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17<sup>th</sup> November 2021

Dear Sir or Madam

Re: Plans of Development for Kinsale and Seven Heads fields (no reference number)

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”*. While the IWDG is primarily concerned with cetaceans we have broadened our comments to include **all marine mammals**.

IWDG welcomes the opportunity to comment on the development plans for the Kinsale and Seven Heads decommissioning and all points made refer to both applications which are identical.

It is generally recognised from the noise levels supplied with the application that these are not sufficient to pose a serious threat or disturbance to cetaceans, except in the immediate vicinity of activities. However on pages 187 and 188 (Kinsale Development EIAR, vol. 2) the claim the Doppler Velocity logs are inaudible to marine mammals is correct because of their high frequency, but the assertion that USBL systems are *“not expected to be discernible from the broadband noise of associated vessels”* is either incorrect or else these vessels will produce a lot of noise in unusual frequencies which requires strict mitigation. Furthermore while the frequencies of 20 to 40 kHz for the operating range of USBL systems is roughly correct. The widely used Kongsberg (2016) USBL systems, such as HiPAP 502, HiPAP 452 and HiPAP 352 operate between 21 and 31 kHz and the SonarDyne (no date) ROVnav6, chosen as an example in the EIAR operates between 19 and 34 kHz and the Tritech MicroNav from 20 to 28 kHz (Tritech, no date). Some USBL systems intended for deepwater operation such as the HiPAP 102 use frequencies from 10 to 15.5 kHz. Transponder source levels with Kongsberg depend on setup and mode of operation but vary from 190 dB to 206 dB re1μPa@1 m (Kongsberg, 2016) and the Sonardyne system operates at 187 to 196 dB re1μPa@1 m. The operating source levels of the Tritech system are not available. Therefore the information



on the USBL if based on the Sonardyne system alone and some 10dB lower than systems that may be used, lacks full consideration of source level impact. 10dB represents a trebling of sound pressure levels.

The Multi-beam and Side Scan Sonar systems are stated as having frequency usage of 200-400kHz and 114 or 410 kHz respectively. It should be also remembered that these are target frequencies for this equipment and such equipment will produce side lobes of energy in secondary frequencies (Deng et al, 2014, Lurton and DeRuiter, 2011)). These frequencies have only been found below injury levels to date and therefore only represent a possible disturbance threat.

Such decommissioning work has never been carried out in Irish waters previously. The equipment models to be used are assumed and the frequency range and source levels not necessarily completely accurate. While it seems unlikely that sound levels will reach those high enough to cause temporary threshold shift, disturbance is entirely possible. In order to properly assess the impact of the decommissioning activities there should be acoustic monitoring of activities in the frequencies used by marine mammals up to 48kHz as a minimum, and ideally to 200kHz. Noise levels encountered in noise monitoring must be explained, with the source identified. The IWDG have called for German regulations for windfarm construction to be implemented, which establish noise-induced injury prevention thresholds that call for Sound Exposure Levels (SELs) not to exceed 160 dB re 1  $\mu\text{Pa}^2\cdot\text{s}$  and a peak-to-peak sound pressure level not to exceed 190 dB re 1  $\mu\text{Pa}$  at a distance of 750 m. Similar noise monitoring should also ensure these threshold levels are not exceeded in this operation.

Additionally a Marine Mammal Observer (MMO) should record all sightings and operations, including activation of all acoustic equipment, and conduct effort watches with detailed recording of marine mammal interactions with survey operations, where these may occur. If operations are occurring in more than one location simultaneously this would require a second MMO. The MMO should be authorised to stop or delay operations where safe to do so, if there is a clear disturbance and conflict with the Habitats Directive Article 12, and report on the rationale for any such decision immediately to the regulator. PAM (Passive Acoustic Monitoring) would greatly assist the correct reporting of noise production activities and allow identification of specific activities and operations which cause disturbance. These could then be more accurately monitored and reported by mitigation monitoring personnel.

Yours sincerely



## References

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