Maritime Area Regulatory Authority,

2nd Floor, Menapia House,

Drinagh Business Park,

Drinagh,

Wexford, Y35 RF29

24 February 2025

Re: License Application MUL230024

Dear Sir or Madam,

The Irish Whale and Dolphin Group (IWDG) was established in December 1990 and is an All-Ireland group "dedicated to the conservation and better understanding of cetaceans (whales, dolphins and porpoises) in Irish waters through study, education and interpretation". The IWDG welcomes the opportunity to comment on this licence application for a Marine Survey and Site Investigations for a cable route for the PISCES subsea telecoms cable system from a landfall at Ballyloughane County Galway traversing the Irish Maritime Area to the south-west of Ireland. This submission provides comments and observations on the Annex IV Risk Assessment, the Supporting Information for Screening for Appropriate Assessment, the Scope of Works, the Application Form, and the Natura Impact Statement which all form part of the license application.

Application Form

5.3 Are there any measures proposed to mitigate potential impacts on fisheries or aquaculture? If yes, please describe.

Irish Whale and Dolphin Group Ltd.,
Merchant's Quay, Kilrush, Co. Clare, V15 E762, Ireland
Tel: +353 (0)65 9051763 ~ 086 854 5450
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Registered Charity No.: CHY11163 : Limited Company No. 332093

Mitigation measures will include the presence of a MMO onboard the survey vessel. The purpose of the MMO is to ensure that there is no disturbance of seal /cetacean populations. The MMO/ecologist will ensure that mitigation measures are carried out. The vessels operating within Galway Bay will be inspected by the ecologist for pollution sources. The ecologist will maintain a watching brief in relation to pollution risks and observations. A spill kit will be on board the vessel.

The MMO is not required under DAHG (2014) *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters* to ensure that there is no disturbance of seal or cetacean populations, nor would this be possible in any case. It is not the duty of the MMO to receive reports of oil spills or any other discharges to sea. This is dealt with under MARPOL 73/78 and the Sea Pollution Act (1991) as amended. The DAHG (2014) Guidance is unequivocal: *"MMOs must be dedicated to and engaged solely in monitoring an operator's implementation of the technical guidance set out below and in conducting survey effort for marine mammals in accordance with the guidance."* If the survey wishes to have a dedicated ecologist on board to deal with other matters, then that is to be commended.

SISAA

P13 Inshore Marine Survey

The area extending seaward from the low water mark at the landfall and inshore of the safe working draft limits of the primary survey vessel will be accurately surveyed with a small craft or Unmanned Survey Vessel (USV) using Multibeam Echosounder (MBES), sidescan sonar, marine magnetometer, and sub-bottom profile equipment.

No methodology is proposed in any of the application documents to demonstrate how the DAHG (2014) Guidance would be applied if a USV is deployed with geophysical equipment.

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Survey Equipment Parameters

P21 Sub-bottom Profiler

The survey also proposes the use of a sub-bottom profiler (SBP), which may generate high noise levels at frequencies coincident with the hearing ranges of marine mammals. The DAHG (2014) *Guidance* is somewhat ambiguous in treating modern parametric SBPs, while distinguishing between sparkers, chirps, boomers etc. The sounds generated by parametric SBPs are such that although they effect a narrow swath, they should be treated in the same way as seismic airguns and mitigated for accordingly.

P23 Ultra-Short Baseline (USBL) Subsea Positioning

USBL is not listed in the SOW, is it proposed to aid positioning for the SSS? This information is not included in any of the documents.

P28 4.2.4 Marine Survey and Site Investigations Sound Pressure Level Summary

It can be noted that as the focus of the cable route surveys within the licence application area is the seabed surface and upper layers of seabed sediments and generally obtaining higher resolution data, the geophysical equipment such as MBES and SSS is generally operated more towards the higher end of the frequency range where possible.

Nevertheless, MBES will be operated at lower frequencies in deeper water. The survey will be operating at depths greater than 1500m for over 350km and the MBES system proposed for this work, a 12kHz device, is at the lower and potentially most dangerous end of the frequency range.

P32 4.3 Zone of Influence

However, the project has the potential to introduce noise into the marine environment particularly through the use of Ultra-Short Baseline (USBL), Multibeam

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Echosounder (MBES), and Side-scan Sonar (SSS) equipment, which may extend the effects of the project beyond 2km.

SBP is missing from this list, the function of the USBL is not defined anywhere in the application, and it is not included in the Scope of Works.

P34 4.4.2 Relevant Natura 2000 Sites to the Proposed Project

The following sites (Table 1) are missing from all documentation in the context of the protection of bottlenose dolphin and harbour porpoise, which were added as QIs by the National Parks and Wildlife Service (NPWS) in March 2024.

