 40 m in length with an endurance of 1- 14 days) will be required for benthic survey, marine mammal and ornithology surveys and deployment/recovery of metocean and SAM devices.

The exact vessels and platforms to be used, will be confirmed following a tender process to procure the survey contractor. All vessels will be fit for purpose, certified, and capable of safely undertaking all required survey work.

Potential noise impacts from these vessels are summarised below:

Survey technique	Operating frequency (kHz)	Sound pressure level (SPL_{PEAK}) (dB re 1µPa @1m)	Source/Reference
Vessel noise	0.05 – 0.3	160 – 175	Southall et al., 2007

There is no mitigation required for the vessel noise as it is below the sound pressure level that would require mitigation. Total duration of vessel use will be in the region of 8-10 months across all site investigation campaigns.

• Details on the operating frequency of ADCPs as well as the type of mooring mechanisms required for ADCPs, CPODs, WaveBuoys

The ADCP has an operating frequency of 500 kHz. The ADCP will be deployed directly on the seabed in a weighted frame with a surface buoy for marking and recovery. The displayed ADCP frame dimensions are 1.8 m (l) x 1.3 m (w) x 0.6 m (h). Each ADCP frame has a footprint of approximately 2.34 m² on the seabed.

Wave buoy and CPOD moorings will be anchored with two anchors per buoy. Typically, the frame will be connected to a weighted base with a weight of approx. 300 kg attached to a ground line, a clump weight (approx. 150 kg) and to an acoustic release system carrying a rope retrieval system.

Maximum footprint per anchor is $4m^2$; size of anchor and type of mooring will depend on hydrodynamic conditions and depth of deployment location.

5) With reference to Table 3-1 on pg 27 of the SISSA report the introduction of invasive non-native species is listed as a potential indirect environmental impact of site investigations. Provide details on the potential impacts and mitigations where necessary.

The potential sources of invasive non-native species include transport mechanisms such as INNS within ballast water and attached to ship hulls.

The introduction of invasive non-native species has the potential to have indirect impacts which can affect individual species, change community structure, alter habitats and affect ecosystems.

The potential indirect risk of INNS was screened out by the applicant on the basis of legal obligations under international statute which will be observed by all vessels used for the proposed maritime usages with respect to ballast water management and anti-fouling and hull cleaning requirements.

6) **Submit the GIS shape files, if available, for the indicative site surveys locations as detailed in Figure 2-2 and 2-3 of the AIMU report.**

Submitted.

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