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Table 1: List of SACs with harbour porpoise and/or bottlenose dolphin added as QIs

Site name	County	Additional QI
Lambay Island SAC	Dublin	Harbour Porpoise
Kilkieran Bay and Islands SAC	Galway	Harbour Porpoise
Kenmare River SAC	Cork, Kerry	Harbour Porpoise
West Connacht Coast SAC	Galway, Mayo	Harbour Porpoise
St. John's Point SAC	Donegal	Bottlenose Dolphin
Inishmore Island SAC	Galway	Harbour Porpoise
Bunduff Lough and Machair/Trawalua/Mullaghmore SAC	Leitrim, Sligo	Harbour Porpoise
Hook Head SAC	Wexford	Bottlenose Dolphin & Harbour Porpoise
Gweedore Bay and Islands SAC	Donegal	Harbour Porpoise
Carnsore Point SAC	Wexford	Harbour Porpoise
Lough Swilly SAC	Donegal	Harbour Porpoise
Belgica Mound Province SAC	N/A	Bottienose Dolphin & Harbour Porpoise
South-west Porcupine Bank SAC	N/A	Bottlenose Dolphin
Blackwater Bank SAC	Wexford	Harbour Porpoise
Porcupine Bank Canyon SAC	N/A	Bottlenose Dolphin
Codling Fault Zone SAC	Dublin	Harbour Porpoise

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NIS

P23 Ultra-Short Baseline (USBL) Subsea Positioning

USBL is described, but its function in relation to the survey is not, and it is not included in the Scope of Works.

P33 4.3.1 Marine Mammals Seals and Cetaceans

The legal protection of grey and harbour seals under Annex V of the Habitats Directive is not mentioned.

P34 4.4.2 Relevant Natura 2000 Sites to the Proposed Project

The SACs recently designated by NPWS with bottlenose dolphins and/or harbour porpoise as additional QIs are missing (Table 1 above). This mistake carries through the NIS document, i.e. 5.5 IE SACs Designated for Harbour Porpoise and 5.6 IE SACs Designated for Bottlenose Dolphin.

P152. Marine Mammals

Bottlenose dolphins (*Tursiops truncatus)* incorrectly named Bottle-nosed Dolphin.

The Multibeam Echo Sounder (MBES) (12 kHz to 500 kHz) and Side Scan Sonar (SSS)(200 kHz to 700 kHz), single beam echo sounder and Multi Beam Echo Sounder (MBES) will emit noise above the hearing frequency of marine mammals. The frequency of the deepwater MBES is 12kHz and is most certainly not outside the hearing range of any marine mammals.

The DAHG (2014) *Guidance* includes mitigation for high-frequency MBES systems "*within bays, inlets or estuaries, and within 1,500m of the entrance of enclosed bays/inlets/estuaries*" where the sound output of the devices is typically outside the frequency range of cetacean species. This only requires a 500m mitigation zone and does not require any pre-watch by an MMO in areas away from bays, estuaries etc. The deepwater MBES system described above has a sound output of high intensity

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(210-245 dB re 1µPa @ 1m) at a frequency (12kHz) where it can do considerable harm to cetacean species, in particular deep-diving species resident in canyon systems which will be ensonified by the proposed survey. MBES systems of this type were implicated in a mass-stranding event which resulted in the fatalities of around 100 rare melon-headed whales in Madagascar (Southall et al., 2013). The IWDG strongly suggests that a mitigation protocol over and above that suggested by the DAHG (2014) guidance be requested from the proponent in this case. Ideally a passive acoustic monitoring (PAM) system would be used in addition to visual watches by MMOs to aid in detecting elusive, rare, and protected deep-diving species. Pre-watch periods should be extended to 60 minutes and the mitigation zone should be 1000m. In the event that an animal is detected either during soft-starting or during full-power data acquisition, a shut-down protocol should be implemented.

Risk Assessment for Annex IV Species

P3. Introduction

Grey seals are noted to be excluded from the assessment on the basis that they are protected under Annex V of the Habitats Directive. The harbour seal is equally protected under Annex V, but they are not mentioned in this context.

P.9 Potential Impacts on Annex IV Species - Cetaceans

However, these levels have been kept within an acceptable range as described by (Southall et al., 2019).

Southall et al. (2019) do not describe an "acceptable range", they present a number of dB values above which permanent threshold shift (PTS), or temporary threshold shift (TTS), may be suffered by cetacean groups which are specified according to their perceived sensitivity to underwater sound at given frequencies. To suggest that levels have been kept "*within an acceptable range*" is misleading and indicates a misunderstanding of the risk assessment process. In order to gather the data required by this or any other similar survey, it is necessary to operate geophysical

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devices at levels which are potentially injurious to cetaceans. The purpose of the DAHG (2014) Guidance is to mitigate this potential injury by ensuring that the devices are not used when cetaceans are nearby.

P10. Mitigation Measures – Cetaceans

This section restates errors from earlier in the document, i.e. the dual role of an ecologist/MMO, and that *the levels of noise produced from the survey works will be kept within an acceptable range as described by (Southall et al., 2019)*

I hope that this submission will be useful to you in making your assessment, please feel free to get in touch for clarification on any subject, or for more information.

Yours faithfully

Dr Stephen Comerford

[redacted]

ORE Marine Biodiversity Officer IWDG

stephen.comerford@iwdg.ie

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References

DAHG (2014). *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters*. Department of Arts, Heritage and Gaeltacht

Southall, B.L., Rowles, T., Gulland, F., Baird, R.W., and Jepson, P.D. (2013) *Final report of the Independent Scientific Review Panel Investigating potential contributing factors to a 2008 mass stranding of melon-headed whales (Peponocephala electra) in Antsohihy, Madagascar*.

Southall, B.L., Finneran, J.J., Reichmuth, C., Nachtigall, P.E., Ketten, D.R., Bowles, A.E., Ellison, W.T., Nowacek, D.P. and Tyack, P.L. (2019). Marine Mammal Noise Exposure Criteria: Updated Scientific Recommendations for Residual Hearing Effects. Aquatic Mammals, 45(2), pp.125–232. doi:10.1578/am.45.2.2019.125.

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